

ASIA/PACIFIC REGION ATS ROUTE CATALOGUE



INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA/PACIFIC REGIONAL OFFICE

VERSION 12

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Table of Contents

Table of Contents	i
Foreword	iii
Amendment to BANP and Catalogue	v
Amendment Record	viii
Chapter A: Routes in BANP	1
Chapter 1: Route Requirements Users and States (South Asia)	23
Chapter 2: Route Requirements Users and States (Southeast Asia)	35
Chapter 3: Route Requirements Users and States (East Asia/Russian Federation)	56
Chapter 4: Route Requirements Users and States (Pacific)	96

Foreword

The *Air Navigation Plan – Asia and Pacific Regions* (Doc 9673), Volume I, Basic ANP (BANP) contains ATS route requirements which were developed by the Third Asia and Pacific Regional Air Navigation Meeting (Bangkok, May 1993). The requirements have been revised from time to time to reflect current operational needs. There is also an ongoing need to revise and update these requirements.

The fourteenth meeting of the ASIA/PAC Air Navigation Planning and Implementation Regional Group (APANPIRG/14, August 2004) under Conclusion 14/5 established the ATS Route Network Review Task Force (ARNR/TF) to review the Asia and Pacific ATS route network as contained in the BANP, determine present and future route requirements, and revise the BANP as appropriate. To facilitate the amendment process and keep track of route implementation and future requirements, and with the objective of providing more up to date information on route developments, ARNR/TF prepared the draft *Asia/Pacific ATS Route Catalogue* as a supplement to the BANP.

APANPIRG/16 (August 2005, Bangkok), recognizing the value of a consolidated reference document for the regional ATS routes and future route requirements of States and airspace users, accepted the Route Catalogue under Decision 16/9. The Route Catalogue is intended to be a living document, supplementing the BANP and maintained by ICAO Asia and Pacific Office. Communication in relation to the Route Catalogue should be made via email to the ICAO Asia and Pacific Office at icao_apac@bangkok.icao.int.

A Contracting State or qualifying international organization identifying a need for a new route requirement to be included in the BANP or to change an existing route contained in the BANP, may submit an amendment proposal to the Secretary General for approval by the President of the Council in accordance with established procedures summarized below.

Appropriately presented and documented proposals to amend the BANP are submitted to the ICAO Secretary General through the Regional Office and circulated to States and International Organizations for comment. Once all parties concerned agree to the proposal, the Secretary General will submit the proposal to the President of the Council for approval. The Regional Office will inform States and international organizations concerned of the approval and the BANP will be amended accordingly.

The Regional Office, which is responsible for maintaining the ATS Route Catalogue, will update the Route Catalogue from time to time as amendment proposals are presented, progressed and agreed or not agreed. The revision number and date shown on the cover page of the catalogue, which is posted on the ICAO APAC website (<http://www.bangkok.icao.int/>).

The Reformatted ATS Route Catalogue is now revised as follows:

Chapter A: Routes in BANP

Chapter 1, 2, 3 and 4: Future Requirements – Users & States

Chapter A lists ATS routes which have been contained in the BANP. Chapter A will be amended by the Regional Office subsequent to approval of an amendment to the BANP by the President of the Council. It is expected that Chapter A will become redundant when the electronic ANP (e-ANP) formats become available in 2013.

Note: — As the ATS Route Catalogue Chapter A is intended for use as a supplement to the BANP, it does not replace the BANP nor should it be used as an operational document. Its primary purpose is to assist States and airspace users by providing more up to date information, to develop and maintain the ATS routes in the Asia and Pacific Region.

Chapters 1 to 4 list ATS routes proposed by States and international organizations in accordance with their geographical disposition. These routes have not been included in the BANP or implemented, and have no specific status, other than having been presented as a proposal and subject to consultation and review.

Regional ATS route proposals affecting Asia/Pacific airspace should be presented as part of a paper to ATM coordination groups or other suitable bodies, and then may be entered into the Route Catalogue by the Regional Office. The Regional Office will periodically present to appropriate ATM coordination groups or other suitable bodies the proposals within their geographical area of interest for review. After review, the ATS Route Catalogue may be updated by:

- Amendment to transfer proposals to Chapter A that have been agreed after subsequent proposal for amendment of the BANP; or
- Deletion of the proposal when it has been decided that there is no possibility of implementation in the foreseeable future; or
- Amendment with the addition of supplementary information; or
- Addition of a new ATS route proposal.

Amendment Record

Version/Amendment Number	Date	Amended by	Comments
0.1	14 February 2005	-	ARNR/TF/2 developed the draft version.
0.2	5 May 2005	ARNR/TF/3	Finalized the format following contribution from the members.
0.3	29 July 2005	ATM/AIS/SAR/SG/15	Sub-Group concluded that the Catalogue be adopted (Draft Conclusion 15/3).
1	26 August 2005	APANPIRG/16	APANPIRG/16 decided that the Catalogue be accepted (Decision 16/9).
2	24 January 2006	BBACG/17	Reviewed and updated the Catalogue.
3	19 May 2006	SEACG/13	Reviewed and updated the Catalogue.
4	26 January 2007	BBACG/18	Reviewed and updated the Catalogue.
5	23 May 2008	SEACG/15	Reviewed and updated the Catalogue.
6	15 May 2009	SEACG/16	Reviewed and updated the Catalogue.
7	27 May 2010	SEACG/17	Reviewed and updated the Catalogue.
8	10 March 2011	BBACG/21	Reviewed and updated the Catalogue.
9	6 May 2011	SEACG/18	Reviewed and updated the Catalogue.
10	22 September 2011	SAIOACG/1	Reviewed and updated the Catalogue.
11	22 June 2012	ATM/AIS/SAR/SG/22 APANPIRG/23	Reviewed, reformatted, and updated the Catalogue, approved by APANPIRG/23.
12	26 June 2013	SAIOACG/SEACG, ATM/SG	Reviewed, reformatted, and updated the Catalogue, approved by APANPIRG/24.

Chapter A: Routes in BANP

The segments which have not been implemented are shown by **bold** significant points.

LOWER ATS ROUTES			
		A211	MANADO TARAKAN TAWAU
A1	LIMLA 1546.0N 09836.0E BANGKOK UBON DANANG IKELA 1839.7N 11214.7E CHEUNG CHAU ELATO 2220.0N 11730.0E MAKUNG TAIBEI KAGOSHIMA MIYAKE JIMA	A212	PUPIS PAGO PAGO NIUE
		A215	PORT MORESBY MERAUKE HASANUDDIN KEVOK 0425.0S 11500.0E
		A216	COOKTOWN AKMIP 1200.0S 14448.6E KIKORI GUNNY 0500.00N 14400.00E RICHH 1711.49N 14249.12E
A91	(KYAKHTA) SERNA 5018.5N 10628.1E ULAN BATOR	A218	HARBIN (EKIMCHAN) (MYS SHMIDTA) BARROW
A201	LASHIO AGARTALA RAJSHAHI MONDA 2521.00N 08626.25E PATNA LUCKNOW	A219	KARACHI NAWABSHAM KALAT 2902.0N 06635.0E SERKA 2951.0N 06615.0E KANDAHAR (TERMEZ)
A202	CHEUNG CHAU SIKOU 2050.6N 11130.0E SAMAS 2030.3N 11029.7E ASSAD 182028N 1074053E XONUS 1804.2N 10714.0E DONGHOI VILAO 1718.0N 10600.0E SAVANNAKET KORAT BANGKOK	A220	CLUKK 3605.0N 12450.0E TAHITI
		A221	GUAM ROTA IS TINIAN IS SAIPAN
A204	YOROI 4500.5N 14147.1E RISHIRI AKSUN 4545.1N 14054.3E (SELT) (4713.3N 14013.3E)	A222	GUAM POHNPEI KOSRAE KWAJALEIN
A206	Proposed by Vietnam and Laos ASSAD VINH NONGT LUANG PRABANG	A224	JOHOR BAHRU MERSING
		A325	PRARATAPGARH TASOP 2514.1N 07045.0E KARACHI

	JIWANI		FENGCHENG
A326	SHIGEZHUANG		KAIYUAN
	OKTON 3911.2N 11653.5E		HAILAR
	TIANJIN		KAGAK 4916N 11806E
	MAKNO 3827.6N 12110.0E		MANLI 4935N 11727E
	SANKO 3814.2N 12228.4E		TELOK 4938N 11722E
	DONVO 3734.0N 12320.0E		(CHITA)
	AKARA 3130.0N 12330.0E	A346	HAMILTON IS
A331	ZIGIE 2419.0N 15717.5W		AUCKLAND
	SEDAR 4530.4N 12643.0W	A347	MUMBAI
A332	APACK 2402.8N 15619.3W		BODAR 2236.3N 07413.3E
	AMITY 2626.0N 15229.0W		PRATAPGAPH
	HEMLO 4318.2N 12640.8W		DELHI
A334	HAT YAI	A348	MELBOURNE
	KOTA BHARU		EAST SALE
A337	ADKAK 3354.0N 14210.0E		NISEP 4146.6S 15601.5E
	TEGOD 2100.0N 14512.0E	A364	SHACHE
	JUNIE 1132.5N 14706.3E		KASHI
	KISME 0500.0N 14805.4E		KURUM 4006.0N 07407.0E
A338	CHRISTCHURCH	A450	DENPASSAR
	APORO 5000.0S 17120.0E		HASSANUDDIN
	BYRD		CAHYO 033000N 1333000E
A339	PERTH		YAP IS
	CURTIN		GUAM
	ELBIS 0905.9S 12743.7E		WAKE
	SHREE 0539.0N 13109.2E		KATHS 2104.6N 16123.4W
	KEITH 2100.0N 13456.8E	A453	(KANDAHAR)
	SABGU 2529.9N 13459.3E		(ZAHEDAN)
	MAKDA 2716.0N 13551.2E		(BANDER ABBAS)
	TAXON 3000.0N 13714.5E	A454	KARACHI
	MIYAKE JIMA		PARET 2527.2N 06451.5E
A340	RAYONG		TAPDO 2424.0N 06120.0E
	BISOR 1221.0N 10247.0E		(VUSET)
	PHNOM PENH	A455	PESHAWAR
A341	KOTA KINABALU		METAR 3406.0N 07128.0E
	SANDAKAN		KOTAL 3406.0N 07109.0E
	ZAMBOANGA	A456	AMRITSAR
A342	COLD BAY		LAHORE
	OLCOT 5125.8N 16533.3E		MOLTA 3012.0N 07236.2E
A344	ROZAX 0245.6S 11140.0E		BINDO
	SUMBAWA	A457	HAT YAI
A345	PYONGYANG		TAMOS 0632.2N 10024.0E
	GOLOT 4012.5N 12430.5E		ALOR SETAR
			PENANG

	KUALA LUMPUR JOHOR BAHRU		JHANG 3116.0N 07218.0E SAMAR 3120.8N 07434.0E ASARI 3048.3N 07509.6E DELHI
A460	KUQA REVKI 4232.5N 8013.2E (KIRBALTABAY)	A467	BIRATNAGAR KATIHAR KOLKATA
A461	DAWANGZHUANG WEIXIAN ZHOUKOU HEKOU LONGKOU LILING YINGDE SHILONG BEKOL 2232.6N 11408.0E CHEUNGCHAU NOMAN 2000.0N 11640.3E MUMOT 1930.4N 11714.5E AVMUP 1843.3N 11808.3E SAN FERNANDO CABANATUAN MANILA SAN JOSE ZAMBOANGA AMBON DARWIN ALICE SPRINGS LEIGH CREEK	A468	KUQA KAMUD 4134.0N 07850.0E
		A469	HO CHI MINH CONSON IS
		A470	HONG KONG MAGOG 2217.3N 11549.4E SHANTOU XINGLIN FUZHOU YUNHE TONGLU HANGZHOU LISHUI BANTA PIXIAN
		A472	KOTAL 3406.0N 07109.0E METAR 3406.0N 07128.0E BAREV 3406.0N 07135.0E PESHAWAR
A462	KOLKATA DHAKA	A474	DELHI ASOVO MUMBAI MURUS 0600.0S 06319.7E (PLAISANCE)
A464	CHIANG MAI BANGKOK HAT YAI IPOH BATU ARANG KUALA LUMPUR SINGAPORE TINDAL TAROOM LORD HOWE IS AUCKLAND	A575	PYONGYANG GOLOT 4012.5N 12430.5E FENGCHENG DONGYANGJIAO DAHUSHAN CHAOYANG ANDIN 4106.0N 11843.5E GUBEIKOU FENGNING EREN INTIK 4341.5N 11155.0E SAINSHAND ULAN BATOR (KYZYL)
A465	KOLKATA VISHAKAPATNAM CHENNAI COLOMBO		
A466	(KABUL) SANAM 3305.0N 07003.0E DERA ISMAIL KHAN		

A576	MEDAN SINGAPORE DENPASAR CURTIN ALICE SPRINGS PARKES SYDNEY		TOKON 1142.0N 11940.3E ZAMBOANGA
A577	SHIKANG KADET 2100.0N 11934.0E	A584	TONGA NIUE APIA FUNAFUTI NAURU
A578	TONIK 3200.0N 14600.0E PHONPEI NAURU TARAWA NADI AUCKLAND	A585	PALEMBANG JAKARTA PORT HEDLAND CEDUNA ADELAIDE
A579	SYDNEY NADI CARRP 1904.4N 15935.0W	A586	INTOS 3722.00N 13120.00E PUSAN CHEJU ERABU NAHA
A580	AUCKLAND NAUSORI APIA	A587	SUMBAWA ALICE SPRINGS
A581	BAGO CHIANG MAI CHIANG RAI PONUK 2018.8N 10023.0E SAGAG 2111.5N 10137.4E BIDRU KUNMING MAGUOHE QIANXI HUAYUAN LINLI WUHAN	A588	DALIAN WAFANGDIAN WANGBINGOU KAIYUAN CHANGCHUN HARBIN SIMLI 5017.4N 12722.1E
A582	JOMALIG CHINEN KAGOSHIMA IKISHIMA PUSAN SEOUL	A589	DELHI BUTOP 2919.7N 07523.9E ASARI 3048.3N 07509.5E
A583	HONG KONG SABNO 1859.1N 11550.7E MAVRA 1814.4N 11615.1E AKOTA 1706.6N 11651.6E IBOBI 1354.4N 11832.6E REKEL 1324.1N 11848.3E LEGED 1301.9N 11859.6E	A590	MANILA JOMALIG MINAMI DAITO MIYAKEJIMA KAGIS 3549.0N 14234.0E PABBA 3700.0N 14400.0E PASRO 1417.1N 16040.5E (AMOTT) 6054.0N 15121.6W
		A591	QINDAO XUEJIADAO LATUX 3532.0N 12044.0E MUDAL 3651.0N 12322.0E AGAVO 3710.0N 12400.0E
		A592	PUPIS 1000.0S 17105.5W APIA VAVA'U

	TONGA		SHANGHAI
A593	TANGHEKOU XILIUHETUN SHIGEZHUANG POTOU PIXIAN WUXI SHANGHAI NANHUI FUKUE	A791	(IMLOT) JIWANI KARACHI PRATAGARH BHOPAL JAMSHEDPUR KOLKATA
		B200	ENKIP 3547.0S 17730.0E FICKY 3133.6N 12123.5W
A595	FUKUOKA IKISHIMA CHEJU	B202	UBON PAKSE PLEIKU
A596	HUAIROU HUAILAI TIANZHEN LIANGCHENG BAOTOU DENGKOU YABRAI	B203	KATHMANDU BAGDOGRA GUWAHATI SILCHAR IMPHAL LASHIO
A597	GOBOH KUSHIMOTO MONPI 2100.0N 14036.0E GUAM NOUMEA AUCKLAND	B204	GOMES 1324.0N 10135.3E SIEM REAP
		B205	RAYONG BOKAK 1257.5N 10230.0E SIEM REAP
A598	BRISBANE HONIARA NAURU MAJURO	B206	URUMQI FUKANG ALTAY GOPTO 4905.5N 08728.0E (AKTASH)
A599	CHITTAGONG LINSO 2322.5N 09855.0E GENGMA KUNMING LUXI BOSE LAIBIN GAOYAO PINGZHOU ZHULIAO WONGYUAN NANXIONG GANZHOU NANFENG SHANGRAO TONGLU NANXUN	B209	JAMSHEDPUR KHAJURAHO TIGER 2828.8N 07214.9E
		B210	TASOP 2513.3N 07048.9E NAWABSHAH
		B211	MUMBAI EPKOS 1653.1N 07407.2E CHENNAI
		B213	LHASA CHENGDU
		B214	NASAN LADON 2106.2N 10258.0E AKSAG 2049.1N 10027.3E
		B215	DAWANGZHUANG

	TAIYUAN		TAMOT
	YINCHUAN		PINGZHOU
	YABRAI		GAOYAO
	JIUQUAN		DOUJIANG
	HAMI		QUIANXI
	FUKANG		FUJIACHANG
	URUMQI		JINGTAI
	KUQA		YABRAI
	SHACHE		MORIT 4202.0N 10249.0E
	HONGQILAPU		NIDOR 5029.4N 09125.8E
	PURPA 3656.5N 07524.5E		(LIKAR)
	GILGIT		
	ISLAMABAD	B331	CHEUNG CHAU
			KAPLI 2110.0N 11730.0E
B218	KUNMING		HENGCHUN
	SIMAO 2243.1N 16058.2E	B332	SANKO 3814.2N 12228.4E
	SAGAG 2111.5N 10137.4E		TOMUK 3843.0N 12400.0E
	VIENTIANE		PYONGYANG
	LOEI		SINSONGCHON
	CHUM PHAE		SONDO 3947.0N 12713.6E
B219	PENANG		KANSU 3838.0N 13228.5E
	KOTA BHARU		
B220	BRISBANE	B333	AUCKLAND
	PORT MORESBY		PORT MORESBY
B221	NINAS 3100.0N 12215.0E	B334	BEIJIN
	PINOT 3125.2N 12214.2E		TANGHEKOU
	SAGUT 3500.0N 12040.3E		FENGNING
	XUEJIADAO		TONGLIAO
B222	VINIK 0838.6N 11613.8E	B337	(TAKHTOYAMSK)
	KOTA KINABALU		ANIMO 4508.3N 14337.8E
B223	(DABUR 5147.1N 14235.9E)	B338	MERSING
	LUMIN 4545.0N 14150.3E		TEKONG
	WAKKANAI		ANITO 0017.0S 10452.0E
B326	HONIARA	B339	ULAN BATOR
	CHOKO 2022.6N 16053.0W		POLHO 4447.0N 11315.0E
B328	EREN		FENGNING
	TAMURTAI	B345	KATHMANDU
	TIANZHEN		BHARATPUR
	NANCHENGZI		BHAIRAHAWA
	WEIXIAN		LUCKNOW
B329	PHNOM PENH	B346	LUANG PRABANG
	PAKSE		NOBER 1516.6N 10040.1E
	VILAO 1722.0N 10605.0E		BANGKOK
	NAM HA 2023.2N 10607.1E	B348	HENGCHUN
B330	HONG KONG		POTIB 2100.0N 12045.5E

	LAOAG SAN FERNANDO MANILA TOKON 1142.0N 11940.3E PUERTOPRINCESA OSANU 0741.4N 11717.6E KOTA KINABALU BRUNEI KAMIN 0235.1N 10855.7E SABIP 0209.7N 10750.5E TOMAN 0121.5N 10547.0E		PORT MORESBY KADAB 0458.0S 14100.0E BIDOR 0400.0S 13130.0E TACLOBAN MANILA CABANATUAN LAOAG MIYAKO JIMA OKINAWA
B349	BALI POTIP 2141.6S 12508.0E	B463	BAGO MANDALAY LASHIO
B450	SYDNEY LORD HOWE IS NORFORK IS PAGO PAGO	B465	KOLKATA CHITTAGONG MANDALAY LUANG PRABANG HANOI
B451	HAILAR QIQIHAR HARBIN BISUN 4314.0N 13111.8E (VLADIVOSTOK) IGROD 4139.0N 13647.0E KADBO 3914.0N 13745.0E	B466	JOHOR BAHRU BATU ARANG CHENNAI MUMBAI
B452	TONIK 3200.0N 14600.0E HONIARA NADI	B467	KANGWON INTOS 3722.0N 13120.0E KANSU 3838.0N 13228.5E NULAR 4059.2N 13411.0E (TEKUK) 4241.0N 13527.4E
B453	MIDDLETON IS KATCH 5400.0N 13600.0W DAASH 4226.5N 12600.1W	B468	DIENBIEN LADON 2106.2N 10258.0E LUANG PRABANG
B454	PAGO PAGO RAROTONGA TONYS 3019.9N 12249.2W	B469	SINGAPORE JAKARTA CARNARVON GERALDTON PERTH CAIGUNA WHYALLA GRIFFITH SYDNEY
B455	VAVA'U NISEX 1547.3S 17136.4W		
B456	WEWAK JAYAPURA		
B459	MUMBAI CLAVA 0134.0N 06000.0E (PRASLIN)	B470	SINGAPORE PANGKALPINANG JAKARTA
B460	KHORAT SAVANNAKET	B472	LIPA ILO ILO COTABATO SELSO 0400.0N 12616.0E
B462	MACKAY HAMILTON IS.		

	TOREX 0724.0N 13335.0E GOVE NORMANTON		KOTA KINABALU
B473	LIPA ROXAS CAGAYAN-DE-ORO DAVAO SADAN 0400.0N 12805.0E CAIRNS	B586	NOUMEA SEKMO KAPKI PORT MORESBY GUAM OMLET 2100.0N 14259.2E TATEYAMA
B474	SYDNEY SANTO NANUMEA CHOKO 2022.6N 16053.0W	B587	ST GEORGE KOWANYAMA OPABA 0851.5S 13804.0E TIMIKA BIAK RENAN 0330.0N 13416.6E ENDAX 1415.0N 13000.0E ATVIP 2100.0N 12422.0E HUALIEN
B480	(RAZDOLITE) LETBI 5011.9N 10330.6E BULGAN MORIT 4202.0N 10249.0E	B589	PORT MORESBY KAPKI 1014.9S 14817.7E BUKA MAJURO
B575	AUCKLAND TONGA PAGO PAGO	B590	NOUMEA PORT VILA NAURU
B576	TAIBEI CHEJU SEOUL	B591	SHANGHAI TAIBEI HENCHUN (Partially implemented)
B577	NADI WALLIS IS APIA PAGO PAGO FICKY 3133.5N 12123.5W	B592	KOTA KINABALU JAKARTA
B578	BRISBANE NOUMEA TAHITI	B593	KOLKATA COMILLA AGARTALA GUWAHATI
B579	PHUKET LANGKAWI PENANG	B595	TAHITI KONA
B580	SYDNEY NOUMEA CHOKO 2022.6N 16053.0W	B596	RAROTONGA DOVRR 1843.0N 15740.0W
B581	NADI FICKY 3133.5N 12123.5W	B597	ERABU TANEGASHIMA SHIMIZU
B583	BRUNEI DARWIN	B598	DARWIN THURSDAY ISLAND PORT MORESBY
B584	DENPASAR ELANG 0056.0S 11449.5E		

	KAPKI 1014.9S 14817.7E		PALEMBANG
	HONIARA	G210	PANJGUR
	PORT VILA		KARACHI
	NADI		MUMBAI
	NAUSORI	G212	(KHABAROVSK)
	TONGA		ARGUK 4753.5N 13439.4E
	RAROTONGA		HAIQING
B599	NOUMEA		JIAMUSI
	NADI		HARBIN
	TAHITI		TONGLIAO
B757	KATCH 5400.0N 13600.0W		GUBEIKOU
	CAPE NEWENHAM		QINBAIKOU
	NULUK 5822.9N 17706.1W		NANCHENGZI
B932	BAMOK 5625.5N 17249.3E		TAIYUAN
	(NETRI 4739.3N 15000.0E)		YIJUN
	ODERI 4439.0N 14515.2E		SANYUAN
	MEMANBETSU		XIAOYANZHUANG
G200	CHRISTMAS IS.		NINGSHAN
	COCOS IS		WUFENGXI
	(PLAISANCE)		FUJIACHANG
G202	(KANDAHAR)		WEINING
	ZHOB	G213	MAGUOHE
	RAHIM YAR KHAN		KUNMING
G203	MIHO		BIAK
	PUSAN		BEKUB 0350.0N 13845.0E
G204	ELNEX	G214	GUAM
	SHENGXIAN		JIWANI
	METAN		PANJGUR
	SHANGHAI		RAHIM YAR KHAN
G205	HAMILTON IS.	G215	MOLTA 3012.0N 07236.2E
	GURNEY		DUTCH HARBOR
	JUNIE	G216	OLCOT 5125.8N 16533.3E
G206	DILARAM		(DORAB)
	KABUL		ALPOR 2404.7N 06120.0E
	SABAR		LATEM 2431.7N 06449.7E
	PURPA	G218	KARACHI
G208	MUMBAI		HOHHOT
	PARTY 2414.6N 07052.0E		TUMURTAI
	KARACHI		POLHO 4447.0N 11315.0E
	PANJGUR	G219	SOLOK 4954.0N 11545.0E
	(ZAHEDAN)		VIRUT 0230.8N 10402.7E
G209	LAERMONTH	G221	TEKONG
	CHRISTMAS ISLAND		PHUCAT
			BUNTA 1650.0N 10923.7E
			BAOLONG

	HAIKOU SAMAS SIKOU		TIGER 2828.8N 07214.9E
G222	SAPDA BROOME AYERS ROCK PARKES	G334	KUALA LUMPUR TIOMAM BUNTO 0242.0N 10600.0E DOTAS 0201.1N 10820.5E SIBU
G223	TATEYAMA TONIK 3200.0N 14600.0E NAURU NADI NAUSORI NIUE AITUTAKI	G335	KATHMANDU JANAKPUR PATNA
	TAHITI (LIMA)	G336	DHANBAD PATNA SIMRA KATHMANDU
G224	NORFORK IS NADI PAGO PAGO TAHITI ISLA DE PASCUA (SANTIAGO)	G337	PERTH CHRISTMAS IS PEKANBARU
G325	COLOMBO TIRUCHCHIRAPPALLI	G338	CHOIBALSAN KAGAK
G326	BALI TENNANT CREEK BRISBANE	G339	PUSAN FUKUOKA KAGOSHIMA TANEGASHIMA PAKDO GUAM
G327	NANHUI NINAS 3100.0N 12215.0E AKARA 3130.0N 12330.0E	G340	QINGBAIKOU HUAILAI
G329	BRISBANE NORFORK IS	G341	CHANGCHUN WANGQING
G330	SHANGHAI POMOK NANTONG GURNI 3209.2N 12058.5E PIMOL 3215.0N 11944.0E	G342	CAIRNS HONIARA
G331	PHUKET PADET DAWEI	G344	COMFE 3624.0N 14618.0E CUTEE 4624.9N 16218.6E CUDDA 5647.9N 16018.1W
G332	TANGHEKOU CHAOYANG	G345	UNTAN CHANGZHOU LISHUI
G333	DELHI ESDEM	G346	KIMCHAEK NULAR 4059.2N 13411.0E IGROD 4139.0N 13647.0E
		G347	AUCKLAND POPIR 2500.0S 17804.8W PADDI 1825.7N 15854.8W

G348	PARO BAGDOGRA MECHI KATHMANDU		CHITTAGONG BAGO BETNO 1505.8N 09812.7E BANGKOK
G424	(DAR ES SALAAM) VUTAS 0912.0N 06000.0E ALATO 1340.7N 06344.0E	G464	PONTIANAK ROZAX 0245.0S 11140.0E BALI KARRATHA BALLIDU PERTH
G450	(MOGADISHU) MUMBAI NAGPUR KOLKATA	G465	(PRASLIN) MALE COLOMBO
G451	AHMEDBAD SASRO 2404.3N 07100.0E PARTY 2414.6N 07052.0E	G466	HO CHI MINH PHUCAT HENGCHUN
G452	(ZAHEDAN) RAHIM YAR KHAN TIGER 2828.8N 07214.9E DELHI	G467	LUBANG JOMALIG GUAM
G453	KUALA LUMPUR KOTA BHARU	G468	PENANG MEDAN
G454	(PLAISANCE) BOBOD 0600.0S 06941.1E PADLA 0446.1N 07800.0E COLOMBO	G469	PORT HEIDEN ST PAUL IS NYMPH 5324.5N 16814.4E
G455	SHANGHAI PINOT 3125.2N 12214.2E AKARA 3130.0N 12330.0E	G470	XIANYANG FENGHUO CHANGWU JINGNING JINGTAI QITAI
G457	DOVRR 1843.0N 15740.0W ELLSMS 0500.0S 16704.1W PAGO PAGO FAROA 2500.0S 17502.3W DIVSO 3452.3S 17624.5E	G471	SHILONG LONGMEN GANGZHOU
G458	BANGKOK SURAT THANI PHUKET	G472	KARACHI AHMEDABAD NAGPUR BHUBANESHWAR PATHEIN BAGO
G459	CAIRNS TIMIKA	G473	BAGO MAKAS 1649.7N 09830.0E PHITSANULOKE UBON
G460	KUCHING SIBU BINTULU BRUNEI	G474	BANGKOK
G463	RAJSHAHI DHAKA		

	MENAM 1357.3N 10247.7E SOURN 1345.5N 10600.0E ANINA 1359.0N 10725.0E PHUCAT		KUCHING
G575	TAHITI RANGIROA FICKY 3133.5N 12123.5W	G585	MIHO POHANG SEOUL
G576	CHEER 5310.0N 14000.1W SPONJ 4992.0N 13005.1W	G586	YINGDE ERTANG
G578	GURAG 2100.0N 12725.0E DILIS 1431.0N 12600.0E TACLOBAN MACTAN ZAMBOANGA DENPASAR PORT HEDLAND PARABURDOOD PERTH	G587	TAIBEI PABSO 2538.0N 12252.0E BULAN 2704.0N 12400.0E
G579	JAKARTA PALEMBANG SINGAPORE JOHOR BAHRU	G588	MOOREN KHOVD TEBUS 4725.1N 09027.7E TESAN 4701.7N 08947.8E FUKANG
G580	TOMAN 0121.5N 10547.0E NIMIX 0124.9N 10759.2E ATETI 0125.7N 10830.1E KUCHING MIRI BRUNEI	G590	SIMRA VARANASI KHAJURAHO BHOPAL INDORE BODAR 2236.3N 07413.3E
G581	HONG KONG ELATO 2220.0N 11730.0E HENGCHUN MIYAKO JIMA BISIS 2647.0N 12633.0E ERABU MIYAKE JIMA	G591	CAIRNS NOUMEA NORFORK IS AUCKLAND
G582	PUGER 0324.1N 10017.6E BATU ARANG PEKAN	G593	FUNAFUTI NAUSORI NIUE RAROTONGA
G583	EMMONAK BESAT 5945.0N 17925.1W (UST-BOLSHERETSK) BISIV 4456.3N 14412.3E MONBETSU	G594	TIAMU TAHITI RAROTONGA AUCKLAND SOLIT 2355.0S 07500.0E (PLAISANCE)
G584	KUALA LUMPUR PEKAN	G595	(TAHITI) SYDNEY MABAD 2648.4S 07500.0E (PLAISNACE)
		G597	DONVO 3734.0N 12320.0E AGAVO 3710.0N 12400.0E SEOUL KANGNUNG MIHO OTSU

	KOWA OSHIMA VENUS 3618.2N 14042.1E	R212	(DIEGO GARCIA) GUDUG 0704.6S 07500.0E PIBED 0520.2S 09044.0E
G598	LUCKNOW APIPU 2658.6N 08300.0E SIMARU	R215	CHIANG RAI NAN LUANG PRABANG
G599	AUCKLAND TAHITI	R217	NODAN 4025.0N 14500.0E SENDAI NIIGATA
R200	PINGZHOU LIANSHENGWEI BIGRO ZHANJIANG	R218	DELHI DIPAS 2738.3N 07551.9E JAIPUR
R201	BANGKOK UTAPAO	R220	DAIGO IWAKI NANAC 3854.2N 14313.9E NIPPI 4942.6N 15920.8E NODLE 6117.0N 15200.0W
R203	SAPAM 0804.6N 09733.0E PHUKET	R221	MERSING PULAU TIOMAN
R204	KEITH 2100.0N 13456.5E KALIN 0000.0N 14200.0E LIDIT 0918.0S 14220.0E HORN IS CAIRNS	R222	AVGOK 4336.0N 13815.0E (YEDINKA)
R205	ANARAK BIRJAND	R223	BRUNEI ELANG 0056.0S 11449.5E
R206	PORT HEDLAND CHRISTMAS IS JAKARTA	R325	KATHMANDU JANAKPUR DUMKA 2411.0N 08721.3E KOLKATA PHUKET HAT YAI IPOH JOHOR BAHRU
R207	VIENTIANE NAN CHIANG MAI MANDALAY	R326	NORFOLK IS CHRISTCHURCH
R208	KUALA LUMPUR KUALA TRENGGANU KANTO 0649.9N 10348.3E	R327	GISBORNE FAROA
R209	TATOX 0857.0N 09702.0E LANGKAWI	R329	KAGLU 1231.2N 07200.0E MALE GAN (DIEGO GARCIA)
R210	PORT MORESBY CAIRNS	R330	SHEMYA POWAL 5024.3N 16530.8E
R211	KASMI 3601.3N 14040.3E DAIGO NIIGATA KADBO 3914.0N 13745.4E AVGOK 4336.0N 13815.0E VELTA 4529.0N 13710.0E		

R332	MAJURO BONRIKI AKUMO 0614.9S 17535.5E ROTUMA NADI				RAJSHAHI
			R345		ROIET BIDEM 142153.57N 1034750.07E SIEM REAP
R334	RAYONG KOH KONG SIHANOUK PADMA 1025.8N 10402.3E PHU QUOC		R346		TOWNSVILLE PORT MORESBY
			R347		NIIGATA SADO EKVIK 3944.7N 13636.5E IGROD 4139.0N 13647.0E (VELTA) 4529.0N 13710.0E
R336	ADAK CARTO 4840.5N 16847.0E		R348		KADAP 0200.0S 08409.6E LATEP 0610.3S 07500.0E (DIEGO GARCIA)
R337	TACLOBAN KOROR		R349		LEMOK 1000.0N 10302.2E RASER 1000.0N 10506.0E HO CHI MINH
R338	NOME NINNA 5455.7N 17158.8E		R450		KIETA HONIARA
R339	SIKOU 2050.6N 11130.0E HUGUANG NANNING BOSE		R451		ADAK OGDEN 4929.2N 16102.3E
R340	AMBON WALGETT		R452		SONDO 3947.0N 12713.6E HAMUN 3955.1N 12731.1E KIMCHAEK UAMRI 4217.6N 13041.8E (TEKUK) 4241.0N 13527.4E
R341	KODIAK NINNA 5455.7N 17158.8E		R453		NADI APIA
R342	MANADO BONDA 0200.0N 12451.2E PEDNO 0400.0N 12521.0E GENERAL SANTOS DAVAO		R455		PONTIANAK KUCHING
R343	NANXIANG WUXI LISHUI HEFEI WUHAN LONGKOU LAOLIANGCANG DARONGJIANG LAIBIN NANNING		R458		MUMBAI EPKOS 1653.0N 07407.2E BELGAUM
			R457		CHENNAI TIRUCHCHIRAPPALLI MADUDAI TRIVANDRUM MALE
R344	KATHMANDU BIRATNAGAR KATIHAR		R460		DELHI ALIGARH LUCKNOW VARANASI

R461	GAYA KOLKATA MUMBAI MABTA 1708.5N 07321.8E BELGAUM COIMBATORE COLOMBO MEDAN KUALA LUMPUR		NANNING LONGZHOU HANOI VIENTIANE BANGKOK
R462	(SEEB) DENDA 2442.5N 06054.8E JIWANI KARACHI UPAIPUR DELHI		R575 PAPRA 1546.0N 10711.0E KOH KONG UPNEP 0942.2N 10029.6E SURAT THANI
R463	APACK 2402.6N 15619.2W ALCOA 3750.0N 12550.0W		R576 DENNS 2222.0N 15353.0W DINTY 3329.0N 12235.0W
R464	BITTA 2332.0N 15529.0W BEBOP 3700.0N 12500.0W		R577 EBBER 2143.0N 15309.0W ELKEY 3241.0N 12203.0W
R465	CLUTS 2300.0N 15439.0W CLUKK 3605.0N 12450.0W		R578 FITES 2049.0N 15300.0W FICKY 3133.5N 12123.5W
R467	KUALA LUMPUR GUNIP 0429.9N 09931.9E		(R579 in Chapter 2)
R468	BANGKOK BOKAK 1257.5N 10230.0E PHNOM PENH SAPEN 1102.2N 10611.0E HO CHI MINH		R580 OATIS 3800.0N 14345.0E OMOTO 4859.7N 16000.7E AMOTT 6053.9N 15121.8W
R469	PEKANBARU SINGAPORE		R581 KOLKATA MONDA 2521.0N 08626.4E SIMARA
R470	VIENTIANE UDON THANI KHON KAEN		R582 NORFOLK IS RAROTONGA
R472	KOLKATA RAJSHAHI GUWAHATI		R583 TAIBEI BISIS 2647.1N 12633.1E OKINAWA MINAMIDAITO SABGU BUNGO
R473	LILING NANXIONG WONGYUANG ZHULIAO PINGZHOU TAMOT 2221.5N 11352.0E		R584 OKINAWA KEITH 2100.0N 13456.5E GUAM TRUK POHNPEI KWAJALEIN MAJURO JOHNSTON IS CHOKO 2022.9N 16053.2W
R474	GAOYAO		R585 CITTA 2818.9N 14507.2W GATES 3412.7N 12303.9W
			R587 BRISBANE PORT VILA

R588	PHUKET RELIP PHNOM PENH PLEIKU	L333	KHAJURAHO JAIPUR TIGER 2828.8N 07214.9E
R590	AMBON COTABATO	L500	(SANTIAGO) AUCKLAND
R591	CAPE NEWENHAM AKISU 4734.3N 16119.3E ABETS 3605.0N 14425.0E	L501	(RIO GALLEGOS) AUCKLAND
R592	BALI ONSLow PERTH	L502	ISLA DE PASCUA (LOS ANGELES)
R594	LUCKNOW JALALABAD DELHI	L503	BRISBANE IGEVO 3636.5S 16300.0E CHRISTCHURCH
R595	ANPU MIYAKO JIMA KEITH 2100.0N 13456.5E GUAM	L504	SINGAPORE MANADO
R597	CABANATUAN SARSI 1642.0N 12316.9E SKATE 1716.7N 12423.0E	L505	BUSBO 1914.9N 07807.6E KAMOL 1938.1N 07340.0E NOBAT 2109.0N 06800.0E
R598	KOLKATA RAJSHAHI SAIDPUR COOCH BEHAR BOGOP PARO	L507	KOLKATA BAGO BANGKOK
R599	KIETA GIZO HONIARA PORT VILA WHANGAREI AUCKLAND	L508	RAROTONGA CHRISTCHURCH MELBOURNE
	RNAV ROUTES	L509	GAYA ASARI 3048.3N 07509.5E
L301	BANGKOK DAWEI VISHAKHAPATNAM BUSBO 1914.9N 07807.6E NOBAT 2109.0N 06800.0E RASKI 2303.5N 06352.0E (VAXIM 2319.0N 06111.0E)	L510	IBANI 250000N 0764311E ELBAB 201333N 0815954E LEKIR 071632N 0965243E GIVAL 070000N 0980000E
		L512	INTOS 3722.0N 13120.0E NIIGATA
		L513	PERTH HOBART AUCKLAND
		L515	OBMOG 1154.1N 09623.5E IKULA 1000.0N 09721.2E PHUKET
		L516	KITAL 2003.0N 06018.0E ELKEL 0149.0N 06911.0E (DIEGO GARCIA)
		L517	MIRI

	GULIB 0409.3N 11028.1E TERIX 0415.4N 10934.9E	L643	TANSONNHET CONSON
L518	HIA 171340.1N0782420.9E BBZ 163118.3N0804733.7E GOPNU 155112N0820224E EGOLU 141858N0844952E SADAP 120605.6N0884120.8E	L644	CONSON JAKARTA
L521	SYDNEY AUCKLAND	L645	COLOMBO SULTO 0738.6N 08801.9E SAMAK 0758.7N 09425.0E SAPAM 0804.6N 09733.0E PHUKET
L625	LUSMO 0333.7N 10655.7E AKMON 0812.8N 11013.4E ALDAS 1056.9N 11212.3E ANOKI 1222.0N 11315.0E ARESI 1358.4N 11427.0E AKOTA 1706.6N 11651.6E AVMUP 1843.3N 11808.3E POTIB 2100.0N 12045.5E	L626	KATHUMANDU ONISA 2858.1N 08005.5E DELHI
L628	LUBANG IBOBI 1354.4N 11832.6E GUKUM 1356.8N 11637.2E ARESI 1358.4N 11427.0E MESOX 1358.4N 11427.0E DAMEL 1358.7N 11130.6E VEPAM 1358.0N 11000.0E PHUCAT	L756	CLAVA MALE
L629	PEKAN DOLOX 0448.7N 10522.9E	L759	DELHI POSIG 2713.0N 07734.9E AGRA KHAJURAHU PHUKET
L635	PEKAN MABLI 0417.3N 10612.9E	L760	AGRA GURTI 2743.8N 07747.8E DELHI
L637	BITOD 0715.3N 10612.9E TANSONNHET	L774	(PLAISANCE) LELED 116.5S 07500.0E ELATI 0200.0S 08957.7E KETIV 0042.0S 09200.0E MEDAN
L642	CHEUNG CHAU EPDOS 1900.0N 11333.3E ENBOK 1833.4N 11329.5E EGEMU 1700.0N 11217.0E VEPAM 1358.0N 11000.0E PHANTHET CONSON IS ESPOB 0700.0N 10533.4E ENREP 0452.4N 10414.8E MERSING	L888	BIDRU 2243.1N 10057.9E NIVUX 2600.0N 10000.0E SANLI 3200.0N 10000.0E TEMOL 3527.1N 09412.2E TONAX 3745.5N 09011.3E KUCA VOR (KCA)
		L894	KITAL 2003.0N 06018.0E MALE SUNAN 0028.7S 07800.0E DADAR 0200.0S 07927.1E PERTH
		L896	SAPDA 1200.0S 11125.6E NISOK 0302.9N 09200.0E DUGOS 0853.1N 08447.9E

	CHENNAI		M626	KOTA BHARU DAWEI BAGO
L897	CHRISTMAS ISLAND KETIV 0042.0S 09200.0E COLOMBO		M635	SINGAPORE RAMPY 0615.0 11320.8E CURTIN
L899	HANIMAADHOO TRIVANDRUM		M638	DOSTI 2558.0N 06503.0E KARACHI MINAR 2350.0N 06800.0E SAPNA 2330.0N 06750.0E NOBAT 2109.0N 06800.0E MUMBAI
M300	(EMURU 2215.6N 05849.8E) LOTAV 2037.0N 06057.0E CALICUT MADURAI SALAX 0212.4N 10133.7E		M639	IGEVO 3636.5S 16300.0E WELLINGTON
M501	GUAM LIMLE 1639.7N 13000.0E SKATE 1722.2N 12425.6E LAOAG NOMAN 2000.0N 11640.3E		M641	MADURAI BIKOK 0817.0N 07836.0E COLOMBO COCOS IS PERTH
M502	BANGKOK AKATO 1337.3N 09910.3E LALIT 1252.4N 09225.1E		M643	HOBART CHRISTCHURCH
M504	ALPOR 2404.7N 06120.0E NODER 2350.0N 06700.0E TELEM 2402.0N 06846.0E		M644	RAYONG KOTA BHARU
M505	BUON MA THUOT MONDULKIRI SIEM RIEP		M750	KILOG 2152.5N 11441.6E ENVAR 2159.5N 11730.0E MOLKA 2639.5N 12400.0E MOMPA 3050.5N 12955.1E MANEP 3242.9N 13340.0E SOPHY 3327.2N 13721.9E MIYAKE JIMA
M510	CAN THO PHNOM PENH		M751	MERSING PEKAN KOTA BHARU REGOS 1200.0N 10035.1E BANGKOK
M512	COLOMBO ANIVE 0540.9N 07800.0E MALE		M753	ENREP 0452.4N 10414.8E BITOD 0715.3N 10407.3E PHUQUOC CAMPU 1030.0N 10402.3E PHNOM PENH
M520	SERNA 5018.5N 10628.1E POLHO 4447.0N 11315.0E		M754	BRUNEI
M522	VINIK 0838.5N 11613.8E KOTA KINABALU MAMOK 0405.1N 11547.2E DENPASAR			
M625	MELBOURNE WELLINGTON			

	VINIK 0838.6N 11613.8E		LAGOT 0716.5N 11132.7E
	TENON 0915.3N 11616.5E		AKMON 0812.9N 11013.1E
	LULBU 1104.7N 11624.4E		MOXON 0849.5N 10921.3E
	NOBEN 1234.4N 11631.1E		DAGAG 0927.8N 10826.5E
	GUKUM 1356.8N 11637.2E		TANSONNHAT
	AKOTA 1706.6N 11651.6E		
M755	PHNOM PENH	M770	KOTA BHARU
	KISAN 1032.3N 10440.5E		RANONG
	BITOD 0415.4N 10407.1E		BUBKO 1911.1N 08839.8E
M758	PEKAN		KAKID 2038.6N 08659.9E
	LUSMO 0333.7N 10655.7E	M771	JAMSHEDPUR
	TERIX 0415.4N 10934.7E		MERSING
	OLKIT 0450.1N 11149.1E		DOLOX 0448.7N 10522.9E
	KOTA KINABALU		DUDIS 0700.0N 10648.6E
M759	OLKIT 0450.1N 11149.1E		DAGAG 0927.8N 10826.5E
	BRUNEI		DOXAR 1222.0N 11022.7E
M761	PEKAN		DAMEL 1358.7N 11130.6E
	BOBOB 0222.1N 10706.1E		DONDA 1442.2N 11201.3E
	SABIP 0209.7N 10750.5E		DOSUT 1702.0N 11340.8E
	AGOBA 0158.7N 10830.0E		DULOP 1814.2N 11432.6E
	KUCHING		DUMOL 1900.0N 11426.8E
		M773	HONG KONG
M766	COLOMBO		BUBKO 1911.1N 08839.8E
	JAKARTA		LEGOS 2138.0N 08805.3E
	INDRAMAYU		KOLKATA
	MADIN 0617.9S 11023.0E	M774	SINGAPORE
	CUCUT 0617.7S 11106.0E		KIKEM 0952.9S 12607.4E
	SURABAYA	M875	KAKID 2038.6N 08659.9E
	BALI		BUTOP 2919.7N 07523.9E
	DARWIN		GUGAL 3014.5N 07358.0E
M765	KOTA BHARU		DERA ISMAIL KHAN
	IGARI 0656.2N 10335.2E	M890	LUCKNOW
	BITOD 0715.3N 10407.3E		CHANDIGARH
	CONSON		SAMAR 3120.8N 07434.0 ^E
	DAGAG 0927.8N 10826.5E	M904	BANGKOK
	MAPNO 1013.1N 11020.1E		U-TAPHAO
M767	JOMALIG		DIPUN
	TOKON 1142.0N 11940.3E		SIRAT
	TENON 0915.3N 11616.5E		TONIK
	TEGID 0857.2N 11551.6E		TIDAR
	TODAM 0631.7N 11235.4E		ODONO
M768	DARWIN		UPRON
	BRUNEI		ENREP
	DOGOG 0525.3N 11407.5E	N502	PARDI 0034.0S 10413.0E
	ASISU 0559.1N 11320.8E		BOBAG 0102.5N 10329.9E
	TODAM 0631.6N 11235.6E		

N509	ELATI 0200.0S 08957.7E PORT HEDLAND	ARUPA 0031.7N 10848.8E NIMIX 0124.9N 10759.4E BOBOB 0222.1N 10706.0E ENREP 0452.4N 10414.7E
N519	MUMBAI SAPNA 2330.0N 06750.0E MINAR 2350.0N 06800.0E KARACHI	N877 LAGOG 0835.6N 09159.8E VISHAKHAPATNAM NAGPUR PRATAGRAPH
N563	(EMURU 2214.0N 05853.6E) REXOD 2112.5N 06138.5E BANGALORE MEDAN SALAX 0212.4N 10133.7E	N884 MERSING LUSMO 0333.7N 10655.7E LAGOT 0716.6N 11131.5E LAXOR 0949.6N 11448.5E LULBU 110936.07N 1163217.70E
N564	DUGOS 0853.1N 08447.9E AKMIL 1151.6N 08006.9E	LEGED 130113.24N 1190006.94E
N571	(RAGMA 2306.0N 06105.7E) PARAR 2226.5N 06307.0E VAMPI 0610.9N 09735.1E GUNIP 0429.9N 09931.8E	LUBANG CABANATUAN MIYAKOJIMA
N628	PEKANBARU BUSUX 0355.0S 06000.0E (PRASLIN)	N891 PAPA UNIFORM ENREP 0452.4N 10414.8E IGARI 0656.2N 10335.2E SAMOG 0800.0N 13014.6E RAYONG BANGKOK
N633	KUALA LUMPUR PEKANBARU POSOD 0329.5S 09409.9E PEDPI 1316.6S 07500.0E (PLAISANCE)	N892 HENGCHUN KABAM 2100.0N 11925.7E MUMOT 1930.4N 11714.5E MAVRA 1814.4N 11615.1E MIGUG 1516.4N 11400.0E MESOX 1358.8N 11302.7E MUGAN 1222.0N 11152.3E MAPNO 1013.1N 11020.1E MOXON 0849.5N 10921.3E MELAS 0704.9N 10808.4E MABLI 0417.3N 10612.9E MERSING
N640	TRIVANDRUM BIKOK 0817.0N 07836.0E COLOMBO LEARMONTH MOUNT HOPE ADELAIDE	
N645	BRUNEI ELANG 005535.64S 1145003.10E SURABAYA	
N750	SYDNEY CHRISTCHURCH	N893 TELEM 2407.0N 06846.0E AHMEDABAD
N759	MELBOURNE AUCKLAND	N895 BETNO 1505.8N 09812.7E PATHEIN BHUBANESWAR NAGPUR
N774	AUCKLAND SYDNEY	BODAR 2236.3N 07413.3E AHMEDABAD
N875	DENPASAR PONTIANAK	PARTY 2414.6N 07052.0E

P501 ARAMA 0136.9N 10307.2E
BOBAG 0102.5N 10329.9E
ANITO 0017.0S 10452.0E

P518 NOBAT 2109.0N 06800.0E
PARET 2527.2N 06451.5E
PANJGUR

P570 (MIBSI 2341.7N 05755.4E)
KITAL 2003.0N 06018.0E
TRIVANDRUM
KATUNAYAKE
PEKANBARU

P574 (KUSRA)
TOTOX 2150.5N 06222.5E
BISET 1823.4N 06918.1E
BELGAUM
CHENNAI
PUGER 0324.0N 10017.5E

P627 PHUKET
KADAP 0200.0S 08409.6E
KALBI
(PLAISANCE)

P628 LANGKAWI
PORT BLAIR
RAHIM YAR KHAN

P646 BANGKOK
JAMSHEDPUR
PATHEIN
VARANASI

P648 KOTA KINABALU
JAKARTA

P751 (ADEN)
ANGAL 1614N 06000E
MUMBAI

P756 MALE
MEDAN

P761 CHENNAI
PORT BLAIR

P762 DAWEI
PORT BLAIR
COLOMBO

P880 IGEVO 03636.29S 16300.00E
SLOPE HILL VOR
04459.03S 16846.57E

P901 IKELA 1839.7N 11214.7E
CHEUNG CHAU

UPPER ATS ROUTES

UB467 YEDINKA
VELTA 4529N 13710E
TEKUK 4241N 13527.4E
NULAR 4059.2N 13411E
(KANSU) 3838.0N 13228.5E

UL425 (KUTVI)
ASPUX 1744.00N 06000.00E
DONSA 1434.14N 06511.32E
VANVO 1043.00N 07200.00E

UM551 DONSA 1435.3N 06511.6E
ANGAL 1614.1N 06000.1E
(AVAVO) 1646.3N 05526.1E

Note1: Acronyms used for route names are only intended as a rough guide to the location of the routes. They are explained below:

IND - India
SEA - South East Asia
SCS - South China Sea
PHI - Philippines
THA - Thailand
TPE - Taipei
PRD - Pearl River Delta
KAB - Kabul
IDO - Indonesia
COL - Colombo
CHA - China
IATA - earlier IATA requested routes in China
WPC - West Pacific Area

Note 2: Route names in parenthesis refer to the original names from an earlier route catalogue. They are renamed following consolidation of China routes and ARNR TF 3 meeting.

Chapter 1: South Asia

**(referred to: SAIOACG, BOBASIO, ASIOACG as appropriate
for review)**

ATS ROUTES	SIGNIFICANT PTS	COORDINATES	FIR	REMARKS
IND 1	BBS BPL	N2014.6 E08548.8 N2317.0 E07720.2	KOLKATTA MUMBAI	
IND 7	PRA SERKA KAMAR BIRJAND	N2401.8 E07445.0 N2951.0 E06615.0 N3239.0 E06044.0 N3258.3 E05912.0	MUMBAI DELHI KABUL TEHERAN	N877 Extension
IND 09	TELEM BHU RKT BBB	N2407 E068 46 N2316.5 E06940.0 N2218.8 E07046.7 N1905.2 E072 52.5	MUMBAI	New Entry 1/1/13
IND 10	AAE MORVI RASKI	N2304.1 E07237.7 N2249.0 E07050.0 N2303.5 E06352.0	MUMBAI	New Entry 1/1/13
PAK 01	KC MELOM	N2454.6 E06710.6 N2505.0 E06632.0	KARACHI	New Entry 1/1/13
PAK02	INDEK CHG	N3246.0 E07316.0 N3040.1 E07648.3	LAHORE DELHI	New Entry M890 extension 1/1/13
THA 1	KORAT DAWEI	N1455.0 E10208.4 N1405.9 E09812.2	BANGKOK YANGON	
IDO 1	SJ MABIX	N0113.4 E10351.3 N0316.0 E09450.9	SINGAPORE JAKARTA	
COL 1	KAT TNV	N0709.7 E07952.1 S1842.2 E04731.1	COLOMBO MADAGASCA R	
IND 8	VABB APANO WPT "X"	Details in chart	MUMBAI KARACHI	2 Route Options
HIMALAY A 1	KOLKATA NEPALGUNJ INDEK	2238.7N 08827.2E 2806.1N 08139.1E 3246N 7316E	KOLKATA KATHMANDU LAHORE	Moved from Chapter 4. Route requested by Nepal
HIMALAY A 2	KATHMANDU BAGHDOGRA GUWAHATI SILCHAR IMPHAL	2740.5N 08521.0E 2641.3N 08819.8E 2606.1N 09135.3E 2454.8N 09258.9E 2446.0N 09354.5E	KATHMANDU KOLKATA KOLKATA KOLKATA KOLKATA	Moved from Chapter 4. Route requested by Nepal

Route Requirements- Users and States

	KUNMING	2501N 10244E	KUNMING	
HIMALAY A 3	LELAX QIM FKG	N3223.5 E07737.9 N3809.1 E08532.2 N4410.0 E08759.0	DELHI URUMQI	New Entry 10/1/13
IRAN1	a. ALROT- BIRJAND-SOKIR -NH b. ALROT- BIRJAND- SOKIR-GASIR	?	IRAN KABUL PAKISTAN	Requested by IRAN and amended by IATA at SAIAOCG/3 Mtg.

ATS ROUTE NAME: IND1

REQUESTED BY: IATA

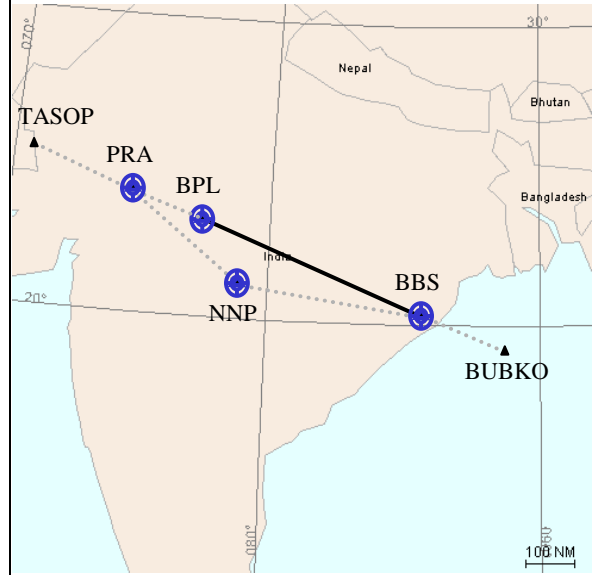
ENTRY/EXIT POINT
BBS / BPL

ROUTE DESCRIPTION
BBS .. BPL

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	25nm /3 mins	
Fuel	406kg	148190 kg
CO ₂	1250kg	456250kg
No _x		

Remarks: Provides extension from N895 linking traffic from BKK and Northern Sub-continent and ME. Provides a 25nm reduction in track mileage

Potential City Pairs: Europe/South East Asia

ATS ROUTE NAME: IND 7 (N877 Extension)

REQUESTED BY: IATA

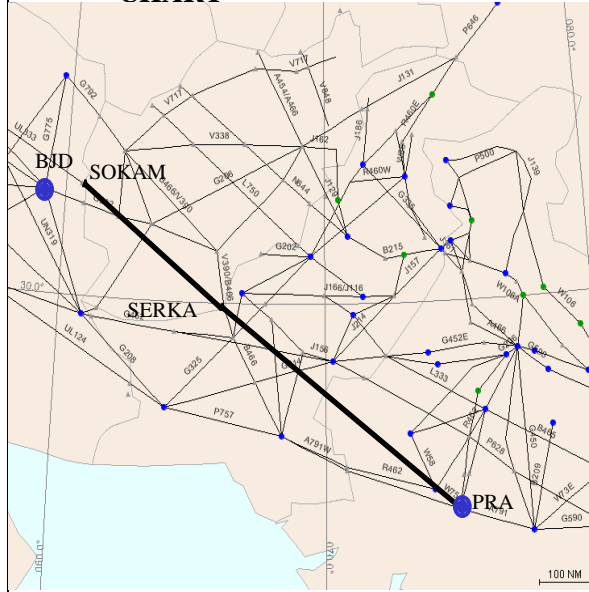
ENTRY/EXIT POINT
PRA - KAMAR

ROUTE DESCRIPTION
Direct Route Track from PRATAGARH
PRA – SERKA– SOKAM
FLIGHT LEVEL BAND

28000-46000

PRIORITY: HIGH/MED/LOW
HIGH

CHART



Action Required	IATA.
	ICAO

Saving	Per flight	Annual
Mileage / Time	294 nm/37 min.	
Fuel	4777kg	1,743 tonnes
CO ₂	147,000kg	5,365 tonnes
No _x		

Remarks: This proposal predates the extension of UL333 through Kabul FIR and has been under consideration for a number of years. The extension of UL333 is under utilised against other Kabul routes largely due the 45nm “penalty” in track mileage the current route structure requires. The routes primary benefit at this stage will be westbound and during BOBCAT traffic flow. As such a restricted route that accommodates this would be acceptable in the short term. *Update 08/02/13 PRA SERKA has been “approved” by India after lengthy consultation with the Military, complementary action from Pakistan awaited.*

Potential City Pairs: KUL/SIN – MID-EAST/EUROPE

ATS ROUTE NAME: IND 08
REQUESTED BY: IATA

Date: 25 June 2012

(ATM/AIS/SAR/SG-22)

ENTRY/EXIT POINT
 VABB-APANO-AAE-VIKIT-
 MURLI-BI

ROUTE DESCRIPTION

Option 1 Routing:
 VABB-APANO-
 W13N.AAE."WP1"
 (Mumbai/Delhi FIR waypoint)
 dct VIKIT

Option 2 Routing:
 VABB-APANO-
 W13N.AAE."WP1"(Mumbai/Delhi FIR waypoint) dct
 "WP3"(10Nm clearance from
 POKHARAN{VI(D)123}) dct
 VIKIT

Pakistan Routing:
 VAKIT dct MURLI dct BI then
 via existing route network.

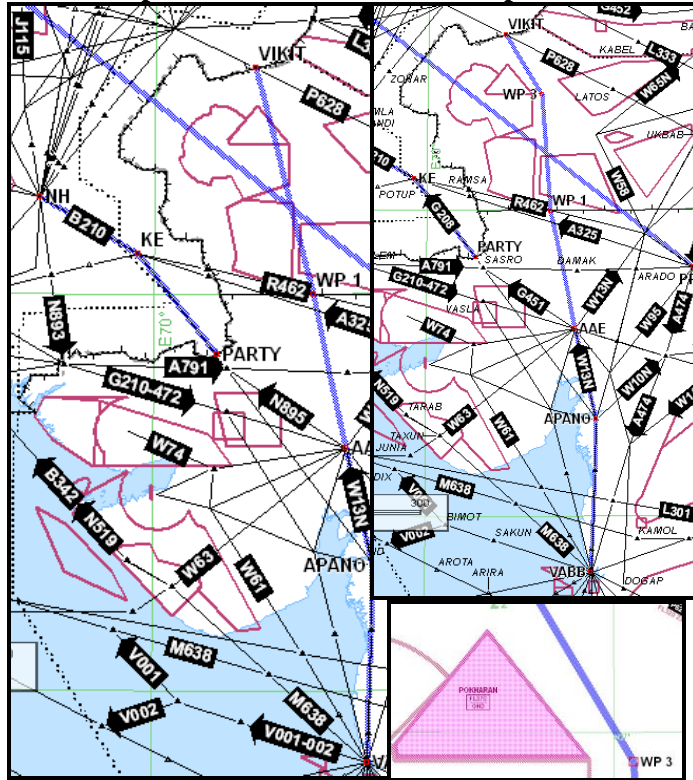
FLIGHT LEVEL BAND

PRIORITY:
 High/Medium/Low

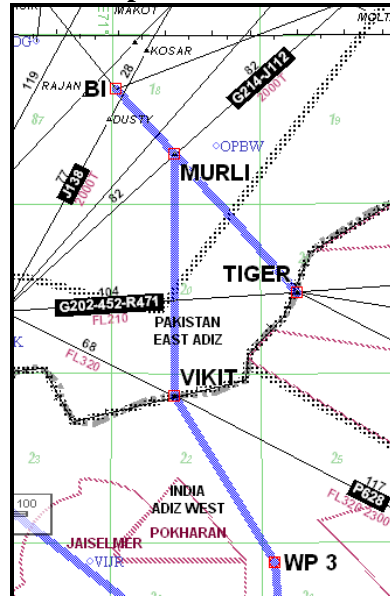
CHART

Option 1

Option 2



Pakistan portion



Action Required	IATA
	ICAO

Option 1

Saving	Per flight	Annual
Mileage / Time	62 nm / 6 mins	
Fuel	589 kg	
CO ₂	1826 kg	
No _x		

Option 2

Saving	Per flight	Annual
Mileage / Time	101 nm / 13 mins	
Fuel	1132 kg	
CO ₂	3510 kg	
No _x		

Remarks: Initial request time specific (1600 – 2359) to support late night operations to North America.

Potential City Pairs: Mumbai to North American cities

ATS ROUTE NAME: *IND 09*

REQUESTED BY: IATA

Date: 01/01/2013

ENTRY/EXIT POINT

TELEM – BBB

ROUTE DESCRIPTION

TELEM – BHJ (Bhuj) – RKT (Rajkot) -
BBB (Mumbai)

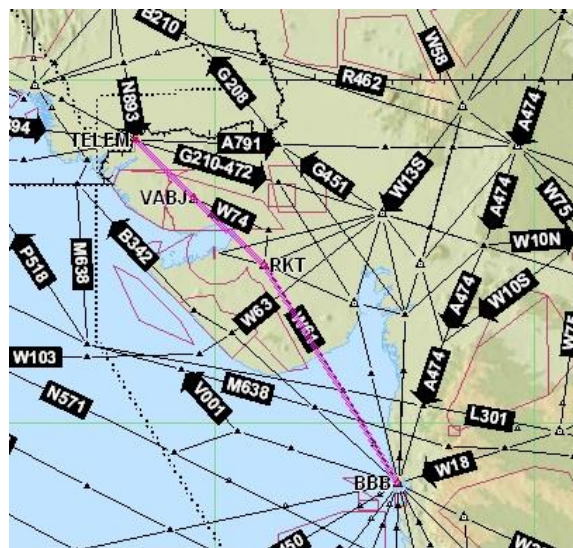
FLIGHT LEVEL BAND

29000 – 46000

PRIORITY: HIGH/MED/LOW

HIGH

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual potential
Mileage / Time	35nm / 5 min	
Fuel	300 kg	4,954 Ton
CO ₂	945 kg	15,604 Ton
No _x		
SO ₂		

Remarks: Facilitates Arrivals in to Mumbai, Bangalore from Europe. Reduces congestion around AMD with respect to BOM DEL BOM busy corridor, will assist CDOs that will add further fuel savings. (Route proposed at ANSCG Delhi meeting on 28/11/2008.)

Potential City Pairs: Europe / BOM, BLR

ATS ROUTE NAME: *IND10*

REQUESTED BY: IATA

Date: 01/01/2013

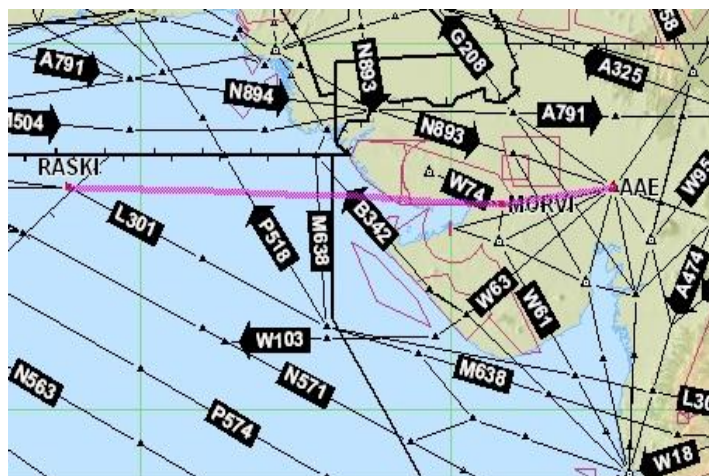
ENTRY/EXIT POINT
AAE- RASKI

CHART

ROUTE DESCRIPTION
AAE (Ahmadabad) –
MORVI- RASKI

FLIGHT LEVEL BAND
29000 – 46000

PRIORITY:
HIGH/MED/LOW
HIGH



Action Required	IATA
	ICAO

Saving	Per flight	Annual potential
Mileage / Time	80 nm / 9min	
Fuel	765 Kg	8,800 Ton
CO ₂	2409 kg	27,700 Ton
No _x		
SO ₂		

Remarks: Facilitates From / To Ahmadabad Middle East and overflying traffic between Far East Asia to Middle East.

Potential City Pairs: AMD, DAC, HKG, PVG, BJS / Middle East

ATS ROUTE NAME: PAK01

REQUESTED BY: IATA

Date: 01/01/2013

ENTRY/EXIT POINT
Karachi (KC) – MELOM

ROUTE DESCRIPTION
Direct KARACHI (KC) to MELOM

FLIGHT LEVEL BAND
29000 – 46000

PRIORITY: HIGH/MED/LOW
HIGH

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	12 nm / 2 min	
Fuel	100 kg	380 Ton
CO ₂	307 kg	1168 Ton
No _x		
SO ₂		

Remarks: Supports traffic South Asia – Europe, Middle East region

Potential City Pairs: South Asia – Europe

ATS ROUTE NAME: PAK 02	
REQUESTED BY: IATA	Date: 01/01/2013

<p>ENTRY/EXIT POINT INDEK – CHG</p> <p>ROUTE DESCRIPTION INDEK .. CHG (Chandigarh)</p> <p>FLIGHT LEVEL BAND 29000 – 46000</p> <p>PRIORITY: HIGH/MED/LOW HIGH</p>	<p>CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual potential
Mileage / Time	10 nm	
Fuel	175 kg	320 Ton
CO ₂	552 kg	1008Ton
No _x		
SO ₂		

Remarks: Route will facilitate separating overflying traffic from Delhi ARR/DEP traffic, especially when L509 closes. Although small distance savings but it will help in reducing traffic congestion and facilitating Optimum flight levels.

Potential City Pairs: Europe / South East Asia/ South Asia

ATS ROUTE NAME: THA1

REQUESTED BY: IATA

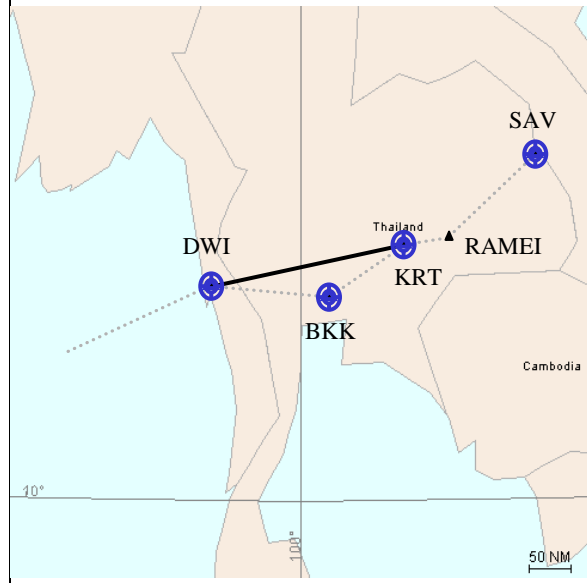
ENTRY/EXIT POINT
KRT / DWI

ROUTE DESCRIPTION
KRT .. DWI

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	15nm/ 2min	
Fuel	245kg	89,000kg
CO ₂	750kg	274,000kg
No _x		

Remarks

Potential City Pairs:

ATS ROUTE NAME: IDO1
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT SJ / MABIX</p> <p>ROUTE DESCRIPTION SJ .. MABIX</p> <p>FLIGHT LEVEL BAND 28000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	16nm/ 2min	
Fuel	260kg	95,000kg
CO ₂	800kg	292,000kg
No _x		

Remarks: This route supports traffic from SIN to CBI, TVM and an alternative to the Middle East. It provides a 10 nm reduction in track mileage (16nm if traffic route via MDN).

Potential City Pairs:

ATS ROUTE NAME: COL 1
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT KAT / TNV</p> <p>ROUTE DESCRIPTION KAT .. TNV (ANTANANARIVO)</p> <p>FLIGHT LEVEL BAND 28000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	130nm /16 min	
Fuel	2110kg	770,000kg
CO ₂	6,500kg	2,370 tonnes
No _x		

Remarks: This proposal supports traffic between THA/HKG/ South China and Southern Africa. A proposal already exists to establish a User Preferred Route (UPR) geographic area which will support the same traffic flow however this proposal needs to be retained in the short term.

Potential City Pairs:

ATS ROUTE NAME: Himalaya 1

Requested by : Nepal

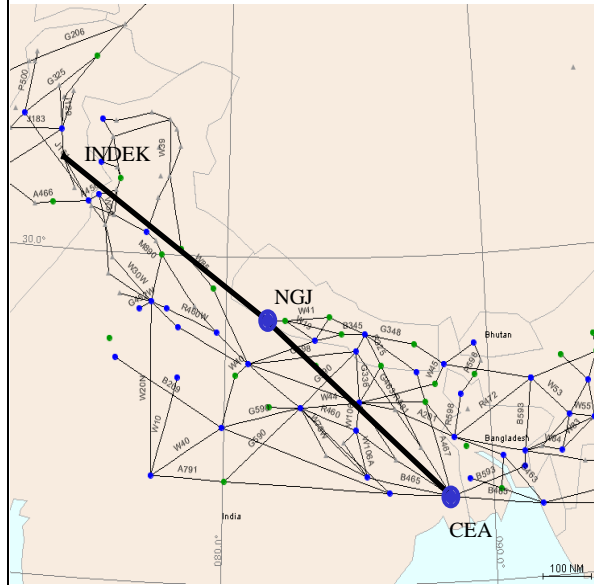
ENTRY/EXIT POINT
XXXXX

ROUTE DESCRIPTION
Kolkata (CEA) .. Nepalgunj (NGJ) .. INDEK

FLIGHT LEVEL BAND

PRIORITY: HIGH/MED/LOW

CHART



Action Required	States to coordinate implementation.
	.

Benefit		
Cost		
Fuel Saving		
Emission	CO ₂	
	NO _x	

Remarks: Remarks: The route has been implemented except for Imphal to Kunming which China had undertaken to review (as per current remarks)

IATA Nth Asia Office approached China who have indicated this route will be considered as part of the overall China route review - no timeline was given.

The extension to L509 serves the purpose at present although is only available for limited hours daily. The availability of another route to the north will provide extra capacity but will need to be amended to link with a new transit route through Kabul.

ATS ROUTE NAME: Himalaya 2

Requested by : Nepal

<p>ENTRY/EXIT POINT XXXXX</p> <p>ROUTE DESCRIPTION Kathmandu (KTM) .. Baghdogra (BBD) .. Guwahati (GGT) .. Silchar (KKU) .. Imphal (IIM) .. Kunming (KTM)</p> <p>FLIGHT LEVEL BAND</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p>
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Action Required	States to coordinate imeplementation.
	.

Benefit		
Cost		
Fuel Saving		
Emission	CO ₂	
	NO _x	

Remarks: China advised that they would seriously look at the proposal and would coordinate with Nepal (ref. para 8.4of the SEA-RR/TF/4 report). This was also presented at the 22nd Meeting of the BBACG.

ATS ROUTE NAME: *Himalaya 3*

REQUESTED BY: IATA

Date: 10 January 2013

ENTRY/EXIT POINT

LELAX-QIM-FKG
(Or LELAX-QIM-POSOT-FKG)

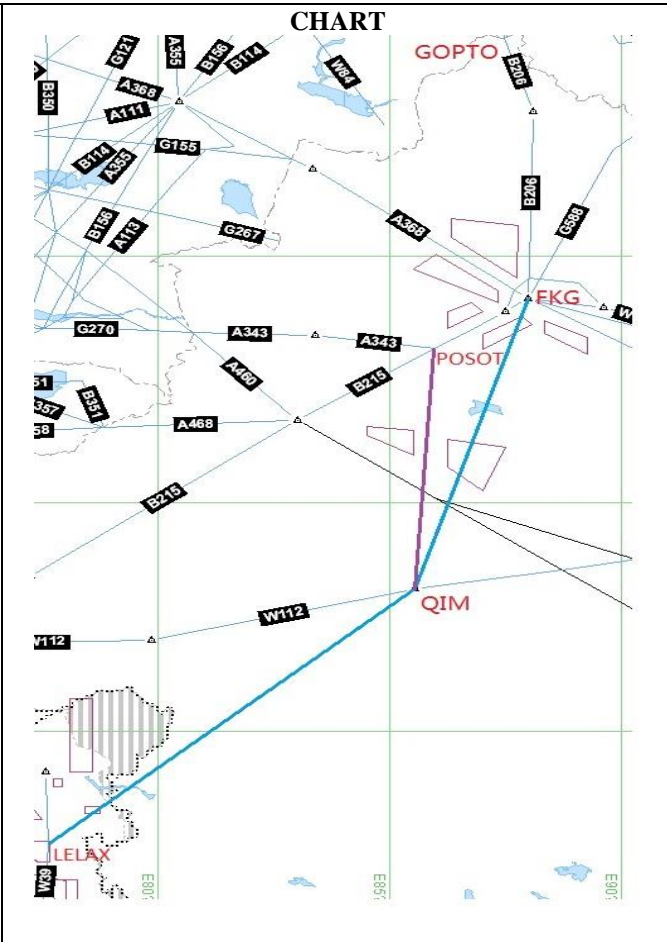
Connecting to FKG-TAI-GOPTO-LANBI

ROUTE DESCRIPTION

LELAX direct to QIM over the Himalaya to support a new route from India into China connecting to Russia onwards polar / trans polar gateways.

FLIGHT LEVEL BAND:

PRIORITY:
HIGH



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	257NM / 23 mins	
Fuel	3500 kgs	1,265 Ton
CO ₂	11 Tons	4,000 Ton
No _x		

Remarks: New 787 aircraft equipped with more than the standard cabin oxygen supply capable of operating at higher altitude longer in the event of depressurization over the Himalayas.

Potential City Pairs: India -North America

ATS ROUTE NAME: IRAN 1

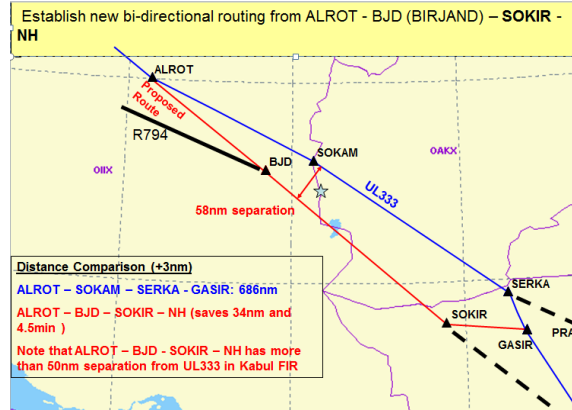
Requested by : Iran

ENTRY/EXIT POINT
XXXXX

ROUTE DESCRIPTION
a. ALROT-BIRJAND-SOKIR -NH
b. ALROT-BIRJAND-SOKIR-GASIR

FLIGHT LEVEL BAND

PRIORITY: HIGH/MED/LOW



CHART

Action Required	States to coordinate implementation.
	.

Benefit		
Cost		
Fuel Saving		
Emission	CO ₂	
	NO _x	

Remarks: Requested by IRAN and amended by IATA at SAIOACG /3 meeting.

Chapter 2: Southeast Asia

(referred to: SEACG for review)

ATS ROUTES	SIGNIFICANT PTS	COORDINATES	FIR	REMARKS
SEA 2	DANANG SYX	N1603.2 E10811.9 N1818.4 E10910.4	HOCHIMINH SANYA	
SEA 6	PAKSE ASSAD	N1511.8 E10544.5 N1820.5 E10740.9	VIENTIANE ASSAD	
SEA 10	LENKO QUNGI SAMUI	N1507.0 E10848.0 N0932.8 E10003.7	SANYA HOCHIMINH PNOMPENH BANGKOK	New chart provided by IATA QUNGI- LENKO
SEA 12	ROT HUGUANG	N1607.0 E10346.7 N2107.9 E11020.2	HOCHIMINH GUANGZHOU	
SCS1	DAMEL CH	N1358.7 E11136.4 N2213.2 E11401.8	HOCHIMINH HONGKONG	
SCS 2	VEPAM CH	N1358.0 E11000.0 N2213.2 E11401.8	HOCHIMINH HONGKONG	
SCS 4	VKL CONSON	N0243.5 E10144.3 N0843.8 E10637.9	LUMPUR HOCHIMINH	
SCS 5	EXOTO DAMVO MELAS LUSMO	N1521.5 E11103.0 N1106.5 E10932.7 N0705.3 E10809.2 N0333.7 E10655.6	HOCHIMINH HOCHIMINH HOCHIMINH SINGAPORE	
SCS 7	BRUNEI LAXOR DULOP	N04 52.5E11453.1 N0949.6 E11448.5 N1814.2E11432.6	KINABALU SINGAPORE HONGKONG	TO JOIN M772 AT LAXOR
SCS8	DULOP ELATO ENVAR DULOP KAPLI	N1814.2E11432.6 N2220.0 E11730.0 N2159.5 E11730.0 N1814.2E11432.6 N2110.0 E11730.0	HONGKONG HONGKONG HONGKONG HONGKONG HONGKONG	EITHER DULOP/ KAPLI G86, OR DULOP/ ELATO& ENVAR
Unnamed	NOIBAI KUNMING	2112.8N 10550.1E 2501.0N 10244.0E	HANOI KUNMING	Moved from Chapter 4. Route Requested by Vietnam
Unnamed	NOIBAI CATBI	2112.8N 10550.1E 2049.1N 10642.5E	HANOI HANOI	Moved from Chapter 4.

	SAMAS OR HUGUANG	2030.3N 11029.7E 2107.9N 11020.2	GUANGZHOU/ SANYA GUANGZHOU	Route Requested by Vietnam
SCS10	PHUCAT ASISU		HO CHI MINH SINGAPORE KOTA KINABALU	
PHI 5	ENDAX VJN		MANILA	
SEA 5	STUNG TRENG DANANG	N1331.5 E10600.9 N1603.2 E10811.9	PNOMPENH HOCHIMINH	Moved from Chapter 5 part A
SCS9	TOKON DILIS TOKON ENDAX	N1142.0 E11940.5 N1431.1 E12600.1 N1142.0 E11940.5 N1415.0 E13000.0	MANILA MANILA MANILA MANILA	Moved from Chapter 5 part A

ATS ROUTE NAME: SEA2

REQUESTED BY: IATA

<p>ENTRY/EXIT POINT DAN / XXXXX / SYX</p> <p>ROUTE DESCRIPTION DAN .. SYX</p> <p>FLIGHT LEVEL BAND 29000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	739nm/93 mins	
Fuel	12090 kg	4,412 tonnes
CO ₂	37200kg	13,578 tonnes
No _x		

Remarks: Supports traffic Southeast Asia – Hainan Island and possible alternative routing for the Pearl River Delta area.

Potential City Pairs: South East Asia - Hainan

ATS ROUTE NAME: SEA 6

REQUESTED BY: IATA

ENTRY/EXIT POINT
PAKSE - ASSAD

ROUTE DESCRIPTION

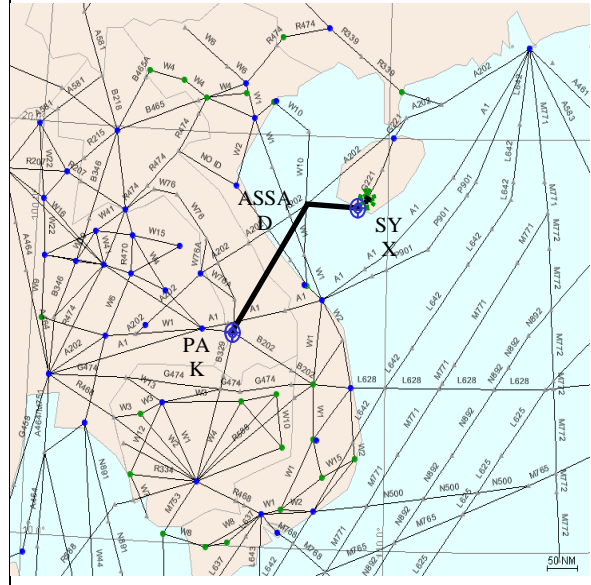
Direct PAKSE to ASSAD
FLIGHT LEVEL BAND

29000 – 46000 feet

PRIORITY: HIGH/MED/LOW

MED

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	126 nm / 16 min	
Fuel	2047 kg	747.338 kg
CO ₂	6300 kg	2299,500 kg
No _x		

Remarks: Supports traffic Southeast Asia – the Perl River Delta area/South China.

Potential City Pairs: KUL/SIN/Phnom Penh/JKT – Hainan/ Hong Kong

ATS ROUTE NAME: SEA 10 Alternative route proposed from QUNGI to LENKO by IATA at SEACG/20 mtg

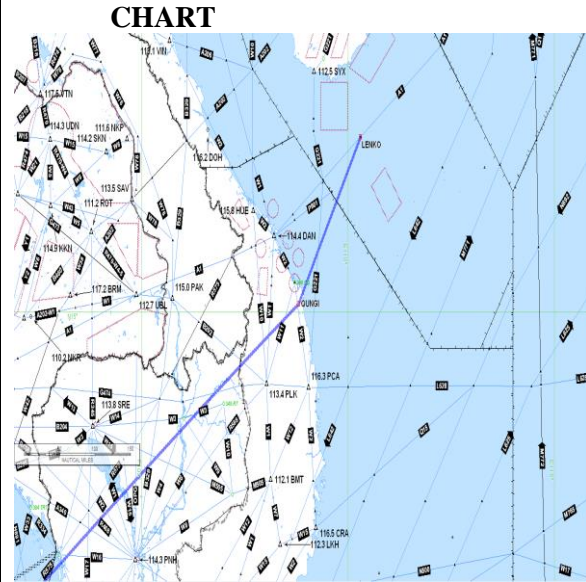
REQUESTED BY: IATA

ENTRY/EXIT POINT
XXXXX

ROUTE DESCRIPTION
~~CAVOI and IGNIS LENKO ..~~
Quangngai/QUNGI .. SAMUI (SMU)

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks: Supports traffic from Northeast Asia to Phuket and beyond. Will require linkages to/from QUNGI as original proposed points CAVOI and IGNIS no longer exist. **IATA propose to link QUNGI to LENKO**

Potential City Pairs: Colombo/ Phuket - Pearl River Delta

ATS ROUTE NAME: SEA 12
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT ROT - HUGUANG</p> <p>ROUTE DESCRIPTION Direct ROT - HUGUANG</p> <p>FLIGHT LEVEL BAND 29000 - 46000</p> <p>PRIORITY: HIGH/MED/LOW HIGH</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks: Provide parallel to the A202 route similar to proposal for uni-directional routes proposed through Southeast Asia Route Review Task Force.

Potential City Pairs: KUL/SIN/Phnom Penh/JKT – SANYA/HKG

ATS ROUTE NAME: SCS1
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT DAMEL / CH</p> <p>ROUTE DESCRIPTION DAMEL .. CH</p> <p>FLIGHT LEVEL BAND 28000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	35nm / 4mins	
Fuel	568kg	207594kg
CO ₂	1750kg	638,750kg
No _x		

Remarks: Proposed route shortening for M771 into the Pearl River Delta area. Similar proposals have been made through Southeast Asia Route Review Task Force. During SEACG/19 in WP09 Hong Kong China advised they had studied the proposal for track shortening and advised the proposed change would reduce capacity of A1/P901. It would also require an extensive change in the flight route system and ATC sectors in Hong Kong FIR. However Hong Kong, China would continue to study this proposal for the implementation of RNP4/2. . (**IATA – 5/02/2013- Remains as high priority in view of the savings impact for many airlines**)

Potential City Pairs: Singapore-Pearl River Delta Airports

ATS ROUTE NAME: SCS2

REQUESTED BY: IATA

<p>ENTRY/EXIT POINT CH / VEPAM</p> <p>ROUTE DESCRIPTION CH .. VEPAM</p> <p>FLIGHT LEVEL BAND 28000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p> <p>The chart displays a map of Southeast Asia with a proposed flight route. The route starts at VEPAM (Vientiane), goes to DAN (Dien Bien Phu), and then to CH (Cholon). The map shows the borders of Vietnam and Cambodia, with latitude and longitude markers (20° and 101°). A scale bar indicates 100 NM.</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	17nm/ 2 mins	
Fuel	276kg	100,831kg
CO ₂	850kg	310,250kg
No _x		

Remarks: Proposed route shortening for L642 out of the Pearl River Delta area. Similar proposals have been made through Southeast Asia Route Review Task Force. During SEACG/19 in WP09 Hong Kong China advised they had studied the proposal for track shortening and advised the proposed change would reduce capacity of A1/P901. It would also require an extensive change in the flight route system and ATC sectors in Hong Kong FIR. However Hong Kong, China would continue to study this proposal for the implementation of RNP4/2 ... (**IATA - 5/01/2013 - Remains as high priority in view of the savings impact for many airlines**)

Potential City Pairs: Singapore-Pearl River Delta Airports

ATS ROUTE NAME: SCS4

REQUESTED BY: IATA

<p>ENTRY/EXIT POINT CS / VKL</p> <p>ROUTE DESCRIPTION CS .. VKL</p> <p>FLIGHT LEVEL BAND 28000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	18nm / 2.25 mins	
Fuel	292kg	106,763kg
CO ₂	900kg	328,500kg
No _x		

Remarks: Supports traffic to and from Kula Lupur from and to the northeast.

Potential City Pairs: Kuala Lumpur-Pearl River Delta Airports

ATS ROUTE NAME: SCS5

REQUESTED BY: IATA

ENTRY/EXIT POINT
EXOTO / MELAS / LUSMO

ROUTE DESCRIPTION
EXOTO .. DAMVO .. MELAS .. LUSMO

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	76nm/ 9.5 mins	
Fuel	1235kg	450,775kg
CO ₂	3800kg	1,387 tonnes
No _x		

Remarks: Need to be considered in conjunction with developments with L642/M771 and possibly South China Sea ADS-B project.

Potential City Pairs: Jakarta- Pearl River Delta Airports

ATS ROUTE NAME: SCS7

REQUESTED BY: IATA

ENTRY/EXIT POINT
DULOP/ M772 / LAXOR / XXXXX / BRU

ROUTE DESCRIPTION
DULOP M772 LAXOR .. XXXXX .. BRU

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	60nm/ 7.5mins	
Fuel	975kg	355,875kg
CO ₂	3000kg	1,095 tonnes
No _x		

Remarks: Supports traffic from Perth, eastern Malaysia and eastern Indonesia to the Perl River Delta area, China. Segment DULOP and LAXOR exists as M772.

Potential City Pairs: Pearl River Delta Airports-Bali/ Surabaya/ Perth

ATS ROUTE NAME: SCS 8

REQUESTED BY: IATA

<p>ENTRY/EXIT POINT</p> <p>1. DULOP / ELATO(ENVAR)</p> <p>2. DULOP / KAPLI</p> <p>ROUTE DESCRIPTION DULOP .. ELATO (A1)/ENVAR (M750) or DULOP .. KAPLI (G86)</p> <p>FLIGHT LEVEL BAND 28000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	a.DULOP/ENVAR 140nm/17.5min b.DULOP/KAPLI 238nm/ 30min	
Fuel	a.2275kg b.3867kg	a.830,000kg b.1,411 tonnes
CO ₂	a. 7000kg b.11,900kg	a.2,555tonnes b.4,343 tonnes
No _x		

Remarks: Supports traffic Northeast Asia/Southeast Asia. Potentially problematic as will impact South China Sea’s traffic arrangements. IATA to review. During SEACG/19 in WP09 Hong Kong China advised they had studied the proposal for track shortening and advised that allowing flights to proceed from M771 DUMOL to ELATO/ENVAR/KAPLI will likely create a bottle neck at these points and result in flights not getting optimum levels or increase ground delay to departures from Hong Kong and Macao to East Asia. However Hong Kong, China would continue to study this proposal.

Potential City Pairs: SEAsia-North Asia Airports

ATS ROUTE NAME:

Requested by : Vietnam

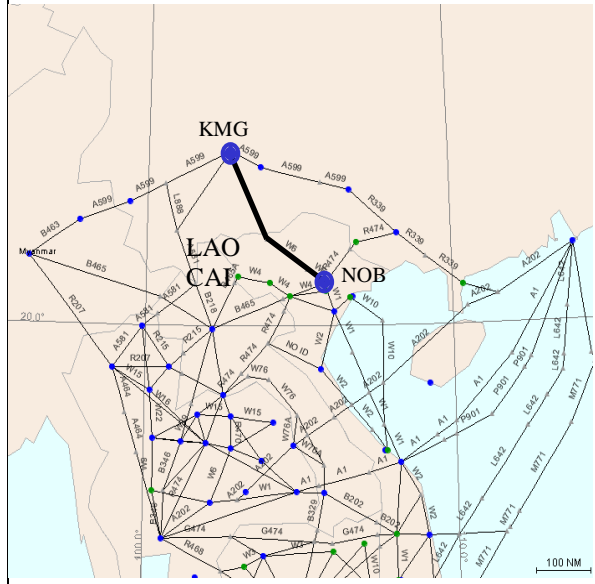
**ENTRY/EXIT POINT
XXXXX**

**ROUTE DESCRIPTION
Noibai (NOB) .. LAOCAI .. Kunming
(KMG)**

**FLIGHT LEVEL BAND
28000 – 46000 feet**

PRIORITY: HIGH/MED/LOW

CHART



Action Required	States to coordinate implementation.
	ICAO to circulate proposal for deletion from BANP.

Benefit	
Cost	
Fuel Saving	
Emission	CO ₂
	NO _x

Remarks: Because of small traffic demand and cost/benefit considerations, this route is impossible and can not be implemented at present.

ATS ROUTE NAME:

Requested by : Vietnam

**ENTRY/EXIT POINT
XXXXX**

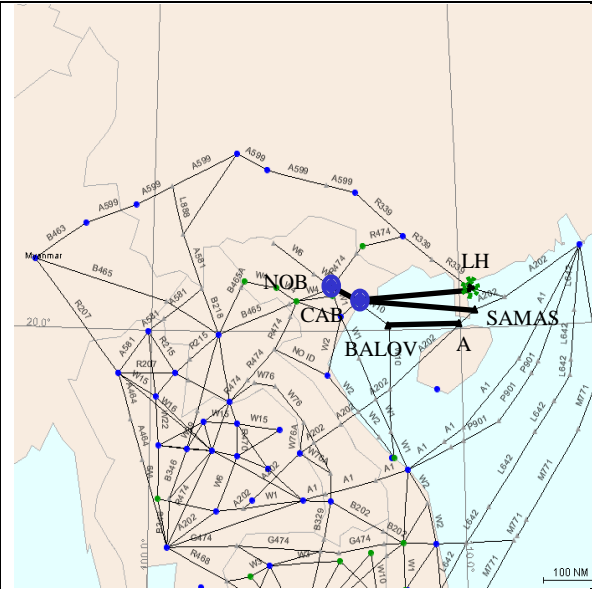
ROUTE DESCRIPTION

Three Options:

- A) Noibai (NOB) .. Catbi (CAB) .. SAMAS
- B) Noibai (NOB) .. Catbi (CAB) .. BALOV .. A .. SAMAS
- C) Noibai (NOB) .. Catbi (CAB) .. Huguang (LH)

**FLIGHT LEVEL BAND
28000 – 46000 feet**

PRIORITY: HIGH/MED/LOW



Action Required	States to coordinate to submit proposal for deletion of the requirement.
	ICAO to circulate proposal for deletion from BANP.

Benefit		
Cost		
Fuel Saving		
Emission	CO ₂	
	NO _x	

Remarks: Because of small traffic demand and cost/benefit considerations, this route is impossible and can not be implemented at present.

Appendix 3

ATS ROUTE NAME: SCS 10 (Propose Route designator R321)

REQUESTED BY: IATA

Date: 25 June 2012

(ATM/AIS/SAR/SG-22)

<p>ENTRY/EXIT POINT Phu CAT (PCA) - ASISU</p> <p>ROUTE DESCRIPTION PCA to ASISU</p> <p>FLIGHT LEVEL BAND</p> <p>PRIORITY: HIGH (VN commencing SGN-SYD service in October 2012) Plan for 3 flights per week.... Potential for other airlines to use?</p>	<p>CHART</p>
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Action Required	IATA
	ICAO

Existing 692.9
New PCA-ASISU = 541.6

Saving	Per flight	Annual
Mileage / Time	151nm / 22 mins	
Fuel	1827kg	kg
CO ₂	5664kg	kg
No _x		

Remarks

Potential City Pairs: SGN-SYD, any others

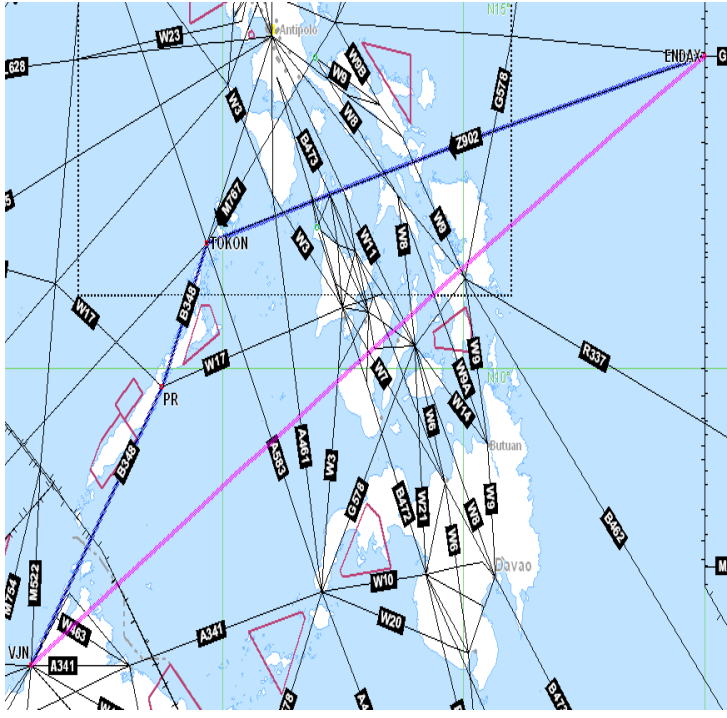
Appendix 2

ATS ROUTE NAME: PHI 05 (Propose Route ENDAX-VJN)

REQUESTED BY: IATA

Date: 25 June 2012

(ATM/AIS/SAR/SG-22)

<p>ENTRY/EXIT POINT ENDAX-VJN</p> <p>ROUTE DESCRIPTION</p> <p>FLIGHT LEVEL BAND</p> <p>PRIORITY: High/Medium/Low</p> <p>ENDAX-VJN 964.5NM ENDAX-TOKON-PR-VNJ 1033.7NM</p>	<p>CHART</p> 
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	69.2nm / 8.65 mins	
Fuel	836kg	kg
CO ₂	2592kg	kg
No _x		

Remarks

Potential City Pairs:

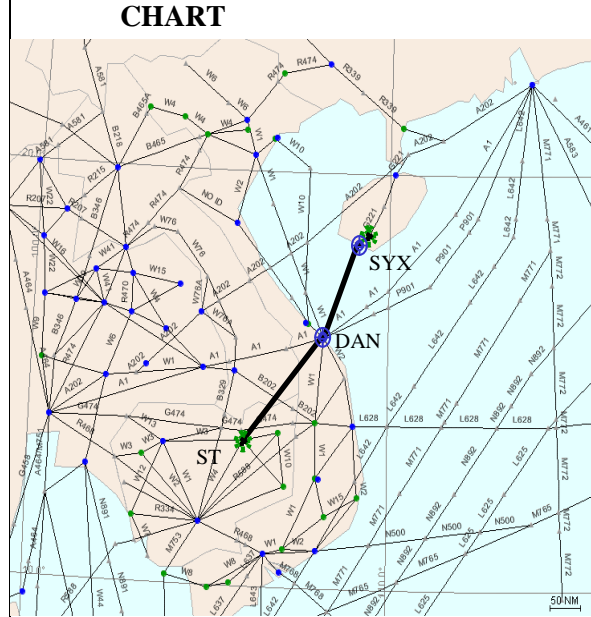
ATS ROUTE NAME: SEA 5
REQUESTED BY: IATA

ENTRY/EXIT POINT
 STUNG TRENG (ST) – DANANG (DAN)

ROUTE DESCRIPTION
 Direct STUNG TRENG (ST) to DANANG (DAN)

FLIGHT LEVEL BAND
 29000 – 46000

PRIORITY: HIGH/MED/LOW
 MED



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	64 nm / 8 min	
Fuel	1040 kg	379,600kg
CO ₂	3200 kg	1168 tonnes
No _x		
SO ₂		

Remarks: Supports traffic Southeast Asia – Hainan Island. Link with SEA2.

Potential City Pairs: Singapore/ KL –Hainan/Hong Kong

ATS ROUTE NAME: SCS 9
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT</p> <ol style="list-style-type: none"> 1. ENDAX (FIR Boundary between Oakland and Manila FIRs) or DILIS on G467 2. TOKON on M767 (Manila FIR) <p>ROUTE DESCRIPTION ENDAX .. TOKON or DILIS .. TOKON</p> <p>FLIGHT LEVEL BAND 28000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW (Immediate request with DILIS – TOKON)</p>	<p>CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	a.TOKON-DILIS 45nm/ 5.5in b.TOKON-ENDAX 110nm/14min	
Fuel	a.731kg b. 1788kg	a.266,906kg b.652,440kg
CO ₂	a.2250kg b.5,500kg	a.821,250kg b.2,007 tonnes
No _x		

Remarks this route has already been implemented as domestic route Z902, except that it is not a domestic route. It should be a regional route but has not been entered into the BANP and consultation with Oakland is unclear.

Potential City Pairs: SEA –San Francisco/Los Angeles

Chapter 3: East Asia/Russian Federation

(referred to: Russia/East Asian States, CPWG or EATMCG as appropriate for review)

ATS ROUTES	SIGNIFICANT PTS	COORDINATES	FIR	REMARKS
PHI 1	MIA CAB MEVIN	N1430.5 E12101.3 N1528.9 E12101.5 N2100.0 E12233.0	MANILA MANILA MANILA	
PHI 3	TKK MUMOT	N2308.1 E12012.4 N1901.7 E11747.4	TAIPEI MANILA	
PHI 4	HCN AKOTA	N2155.7 E12050.6 N1627.7 E11712.4	TAIPEI MANILA	
TPE 1	APU MIKES	N2510.6 E12131.3 N2935.2 E12544.9	TAIPEI NAHA	
CHA 1 (CHA 5)	YNC GUPAD CGO SB	N3819.4 E 10623.8 N3618.7 E11028.4 N3430.9 E11350.6 N3150.4 E11714.0	LANZHOU LANZHOU WUHAN SHANGHAI	
CHA 2 (CHA 7)	KUQA CHW	N4143.0 E08300.0 N3951.0E09821.0	URUMQI LANZHOU	
CHA 3 (CHA 9A)	FKG OMBON	N4410.0 E08759.0 N3238.5 E10420.0	URUMQI KUNMING	
CHA 4 (CHA 10A)	MORIT NSH POU	N4202.0 E10249.0 N3319.1 E10818.7 N2301.2 E11311.4	LANZHOU LANZHOU GUANGZHOU	
CHA 5 (CHA 11A)	YIN INTIK	N2412.4E11324.6 N4340.8 E11154.1	GUANGZHOU BEIJING	
CHA 6 (CHA14)	OMBON NSH OBLIK SB (LUOGANG)	N3238.5 E10420.0 N3319.1 E10818.7 N3218.0 E11432.0 N3146.8 E11718.1	KUNMING LANZHOU WUHAN SHANGHAI	
CHA 7 (CHA 15)	KANSU KICHA CGQ HLD	N3838.0 E13228.5 N4041.0 E12911.5 N4338.0 E12400.5 N4912.1 E11949.4	PYONGYANG PYONGYANG SHENYANG SHENYANG	
CHA 8 (CHA16)	SCH HTN CHW	N3825.7 E07714.4 N3702.2 E07952.3 N3951.0E09821.0	URUMQI URUMQI LANZHOU	

CHA 9 (CHA17)	YBL SANLI	N3925.7 E10246.3 N3200.0 E100.00.0	LANZHOU KUNMING	
CHA 10 (CHA18)	ARGUK DALIAN HEFEI BEMAG	N4753.0E13439.5 N3857.6 E12130.8 N3146.8 E11718.1 N2601.1 E11400.1	SHENYANG SHENYANG SHANGHAI GUANGZHOU	
CHA 11 (CHA19)	DALIAN XJT	N3857.6 E12130.8 N3557.7 E12014.4	SHENYANG SHANGHAI	
CHA 12	UNWW WXI	N3621.8 E11455.0	SHANGHAI	
IATA2	OMBON RO	N3238.5 E10420.0 N2546.1 E10936.4	KUNMING GUANGZHOU	
IATA3	OMBON SB (LUOGANG)	N3238.5 E10420.0 N3146.8 E11718.1	KUNMING SHANGHAI	
JAP 1	TIC R583 BISIS APITO		FUKUOKA INCHOEN	
RUS 1	SESUR XXXXX KAE	N4217.5 E13041.5 N3838.0 E12924.7 N3742.0 E12845.2	VLADIVOSTO K INCHOEN	
RUS 2	TEKUK XXXXX KAE	N4241.0 E13527.0 N3838.0 E12924.7 N3742.0 E12845.2	VLADIVOSTO K INCHOEN	
RUS 3	BG TELOD XXXXX KAE	N 4353.0 E13315.0 N4219.6 E13211.8 N3838.0 E12924.7 N3742.0 E12845.2	VLADIVOSTO K VLADIVOSTO K INCHOEN	
RUS 4	AVGOK-GTC			
RUS 5	SIBIR – LURED – EKVIK			
CHA13	FENGNING (GM) – DAILAN (DBL)			
RUS 6	NALEB - SIBIR			
RUS 7	DIKUT or SANAR - SAMON			
RUS 8	KANSU -			

	TOMMY			
RUS 9	RITEK- new waypoint 495025N 1182854E - HLD			
RUS 10	TIKUN - URILA - GINUR - GU			
RUS 11	SIMLI - new waypoint 492000N 1270600E - DIKUT			
RUS 12	HRB - 493236N 1281936E - AMERA – WZ			
RUS 13	SIMLI - HEK - 492000N 12706E - LEPNI - 422624.7N 1294454.7E - KANSU			
RUS 14	NEW WAYPOINT - KANSU			
RUS 15	LEPNI 435542N 1285030E - new waypoint 493236N			

ATS ROUTE NAME: PHI 1
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT</p> <p>ROUTE DESCRIPTION Manila (MIA) .. MEVIN or Cabanatuan (CAB) .. MEVIN</p> <p>FLIGHT LEVEL BAND 28000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p>CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	11nm/1.5min	
Fuel	179kg	59,300kg
CO ₂	550kg	200,750kg
No _x		

Remarks: Supports traffic between Manila and Japan/North America.

Potential City Pairs: Philippines-Japan/North America

ATS ROUTE NAME: PHI 3
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT XXXXX</p> <p>ROUTE DESCRIPTION Shikang (TNN) ... XXXXX ... MUMOT</p> <p>FLIGHT LEVEL BAND 29000 - 46000</p> <p>PRIORITY: HIGH/MED/LOW HIGH</p>	<p>CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks: Supports traffic from TNN to Southeast Asia

Potential City Pairs:

ATS ROUTE NAME: PHI 4
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT XXXXX</p> <p>ROUTE DESCRIPTION AKOTA... XXXXX ... Hengchun (HCN)</p> <p>FLIGHT LEVEL BAND 29000 - 46000</p> <p>PRIORITY: HIGH/MED/LOW HIGH</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks: Supports traffic from Southeast Asia to HCN

Potential City Pairs:

ATS ROUTE NAME: TPE 1
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT APU / XXXXX / MIKES</p> <p>ROUTE DESCRIPTION APU- MIKES</p> <p>FLIGHT LEVEL BAND 28000 – 46000 feet</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	40nm/ 5min	
Fuel	650kg	237,000kg
CO ₂	2,000kg	730,000kg
No _x		

Remarks: Supports traffic between APU and Japan.

Potential City Pairs: SEA/HKG/TPE-Fukuoka

ATS ROUTE NAME: CHA 1 (Renumbered from CHA5)

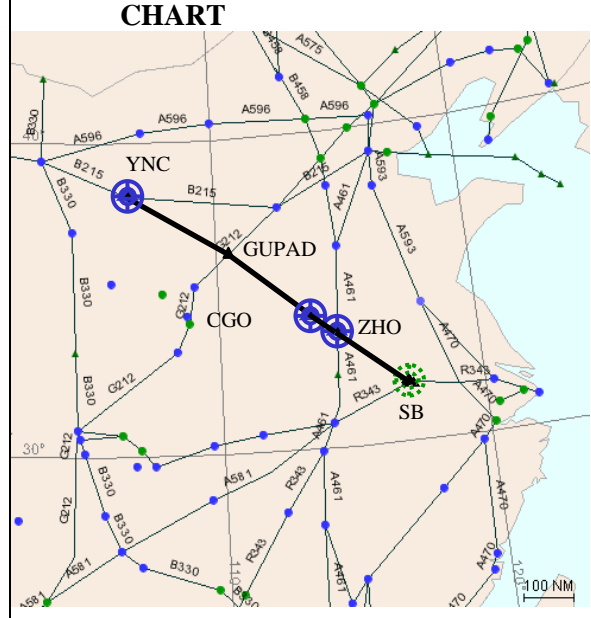
REQUESTED BY: IATA

ENTRY/EXIT POINT

ROUTE DESCRIPTION
 Yinchuan (YNC) .. GUPAD .. Zhengzhou (CGO) .. Zhoukou (ZHO) .. Luogang (SB)

FLIGHT LEVEL BAND
 8400 – 15000 meters

PRIORITY: HIGH/MED/LOW



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks

Potential City Pairs: Europe-Shanghai

ATS ROUTE NAME: CHA2 (Renumbered from CHA 7)

REQUESTED BY: IATA

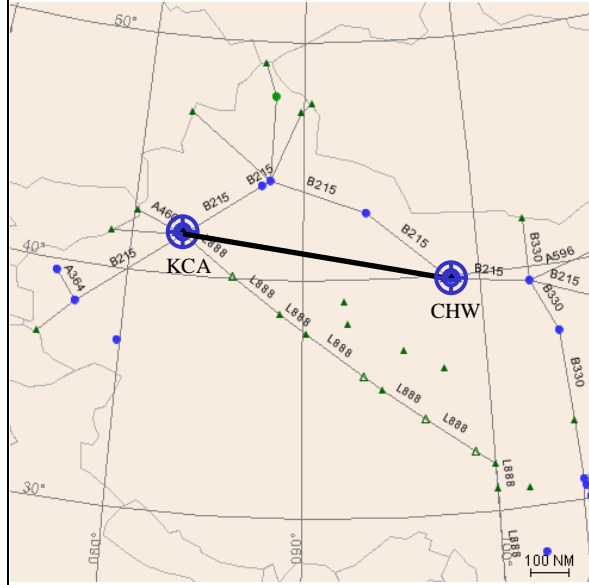
ENTRY/EXIT POINT

ROUTE DESCRIPTION
Kuqa (KCA) .. Jiayuguan (CHW)

FLIGHT LEVEL BAND
8400 – 15000 meters

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	93nm/ 12min	
Fuel		
CO ₂		
No _x		

Remarks: There are existing routes between KCA and CHW. Direct route is impossible.

Potential City Pairs: Middle East/Pakistan-China/Korea/Japan

ATS ROUTE NAME: CHA 3 (Renumbered from CHA 9A)

REQUESTED BY: IATA

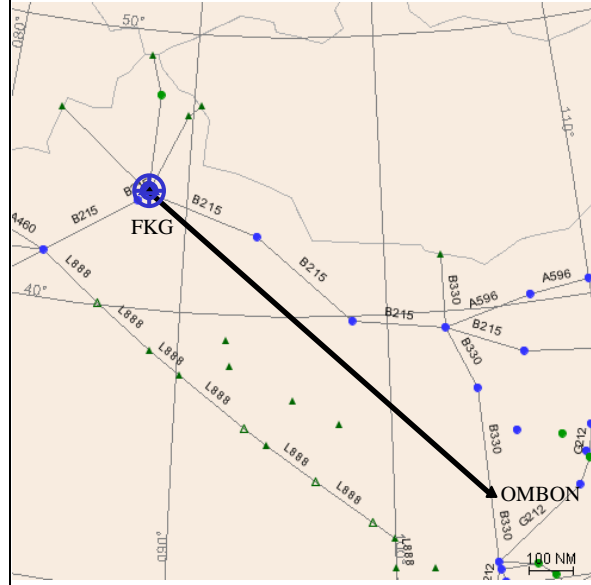
ENTRY/EXIT POINT

ROUTE DESCRIPTION
Fukang (FKG) .. OMBON

FLIGHT LEVEL BAND
8400 – 15000 meters

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	123nm/ 15.5min	
Fuel	2000kg	730,000kg
CO ₂	6,150kg	2,245 tonnes
No _x		

Remarks: This direct route is impossible and can not be implemented at present.

Potential City Pairs: Europe/Russia-Pearl River Delta Airports

ATS ROUTE NAME: CHA4 (Renumbered from CHA 10A)

REQUESTED BY: IATA

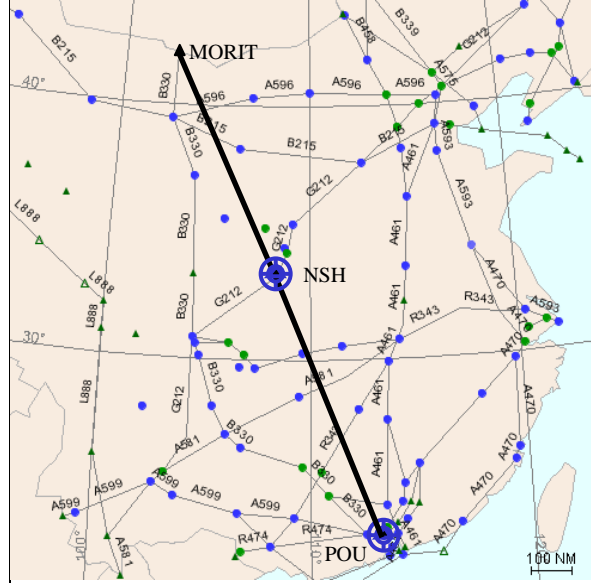
ENTRY/EXIT POINT

ROUTE DESCRIPTION
MORIT .. Ningshan (NSH) .. Pingzhou (POU)

FLIGHT LEVEL BAND
8400 – 15000 meters

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	152nm/ 19min	
Fuel	2470kg	901,000kg
CO ₂	7,600kg	2,774 tonnes
No _x		

Remarks: This direct route is impossible and can not be implemented.

Potential City Pairs: Europe Russia-Pearl River Delta Airports

ATS ROUTE NAME: CHA 5 (Renumbered from CHA 11A)

REQUESTED BY: IATA

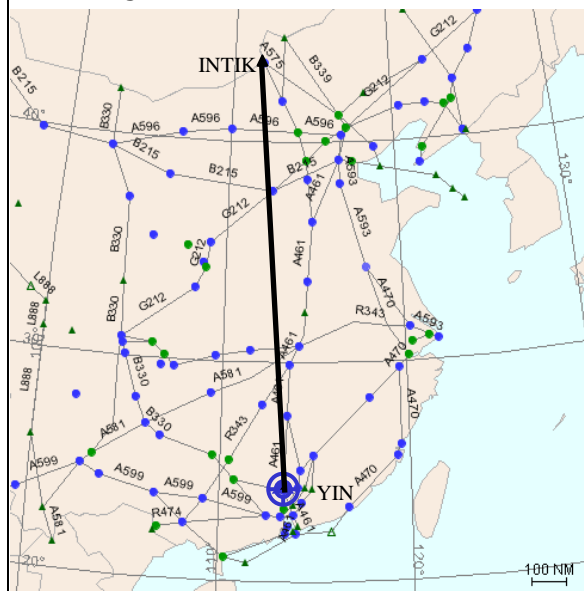
ENTRY/EXIT POINT

ROUTE DESCRIPTION
Yingde (YIN) .. INTIK

FLIGHT LEVEL BAND
8400 – 15000 meters

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	140nm/17.5min	
Fuel	2275kg	830,000kg
CO ₂	7,000kg	2,555 tonnes
No _x		

Remarks: This direct route is impossible and can not be implemented.

Potential City Pairs: Europe/Russia –Pearl River Delta Airports

ATS ROUTE NAME: CHA 6 (Renumbered from CHA 14)

REQUESTED BY: IATA

ENTRY/EXIT POINT

ROUTE DESCRIPTION

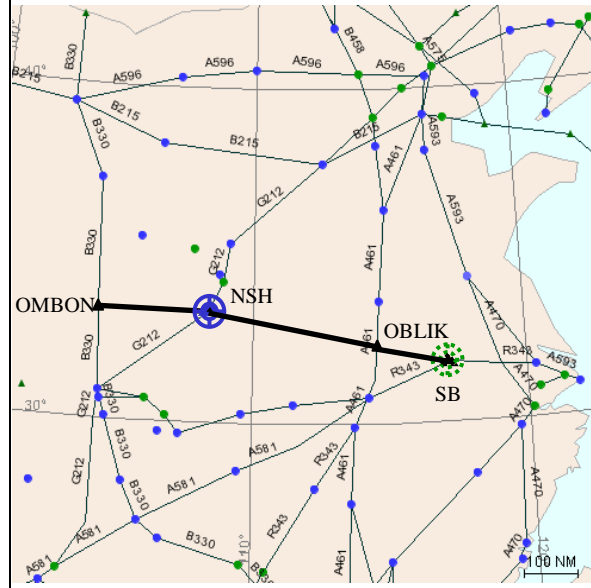
OMBON .. Ningshan (NSH) .. OBLIK .. Luogang (SB)

FLIGHT LEVEL BAND

8400 – 15000 meters

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks: This route is impossible and can not be implemented at present.

Potential City Pairs: Europe-Shanghai

ATS ROUTE NAME: CHA 7 (Renumbered from CHA 15)

REQUESTED BY:IATA

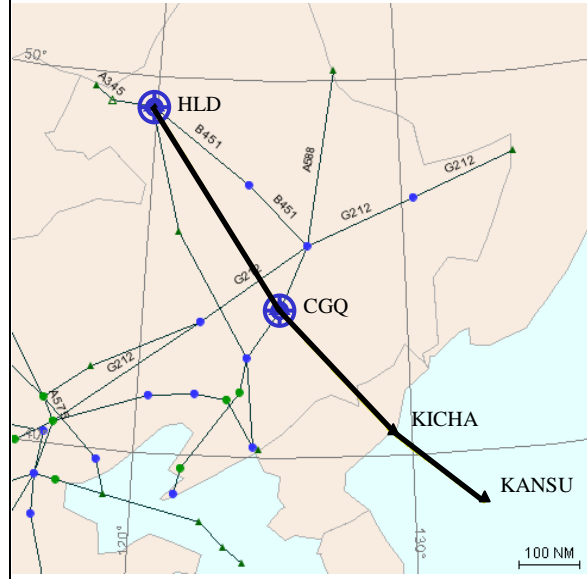
ENTRY/EXIT POINT
KANSU/XXXXX

ROUTE DESCRIPTION
KANSU .. KICHA .. Changchun (CGQ) ..
Hailar (HLD)

FLIGHT LEVEL BAND
8400 – 15000 meters

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks

Potential City Pairs: Europe-Korea /Japan

ATS ROUTE NAME: CHA 8 (Renumbered from CHA 16)

REQUESTED BY: IATA

ENTRY/EXIT POINT

ROUTE DESCRIPTION

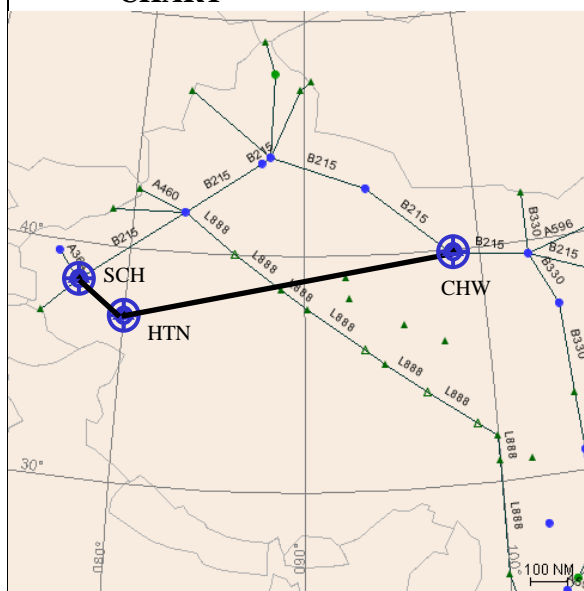
Shache (SCH) .. Hotan (HTN) .. Jiayuguan (CHW)

FLIGHT LEVEL BAND

8400 – 15000 meters

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	69nm/9min	
Fuel	1121kg	409,000kg
CO ₂	3,450 kg	1,260 tonnes
No _x		

Remarks: Direct route between HTN and CHW is impossible and can not be implemented at present.

Potential City Pairs: Middle East /Pakistan-China/Korea/Japan

ATS ROUTE NAME: CHA 9 (Renumbered from CHA 17)

REQUESTED BY: IATA

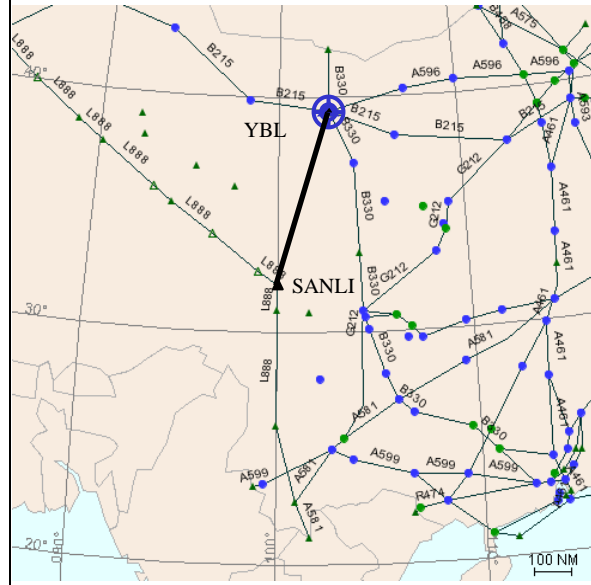
ENTRY/EXIT POINT

ROUTE DESCRIPTION
Yabrai (YBL) .. SANLI

FLIGHT LEVEL BAND
8400 – 15000 meters

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA.
	ICAO

Saving	Per flight	Annual
Mileage / Time	48nm/ 6min	
Fuel	780kg	284,000kg
CO ₂	2,400kg	876,000kg
No _x		

Remarks: This direct route is impossible and can not be implemented at present.

Potential City Pairs: North America-SE Asia

ATS ROUTE NAME: CHA 10 (Renumbered from CHA18-formerly SE1 in CTF/2000)

REQUESTED BY: IATA

<p>ENTRY/EXIT POINT</p> <p>ARGUK/BEMAG</p> <p>ROUTE DESCRIPTION</p> <p>ARGUK/DALIAN/HEFEI/BEMAG</p> <p>FLIGHT LEVEL BAND</p> <p>8400-15000 metres</p> <p>PRIORITY: HIGH/MED/LOW</p> <p>HIGH</p>	<p>CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks: There are existing routes between ARGUK-DLC-HFE-BEMAG. Direct route between ARGUK-DLC-HFE-BEMAG is impossible.

Potential City Pairs: North America- Pearl River Delta

ATS ROUTE NAME: CHA 11 (Renumbered from CHA19 formerly SE2 in CTF/2000)

REQUESTED BY: IATA

ENTRY/EXIT POINT

DALIAN/(DLC) to XJT/B221

ROUTE DESCRIPTION

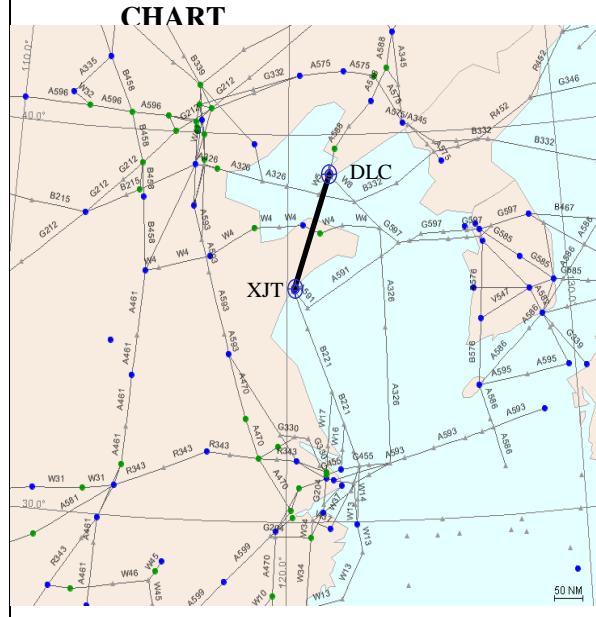
DALIAN/ XJT /B221

FLIGHT LEVEL BAND

8400-15000 metres

PRIORITY: HIGH/MED/LOW

HIGH



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks: There are existing routes between DLC and XJT. Direct route is impossible.

Potential City Pairs: North America-Shanghai

ATS ROUTE NAME: CHA 12

Requested by : IATA

ENTRY/EXIT POINT

UNWW to WXI

ROUTE DESCRIPTION

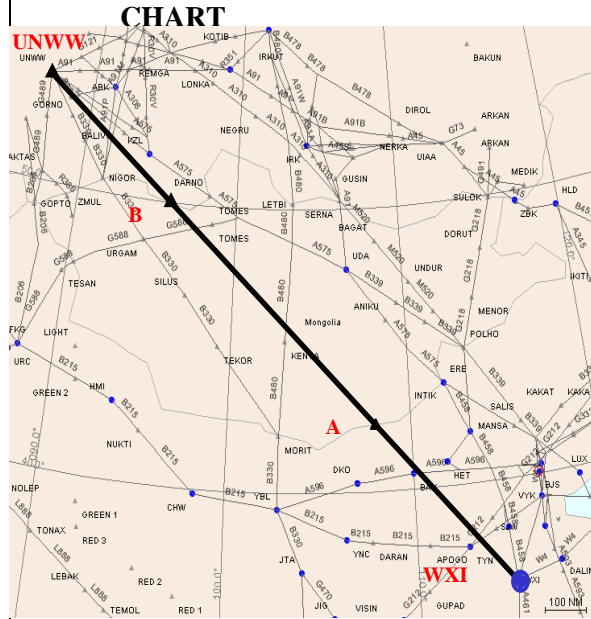
Weixian (WXI) .. A (ZBPE/ZMUB) .. B (ZMUB/UNKY) .. Novokuznetsk (UNWW)

Uni-directional

FLIGHT LEVEL BAND

28000 – 46000 feet

PRIORITY: HIGH/MED/LOW



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	166nm/20min	
Fuel	2620kg	956,000kg
CO ₂	8070kg	2,944 tonnes
No _x		

Remarks: This would allow following city pair flights to avoid the congested airspace around the Beijing Capital Airport.

Potential City Pairs: Pearl River Delta – Europe and Shanghai – Europe.

ATS ROUTE NAME: IATA 2

REQUESTED BY: IATA

ENTRY/EXIT POINT

ROUTE DESCRIPTION

FLIGHT LEVEL BAND
8400 – 15000 meters

PRIORITY: HIGH/MED/LOW

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks: There are existing routes between OMBON and RO. Direct route is impossible at present.

Potential City Pairs: Europe –Pearl River Delta Airports

ATS ROUTE NAME: IATA 3
REQUESTED BY: IATA

<p>ENTRY/EXIT POINT</p> <p>ROUTE DESCRIPTION</p> <p>FLIGHT LEVEL BAND 8400 – 15000 meters</p> <p>PRIORITY: HIGH/MED/LOW</p>	<p style="text-align: center;">CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Remarks: There are existing routes between OMBON and SB; direct route is impossible at present.

Potential City Pairs: Europe-Shanghai

ATS ROUTE NAME: JAP 1
REQUESTED BY: IATA

Date: 25 June 2012

(ATM/AIS/SAR/SG-22)

ENTRY/EXIT POINT
 TIC - APITO

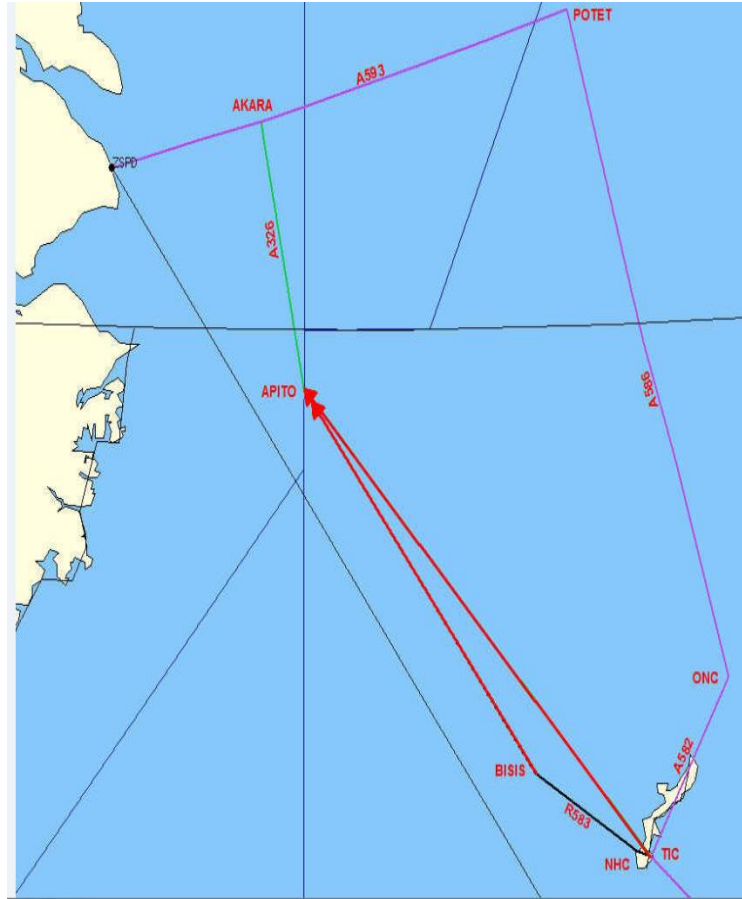
ROUTE DESCRIPTION
 PIC - APITO

Alternative:
 TIC – R583- BASIS – APITO

FLIGHT LEVEL BAND

PRIORITY:

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	19 mins/19 mins	
Fuel	3094kg/3021kg	kg
CO ₂	9591kg/9365	kg
No _x		

ATS ROUTE NAME: RUS 1

Requested by : IATA

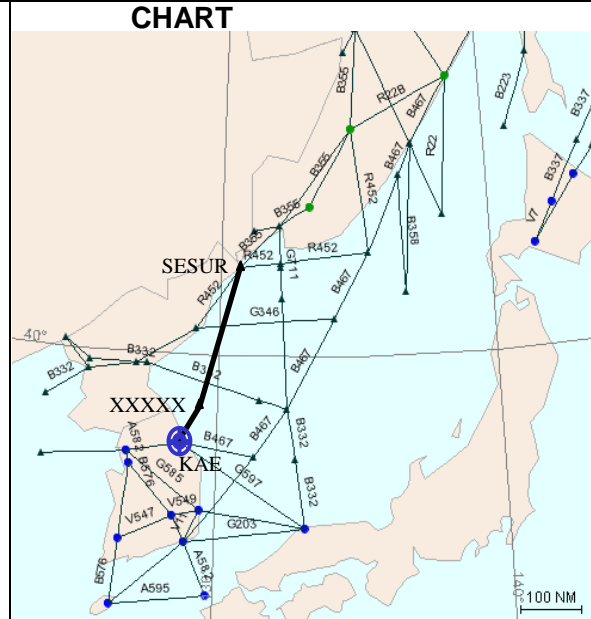
ENTRY/EXIT POINT
XXXXX

ROUTE DESCRIPTION
SESUR .. XXXXX .. Gangwon (KAE)

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW

“XXXXX” Approx N38 38.0 E129 24.7



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	121nm/15min	
Fuel	1966kg	717,000kg
CO ₂	6050kg	2,208 tonnes
No _x		

Remarks

Potential City Pairs: North America- Inchoen

ATS ROUTE NAME: RUS 3

Requested by : IATA

ENTRY/EXIT POINT
XXXXX

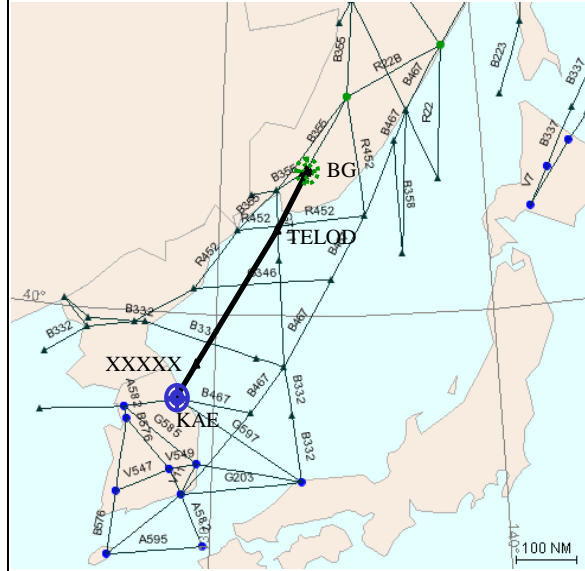
ROUTE DESCRIPTION
Muraveyka (BG) .. TELOD .. XXXXX ..
Gangwon (KAE)

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW

“XXXXX” Approx N38 38.0 E129 24.7

CHART



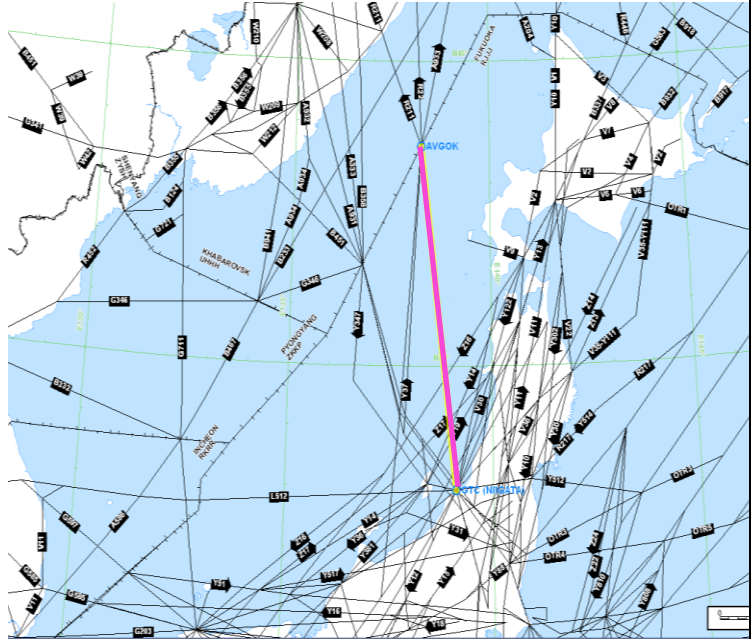
Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	136/17mins	
Fuel	2,194kg	800,000kg
CO ₂	6750kg	2,464 tonnes
No _x		

Remarks

Potential City Pairs: North America- Inchoen

ATS ROUTE NAME: RUS 4
REQUESTED BY: IATA

ENTRY/EXIT POINT	CHART 
ROUTE DESCRIPTION	
AVGOK-GTC	
FLIGHT LEVEL BAND	
PRIORITY:	
States concerned	
JAPAN RUSSIAN FEDERATION	

Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Russian Federation: Further discussion with Japan required through the ICAO APAC Office.

Objective:
 To reduce route distance of 13 NM as compared to current routing AVGOK-KADBO-RJSN.

ATS ROUTE NAME: *RUS 5*
REQUESTED BY: IATA /RUSSIA

ENTRY/EXIT POINT

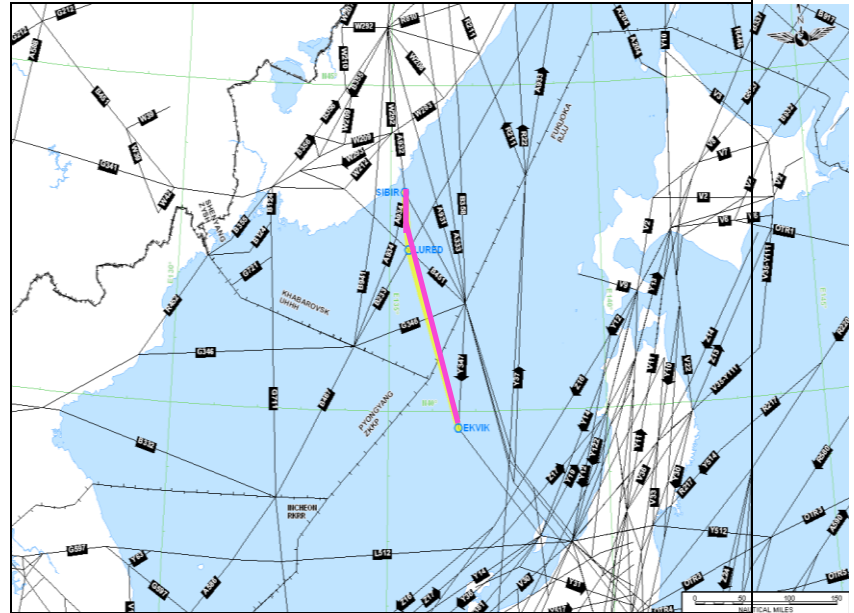
ROUTE DESCRIPTION
 bidirectional ATS route **SIBIR**
 – **LURED** – **EKVIK**.
FLIGHT LEVEL BAND

PRIORITY:

States concerned

JAPAN
 RUSSIAN FEDERATION

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

*Russian Federation: New waypoint needed 404751N1361021E (FIR Boundary), coordination with Japan (Fukuoka FIR) required.
 Alternative bi-directional route to EN15. Implementation planned for 2Q 2013.*

Objective:

To improve north-south traffic flows between Khabarovsk FIR and Fukuoka FIR.

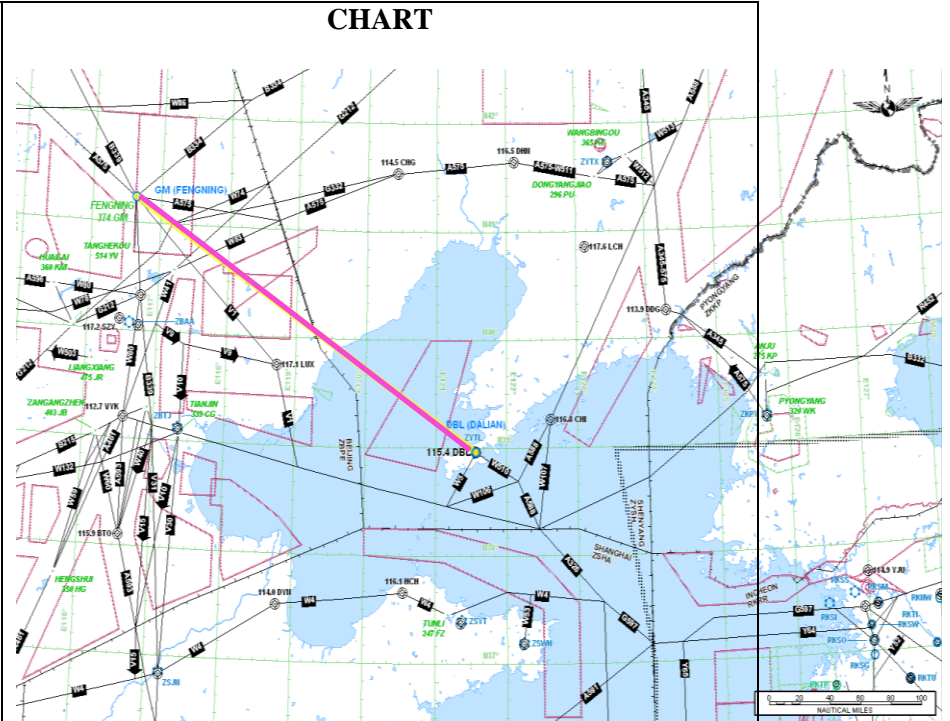
ATS ROUTE NAME: CHA13
REQUESTED BY: IATA

ENTRY/EXIT POINT

ROUTE DESCRIPTION
FLIGHT LEVEL BAND
 GM - DBL.
PRIORITY:

States concerned

CHINA



Action Required	IATA
	ICAO

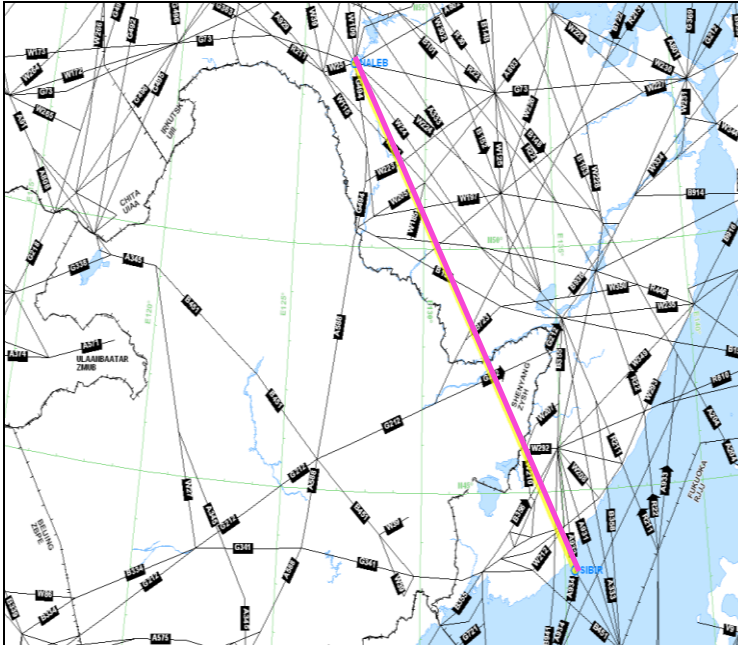
Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Part of IATA EUR-North Asia package - #EN13.

China: Further discussions required via ICAO APAC Office.

Objective:
 To reduce route distance of 67 NM as compared to current routing GM-LADIX-MAKNO.

ATS ROUTE NAME: RUS 6
REQUESTED BY: IATA

ENTRY/EXIT POINT	CHART
<p>ROUTE DESCRIPTION FLIGHT LEVEL BAND NALEB - SIBIR. PRIORITY:</p> <p>States concerned</p> <p>CHINA RUSSIAN FEDERATION</p>	

Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Part of IATA EUR-North Asia package - #EN6.

Objective:

To reduce route distance of 63 NM as compared to current routing LALIR-SOVIK-HAB-TD-SIBIR.

ATS ROUTE NAME: RUS 7
REQUESTED BY: IATA

ENTRY/EXIT POINT

ROUTE DESCRIPTION
 ATS route segment **DIKUT** or **SANAR - SAMON**.

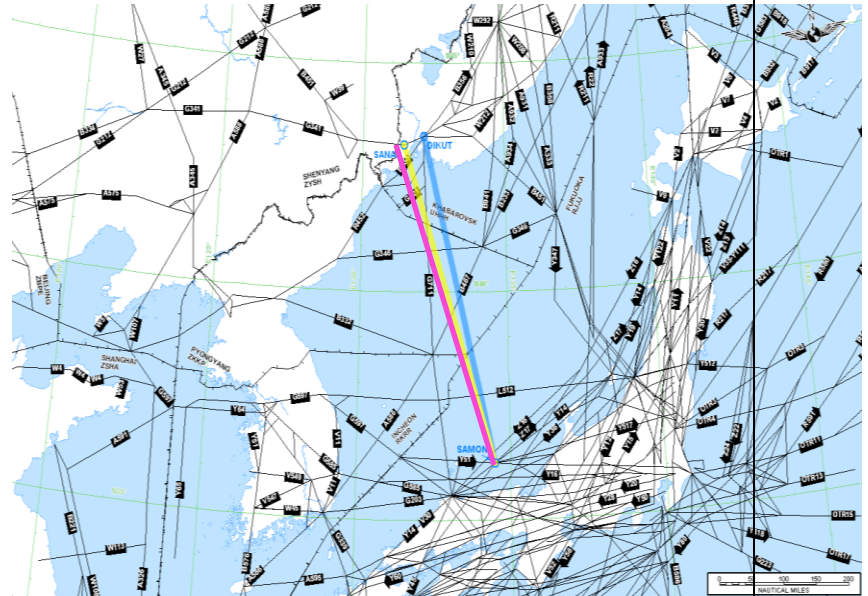
FLIGHT LEVEL BAND

PRIORITY:

States concerned

JAPAN
 RUSSIAN FEDERATION
 DEM. PEOPLE'S REP. OF KOREA

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Part of IATA EUR-North Asia package - #EN9.

Russian Federation: Further discussion/studies required. Difficult to implement.

Objective:

To reduce route distance of 160 NM as compared to current routing DIKUT-KANSU-JEC.

ATS ROUTE NAME: RUS 8
REQUESTED BY: IATA

ENTRY/EXIT POINT

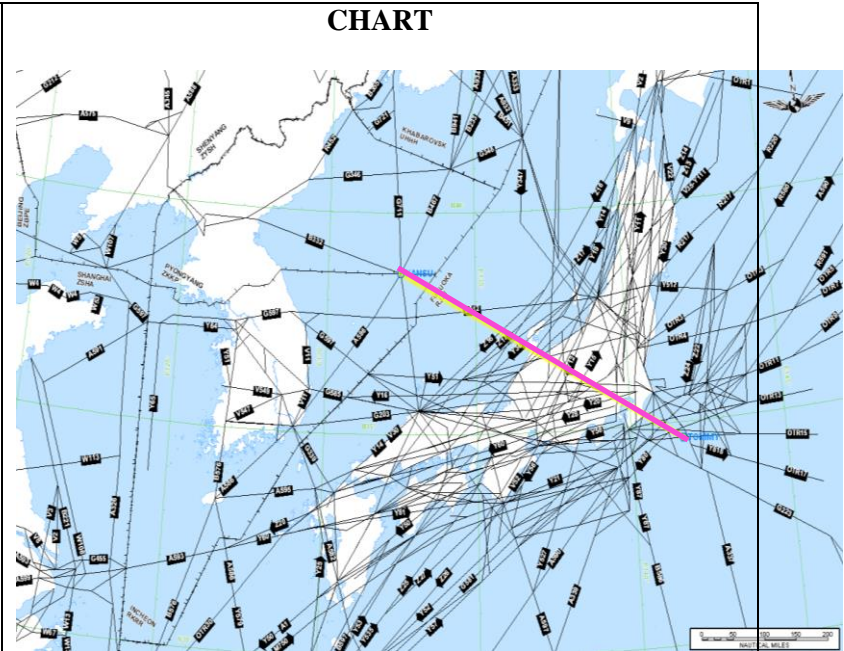
ROUTE DESCRIPTION
 KANSU - TOMMY.

FLIGHT LEVEL BAND

PRIORITY:

States concerned

KOREA
 JAPAN



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Part of IATA EUR-North Asia package - #EN14.

China: Further discussion between China and Korea also required via ICAO APAC Office.

Objective:

To reduce route distance of 64 NM as compared to current routing KANSU-IGRAS-TOMMY.

ATS ROUTE NAME: RUS 9
REQUESTED BY: IATA/RUSSIA

ENTRY/EXIT POINT

ROUTE DESCRIPTION

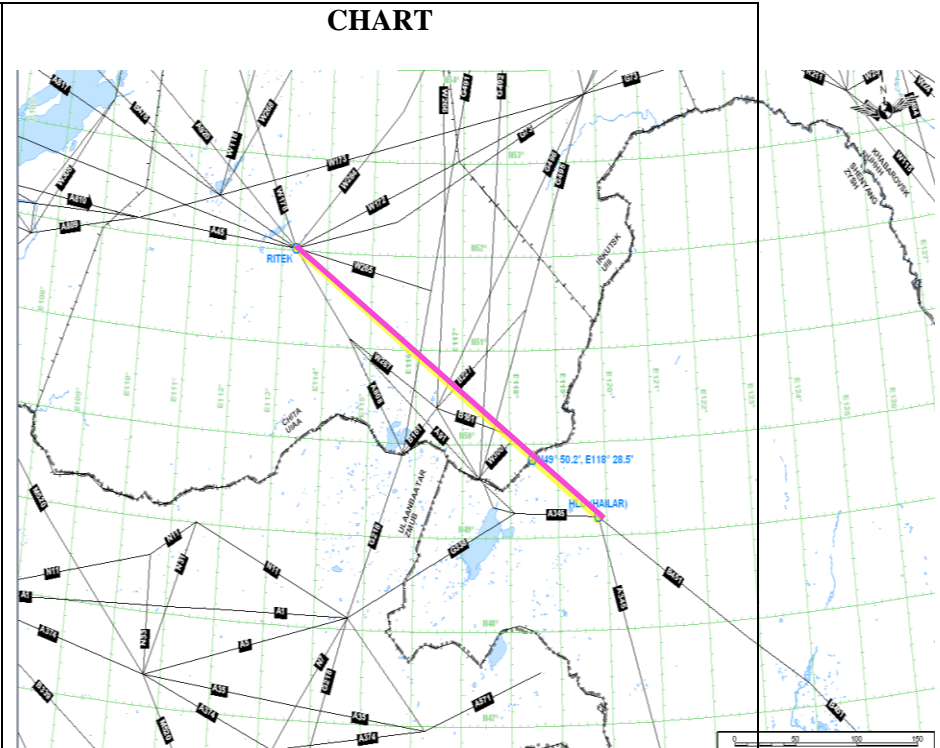
**RITEK- new waypoint 495025N
 1182854E - HLD**

FLIGHT LEVEL BAND

PRIORITY:

States concerned

CHINA
 RUSSIAN FEDERATION



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Further studies/coordination required. Updates will be given when available.

Alternative uni-directional eastbound route proposal for EN11, proposal 13.035 (deleted from catalogue).

Objective:

To reduce route distance of 159 NM as compared to current routing PTG-RITEK-HLD-DIKUT-KANSU

ATS ROUTE NAME: RUS 10
REQUESTED BY: IATA/RUSSIA

ENTRY/EXIT POINT

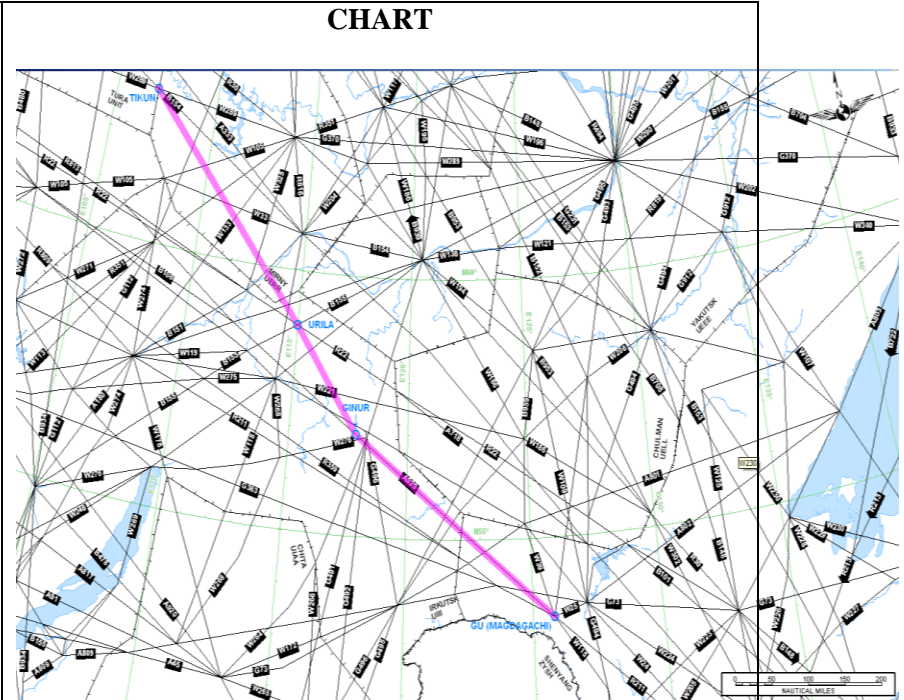
ROUTE DESCRIPTION
 TIKUN - URILA - GINUR - GU.

FLIGHT LEVEL BAND

PRIORITY:

States concerned

CHINA
 RUSSIAN FEDERATION



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Part of IATA EUR-North Asia package - #EN10.

China: Proposal can partly be withdrawn due to lack of CNS capabilities for the segment URILA-492000N1270600E. Alternative proposal made.

Russian Federation: Further studies/discussion required.

Objective:

To reduce route distance of 150 NM as compared to current routing TIKUN-IVADA-TD-DIKUT.

ATS ROUTE NAME: *RUS 11*
REQUESTED BY: IATA/RUSSIA

<p>ENTRY/EXIT POINT</p> <p>ROUTE DESCRIPTION SIMLI - new waypoint 492000N 1270600E - DIKUT.</p> <p>FLIGHT LEVEL BAND</p> <p>PRIORITY:</p> <p>States concerned</p> <p>CHINA RUSSIAN FEDERATION</p>	<p>CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Further studies/coordination required. Updates will be given when available.
Objective:
To reduce route distance of 150 NM as compared to current routing TIKUN-IVADA-TD-DIKUT.

ATS ROUTE NAME: *RUS 12*
REQUESTED BY: IATA/RUSSIA

ENTRY/EXIT POINT

ROUTE DESCRIPTION

Unidirectional Westbound
 route HRB - 493236N 1281936E -
 AMERA – WZ

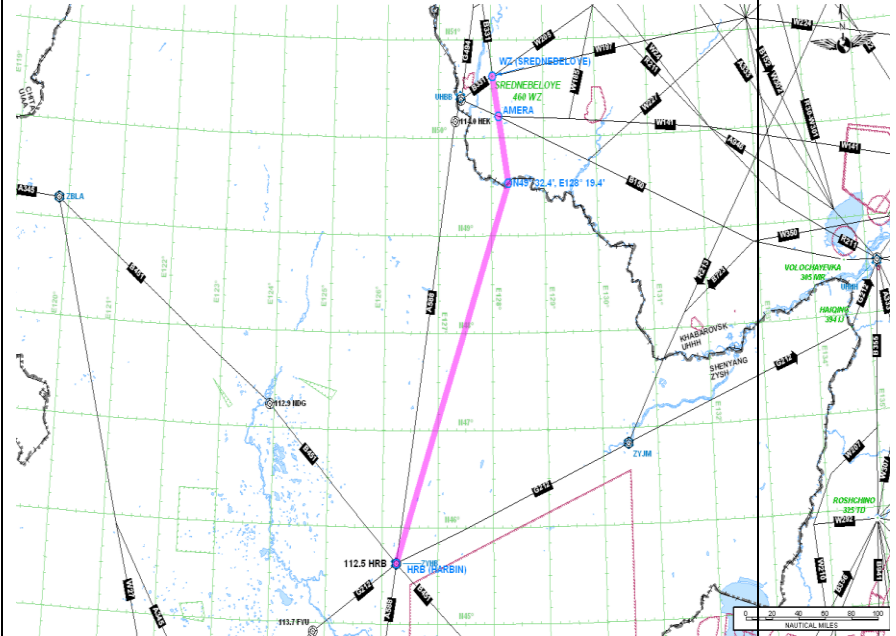
FLIGHT LEVEL BAND

PRIORITY:

States concerned

CHINA
 DEM. PEOPLE'S REP. OF KOREA
 RUSSIAN FEDERATION

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Russian Federation: westbound ATS route is needed for unloading traffic from SIMLI

ATS ROUTE NAME: *RUS 13*
REQUESTED BY: IATA/RUSSIA

<p>ENTRY/EXIT POINT</p> <p>ROUTE DESCRIPTION</p> <p>unidirectional Eastbound route SIMLI - HEK - 492000N 12706E - LEPNI - 422624.7N 1294454.7E - KANSU</p> <p>FLIGHT LEVEL BAND</p> <p>PRIORITY:</p> <p>States concerned</p> <p>CHINA DEM. PEOPLE'S REP. OF KOREA RUSSIAN FEDERATION</p>	<p>CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

*Russian Federation: eastbound ATS route is needed for unloading traffic from SIMLI.
China: Confirmation of interest in this ATS route but further studies/coordination are needed, updates will be given when available.*

ATS ROUTE NAME: *RUS 14*
REQUESTED BY: IATA/RUSSIA

<p>ENTRY/EXIT POINT</p> <p>ROUTE DESCRIPTION</p> <p>FLIGHT LEVEL BAND</p> <p>PRIORITY:</p> <p>States concerned CHINA DEM. PEOPLE'S REP. OF KOREA RUSSIAN FEDERATION</p>	<p>CHART</p>
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Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Alternative bi-directional route

Objective:
 To reduce route distance of 159 NM as compared to current routing PTG-RITEK-HLD-DIKUT-KANSU.

ATS ROUTE NAME: *RUS 15*
REQUESTED BY: IATA/RUSSIA

ENTRY/EXIT POINT

ROUTE DESCRIPTION

Westbound ATS route **LEPNI**
435542N 1285030E - new waypoint
493236N

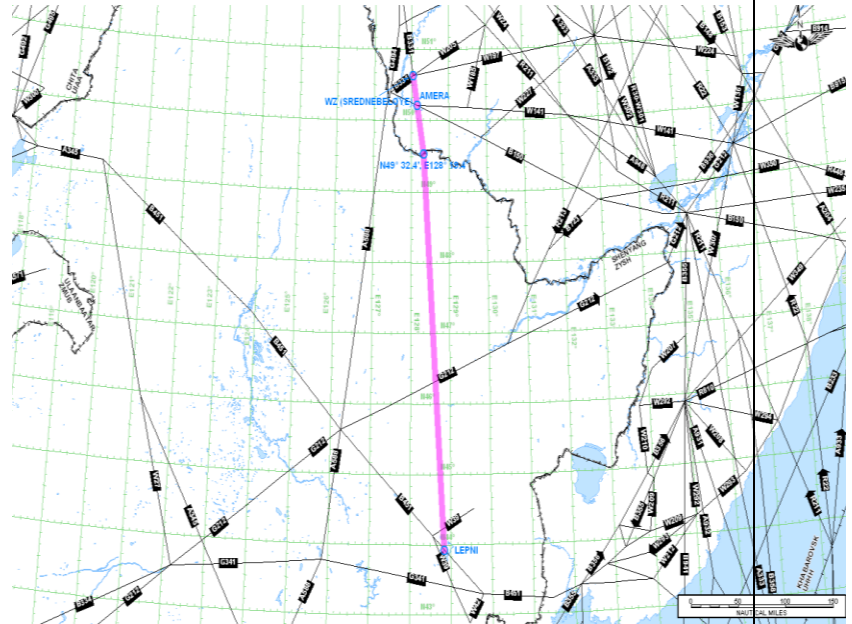
FLIGHT LEVEL BAND

PRIORITY:

States concerned

CHINA
 RUSSIAN FEDERATION

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO ₂		
No _x		

Further studies/coordination required. Updates will be given

Chapter 4: Pacific

(referred to: IPACG, ISPACG as appropriate for review)

ATS ROUTES	SIGNIFICANT PTS	COORDINATES	FIR	REMARKS
WPC 1	PY VNO ROR ENDAX ELMAS TINHO	S0927.2 E14712.9 S0240.7 E14118.2 N0722.1 E13433.0 N1415.0 E13000.0 N2027.0 E12500.0 N2421.2 E12201.7	PT MORESBY PT MORESBY OAKLAND MANILA MANILA TAIPEI	
R582	KRILL MAITO Tahiti PAERE TOLAB TAMUR TIERE TARAO TUNBA TIAMU	2016.1N 15700.0E 1732.8S 14936.1E 1625.0S 14752.6W 1428.0S 14500.0W 1104.0S 14000.0W	Auckland Ocn/Tahiti Tahiti Tahiti Tahiti Tahiti Tahiti Tahiti Tahiti Tahiti	Moved from Chapter 4. Route Requested by Tahiti

ATS ROUTE NAME: WPC 1

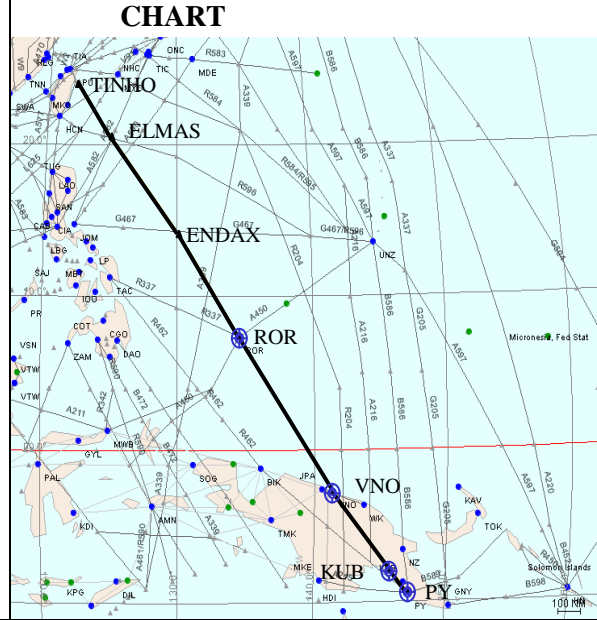
Requested by : IATA

ENTRY/EXIT POINT
PY-TINHO

ROUTE DESCRIPTION
Port Moresby (PY) Vanimo (VNO) ..
Koror (ROR) .. ENDAX .. ELMAS ..
TINHO

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW
HIGH



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time	160 nm/20min	
Fuel	2600kg	949,000kg
CO ₂	8000kg	2,920 tonnes
No _x		

Remarks

Potential City Pairs: Auckland-Taipei.

Remarks Potential City Pairs: NZAA - ZSPD, YSSY - ZSPD

ATS ROUTE NAME: R582

Requested by : Tahiti

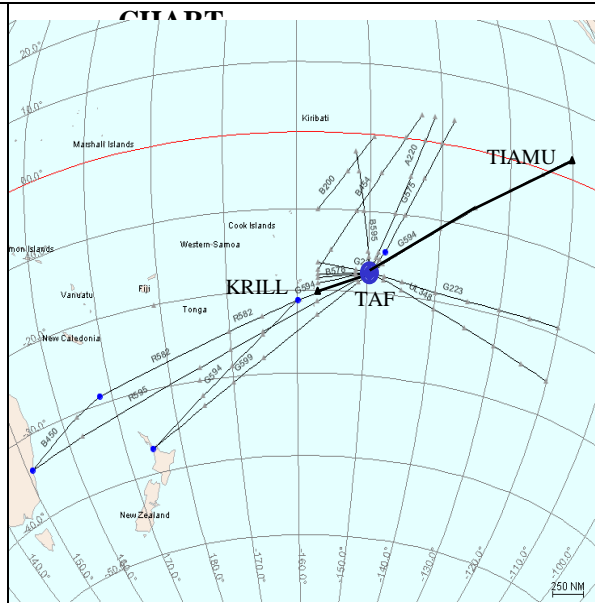
ENTRY/EXIT POINT

ROUTE DESCRIPTION

Decommissioned G594 and realigned R582 as KRILL .. MAITO .. Tahiti (TAF) .. PAERE .. TOLAB .. TAMUR .. TIERE.. TARAO .. TUNBA .. TIAMU

FLIGHT LEVEL BAND

PRIORITY: HIGH/MED/LOW



Action Required	States to coordinate implementation.
	ICAO to circulate proposal for deletion from BANP.

Benefit		
Cost		
Fuel Saving		
Emission	CO ₂	
	NO _x	

Remarks: