ASIA/PACIFIC REGION ATS ROUTE CATALOGUE

INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASIA/PACIFIC REGIONAL OFFICE

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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.
13	11 September 2014	SAIOACG/SEACG, ATM/SG APANPIRG/25	Reviewed subsequent to Easter Island being transferred out of the Region; added European trans-regional proposals
14	10 September 2015	SAIOACG/SEACG, ATM/SG APANPIRG/26	Moved Chapter A to the eANP Vol Vol II, Part IV Table ATM II-2

Chapter A: Routes in BANP

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

LOWER ATS ROUTES

A1 LIMLA 1546.0N 09836.0E
BANGKOK
UBON
DANANG
BUNTA
IKELA 1839.7N 11214.7E
CHEUNG CHAU
ELATO 2220.0N 11730.0E
MAKUNG
TAIBEI
KAGOSHIMA
HACHIJO JIMA
(APAC 14/01 ATS)

A91 (KYAKHTA)
SERNA 5018.5N 10628.1E
ULAN BATOR

A201 LASHIO
AGARTALA
RAJSHAHI
MONDA 2521.00N 08626.25E
PATNA
LUCKNOW

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

A204 YOROI 4500.5N 14147.1E
RISHIRI
AKSUN 4545.1N 14054.3E
(SELTI) (4713.3N 14013.3E)

A206 Proposed by Vietnam and Laos
ASSAD
VINH
NONGT
LUANG PRABANG

A211 MANADO
TARAKAN
TAWAU

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

A218 HARBIN
(EKIMCHAN)
(MYS SHMIDTA)
BARROW

A219 KARACHI
NAWABSHAM
KALAT 2902.0N 06635.0E
SERKA 2951.0N 06615.0E
KANDAHAR
(TERMEZ)

A220 CLUKK 3605.0N 12450.0E
TAHITI

A221 GUAM
ROTA IS
TINIAN IS
SAIPAN

A222 GUAM
POHNPEI
KOSRAE
KWAJALEIN

A224 JOHOR BAHRU
MERSING

A325 PRARATAPGARH

~~TASOP 2514.1N 07045.0E~~
~~KARACHI~~
~~JIWANI~~

~~A326 SHIGEZHUANG~~
~~OKTON 3911.2N 11653.5E~~
~~TIANJIN~~
~~MAKNO 3827.6N 12110.0E~~
~~SANKO 3814.2N 12228.4E~~
~~DONVO 3734.0N 12320.0E~~
~~AKARA 3130.0N 12330.0E~~

~~A331 ZIGIE 2419.0N 15717.5W~~
~~SEDAR 4530.4N 12643.0W~~

~~A332 APACK 2402.8N 15619.3W~~
~~AMITY 2626.0N 15229.0W~~
~~HEMLO 4318.2N 12640.8W~~

~~A334 HAT YAI~~
~~KOTA BHARU~~

~~A337 ADKAK 3354.0N 14210.0E~~
~~TEGOD 2100.0N 14512.0E~~
~~JUNIE 1132.5N 14706.3E~~
~~KISME 0500.0N 14805.4E~~

~~A338 CHRISTCHURCH~~
~~APORO 5000.0S 17120.0E~~
~~BYRD~~

~~A339 PERTH~~
~~CURTIN~~
~~ELBIS 0905.9S 12743.7E~~
~~SHREE 0539.0N 13109.2E~~
~~KEITH 2100.0N 13456.8E~~
~~SABGU 2529.9N 13459.3E~~
~~MAKDA 2716.0N 13551.2E~~
~~TAXON 3000.0N 13714.5E~~
~~YOSHI~~
~~**(APAC 14/01 ATS)**~~

~~A340 RAYONG~~
~~BISOR 1221.0N 10247.0E~~
~~PHNOM PENH~~

~~A341 KOTA KINABALU~~
~~SANDAKAN~~
~~ZAMBOANGA~~

~~A342 COLD BAY~~
~~OLCOT 5125.8N 16533.3E~~

~~A344 ROZAX 0245.6S 11140.0E~~
~~SUMBAWA~~

~~A345 PYONGYANG~~
~~GOLOT 4012.5N 12430.5E~~
~~FENGCHENG~~
~~KAIYUAN~~
~~HAILAR~~
~~KAGAK 4916N 11806E~~
~~MANLI 4935N 11727E~~
~~TELOK 4938N 11722E~~
~~(CHITA)~~

~~A346 HAMILTON IS~~
~~AUCKLAND~~

~~A347 MUMBAI~~
~~BODAR 2236.3N 07413.3E~~
~~PRATAPGAPH~~
~~DELHI~~

~~A348 MELBOURNE~~
~~EAST SALE~~
~~NISEP 4146.6S 15601.5E~~

~~A364 SHACHE~~
~~KASHI~~
~~KURUM 4006.0N 07407.0E~~

~~A450 DENPASSAR~~
~~HASSANUDDIN~~
~~CAHYO 033000N 1333000E~~
~~YAP IS~~
~~GUAM~~
~~WAKE~~
~~KATHS 2104.6N 16123.4W~~

~~A453 (KANDAHAR)~~
~~(ZAHEDAN)~~
~~(BANDER ABBAS)~~

~~A454 KARACHI~~
~~PARET 2527.2N 06451.5E~~
~~TAPDO 2424.0N 06120.0E~~
~~(VUSET)~~

~~A455 PESHAWAR~~
~~METAR 3406.0N 07128.0E~~
~~KOTAL 3406.0N 07109.0E~~

~~A456 AMRITSAR~~
~~LAHORE~~
~~MOLTA 3012.0N 07236.2E~~
~~BINDO~~

~~A457 HAT YAI~~
~~TAMOS 0632.2N 10024.0E~~

~~ALOR SETAR~~
~~PENANG~~
~~KUALA LUMPUR~~
~~JOHOR BAHRU~~

~~A460 KUQA~~
~~REVKI 4232.5N 8013.2E~~
~~(KIRBALTABAY)~~

~~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~~

~~A462 KOLKATA~~
~~DHAKA~~

~~A464 CHIANG MAI~~
~~BANGKOK~~
~~HAT YAI~~
~~IPOH~~
~~BATU ARANG~~
~~KUALA LUMPUR~~
~~SINGAPORE~~
~~TINDAL~~
~~TAROOM~~
~~LORD HOWE IS~~
~~AUCKLAND~~

~~A465 KOLKATA~~
~~VISHAKAPATNAM~~
~~CHENNAI~~
~~COLOMBO~~

~~A466 (KABUL)~~
~~SANAM 3305.0N 07003.0E~~
~~DERA ISMAIL KHAN~~
~~JHANG 3116.0N 07218.0E~~
~~SAMAR 3120.8N 07434.0E~~
~~ASARI 3048.3N 07509.6E~~
~~DELHI~~

~~A467 BIRATNAGAR~~
~~KATIHAR~~
~~KOLKATA~~

~~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~~

~~A474 DELHI~~
~~ASOVO~~
~~MUMBAI~~
~~MURUS 0600.0S 06319.7E~~
~~(PLAISANCE)~~

~~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)~~

~~A576 MEDAN~~
~~SINGAPORE~~
~~DENPASAR~~
~~CURTIN~~
~~ALICE SPRINGS~~
~~PARKES~~
~~SYDNEY~~

~~A577 SHIKANG~~
~~KADET 2100.0N 11934.0E~~

~~A578 TONIK 3200.0N 14600.0E~~
~~PHONPEI~~
~~NAURU~~
~~TARAWA~~
~~NADI~~
~~AUCKLAND~~

~~A579 SYDNEY~~
~~NADI~~
~~CARRP 1904.4N 15935.0W~~

~~A580 AUCKLAND~~
~~NAUSORI~~
~~APIA~~

~~A581 BAGO~~
~~CHIANG MAI~~
~~CHIANG RAI~~
~~PONUK 2018.8N 10023.0E~~
~~SAGAG 2111.5N 10137.4E~~
~~BIDRU~~
~~KUNMING~~
~~MAGUOHE~~
~~QIANXI~~
~~HUAYUAN~~
~~LINLI~~
~~WUHAN~~

~~A582 JOMALIG~~
~~NAHA~~
~~KAGOSHIMA~~
~~IKISHIMA~~
~~BUSAN~~
~~SEOUL~~

~~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~~
~~TOKON 1142.0N 11940.3E~~
~~ZAMBOANGA~~

~~A584 TONGA~~
~~NIUE~~
~~APIA~~
~~FUNAFUTI~~
~~NAURU~~

~~A585 PALEMBANG~~
~~JAKARTA~~
~~PORT HEDLAND~~
~~CEDUNA~~
~~ADELAIDE~~

~~A586 INTOS 3722.00N 13120.00E~~
~~PUSAN~~
~~CHEJU~~
~~ERABU~~
~~NAHA~~

~~A587 SUMBAWA~~
~~ALICE SPRINGS~~

~~A588 DALIAN~~
~~WAFANGDIAN~~
~~WANGBINGOU~~
~~KAIYUAN~~
~~CHANGCHUN~~
~~HARBIN~~
~~SIMLI 5017.4N 12722.1E~~

~~A589 DELHI~~
~~BUTOP 2919.7N 07523.9E~~
~~ASARI 3048.3N 07509.5E~~

~~A590 JOMALIG~~
~~MINAMI DAITO~~
~~YOSHI 3310.2N 13857.4E~~
~~OYAMA~~
~~KAGIS 3549.0N 14234.0E~~
~~PABBA 3700.0N 14400.0E~~
~~PASRO 1417.1N 16040.5E~~
~~AMOTT 6054.0N 15121.6W~~
~~(**APAC 14/01 – ATS**)~~

~~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~~

~~A593 TANGHEKOU~~
~~XILIUHETUN~~
~~SHIGEZHUANG~~
~~POTOU~~
~~PIXIAN~~
~~WUXI~~
~~SHANGHAI~~
~~NANHUI~~
~~FUKUE~~

~~A595 FUKUOKA~~
~~IKISHIMA~~
~~CHEJU~~

~~A596 HUAIROU~~
~~HUAILAI~~
~~TIANZHEN~~
~~LIANGCHENG~~
~~BAOTOU~~
~~DENGKOU~~
~~YABRAI~~

~~A597 KUSHIMOTO~~
~~MONPI 2100.0N 14036.0E~~
~~GUAM~~
~~HONIARA~~
~~NOUMEA~~
~~AUCKLAND~~

~~A598 BRISBANE~~
~~HONIARA~~
~~NAURU~~
~~MAJURO~~

~~A599 CHITTAGONG~~
~~LINSO 2322.5N 09855.0E~~
~~GENGMA~~
~~KUNMING~~
~~LUXI~~
~~BOSE~~
~~LAIBIN~~
~~GAOYAO~~
~~PINGZHOU~~
~~ZHULIAO~~
~~WONGYUAN~~

~~NANXIONG~~
~~GANZHOU~~
~~NANFENG~~
~~SHANGRAO~~
~~TONGLU~~
~~NANXUN~~
~~SHANGHAI~~

~~A791 (IMLOT)~~
~~JIWANI~~
~~KARACHI~~
~~PRATAGARH~~
~~BHOPAL~~
~~JAMSHEDPUR~~
~~KOLKATA~~

~~B200 ENKIP 3547.0S 17730.0E~~
~~FICKY 3133.6N 12123.5W~~

~~B202 UBON~~
~~PAKSE~~
~~PLEIKU~~

~~B203 KATHMANDU~~
~~BAGDOGRA~~
~~GUWAHATI~~
~~SILCHAR~~
~~IMPHAL~~
~~LASHIO~~

~~B204 GOMES 1324.0N 10135.3E~~
~~SIEM REAP~~

~~B205 RAYONG~~
~~BOKAK 1257.5N 10230.0E~~
~~SIEM REAP~~

~~B206 URUMQI~~
~~FUKANG~~
~~ALTAY~~
~~GOPTO 4905.5N 08728.0E~~
~~(AKTASH)~~

~~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~~
~~YINCHUAN~~
~~YABRAI~~
~~JIUQUAN~~
~~HAMI~~
~~FUKANG~~
~~URUMQI~~
~~KUQA~~
~~SHACHE~~
~~HONGQILAPU~~
~~PURPA 3656.5N 07524.5E~~
~~GILGIT~~
~~ISLAMABAD~~

~~B218 KUNMING~~
~~SIMAO 2243.1N 16058.2E~~
~~SAGAG 2111.5N 10137.4E~~
~~VIENTIANE~~
~~LOEI~~
~~CHUM PHAE~~

~~B219 PENANG~~
~~KOTA BHARU~~

~~B220 BRISBANE~~
~~PORT MORESBY~~

~~B221 NINAS 3100.0N 12215.0E~~
~~PINOT 3125.2N 12214.2E~~
~~SAGUT 3500.0N 12040.3E~~
~~XUEJIADAO~~

~~B222 VINIK 0838.6N 11613.8E~~
~~KOTA KINABALU~~

~~B223 (DABUR 5147.1N 14235.9E)~~
~~LUMIN 4545.0N 14150.3E~~
~~WAKKANAI~~

~~B326 HONIARA~~
~~CHOKO 2022.6N 16053.0W~~

~~B328 EREN~~
~~TAMURTAI~~
~~TIANZHEN~~
~~NANCHENGZI~~
~~WEIXIAN~~

~~B329 PHNOM PENH~~
~~PAKSE~~
~~LEBAL 1630.2N 10556.7E~~
~~VILAO 1722.0N 10605.0E~~

~~B330 HONG KONG~~
~~TAMOT~~
~~PINGZHOU~~
~~GAOYAO~~
~~DOUJIANG~~
~~QUIANXI~~
~~FUJIACHANG~~
~~JINGTAI~~
~~YABRAI~~
~~MORIT 4202.0N 10249.0E~~
~~NIDOR 5029.4N 09125.8E~~
~~(LIKAR)~~

~~B331 CHEUNG CHAU~~
~~KAPLI 2110.0N 11730.0E~~
~~HENGCHUN~~

~~B332 SANKO 3814.2N 12228.4E~~
~~TOMUK 3843.0N 12400.0E~~
~~PYONGYANG~~
~~SINSONGCHON~~
~~SONDO 3947.0N 12713.6E~~
~~KANSU 3838.0N 13228.5E~~

~~B333 AUCKLAND~~
~~PORT MORESBY~~

~~B334 BEIJIN~~
~~TANGHEKOU~~
~~FENGNING~~
~~TONGLIAO~~

~~B337 (TAKHTOYAMSK)~~
~~ANIMO 4508.3N 14337.8E~~
~~ASAHIKAWA~~

~~B338 MERSING~~
~~TEKONG~~
~~ANITO 0017.0S 10452.0E~~

~~B339 ULAN BATOR~~
~~POLHO 4447.0N 11315.0E~~
~~FENGNING~~

~~B345 KATHMANDU~~
~~BHARATPUR~~
~~BHAIRAHAWA~~
~~LUCKNOW~~

~~B346 LUANG PRABANG~~
~~NOBER 1516.6N 10040.1E~~
~~BANGKOK~~

~~B349 BALI~~
~~POTIP 2141.6S 12508.0E~~

~~B450 SYDNEY~~
~~LORD HOWE IS~~
~~NORFORK IS~~
~~PAGO PAGO~~

~~B451 HAILAR~~
~~QIQIHAR~~
~~HARBIN~~
~~BISUN 4314.0N 13111.8E~~
~~(VLADIVOSTOK)~~
~~IGROD 4139.0N 13647.0E~~
~~KADBO 3914.0N 13745.0E~~

~~B452 TONIK 3200.0N 14600.0E~~
~~HONIARA~~
~~NADI~~

~~B453 MIDDLETON IS~~
~~KATCH 5400.0N 13600.0W~~
~~DAASH 4226.5N 12600.1W~~

~~B454 PAGO PAGO~~
~~RAROTONGA~~
~~TONYS 3019.9N 12249.2W~~

~~B455 VAVA'U~~
~~NISEX 1547.3S 17136.4W~~

~~B456 WEWAK~~
~~JAYAPURA~~

~~B459 MUMBAI~~
~~CLAVA 0134.0N 06000.0E~~
~~(PRASLIN)~~

~~B460 KHORAT~~
~~SAVANNAKET~~

~~B462 MACKAY~~
~~HAMILTON IS.~~
~~PORT MORESBY~~
~~KADAB 0458.0S 14100.0E~~
~~BIDOR 0400.0S 13130.0E~~
~~TACLOBAN~~
~~MANILA~~
~~CABANATUAN~~
~~LAOAG~~
~~MIYAKO JIMA~~
~~OKINAWA~~

~~B463 BAGO~~
~~MANDALAY~~
~~LASHIO~~

~~B465 KOLKATA~~
~~CHITTAGONG~~
~~MANDALAY~~
~~LUANG PRABANG~~
~~HANOI~~

~~B466 JOHOR BAHRU~~
~~BATU ARANG~~
~~CHENNAI~~
~~MUMBAI~~

~~B467 KANGWON~~
~~INTOS 3722.0N 13120.0E~~
~~KANSU 3838.0N 13228.5E~~
~~NULAR 4059.2N 13411.0E~~
~~(TEKUK) 4241.0N 13527.4E~~

~~B468 DIENBIEN~~
~~LADON 2106.2N 10258.0E~~
~~LUANG PRABANG~~

~~B469 SINGAPORE~~
~~JAKARTA~~
~~CARNARVON~~
~~GERALDTON~~
~~PERTH~~
~~CAIGUNA~~
~~WHYALLA~~
~~GRIFFITH~~
~~SYDNEY~~

~~B470 SINGAPORE~~
~~PANGKALPINANG~~
~~JAKARTA~~

~~B472 LIPA~~
~~ILO ILO~~
~~COTABATO~~
~~SELSO 0400.0N 12616.0E~~
~~TOREX 0724.0N 13335.0E~~
~~GOVE~~
~~NORMANTON~~

~~B473 LIPA~~
~~ROXAS~~
~~CAGAYAN DE ORO~~
~~DAVAO~~
~~SADAN 0400.0N 12805.0E~~

~~CAIRNS~~

~~B474 SYDNEY~~
~~SANTO~~
~~NANUMEA~~
~~CHOKO 2022.6N 16053.0W~~

~~B480 (RAZDOLITE)~~
~~LETBI 5011.9N 10330.6E~~
~~BULGAN~~
~~MORIT 4202.0N 10249.0E~~

~~B575 AUCKLAND~~
~~TONGA~~
~~PAGO PAGO~~

~~B576 TAIBEI~~
~~CHEJU~~
~~SEOUL~~

~~B577 NADI~~
~~WALLIS IS~~
~~APIA~~
~~PAGO PAGO~~
~~FICKY 3133.5N 12123.5W~~

~~B578 BRISBANE~~
~~NOUMEA~~
~~TAHITI~~

~~B579 PHUKET~~
~~LANGKAWI~~
~~PENANG~~

~~B580 SYDNEY~~
~~NOUMEA~~
~~CHOKO 2022.6N 16053.0W~~

~~B581 NADI~~
~~FICKY 3133.5N 12123.5W~~

~~B583 BRUNEI~~
~~DARWIN~~

~~B584 DENPASAR~~
~~ELANG 0056.0S 11449.5E~~
~~KOTA KINABALU~~

~~B586 NOUMEA~~
~~SEKMO~~
~~KAPKI~~
~~PORT MORESBY~~
~~GUAM~~
~~OMLET 2100.0N 14259.2E~~
~~TATEYAMA~~

~~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~~

~~B589 PORT MORESBY~~
~~KAPKI 1014.9S 14817.7E~~
~~BUKA~~
~~MAJURO~~

~~B590 NOUMEA~~
~~PORT VILA~~
~~NAURU~~

~~B591 SHANGHAI~~
~~TAIBEI~~
~~HENCHUN~~
~~(Partially implemented)~~

~~B592 KOTA KINABALU~~
~~JAKARTA~~

~~B593 KOLKATA~~
~~COMILLA~~
~~AGARTALA~~
~~GUWAHATI~~

~~B595 TAHITI~~
~~KONA~~

~~B596 RAROTONGA~~
~~DOVRR 1843.0N 15740.0W~~

~~B597 ERABU~~
~~TANEGASHIMA~~
~~SHIMIZU~~

~~B598 DARWIN~~
~~THURSDAY ISLAND~~
~~PORT MORESBY~~
~~KAPKI 1014.9S 14817.7E~~
~~HONIARA~~
~~PORT VILA~~
~~NADI~~
~~NAUSORI~~
~~TONGA~~
~~RAROTONGA~~

~~B599 NOUMEA~~

~~NADI~~
~~TAHITI~~

~~B757 KATCH 5400.0N 13600.0W~~

~~CAPE NEWENHAM~~
~~NULUK 5822.9N 17706.1W~~

~~B932 BAMOK 5625.5N 17249.3E~~
~~(NETRI 4739.3N 15000.0E)~~
~~ODERI 4439.0N 14515.2E~~
~~MEMANBETSU~~

~~G200 CHRISTMAS IS.~~
~~COCOS IS~~
~~(PLAISANCE)~~

~~G202 (KANDAHAR)~~
~~ZHOB~~
~~RAHIM YAR KHAN~~

~~G203 MIHO~~
~~PUSAN~~

~~G204 ELNEX~~
~~SHENGXIAN~~
~~METAN~~
~~SHANGHAI~~

~~G205 HAMILTON IS.~~
~~GURNEY~~
~~JUNIE~~

~~G206 DILARAM~~
~~KABUL~~
~~SABAR~~
~~PURPA~~

~~G208 MUMBAI~~
~~PARTY 2414.6N 07052.0E~~
~~KARACHI~~
~~PANJGUR~~
~~(ZAHEDAN)~~

~~G209 LAERMONTH~~
~~CHRISTMAS ISLAND~~
~~PALEMBANG~~

~~G210 PANJGUR~~
~~KARACHI~~
~~MUMBAI~~

~~G212 (KHABAROVSK)~~
~~ARGUK 4753.5N 13439.4E~~
~~HAIQING~~
~~JIAMUSI~~

~~HARBIN~~
~~TONGLIAO~~
~~GUBEIKOU~~
~~QINBAIKOU~~
~~NANCHENGZI~~
~~TAIYUAN~~
~~YIJUN~~
~~SANYUAN~~
~~XIAOYANZHUANG~~
~~NINGSHAN~~
~~WUFENGXI~~
~~FUJIACHANG~~
~~WEINING~~
~~MAGUOHE~~
~~KUNMING~~

~~G213 BIAK~~
~~BEKUB 0350.0N 13845.0E~~
~~GUAM~~

~~G214 JIWANI~~
~~PANJGUR~~
~~RAHIM YAR KHAN~~
~~MOLTA 3012.0N 07236.2E~~

~~G215 DUTCH HARBOR~~
~~OLCOT 5125.8N 16533.3E~~

~~G216 (DORAB)~~
~~ALPOR 2404.7N 06120.0E~~
~~LATEM 2431.7N 06449.7E~~
~~KARACHI~~

~~G218 HOHHOT~~
~~TUMURTAI~~
~~POLHO 4447.0N 11315.0E~~
~~SOLOK 4954.0N 11545.0E~~

~~G219 VIRUT 0230.8N 10402.7E~~
~~TEKONG~~

~~G221 PHUCAT~~
~~BUNTA 1650.0N 10923.7E~~
~~BAOLONG~~
~~HAIKOU~~
~~SAMAS~~
~~SIKOU~~

~~G222 SAPDA~~
~~BROOME~~
~~AYERS ROCK~~
~~PARKES~~

~~G223 TATEYAMA~~

~~TONIK 3200.0N 14600.0E~~
~~NAURU~~
~~NADI~~
~~NAUSORI~~
~~NIUE~~
~~AITUTAKI~~
~~TAHITI~~
~~(LIMA)~~

~~G224 NORFORK IS~~
~~NADI~~
~~PAGO PAGO~~
~~TAHITI~~
~~ISLA DE PASCUA~~
~~(SANTIAGO)~~

~~G325 COLOMBO~~
~~TIRUCHCHIRAPPALLI~~

~~G326 BALI~~
~~TENNANT CREEK~~
~~BRISBANE~~

~~G327 NANHUI~~
~~NINAS 3100.0N 12215.0E~~
~~AKARA 3130.0N 12330.0E~~

~~G329 BRISBANE~~
~~NORFORK IS~~

~~G330 SHANGHAI~~
~~POMOK~~
~~NANTONG~~
~~GURNI 3209.2N 12058.5E~~
~~PIMOL 3215.0N 11944.0E~~

~~G331 PHUKET~~
~~PADET~~
~~DAWEI~~

~~G332 TANGHEKOU~~
~~CHAOYANG~~

~~G333 DELHI~~
~~ESDEM~~
~~TIGER 2828.8N 07214.9E~~

~~G334 KUALA LUMPUR~~
~~TIOMAM~~
~~BUNTO 0242.0N 10600.0E~~
~~DOTAS 0201.1N 10820.5E~~
~~SIBU~~

~~G335 KATHMANDU~~
~~JANAKPUR~~
~~PATNA~~

~~G336 DHANBAD~~
~~PATNA~~
~~SIMRA~~
~~KATHMANDU~~

~~G337 PERTH~~
~~CHRISTMAS IS~~
~~PEKANBARU~~

~~G338 CHOIBALSAN~~
~~KAGAK~~

~~G339 PUSAN~~
~~FUKUOKA~~
~~KAGOSHIMA~~
~~TANEGASHIMA~~
~~PAKDO~~
~~GUAM~~

~~G340 QINGBAIKOU~~
~~HUAILAI~~

~~G341 CHANGCHUN~~
~~WANGQING~~

~~G342 CAIRNS~~
~~HONIARA~~

~~G344 COMFE 3624.0N 14618.0E~~
~~CUTEE 4624.9N 16218.6E~~
~~CUDDA 5647.9N 16018.1W~~

~~G345 UNTAN~~
~~CHANGZHOU~~
~~LISHUI~~

~~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~~

~~G424 (DAR ES SALAAM)~~
~~VUTAS 0912.0N 06000.0E~~
~~ALATO 1340.7N 06344.0E~~

~~G450 (MOGADISHU)~~

~~MUMBAI~~
~~NAGPUR~~
~~KOLKATA~~

~~G451 AHMEDBAD~~
~~SASRO 2404.3N 07100.0E~~
~~PARTY 2414.6N 07052.0E~~

~~G452 (ZAHEDAN)~~
~~RAHIM YAR KHAN~~
~~TIGER 2828.8N 07214.9E~~
~~DELHI~~

~~G453 KUALA LUMPUR~~
~~KOTA BHARU~~

~~G454 (PLAISANCE)~~
~~BOBOD 0600.0S 06941.1E~~
~~PADLA 0446.1N 07800.0E~~
~~COLOMBO~~

~~G455 SHANGHAI~~
~~PINOT 3125.2N 12214.2E~~
~~AKARA 3130.0N 12330.0E~~

~~G457 DOVRR 1843.0N 15740.0W~~
~~ELLMS 0500.0S 16704.1W~~
~~PAGO PAGO~~
~~FAROA 2500.0S 17502.3W~~
~~DIVSO 3452.3S 17624.5E~~

~~G458 BANGKOK~~
~~SURAT THANI~~
~~PHUKET~~

~~G459 CAIRNS~~
~~TIMIKA~~

~~G460 KUCHING~~
~~SIBU~~
~~BINTULU~~
~~BRUNEI~~

~~G463 RAJSHAHI~~
~~DHAKA~~
~~CHITTAGONG~~
~~BAGO~~
~~BETNO 1505.8N 09812.7E~~
~~BANGKOK~~

~~G464 PONTIANAK~~
~~ROZAX 0245.0S 11140.0E~~
~~BALI~~
~~KARRATHA~~
~~BALLIDU~~

~~PERTH~~

~~G465 (PRASLIN)~~
~~MALE~~
~~COLOMBO~~

~~G466 HO CHI MINH~~
~~PHUCAT~~
~~HENGCHUN~~

~~G467 LUBANG~~
~~JOMALIG~~
~~GUAM~~

~~G468 PENANG~~
~~MEDAN~~

~~G469 PORT HEIDEN~~
~~ST PAUL IS~~
~~NYMPH 5324.5N 16814.4E~~

~~G470 XIANYANG~~
~~FENGHUO~~
~~CHANGWU~~
~~JINGNING~~
~~JINGTAI~~
~~QITAI~~

~~G471 SHILONG~~
~~LONGMEN~~
~~GANGZHOU~~

~~G472 KARACHI~~
~~AHMEDABAD~~
~~NAGPUR~~
~~BHUBANESHWAR~~
~~PATHEIN~~
~~BAGO~~

~~G473 BAGO~~
~~MAKAS 1649.7N 09830.0E~~
~~PHITSANULOKE~~
~~UBON~~

~~G474 BANGKOK~~
~~MENAM 1357.3N 10247.7E~~
~~SOURN 1345.5N 10600.0E~~
~~ANINA 1359.0N 10725.0E~~
~~PHUCAT~~

~~G575 TAHITI~~
~~RANGIROA~~
~~FICKY 3133.5N 12123.5W~~

~~G576 CHEER 5310.0N 14000.1W~~

~~SPONJ 4992.0N 13005.1W~~

~~G578 GURAG 2100.0N 12725.0E~~
~~DILIS 1431.0N 12600.0E~~
~~TACLOBAN~~
~~MACTAN~~
~~ZAMBOANGA~~
~~DENPASAR~~
~~PORT HEDLAND~~
~~PARABURDOOD~~
~~PERTH~~

~~G579 JAKARTA~~
~~PALEMBANG~~
~~SINGAPORE~~
~~JOHOR BAHRU~~

~~G580 TOMAN 0121.5N 10547.0E~~
~~NIMIX 0124.9N 10759.2E~~
~~ATETI 0125.7N 10830.1E~~
~~KUCHING~~
~~MIRI~~
~~BRUNEI~~

~~G581 HONG KONG~~
~~ELATO 2220.0N 11730.0E~~
~~HENGCHUN~~
~~MIYAKO JIMA~~
~~BISIS 2647.0N 12633.0E~~
~~ERABU~~
~~TAPOP 3240.0N 13607.9E~~
~~**(APAC 14/01 ATS)**~~

~~G582 PUGER 0324.1N 10017.6E~~
~~BATU ARANG~~
~~PEKAN~~

~~G583 EMMONAK~~
~~BESAT 5945.0N 17925.1W~~
~~(UST BOLSHERETSK)~~
~~BISIV 4456.3N 14412.3E~~
~~MONBETSU~~

~~G584 KUALA LUMPUR~~
~~PEKAN~~
~~KUCHING~~

~~G585 MIHO~~
~~POHANG~~
~~SEOUL~~

~~G586 YINGDE~~
~~ERTANG~~

~~G587 TAIBEI~~
~~PABSO 2538.0N 12252.0E~~
~~BULAN 2704.0N 12400.0E~~

~~G588 MOOREN~~
~~KHOVD~~
~~TEBUS 4725.1N 09027.7E~~
~~TESAN 4701.7N 08947.8E~~
~~FUKANG~~

~~G590 SIMRA~~
~~VARANASI~~
~~KHAJURAHO~~
~~BHOPAL~~
~~INDORE~~
~~BODAR 2236.3N 07413.3E~~

~~G591 CAIRNS~~
~~NOUMEA~~
~~NORFORK IS~~
~~AUCKLAND~~

~~G593 FUNAFUTI~~
~~NAUSORI~~
~~NIUE~~
~~RAROTONGA~~

~~G594 TIAMU~~
~~TAHITI~~
~~RAROTONGA~~
~~AUCKLAND~~
~~SOLIT 2355.0S 07500.0E~~
~~(PLAISANCE)~~

~~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~~

~~G598 LUCKNOW~~
~~APIPU 2658.6N 08300.0E~~
~~SIMARU~~

~~G599 AUCKLAND~~

~~TAHITI~~

~~R200 PINGZHOU~~
~~LIANSHENGWEI~~
~~BIGRO~~
~~ZHANJIANG~~

~~R201 BANGKOK~~
~~UTAPAO~~

~~R202 PHRAE~~
~~TATEL 1729.1N 098 45.8E~~

~~R203 SAPAM 0804.6N 09733.0E~~
~~PHUKET~~

~~R204 KEITH 2100.0N 13456.5E~~
~~KALIN 0000.0N 14200.0E~~
~~LIDIT 0918.0S 14220.0E~~
~~HORN IS~~
~~CAIRNS~~

~~R205 ANARAK~~
~~BIRJAND~~

~~R206 PORT HEDLAND~~
~~CHRISTMAS IS~~
~~JAKARTA~~

~~R207 VIENTIANE~~
~~NAN~~
~~CHIANG MAI~~
~~MANDALAY~~

~~R208 KUALA LUMPUR~~
~~KUALA TRENGGANU~~
~~KANTO 0649.9N 10348.3E~~

~~R209 TATOX 0857.0N 09702.0E~~
~~LANGKAWI~~

~~R210 PORT MORESBY~~
~~CAIRNS~~

~~R211 KASMI 3601.3N 14040.3E~~
~~DAIGO~~
~~NIIGATA~~
~~KADBO 3914.0N 13745.4E~~
~~AVGOK 4336.0N 13815.0E~~
~~VELTA 4529.0N 13710.0E~~

~~R212 (DIEGO GARCIA)~~
~~GUDUG 0704.6S 07500.0E~~
~~PIBED 0520.2S 09044.0E~~

~~R215 CHIANG RAI~~
~~NAN~~
~~LUANG PRABANG~~

~~R217 NODAN 4025.0N 14500.0E~~
~~SENDAI~~
~~NIIGATA~~

~~R218 DELHI~~
~~DIPAS 2738.3N 07551.9E~~
~~JAIPUR~~

~~R220 DAIGO~~
~~IWAKI~~
~~NANAC 3854.2N 14313.9E~~
~~NIPPI 4942.6N 15920.8E~~
~~NODLE 6117.0N 15200.0W~~

~~R221 MERSING~~
~~PULAU TIOMAN~~

~~R222 AVGOK 4336.0N 13815.0E~~
~~(YEDINKA)~~

~~R223 BRUNEI~~
~~ELANG 0056.0S 11449.5E~~

~~R224 YANJI~~
~~VASRO 4227.8N 12944.4E~~
~~KANSU~~

~~R325 KATHMANDU~~
~~JANAKPUR~~
~~DUMKA 2411.0N 08721.3E~~
~~KOLKATA~~
~~PHUKET~~
~~HAT YAI~~
~~IPOH~~
~~JOHOR BAHRU~~

~~R326 NORFOLK IS~~
~~CHRISTCHURCH~~

~~R327 GISBORNE~~
~~FAROA~~

~~R328 DANANG~~
~~HUE~~
~~LEBAL 1630.2N 10556.7E~~
~~SAVANNAKHET~~

~~R329 KAGLU 1231.2N 07200.0E~~
~~MALE~~
~~GAN~~
~~(DIEGO GARCIA)~~

R330 SHEMYA
POWAL 5024.3N 16530.8E

R332 MAJURO
BONRIKI
AKUMO 0614.9S 17535.5E
ROTUMA
NADI

R334 RAYONG
KOH KONG
SIHANOUK
PHU QUOC

R335 VINH
ALPHA 1832.6N 10319.7E
VIENTIANE

R336 ADAK
CARTO 4840.5N 16847.0E

R337 TACLOBAN
KOROR

R338 NOME
NINNA 5455.7N 17158.8E

R339 SIKOU 2050.6N 11130.0E
HUGUANG
NANNING
BOSE

R340 AMBON
WALGETT

R341 KODIAK
NINNA 5455.7N 17158.8E

R342 MANADO
BONDA 0200.0N 12451.2E
PEDNO 0400.0N 12521.0E
GENERAL SANTOS
DAVAO

R343 NANXIANG
WUXI
LISHUI
HEFEI
WUHAN
LONGKOU
LAOLIANGCANG
DARONGJIANG
LAIBIN
NANNING

R344 KATHMANDU
BIRATNAGAR
KATIHAR
RAJSHAHI

R345 ROIET
BIDEM
142153.57N 1034750.07E
SIEM REAP

R346 TOWNSVILLE
PORT MORESBY

R347 NIIGATA
SADO
EKVIK 3944.7N 13636.5E
IGROD 4139.0N 13647.0E
(VELTA) 4529.0N 13710.0E

R348 KADAP 0200.0S 08409.6E
LATEP 0610.3S 07500.0E
(DIEGO GARCIA)

R349 LEMOK 1000.0N 10302.2E
RASER 1000.0N 10506.0E
HO CHI MINH

R450 KIETA
HONIARA

R451 ADAK
OGDEN 4929.2N 16102.3E

R452 SONDO 3947.0N 12713.6E
HAMUN 3955.1N 12731.1E
KIMCHAEK
UAMRI 4217.6N 13041.8E
(TEKUK) 4241.0N 13527.4E

R453 NADI
APIA

R455 PONTIANAK
KUCHING

R458 MUMBAI
EPKOS 1653.0N 07407.2E
BELGAUM

R457 CHENNAI
TIRUCHCHIRAPPALLI
MADUDAI
TRIVANDRUM
MALE

~~R460 DELHI~~
~~ALIGARH~~
~~LUCKNOW~~
~~VARANASI~~
~~GAYA~~
~~KOLKATA~~

~~R461 MUMBAI~~
~~MABTA 1708.5N 07321.8E~~
~~BELGAUM~~
~~COIMBATORE~~
~~COLOMBO~~
~~MEDAN~~
~~KUALA LUMPUR~~

~~R462 (SEEB)~~
~~DENDA 2442.5N 06054.8E~~
~~JIWANI~~
~~KARACHI~~
~~UPAIPUR~~
~~DELHI~~

~~R463 APACK 2402.6N 15619.2W~~
~~ALCOA 3750.0N 12550.0W~~

~~R464 BITTA 2332.0N 15529.0W~~
~~BEBOP 3700.0N 12500.0W~~

~~R465 CLUTS 2300.0N 15439.0W~~
~~CLUKK 3605.0N 12450.0W~~

~~R467 KUALA LUMPUR~~
~~GUNIP 0429.9N 09931.9E~~

~~R468 BANGKOK~~
~~BOKAK 1257.5N 10230.0E~~
~~PHNOM PENH~~
~~SAPEN 1102.2N 10611.0E~~
~~HO CHI MINH~~

~~R469 PEKANBARU~~
~~SINGAPORE~~

~~R470 VIENTIANE~~
~~UDON THANI~~
~~KHON KAEN~~

~~R472 KOLKATA~~
~~RAJSHAHI~~
~~GUWAHATI~~

~~R473 LILING~~
~~NANXIONG~~
~~WONGYUANG~~
~~ZHULIAO~~
~~PINGZHOU~~
~~TAMOT 2221.5N 11352.0E~~

~~R474 GAOYAO~~
~~NANNING~~
~~LONGZHOU~~
~~HANOI~~
~~VIENTIANE~~
~~BANGKOK~~

~~R575 PAPRA 1546.0N 10711.0E~~
~~KOH KONG~~
~~UPNEP 0942.2N 10029.6E~~
~~SURAT THANI~~

~~R576 DENNS 2222.0N 15353.0W~~
~~DINTY 3329.0N 12235.0W~~

~~R577 EBBER 2143.0N 15309.0W~~
~~ELKEY 3241.0N 12203.0W~~

~~R578 FITES 2049.0N 15300.0W~~
~~FICKY 3133.5N 12123.5W~~

~~(R579 in Chapter 2)~~

~~R580 OATIS 3800.0N 14345.0E~~
~~OMOTO 4859.7N 16000.7E~~
~~AMOTT 6053.9N 15121.8W~~

~~R581 KOLKATA~~
~~MONDA 2521.0N 08626.4E~~
~~SIMARA~~

~~R582 NORFOLK IS~~
~~RAROTONGA~~

~~R583 TAIBEI~~
~~BISIS 2647.1N 12633.1E~~
~~OKINAWA~~
~~MINAMIDAITO~~
~~SABGU~~
~~BUNGO~~

~~R584 AVLAS~~
~~SALVA 2222.7N 13059.7E~~
~~KEITH 2100.0N 13456.48E~~
~~GUAM~~
~~TRUK~~
~~POHNPEI~~
~~KWAJALEIN~~
~~MAJURO~~
~~JOHNSTON IS~~

~~CHOKO 2022.9N 16053.2E~~

~~R585 CITTA 2818.9N 14507.2W~~
~~GATES 3412.7N 12303.9W~~

~~R587 BRISBANE~~
~~PORT VILA~~

~~R588 PHUKET~~
~~RELIP~~
~~PHNOM PENH~~
~~PLEIKU~~

~~R590 AMBON~~
~~COTABATO~~

~~R591 CAPE NEWENHAM~~
~~AKISU 4734.3N 16119.3E~~
~~ABETS 3605.0N 14425.0E~~

~~R592 BALI~~
~~ONSLOW~~
~~PERTH~~

~~R594 LUCKNOW~~
~~JALALABAD~~
~~DELHI~~

~~R595 ANPU~~
~~MIYAKO JIMA~~
~~KEITH 2100.0N 13456.5E~~
~~GUAM~~

~~R597 CABANATUAN~~
~~SARSI 1642.0N 12316.9E~~
~~SKATE 1716.7N 12423.0E~~

~~R598 KOLKATA~~
~~RAJSHAHI~~
~~SAIDPUR~~
~~COOCH BEHAR~~
~~BOGOP~~
~~PARO~~

~~R599 KIETA~~
~~GIZO~~
~~HONIARA~~
~~PORT VILA~~
~~WHANGAREI~~
~~AUCKLAND~~

~~RNAV ROUTES~~

~~L301 BANGKOK~~
~~DAWEI~~
~~VISHAKHAPATNAM~~
~~BUSBO 1914.9N 07807.6E~~
~~NOBAT 2109.0N 06800.0E~~
~~RASKI 2303.5N 06352.0E~~
~~(VAXIM 2319.0N 06111.0E)~~

~~L333 KHAJURAHO~~
~~JAIPUR~~
~~TIGER 2828.8N 07214.9E~~

~~L500 (SANTIAGO)~~
~~AUCKLAND~~

~~L501 (RIO GALLEGOS)~~
~~AUCKLAND~~

~~L503 BRISBANE~~
~~IGEVO 3636.5S 16300.0E~~
~~CHRISTCHURCH~~

~~L504 SINGAPORE~~
~~MANADO~~

~~L505 BUSBO 1914.9N 07807.6E~~
~~KAMOL 1938.1N 07340.0E~~
~~NOBAT 2109.0N 06800.0E~~

~~L507 KOLKATA~~
~~BAGO~~
~~BANGKOK~~

~~L508 RAROTONGA~~
~~CHRISTCHURCH~~
~~MELBOURNE~~

~~L509 GAYA~~
~~ASARI 3048.3N 07509.5E~~

~~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~~

~~L518 HIA 171340.1N0782420.9E~~
~~BBZ 163118.3N0804733.7E~~
~~GOPNU 155112N0820224E~~
~~EGOLU 141858N0844952E~~
~~SADAP 120605.6N0884120.8E~~

~~L521 SYDNEY~~
~~AUCKLAND~~

~~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~~

~~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~~

~~L629 PEKAN~~
~~DOLOX 0448.7N 10522.9E~~

~~L635 PEKAN~~
~~MABLI 0417.3N 10612.9E~~

~~L637 BITOD 0715.3N 10612.9E~~
~~TANSONNHET~~

~~L642 CHEUNG CHAU~~
~~EPDOS 1900.0N 11333.3E~~
~~ENBOK 1833.4N 11329.5E~~
~~EGEMU 1700.0N 11217.0E~~
~~VEPAM 1358.0N 11000.0E~~
~~PHANTHIET~~
~~CONSON IS~~
~~ESPOB 0700.0N 10533.4E~~
~~ENREP 0452.4N 10414.8E~~
~~MERSING~~

~~L643 TANSONNHET~~
~~CONSON~~

~~L644 CONSON~~
~~JAKARTA~~

~~L645 COLOMBO~~
~~SULTO 0738.6N 08801.9E~~
~~SAMAK 0758.7N 09425.0E~~
~~SAPAM 0804.6N 09733.0E~~
~~PHUKET~~

~~L626 KATHUMANDU~~
~~ONISA 2858.1N 08005.5E~~
~~DELHI~~

~~L649 BRUNEI~~
~~ISKUD 0536.6N 11452.3E~~
~~URKET 0811.5N 11450.0E~~
~~LAXOR 0949.6N 11458.5E~~
~~**(APAC 14/10 ATS)**~~

~~L756 CLAVA~~
~~MALE~~

~~L759 DELHI~~
~~POSIG 2713.0N 07734.9E~~
~~AGRA~~
~~KHAJURAHO~~
~~PHUKET~~

~~L760 AGRA~~
~~GURTI 2743.8N 07747.8E~~
~~DELHI~~

~~L774 (PLAISANCE)~~
~~LELED 116.5S 07500.0E~~
~~ELATI 0200.0S 08957.7E~~
~~KETIV 0042.0S 09200.0E~~
~~MEDAN~~

~~L875 VUTAS 091206N 0600004E~~
~~MOXET 110146N 0645024E~~
~~GOLEM 115739N 0672213E~~
~~EGOGI 121100N 0690000E~~
~~GOKUM 122025N 0701005E~~

OLNIK 122850N 0711440E
BEDIL 123500N 0715958E
DOLPI 124641N 0732711E
MANGALORE(MML)

PEXEG 130415N 0760230E
BANGALORE (BIA)
CHENNAI (MMV)

L888 BIDRU 22 43.1N 100 57.9E
MAKUL 24 03.1N 100 34.6E
NIVUX 26 00.0N 100 00.0E
PEXUN 30 55.9N 100 00.0E
SANLI 32 00.0N 100 00.0E
NOLEP 38 34.5N 088 42.5E
SADAN 40 04.6N 086 00.0E
KUQA 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

L897 CHRISTMAS ISLAND
KETIV 0042.0S 09200.0E
COLOMBO

L899 HANIMAADHOO
TRIVANDRUM

M300 (EMURU 2215.6N 05849.8E)
LOTAV 2037.0N 06057.0E
CALICUT
MADURAI
SALAX 0212.4N 10133.7E

M501 GUAM
LIMLE 1639.7N 13000.0E
SKATE 1722.2N 12425.6E
LAOAG
NOMAN 2000.0N 11640.3E

M502 BANGKOK
AKATO 1337.3N 09910.3E
LALIT 1252.4N 09225.1E

M504 ALPOR 2404.7N 06120.0E
NODER 2350.0N 06700.0E
TELEM 2402.0N 06846.0E

M505 BUON MA THUOT
MONDULKIRI
SIEM RIEP

M510 CAN THO
PHNOM PENH

M512 COLOMBO
ANIVE 0540.9N 07800.0E
MALE

M520 SERNA 5018.5N 10628.1E
POLHO 4447.0N 11315.0E

M522 VINIK 0838.5N 11613.8E
KOTA KINABALU
MAMOK 0405.1N 11547.2E
DENPASAR

M625 MELBOURNE
WELLINGTON

M626 KOTA BHARU
DAWEI
BAGO

M635 SINGAPORE
RAMPY 0615.0 11320.8E
CURTIN

M638 DOSTI 2558.0N 06503.0E
KARACHI
MINAR 2350.0N 06800.0E
SAPNA 2330.0N 06750.0E
NOBAT 2109.0N 06800.0E
MUMBAI

M639 IGEVO 3636.5S 16300.0E
WELLINGTON

M641 MADURAI
BIKOK 0817.0N 07836.0E
COLOMBO

~~COCOS IS~~
~~PERTH~~

~~M643 HOBART~~
~~CHRISTCHURCH~~

~~M644 RAYONG~~
~~KOTA BHARU~~

~~M646 HENGCHUN~~
~~ABVAR 1924.8N 12037.7E~~
~~LAOAG~~
~~SAN FERNANDO~~
~~MANILA~~
~~TOKON 1142.0N 11940.5E~~
~~PUERTO PRINCESAKOTA~~
~~KINABALU~~
~~BRUNEI~~
~~DARMU 0401.7N 11240.6E~~
~~KAMIN 0234.7N 10855.9E~~
~~SABIP 0209.7N 10750.7E~~
~~ESPIT 0200.2N 10726.4E~~
~~OBLOT 0142.9N 10641.8E~~
~~TOMAN 0121.8N 10547.3E~~
~~**(APAC 14/12 ATS)**~~

~~M750 KILOG 2152.5N 11441.6E~~
~~ENVAR 2159.5N 11730.0E~~
~~MOLKA 2639.5N 12400.0E~~
~~MOMPA 3050.5N 12955.1E~~
~~BUNGU 3407.1N 13929.9E~~
~~**(APAC 14/01 ATS)**~~

~~M751 MERSING~~
~~PEKAN~~
~~KOTA BHARU~~
~~REGOS 1200.0N 10035.1E~~
~~BANGKOK~~

~~M753 ENREP 0452.4N 10414.8E~~
~~BITOD 0715.3N 10407.3E~~
~~PHU QUOC~~
~~PHNOM PENH~~

~~M754 BRUNEI~~
~~VINIK 0838.6N 11613.8E~~
~~TENON 0915.3N 11616.5E~~
~~LULBU 1104.7N 11624.4E~~
~~NOBEN 1234.4N 11631.1E~~
~~GUKUM 1356.8N 11637.2E~~
~~AKOTA 1706.6N 11651.6E~~

~~M755 PHNOM PENH~~
~~KISAN 1032.3N 10440.5E~~
~~BITOD 0415.4N 10407.1E~~

~~M758 PEKAN~~
~~LUSMO 0333.7N 10655.7E~~
~~TERIX 0415.4N 10934.7E~~
~~OLKIT 0450.1N 11149.1E~~
~~KOTA KINABALU~~

~~M759 OLKIT 0450.1N 11149.1E~~
~~BRUNEI~~

~~M761 PEKAN~~
~~BOBOB 0222.1N 10706.1E~~
~~SABIP 0209.7N 10750.5E~~
~~AGOBA 0158.7N 10830.0E~~
~~KUCHING~~

~~M766 COLOMBO~~
~~JAKARTA~~
~~INDRAMAYU~~
~~MADIN 0617.9S 11023.0E~~
~~CUCUT 0617.7S 11106.0E~~
~~SURABAYA~~
~~BALI~~
~~DARWIN~~

~~M765 KOTA BHARU~~
~~IGARI 0656.2N 10335.2E~~
~~BITOD 0715.3N 10407.3E~~
~~CONSON~~
~~DAGAG 0927.8N 10826.5E~~
~~MAPNO 1013.1N 11020.1E~~

~~M767 JOMALIG~~
~~TOKON 1142.0N 11940.3E~~
~~TENON 0915.3N 11616.5E~~
~~TEGID 0857.2N 11551.6E~~
~~TODAM 0631.7N 11235.4E~~

~~M768 DARWIN~~
~~BRUNEI~~
~~DOGOG 0525.3N 11407.5E~~
~~ASISU 0559.1N 11320.8E~~
~~TODAM 0631.6N 11235.6E~~
~~LAGOT 0716.5N 11132.7E~~
~~AKMON 0812.9N 11013.1E~~
~~MOXON 0849.5N 10921.3E~~
~~DAGAG 0927.8N 10826.5E~~

~~TANSONNHAT~~

~~M770 KOTA BHARU~~
~~RANONG~~
~~BUBKO 1911.1N 08839.8E~~
~~KAKID 2038.6N 08659.9E~~
~~JAMSHEDPUR~~

~~M771 MERSING~~
~~DOLOX 0448.7N 10522.9E~~
~~DUDIS 0700.0N 10648.6E~~
~~DAGAG 0927.8N 10826.5E~~
~~DOXAR 1222.0N 11022.7E~~
~~DAMEL 1358.7N 11130.6E~~
~~DONDA 1442.2N 11201.3E~~
~~DOSUT 1702.0N 11340.8E~~
~~DULOP 1814.2N 11432.6E~~
~~DUMOL 1900.0N 11426.8E~~
~~HONG KONG~~

~~M773 BUBKO 1911.1N 08839.8E~~
~~LEGOS 2138.0N 08805.3E~~
~~KOLKATA~~

~~M774 SINGAPORE~~
~~KIKEM 0952.9S 12607.4E~~

~~M875 KAKID 2038.6N 08659.9E~~
~~BUTOP 2919.7N 07523.9E~~
~~GUGAL 3014.5N 07358.0E~~
~~DERA ISMAIL KHAN~~

~~M890 LUCKNOW~~
~~CHANDIGARH~~
~~SAMAR 3120.8N 07434.0E~~

~~M904 BANGKOK~~
~~U-TAPHAO~~
~~DIPUN~~
~~SIRAT~~
~~TONIK~~
~~TIDAR~~
~~ODONO~~
~~UPRON~~
~~ENREP~~

~~N502 PARDI 0034.0S 10413.0E~~
~~BOBAG 0102.5N 10329.9E~~

~~N509 ELATI 0200.0S 08957.7E~~
~~PORT HEDLAND~~

~~N519 MUMBAI~~
~~SAPNA 2330.0N 06750.0E~~
~~MINAR 2350.0N 06800.0E~~
~~KARACHI~~

~~N563 (EMURU 2214.0N 05853.6E)~~
~~REXOD 2112.5N 06138.5E~~
~~BANGALORE~~
~~MEDAN~~
~~SALAX 0212.4N 10133.7E~~

~~N564 DUGOS 0853.1N 08447.9E~~
~~AKMIL 1151.6N 08006.9E~~

~~N571 (RAGMA 2306.0N 06105.7E)~~
~~PARAR 2226.5N 06307.0E~~
~~VAMPI 0610.9N 09735.1E~~
~~GUNIP 0429.9N 09931.8E~~

~~N628 PEKANBARU~~
~~BUSUX 0355.0S 06000.0E~~
~~(PRASLIN)~~

~~N633 KUALA LUMPUR~~
~~PEKANBARU~~
~~POSOD 0329.5S 09409.9E~~
~~PEDPI 1316.6S 07500.0E~~
~~(PLAISANCE)~~

~~N640 TRIVANDRUM~~
~~BIKOK 0817.0N 07836.0E~~
~~COLOMBO~~
~~LEARMONTH~~
~~MOUNT HOPE~~
~~ADELAIDE~~

~~N645 BRUNEI~~
~~ELANG~~
~~005535.64S 1145003.10E~~
~~SURABAYA~~

~~N750 SYDNEY~~
~~CHRISTCHURCH~~

~~N759 MELBOURNE~~
~~AUCKLAND~~

~~N774 AUCKLAND~~
~~SYDNEY~~

~~N875 DENPASAR~~
~~PONTIANAK~~
~~ARUPA 0031.7N 10848.8E~~
~~NIMIX 0124.9N 10759.4E~~
~~BOBOB 0222.1N 10706.0E~~

~~ENREP 0452.4N 10414.7E~~

~~N877 LAGOG 0835.6N 09159.8E~~
~~VISHAKHAPATNAM~~
~~NAGPUR~~
~~PRATAGRAPH~~

~~N884 MERSING~~
~~LUSMO 0333.7N 10655.7E~~
~~LAGOT 0716.6N 11131.5E~~
~~LAXOR 0949.6N 11448.5E~~
~~LULBU~~
~~110936.07N 1163217.70E~~
~~LEGED~~
~~130113.24N 1190006.94E~~
~~LUBANG~~
~~CABANATUAN~~
~~MIYAKOJIMA~~

~~N891 PAPA UNIFORM~~
~~ENREP 0452.4N 10414.8E~~
~~IGARI 0656.2N 10335.2E~~
~~SAMOG 0800.0N 13014.6E~~
~~RAYONG~~
~~BANGKOK~~

~~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~~

~~N893 TELEM 2407.0N 06846.0E~~
~~AHMEDABAD~~

~~N895 BETNO 1505.8N 09812.7E~~
~~PATHEIN~~
~~BHUBANESWAR~~
~~NAGPUR~~
~~BODAR 2236.3N 07413.3E~~
~~AHMEDABAD~~
~~PARTY 2414.6N 07052.0E~~

~~P173 TAPIS 3431.0N 06909.0E~~
~~DAVET 3657.6N 06447.2E~~
~~(APAC 14/11 – ATS)~~

~~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.~~

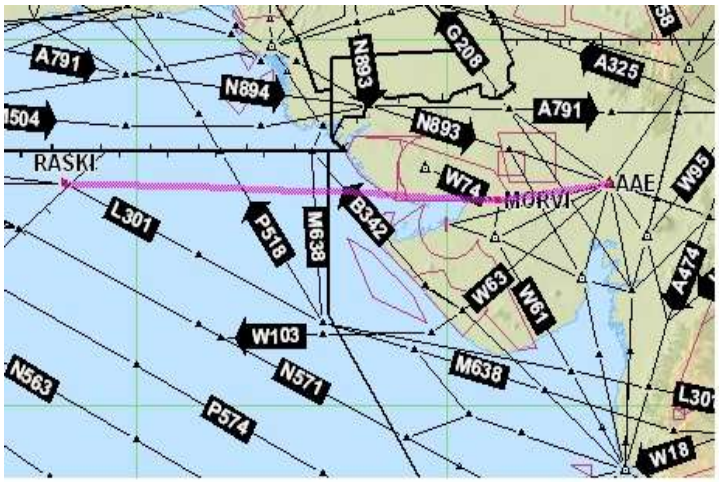
Chapter 1: South Asia

(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 MADAGASCAR	
IND 8	VABB APANO WPT “X”	Details in chart	MUMBAI KARACHI	2 Route Options
HIMALAYA 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
HIMALAYA 2	KATHMANDU BAGHDOGRA GUWAHATI SILCHAR IMPHAL KUNMING	2740.5N 08521.0E 2641.3N 08819.8E 2606.1N 09135.3E 2454.8N 09258.9E 2446.0N 09354.5E 2501N 10244E	KATHMANDU KOLKATA KOLKATA KOLKATA KOLKATA KUNMING	Moved from Chapter 4. Route requested by Nepal
HIMALAYA 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.
P173	**TAPIS – DAVET westbound only**		Turkmenistan Afghanistan	RDGE14.026 Implementation date 01 SEP 2014

ATS ROUTE NAME: *IND10*	
REQUESTED BY: IATA	Date: 01/01/2013

ENTRY/EXIT POINT AAE- RASKI **ROUTE DESCRIPTION** **AAE (Ahmadabad) – MORVI- RASKI** **FLIGHT LEVEL BAND** **29000 – 46000** **PRIORITY:** **HIGH/MED/LOW** **HIGH**	**CHART** 

Action Required	IATA
	ICAO

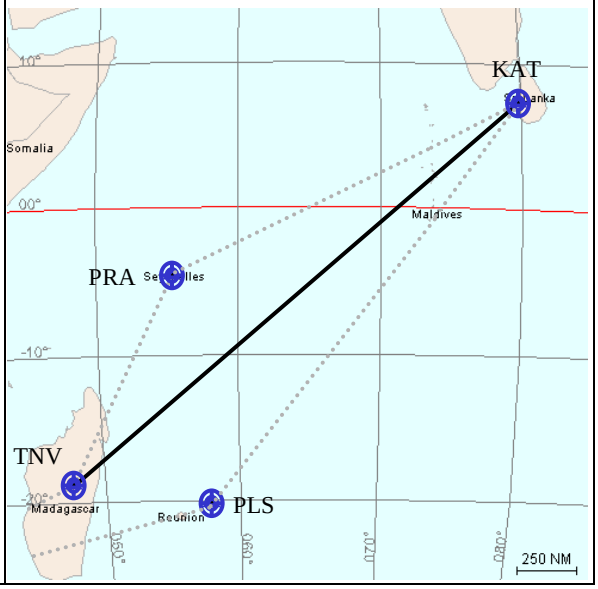
Saving	Per flight	Annual potential
Mileage / Time	80 nm / 9min	
Fuel	765 Kg	8,800 Ton
CO_2	2409 kg	27,700 Ton
No_x		
SO_2		

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: COL 1

REQUESTED BY: IATA

ENTRY/EXIT POINT **KAT / TNV** **ROUTE DESCRIPTION** **KAT .. TNV (ANTANANARIVO)** **FLIGHT LEVEL BAND** **28000 – 46000 feet** **PRIORITY: HIGH/MED/LOW**	**CHART** 

Action Required	IATA
	ICAO

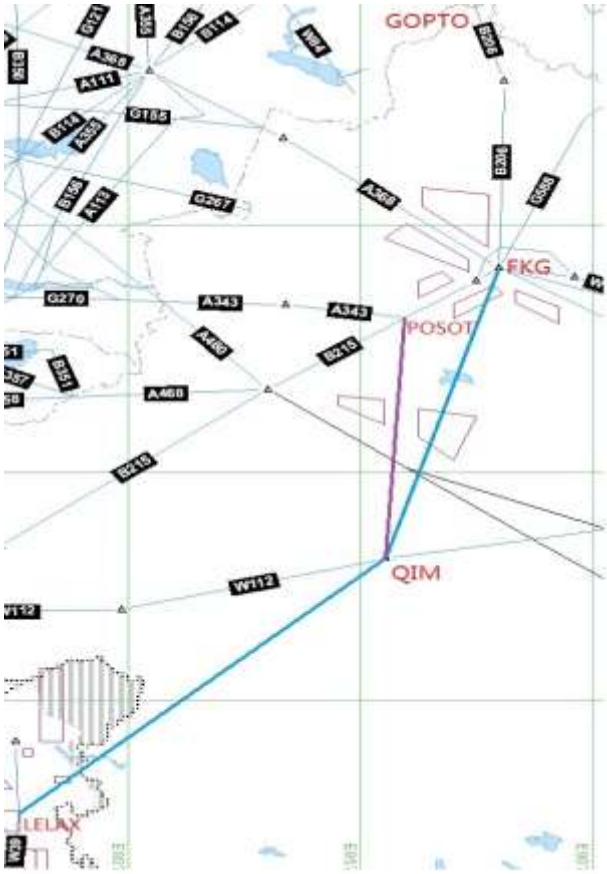
Saving	Per flight	Annual
Mileage / Time	130nm /16 min	
Fuel	2110kg	770,000kg
CO_2	6,500kg	2,370 tonnes
No_x		

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 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	**CHART** 

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 imeplementation.
	.

Benefit		
Cost		
Fuel Saving		
Emission	CO_2	
	NO_X	

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

ATS ROUTE NAME: RDGE 14.026 Requested by : TKM

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of uni-directional westbound ATS route: **P173 TAPIS - DAVET** **FLIGHT LEVEL BAND** 31000 – 43000 ft **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** 01 September 2014	**CHART**

Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks:

Potential City Pairs:

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 SAMAS OR HUGUANG	2112.8N 10550.1E 2049.1N 10642.5E 2030.3N 11029.7E 2107.9N 11020.2	HANOI HANOI GUANGZHOU/ SANYA GUANGZHOU	Moved from Chapter 4. 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

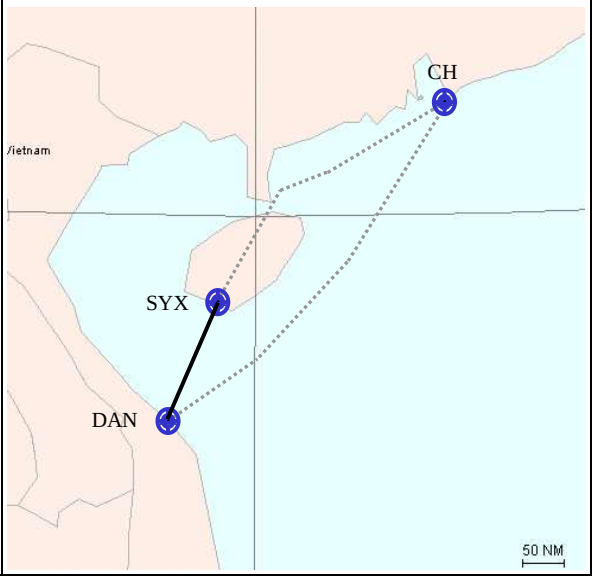
ENTRY/EXIT POINT
DAN / XXXXX / SYX

ROUTE DESCRIPTION
DAN .. SYX

FLIGHT LEVEL BAND
29000 – 46000 feet

PRIORITY: HIGH/MED/LOW

CHART



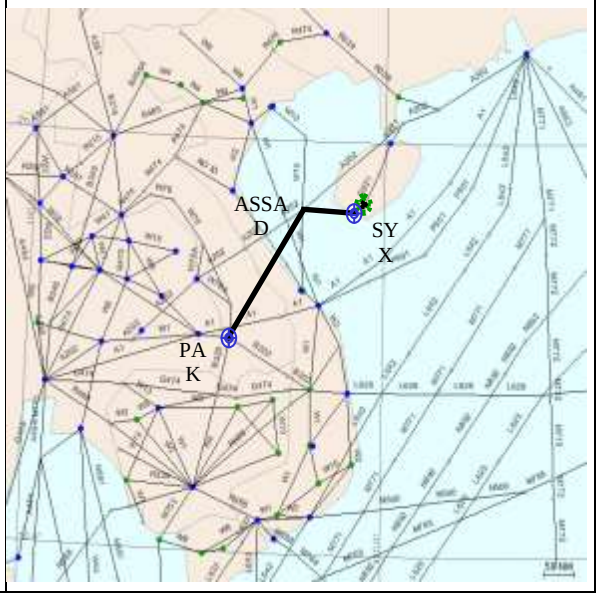
Action Required	IATA
	ICAO

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 – Haian 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**	**CHART** 

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

ENTRY/EXIT POINT
ROT - HUGUANG

ROUTE DESCRIPTION

Direct ROT - HUGUANG

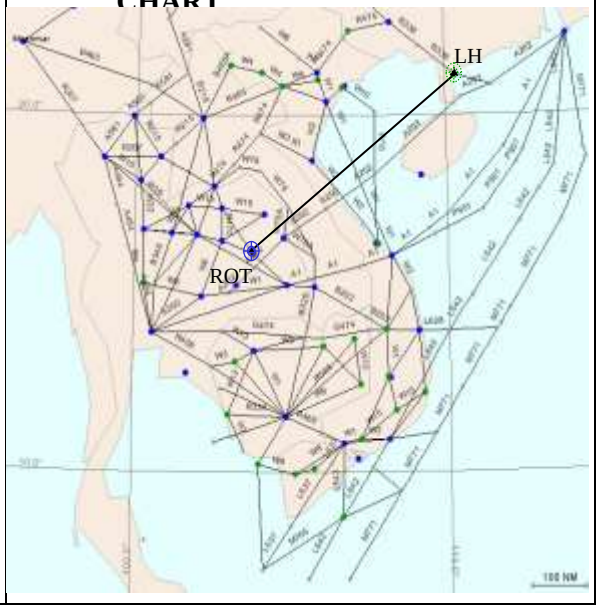
FLIGHT LEVEL BAND

29000 - 46000

PRIORITY: HIGH/MED/LOW

HIGH

CHART



Action Required	IATA
	ICAO

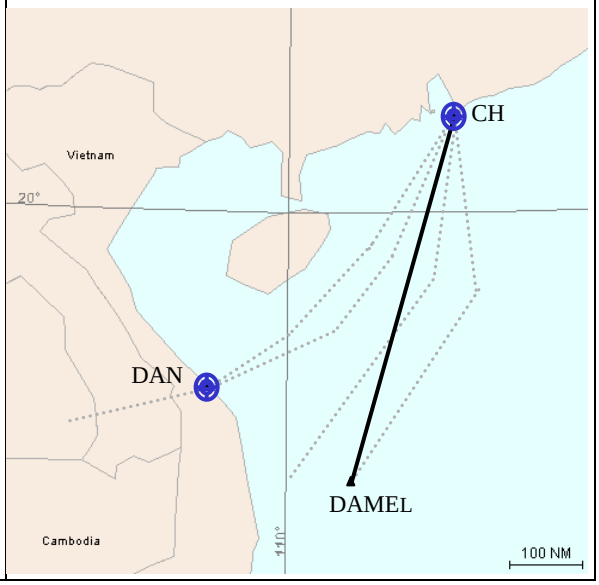
Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

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

ENTRY/EXIT POINT **DAMEL / CH** **ROUTE DESCRIPTION** **DAMEL .. CH** **FLIGHT LEVEL BAND** **28000 – 46000 feet** **PRIORITY: HIGH/MED/LOW**	**CHART** 

Action Required	IATA
	ICAO

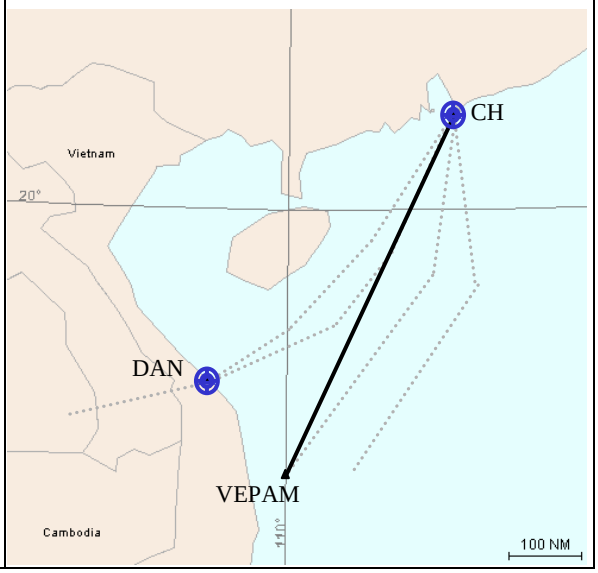
Saving	Per flight	Annual
Mileage / Time	35nm / 4mins	
Fuel	568kg	207594kg
CO_2	1750kg	638,750kg
No_x		

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

ENTRY/EXIT POINT **CH / VEPAM** **ROUTE DESCRIPTION** **CH .. VEPAM** **FLIGHT LEVEL BAND** **28000 – 46000 feet** **PRIORITY: HIGH/MED/LOW**	**CHART** 

Action Required	IATA
	ICAO

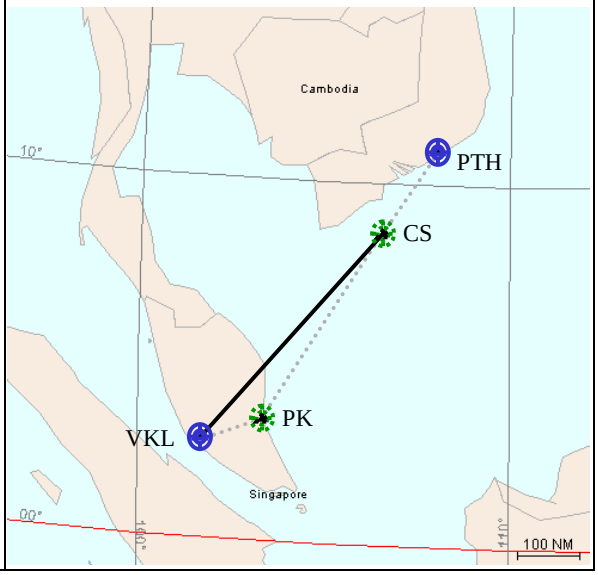
Saving	Per flight	Annual
Mileage / Time	17nm/ 2 mins	
Fuel	276kg	100,831kg
CO_2	850kg	310,250kg
No_x		

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

ENTRY/EXIT POINT **CS / VKL** **ROUTE DESCRIPTION** **CS .. VKL** **FLIGHT LEVEL BAND** **28000 – 46000 feet** **PRIORITY: HIGH/MED/LOW**	**CHART** 

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** 

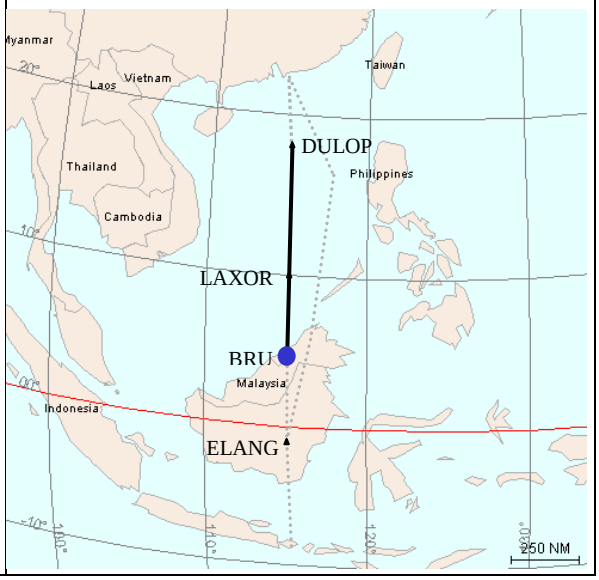
Action Required	IATA
	ICAO

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** 

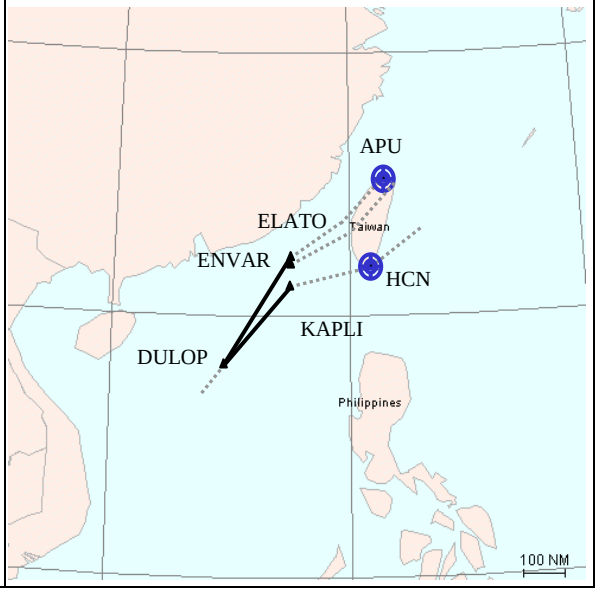
Action Required	IATA
	ICAO

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

ENTRY/EXIT POINT	CHART
1. DULOP / ELATO(ENVAR) **2. DULOP / KAPLI** **ROUTE DESCRIPTION** **DULOP .. ELATO (A1)/ENVAR (M750) or** **DULOP .. KAPLI (G86)** **FLIGHT LEVEL BAND** **28000 – 46000 feet** **PRIORITY: HIGH/MED/LOW**	

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 Touth 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

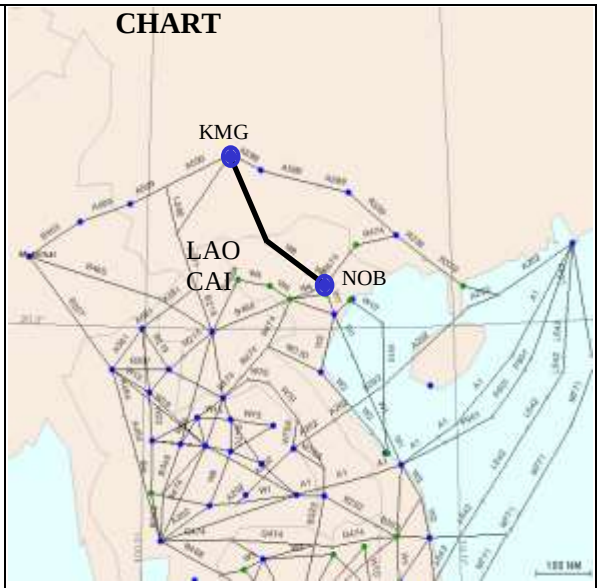
ENTRY/EXIT POINT
XXXXX

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

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW

CHART



Action Required	States to coordinate imeplementation.
	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:

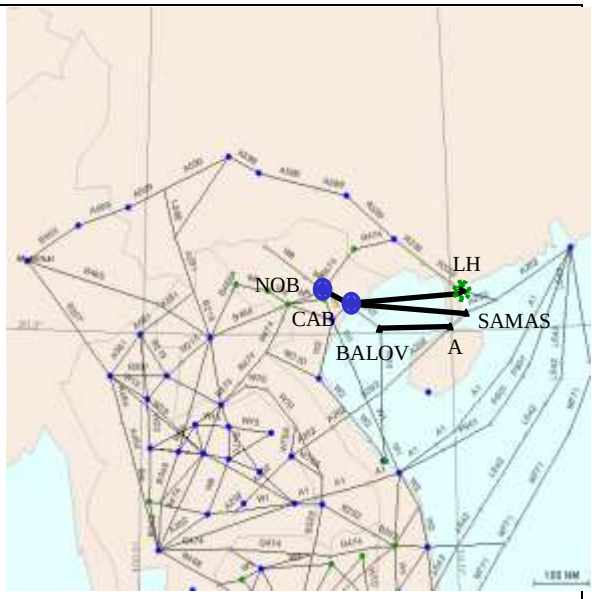
Requested by : Vietnam

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



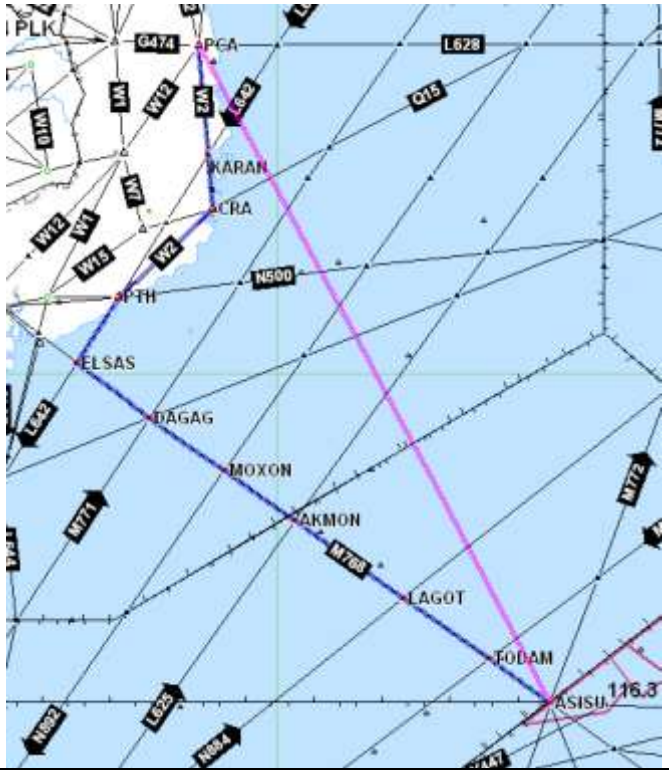
Action Required	States to coordinate to submit proposal for deletion of the requirement.
	ICAO to circulate proposal for deletion from BANP.

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)

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

Action Required	IATA
	ICAO

Existing 692.9
New PCA-ASISU = 541.6

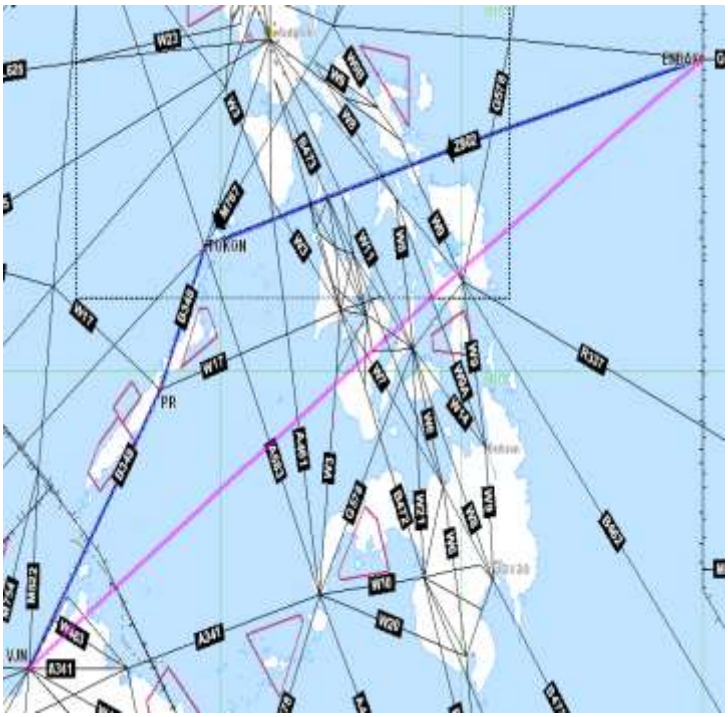
Saving	Per flight	Annual
Mileage / Time	151nm / 22 mins	
Fuel	1827kg	kg
CO_2	5664kg	kg
No_x		

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)

ENTRY/EXIT POINT ENDAX-VJN **ROUTE DESCRIPTION** **FLIGHT LEVEL BAND** **PRIORITY:** High/Medium/Low ENDAX-VJN 964.5NM ENDAX-TOKON-PR-VNJ 1033.7NM	**CHART** 

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

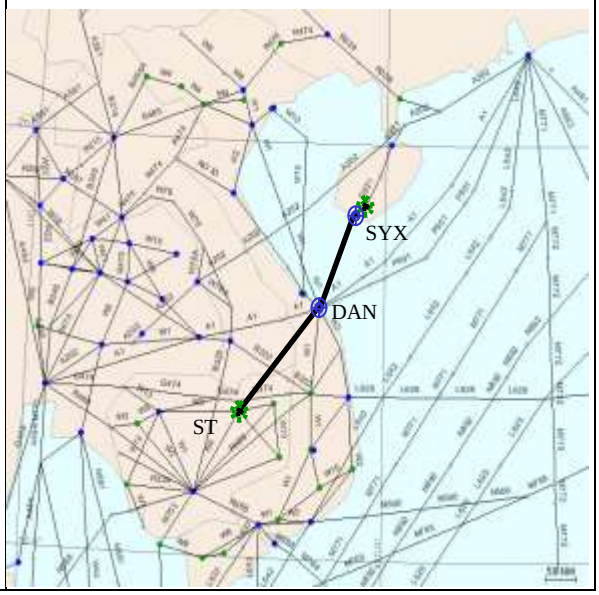
ENTRY/EXIT POINT
STUNG TRENG (ST) – DANANG (DAN)

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

FLIGHT LEVEL BAND
29000 – 46000

PRIORITY: HIGH/MED/LOW
MED

CHART



Action Required	IATA
	ICAO

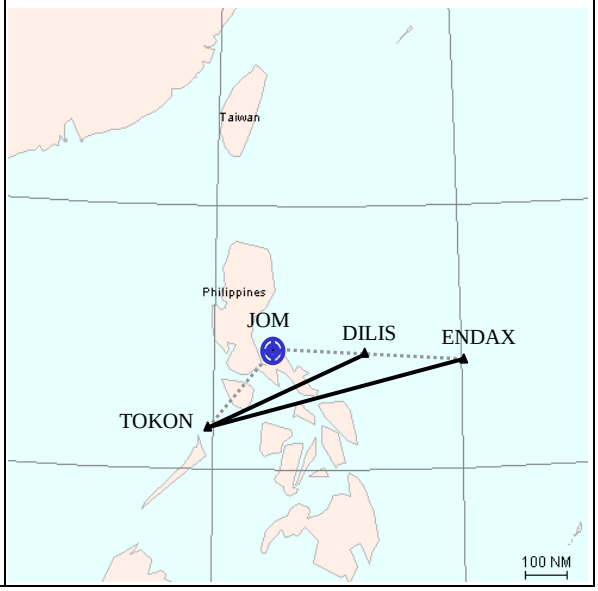
Saving	Per flight	Annual
Mileage / Time	64 nm / 8 min	
Fuel	1040 kg	379,600kg
CO_2	3200 kg	1168 tonnes
No_x		
SO_2		

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

ENTRY/EXIT POINT	**CHART**
1. ENDAX (FIR Boundary between Oakland and Manila FIRs) or DILIS on G467 **2. TOKON on M767 (Manila FIR)** **ROUTE DESCRIPTION** **ENDAX .. TOKON or** **DILIS .. TOKON** **FLIGHT LEVEL BAND** **28000 – 46000 feet** **PRIORITY: HIGH/MED/LOW (Immediate request with DILIS – TOKON)**	

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	

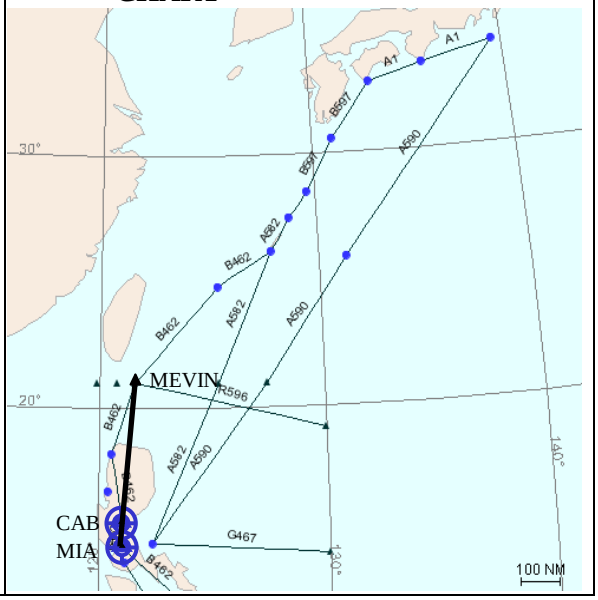
CHA 10 (CHA18)	ARGUK DALIAN HEFEI BEMAG	N4753.0E13439.5 N3857.6 E12130.8 N3146.8 E11718.1 N2601.1 E11400.1	SHENYANG SHENYANG SHANGHAI GUANGZHOU	
CHA 11 (CHA19)	DALIAN XJT	N3857.6 E12130.8 N3557.7 E12014.4	SHENYANG SHANGHAI	
CHA 12	UNWW WXI	N3621.8 E11455.0	SHANGHAI	
IATA2	OMBON RO	N3238.5 E10420.0 N2546.1 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	
CHA13	FENGNING (GM) – DAILAN (DBL)			
FE0008 ex APAC RUS5	SIBIR- new WP- new EKVIK ARLAS- new WP- new EKVIK		KHABAROVSK FUKUOKA	
FE0021 ex APAC RUS4	AVGOK- GTC		KHABAROVSK FUKUOKA	
FE0034 ex APAC RUS9	RITEK- new WP- HLD		KHABAROVSK SHENYANG	
FE0032	TOPAZ- SCH or TOPAZ- HTN		URUMQI TASHKENT	
FE0054	RIVAT- GUMSU		KHABAROVSK PYONGYANG	
FE0055	NULAR- GUMSU		KHABAROVSK PYONGYANG	
FE0022 ex APAC RUS7	DIKUT- SANAR or DIKUT- SAMON		KHABAROVSK PYONGYANG FUKUOKA	
FE0044	Withdrawal R452 KICHA-SESUR-		KHABAROVSK PYONGYANG	

	TERNI			
FE0045	Withdrawal B355 BG-DIKUT-GAMOV-SESUR		KHABAROVSK PYONGYANG	
FE0046	Withdrawal B124 DIKUT-VATIS-TERNI		KHABAROVSK PYONGYANG	
FE0047	Withdrawal G711 AGITA-RIVAT		KHABAROVSK PYONGYANG	
FE0048	Withdrawal G721 VATIS-AGITA-RORIM		KHABAROVSK PYONGYANG	
FE0049	New B356 KICHA- new WP-KN		KHABAROVSK PYONGYANG	
FE0050	New B355 BG-VATIS-TERNI-new WP KICHA		KHABAROVSK PYONGYANG	
FE0051	GUMSU-new WP		KHABAROVSK PYONGYANG	
FE0052	New WP-GUMSU		KHABAROVSK PYONGYANG	
FE0053	New G711 BISUN-TERNI-RIVAT		KHABAROVSK PYONGYANG	
FE0056	RIVAT- new WP-		KHABAROVSK PYONGYANG FUKUOKA	
FE0031 ex APAC RUS11	SIMLI-new WP-BISUN		KHABAROVSK SHENYANG	
FE0030	new WP-AMERA-WZ		KHABAROVSK SHENYANG	
FE0017 ex APAC RUS12	WZ-along G494-SIMLI		KHABAROVSK SHENYANG	
FE0029 ex APAC RUS13	SIMLI-new WP-UGABI		KHABAROVSK SHENYANG	
FE0035 ex APAC RUS15	UGABI-new WP-AMERA-WZ		KHABAROVSK SHENYANG	
FE0041 Ex APAC RUS6	NALEB-SIMLI-HEK-new WP-BISUN-SANAR-ARLAS-new WP-new EKVIK		KHABAROVSK SHENYANG FUKUOKA	

	(eastbound) new EKVIK-new WP-ARLAS-SANAR-BISUN-new WP-AMERA-WZ-NALEB (westbound)			

ATS ROUTE NAME: PHI 1

REQUESTED BY: IATA

ENTRY/EXIT POINT **ROUTE DESCRIPTION** **Manila (MIA) .. MEVIN or** **Cabanatuan (CAB) .. MEVIN** **FLIGHT LEVEL BAND** **28000 – 46000 feet** **PRIORITY: HIGH/MED/LOW**	**CHART** 

Action Required	IATA
	ICAO

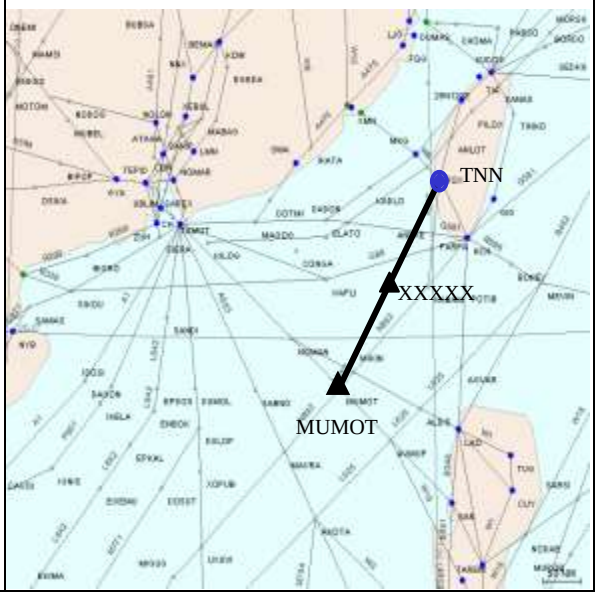
Saving	Per flight	Annual
Mileage / Time	11nm/1.5min	
Fuel	179kg	59,300kg
CO_2	550kg	200,750kg
No_x		

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

Potential City Pairs: Philippines-Japan/North America

ATS ROUTE NAME: PHI 3

REQUESTED BY: IATA

ENTRY/EXIT POINT **XXXXX** **ROUTE DESCRIPTION** **Shikang (TNN) … XXXXX … MUMOT** **FLIGHT LEVEL BAND** **29000 - 46000** **PRIORITY: HIGH/MED/LOW** **HIGH**	**CHART** 

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

ENTRY/EXIT POINT **XXXXX** **ROUTE DESCRIPTION** **AKOTA… XXXXX … Hengchun (HCN)** **FLIGHT LEVEL BAND** **29000 - 46000** **PRIORITY: HIGH/MED/LOW** **HIGH**	**CHART** 

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

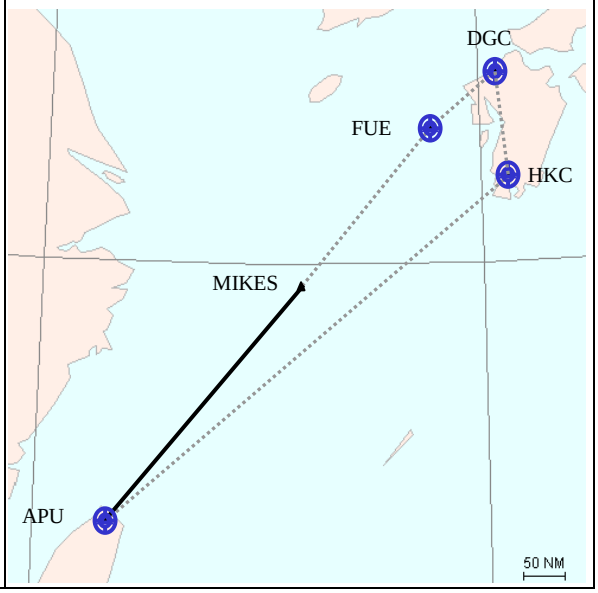
ENTRY/EXIT POINT
APU / XXXXX / MIKES

ROUTE DESCRIPTION
APU- MIKES

FLIGHT LEVEL BAND
28000 – 46000 feet

PRIORITY: HIGH/MED/LOW

CHART



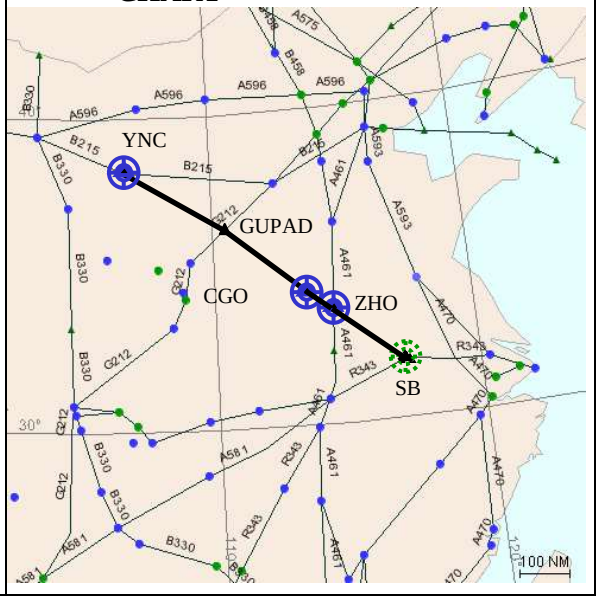
Action Required	IATA
	ICAO

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**	**CHART** 

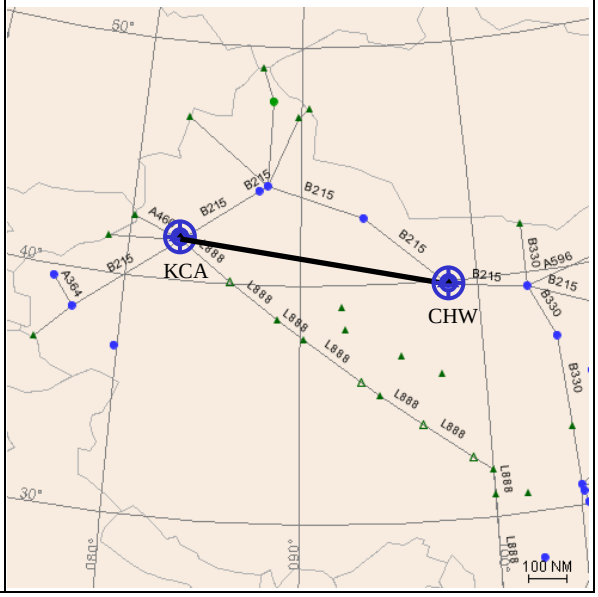
Action Required	IATA
	ICAO

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

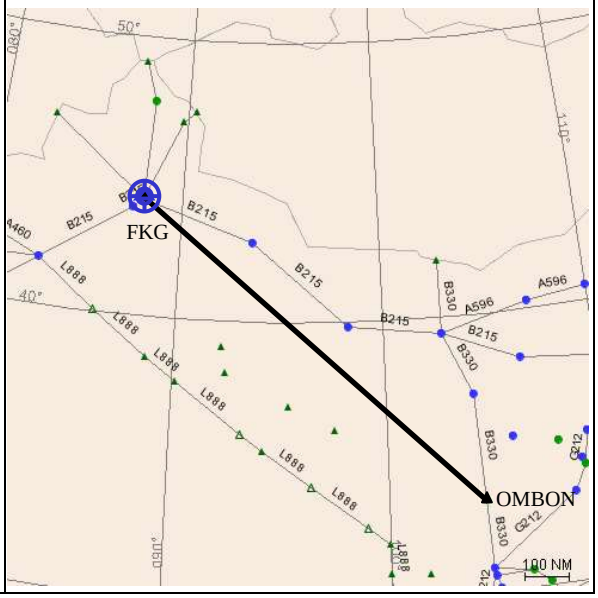
Saving	Per flight	Annual
Mileage / Time	93nm/ 12min	
Fuel		
CO_2		
No_x		

Remarks: There are exiting 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

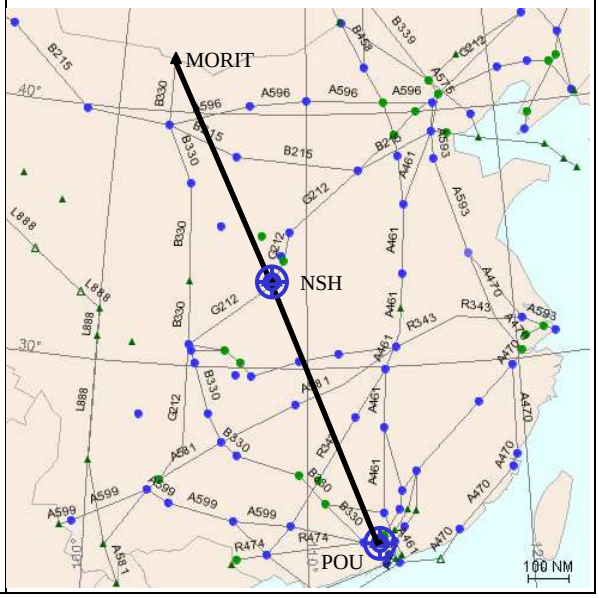
Saving	Per flight	Annual
Mileage / Time	123nm/ 15.5min	
Fuel	2000kg	730,000kg
CO_2	6,150kg	2,245 tonnes
No_x		

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	CHART
ROUTE DESCRIPTION **MORIT .. Ningshan (NSH) .. Pingzhou (POU)** **FLIGHT LEVEL BAND** **8400 – 15000 meters** **PRIORITY: HIGH/MED/LOW**	

Action Required	IATA
	ICAO

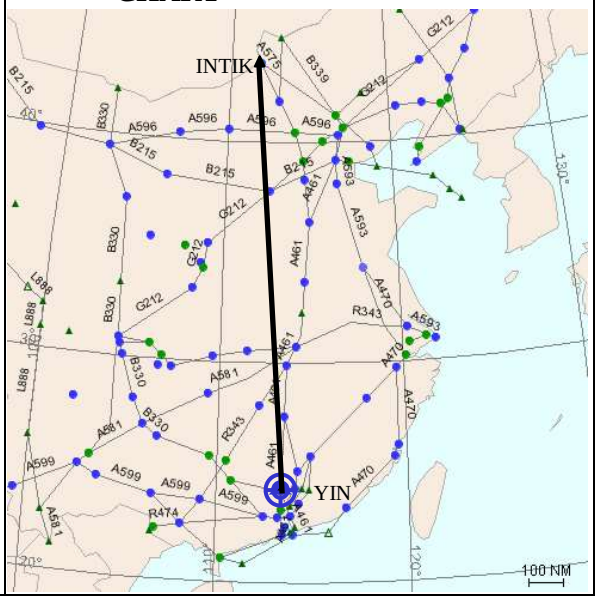
Saving	Per flight	Annual
Mileage / Time	152nm/ 19min	
Fuel	2470kg	901,000kg
CO_2	7,600kg	2,774 tonnes
No_x		

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

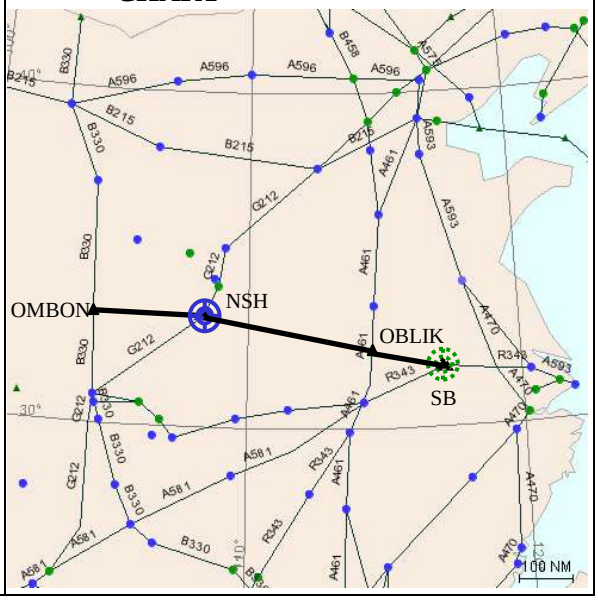
Saving	Per flight	Annual
Mileage / Time	140nm/17.5min	
Fuel	2275kg	830,000kg
CO_2	7,000kg	2,555 tonnes
No_x		

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	CHART
ROUTE DESCRIPTION **OMBON .. Ningshan (NSH) .. OBLIK .. Luogang (SB)** **FLIGHT LEVEL BAND** **8400 – 15000 meters** **PRIORITY: HIGH/MED/LOW**	

Action Required	IATA
	ICAO

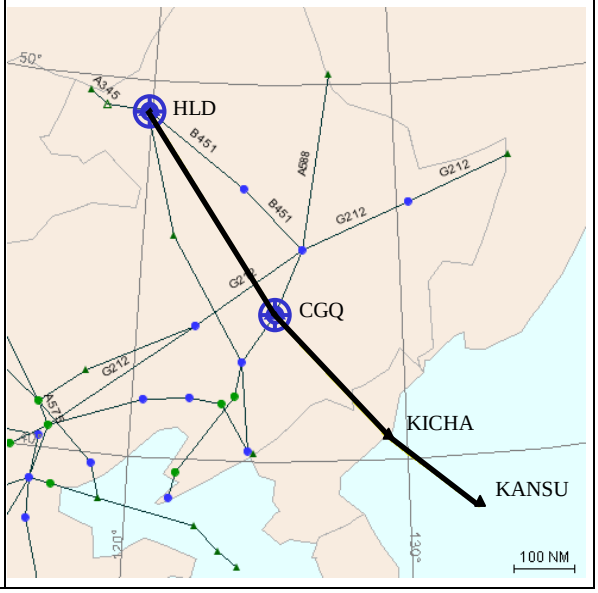
Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: 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

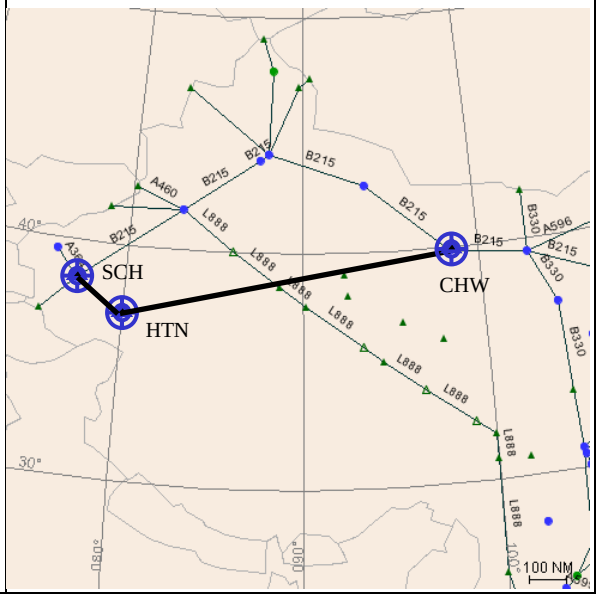
Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

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

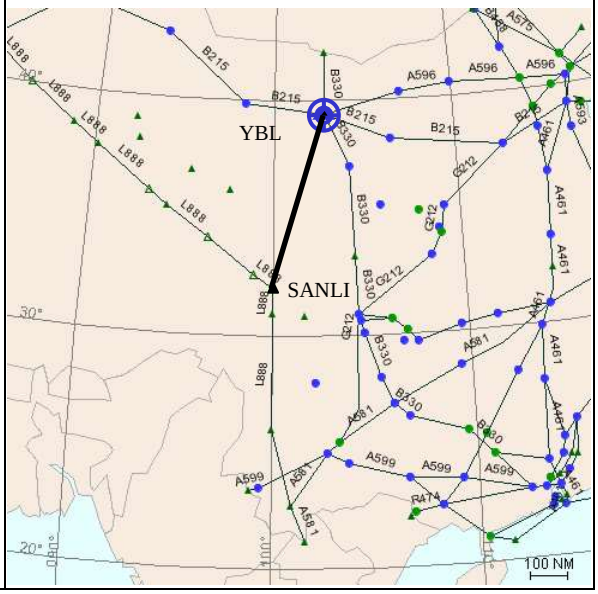
Saving	Per flight	Annual
Mileage / Time	69nm/9min	
Fuel	1121kg	409,000kg
CO_2	3,450 kg	1,260 tonnes
No_x		

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

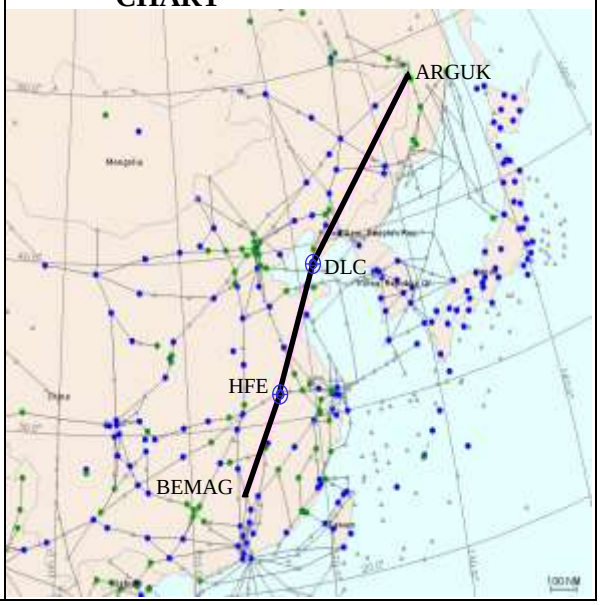
Saving	Per flight	Annual
Mileage / Time	48nm/ 6min	
Fuel	780kg	284,000kg
CO_2	2,400kg	876,000kg
No_x		

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

ENTRY/EXIT POINT	**CHART**
ARGUK/BEMAG **ROUTE DESCRIPTION** ARGUK/DALIAN/HEFEI/BEMAG **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 exiting 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)

REQUESTRED BY:IATA

ENTRY/EXIT POINT

DALIAN/(DLC) to XJT/B221

ROUTE DESCRIPTION

DALIAN/ XJT /B221

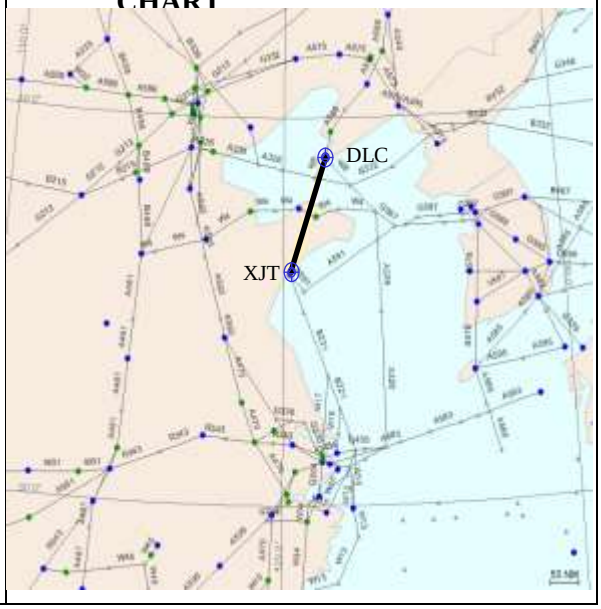
FLIGHT LEVEL BAND

8400-15000 metres

PRIORITY: HIGH/MED/LOW

HIGH

CHART



Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: There are exiting 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

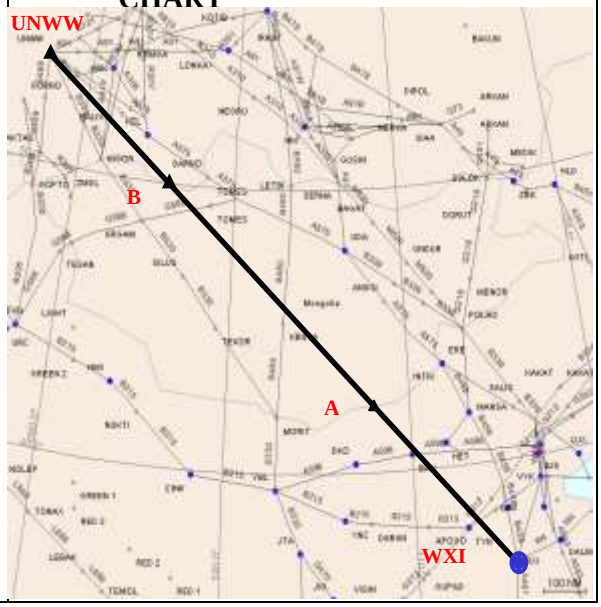
Weixian (WXI) .. A (ZBPE/ZMUB) .. B (ZMUB/UNKY) .. Novokuznetsk (UNWW)
Uni-directional

FLIGHT LEVEL BAND

28000 – 46000 feet

PRIORITY: HIGH/MED/LOW

CHART



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 exiting 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

ENTRY/EXIT POINT **ROUTE DESCRIPTION** **FLIGHT LEVEL BAND** **8400 – 15000 meters** **PRIORITY: HIGH/MED/LOW**	**CHART** 

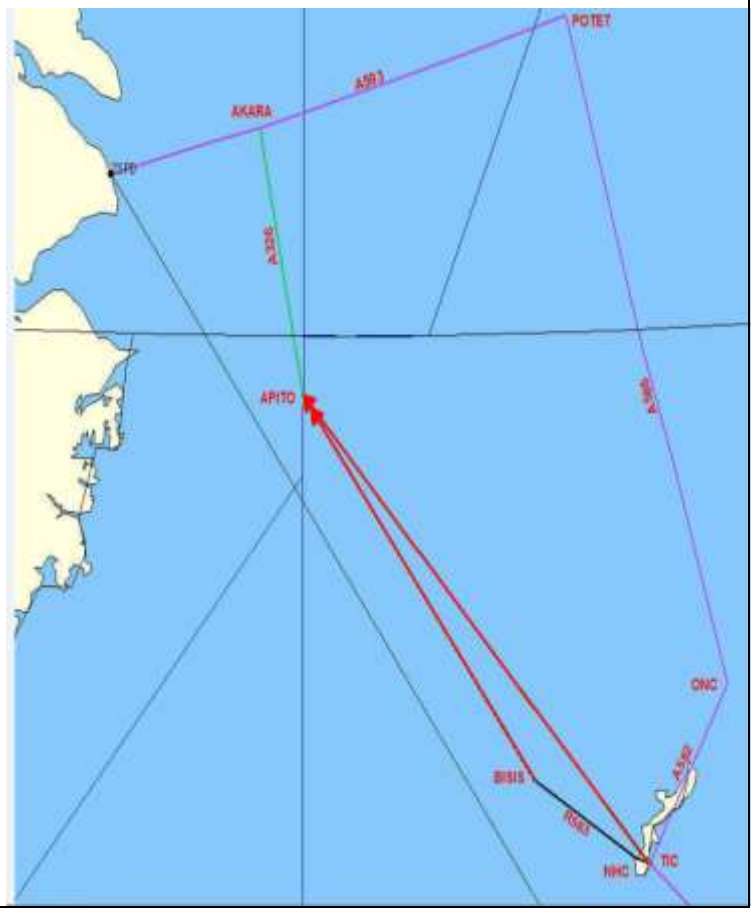
Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: There are exiting 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	**CHART**
TIC - APITO **ROUTE DESCRIPTION** PIC - APITO **Alternative:** TIC – R583- BISIS – APITO **FLIGHT LEVEL BAND** **PRIORITY:**	

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: FE0008 / RDGE 15.003 / APAC RUS 5 Requested by : IATA / RUS

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of 2 bi-directional ATS routes: **a. SIBIR –** **new waypoint on border Khabarovsk FIR/Fukuoka FIR –** **(new EKVIK waypoint)** **b. ARLAS –** **new waypoint on border Khabarovsk FIR/Fukuoka FIR –** **(new EKVIK waypoint)** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART**

Action Required	IATA
	ICAO Coordination Russian Federation, Japan

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: improve north-south traffic flows between Khabarovsk FIR and Fukuoka FIR, Original SIBIR – LURED – EKVIK proposal will be changed due to new position of EKVIK further east as a result of the planned airspace structure change in Japan, when both new ATS routes will be implemented the existing B451 ARLAS-NATEK-LURED-IGROD will be withdrawn

Potential City Pairs:

ATS ROUTE NAME: FE0021 / RDGE 13.028 / APAC RUS 4 Requested by : IATA / RUS

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of bi-directional ATS route segment: **AVGOK –** **GTC** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART**

Action Required	IATA
	ICAO Coordination Russian Federation, Japan

Saving	Per flight	Annual
Mileage / Time	13 NM	
Fuel		
CO_2		
No_x		

Remarks: During a bi-lateral meeting between the State ATM Corporation and the JCAB Japan (in Tokyo, November 2012) a difference in coordinates of the AVGOK waypoint was identified in the aeronautical information publications of Russia and Japan. The incorrect coordinates were confirmed by Japan and a decision was made to report this issue to the appropriate Regional ICAO Offices. The Russian Federation proposes the following coordinates (4336N and 13815E) for the AVGOK waypoint

Potential City Pairs:

ATS ROUTE NAME: FE0034 / RDGE 16.027 / APAC RUS 9 Requested by : IATA / RUS

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of new bi-directional ATS route: **RITEK –** **new waypoint 495025N 1182854E –** **HLD** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART**

Action Required	IATA
	ICAO Coordination Russian Federation, China

Saving	Per flight	Annual
Mileage / Time	159 NM	
Fuel		
CO_2		
No_x		

Remarks:

Potential City Pairs:

ATS ROUTE NAME: FE0032 / RDGE 17.005 Requested by : IATA / TJK

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of new bi-directional ATS route segment: **TOPAZ –** **SCH (Sache)** or **TOPAZ –** **HTN (Hotan)** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART**

Action Required	IATA
	ICAO Coordination China, Tajikistan

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: further improve ATS route network in the interface between China and Tajikistan

Potential City Pairs:

ATS ROUTE NAME: FE0054 / RDGE 20.015

Requested by : PRK / RUS

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION Implementation of bi-directional ATS route **RIVAT (N412900 E1321600) –** **GUMSU (N383800 E1302300)** **FLIGHT LEVEL BAND** 21000 – 53000 feet **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** 11 December 2014	

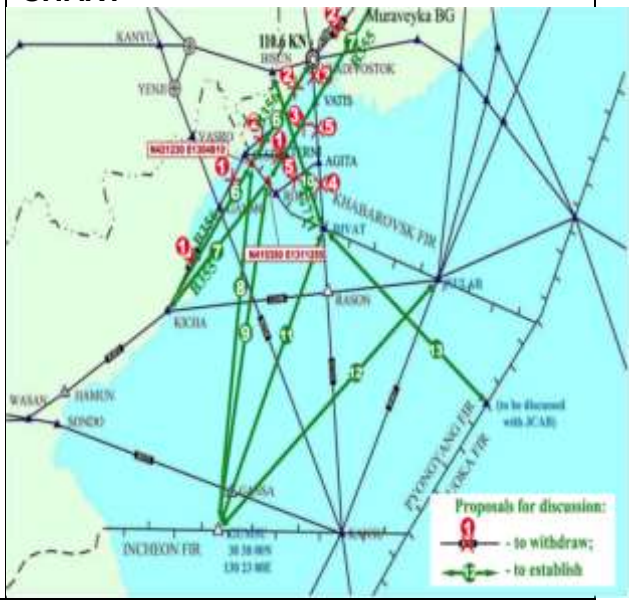
Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 11)

Potential City Pairs:

ATS ROUTE NAME: FE0055 / RDGE 20.016 Requested by : PRK / RUS

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION Implementation of bi-directional ATS route **NULAR (N405912 E1341100) – GUMSU (N383800 E1302300)** **FLIGHT LEVEL BAND** 28000 – 53000 feet **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** 11 December 2014	

Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 12)

Potential City Pairs:

ATS ROUTE NAME: FE0022 / RDGE 13.033 / APAC RUS7 Requested by : RUS / IATA

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of bi-directional ATS route **DIKUT –** **SANAR** or **DIKUT –** **SAMON** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART**

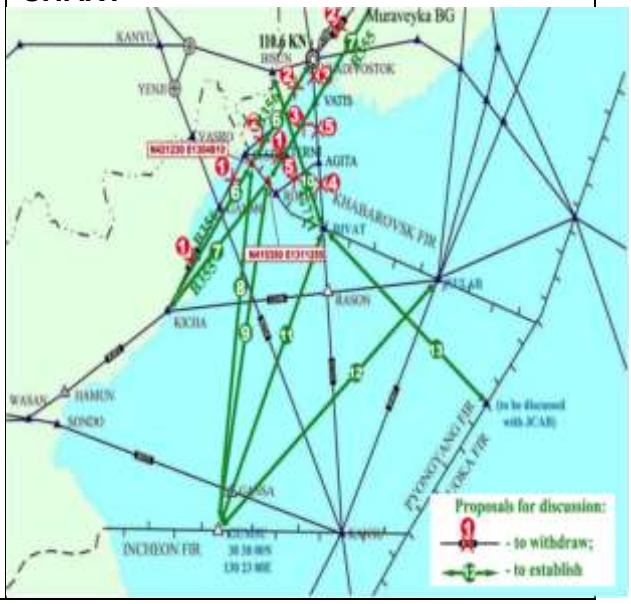
Action Required	IATA
	ICAO Coordination DPRK, Japan, Russian Federation

Saving	Per flight	Annual
Mileage / Time	160 NM	
Fuel		
CO_2		
No_x		

Remarks: revised proposal for bi-directional route from BISUN – TERNI – RIVAT in combination with the Vladivostok/Khabarovsk airspace structure changes

Potential City Pairs:

ATS ROUTE NAME: FE0044 / RDGE 20.005 Requested by : PRK / RUS

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION Withdrawal of the ATS route segment **R452:** **KICHA (N404103 E1291132) –** **SESUR (N421730 E1304130) –** **TERNI (N422213 E1314003)** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** As part of project in 2015	

Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

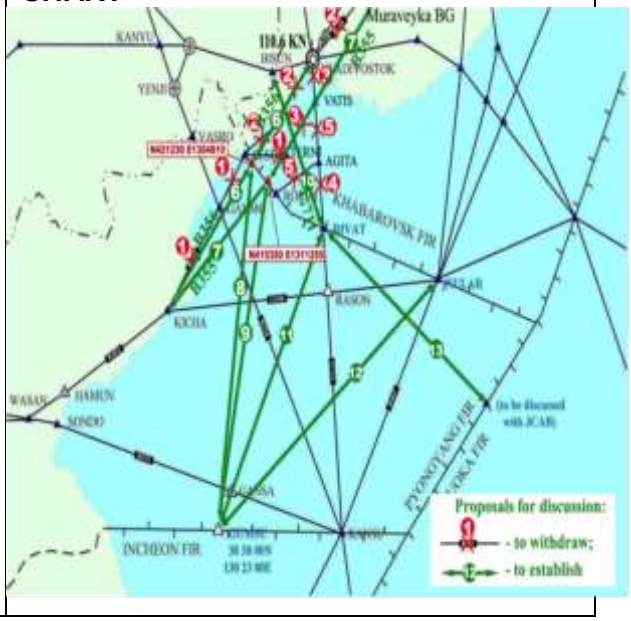
Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 1)

Potential City Pairs:

ATS ROUTE NAME: FE0045 / RDGE 20.006

Requested by : PRK / RUS

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION Withdrawal of the ATS route segment **B355:** **Muraveyka (BG) (N435303 E1331511) –** **DIKUT (N432355 E1320851) –** **GAMOV (N423301 E1311303) –** **SESUR (N421730 E1304130)** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** As part of project in 2015	

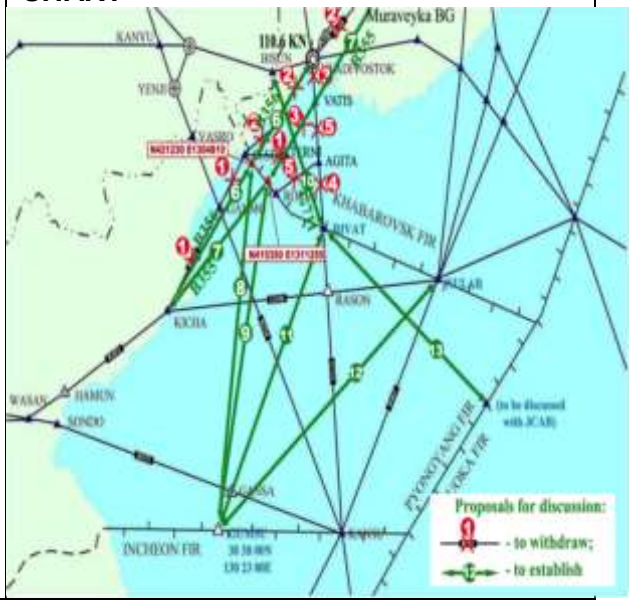
Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 2)

Potential City Pairs:

ATS ROUTE NAME: FE0046 / RDGE 20.007 Requested by : PRK / RUS

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION Withdrawal of the ATS route segment **B124:** **DIKUT (N432355 E1320851) –** **VATIS (N425143 E1320851) –** **TERNI (N422213 E1314003)** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** As part of project in 2015	

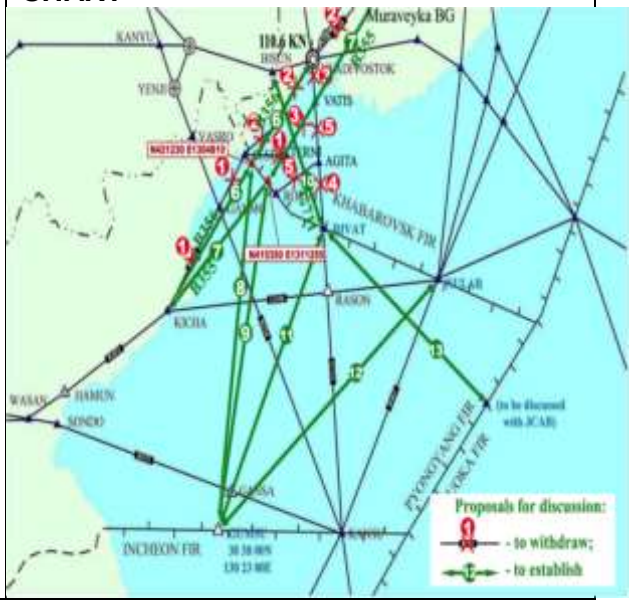
Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 3)

Potential City Pairs:

ATS ROUTE NAME: FE0047 / RDGE 20.008 Requested by : PRK / RUS

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION Withdrawal of the ATS route segment **G711:** **AGITA (N421937 E1321151) –** **RIVAT (N412900 E1321600)** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** As part of project in 2015	

Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 4)

Potential City Pairs:

ATS ROUTE NAME: FE0048 / RDGE 20.009

Requested by : PRK / RUS

ENTRY/EXIT POINT

ROUTE DESCRIPTION

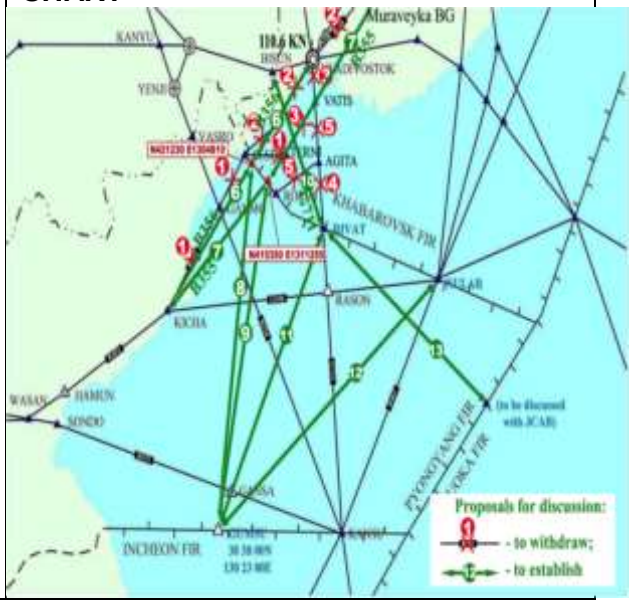
Withdrawal of the ATS route segment
G721:
VATIS (N425143 E1320851) –
AGITA (N421937 E1321151) –
RORIM (N415031 E1311639)

FLIGHT LEVEL BAND

PRIORITY: HIGH/MED/LOW

PLANNED IMPLEMENTATION DATE
As part of project in 2015

CHART



Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 5)

Potential City Pairs:

ATS ROUTE NAME: FE0049 / RDGE 20.010

Requested by : PRK / RUS

ENTRY/EXIT POINT

ROUTE DESCRIPTION

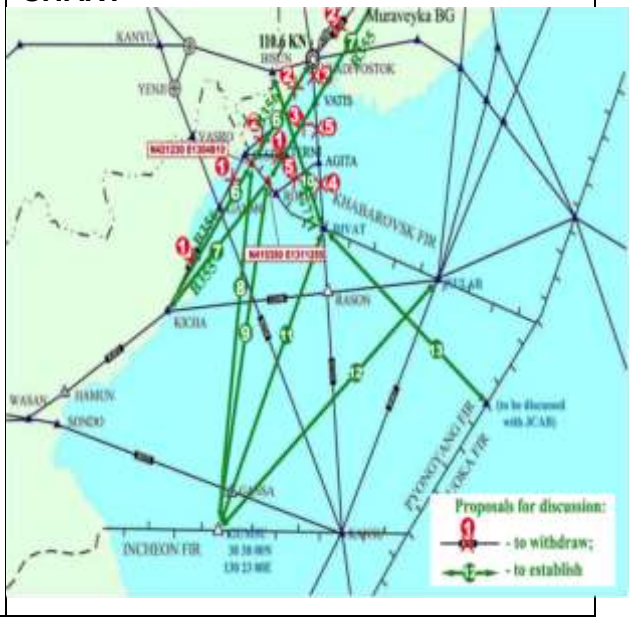
Implementation of uni-directional eastbound ATS route segment **B356**:
KICHA (N404103 E1291140) –
new waypoint (N421230 E1304810) –
110.6 KN Vladivostok (N432303 E1320708)

FLIGHT LEVEL BAND
17000 – 53000 feet

PRIORITY: HIGH/MED/LOW

PLANNED IMPLEMENTATION DATE
As part of project in 2015

CHART



Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 6)

Potential City Pairs:

ATS ROUTE NAME: FE0050 / RDGE 20.011

Requested by : PRK / RUS

ENTRY/EXIT POINT

ROUTE DESCRIPTION

Implementation of uni-directional westbound ATS route segment **B355**:
Muraveyka (BG) (N435303 E1331511) – VATIS (N425143 E1320851) – TERNI (N422213 E1314003) – new waypoint (N415350 E1311255) – KICHA (N404106 E1291140)

FLIGHT LEVEL BAND
18000 – 51000 feet

PRIORITY: HIGH/MED/LOW

PLANNED IMPLEMENTATION DATE
As part of project in 2015

CHART

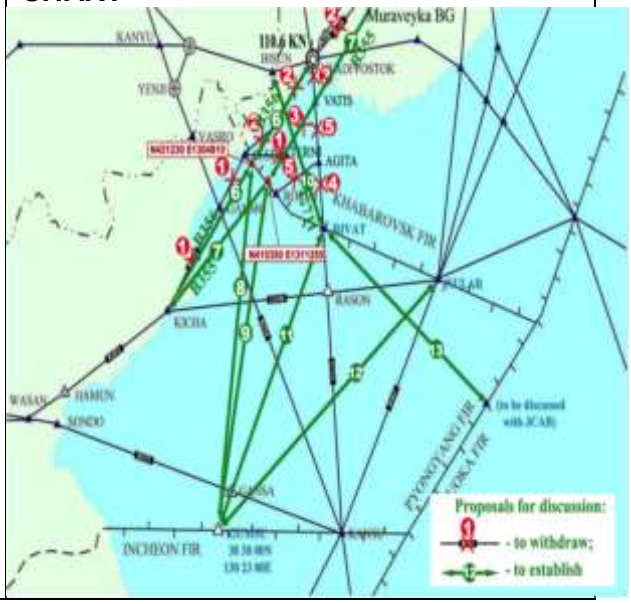
Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 7)

Potential City Pairs:

ATS ROUTE NAME: FE0051 / RDGE 20.012 Requested by : PRK / RUS

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION Implementation of new uni-directional eastbound ATS route segment: **GUMSU (N383800 E1302300) – new waypoint (N421230 E1304810)** **FLIGHT LEVEL BAND** 29000 – 53000 feet **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** As part of project in 2015	

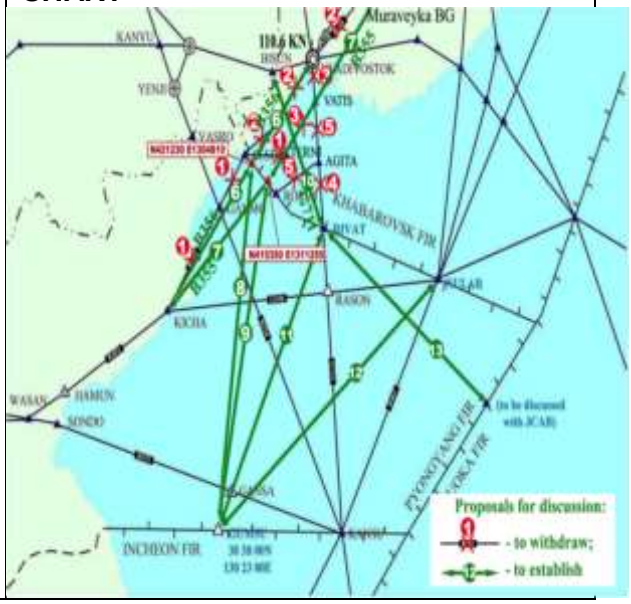
Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 8)

Potential City Pairs:

ATS ROUTE NAME: FE0052 / RDGE 20.013 Requested by : PRK / RUS

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION Implementation of new uni-directional westbound ATS route segment: **new waypoint (N415350 E1311255) – GUMSU (N383800 E1302300)** **FLIGHT LEVEL BAND** 28000 – 51000 feet **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** As part of project in 2015	

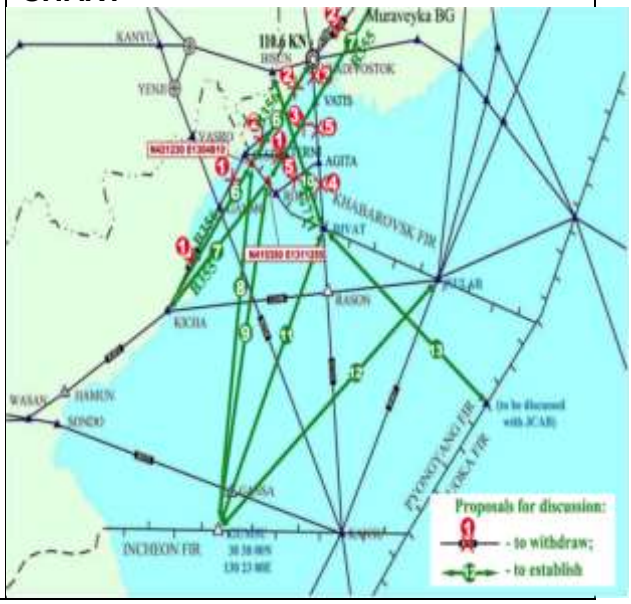
Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 9)

Potential City Pairs:

ATS ROUTE NAME: FE0053 / RDGE 20.014 Requested by : PRK / RUS

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION Implementation of bi-directional ATS route segment **G711:** **BISUN (N431400 E1311148) –** **TERNI (N422213 E1314003) –** **RIVAT (N412900 E1321600)** **FLIGHT LEVEL BAND** 21000 – 53000 feet **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE** As part of project in 2015	

Action Required	IATA
	ICAO Coordination DPRK, Russian Federation

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 10)

Potential City Pairs:

ATS ROUTE NAME: FE0056 / RDGE 20.017

Requested by : PRK / RUS

ENTRY/EXIT POINT

ROUTE DESCRIPTION

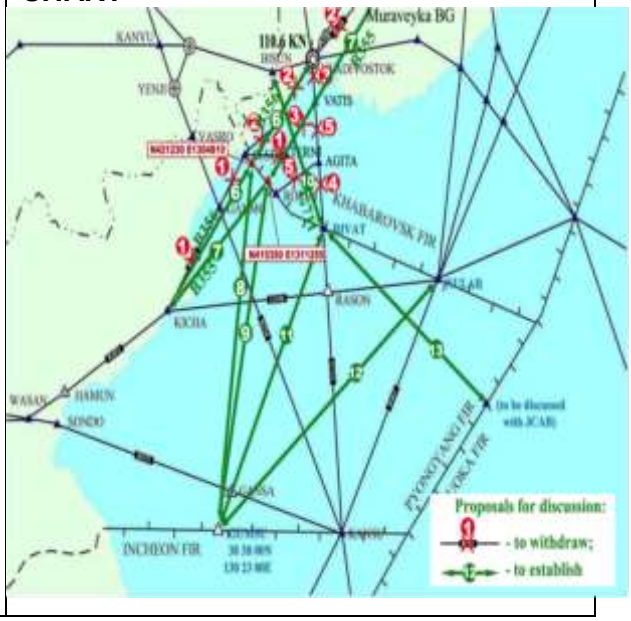
Implementation of new bi-directional ATS route segment:
RIVAT (N412900 E1321600) –
to new waypoint on FIR border (NXXXXXX EXXXXXXX) between Pyongyang FIR and Fukuoka FIR

FLIGHT LEVEL BAND

PRIORITY: HIGH/MED/LOW

PLANNED IMPLEMENTATION DATE
As part of project in 2015

CHART



Action Required	IATA
	ICAO Coordination DPRK, Japan, Russian Federation

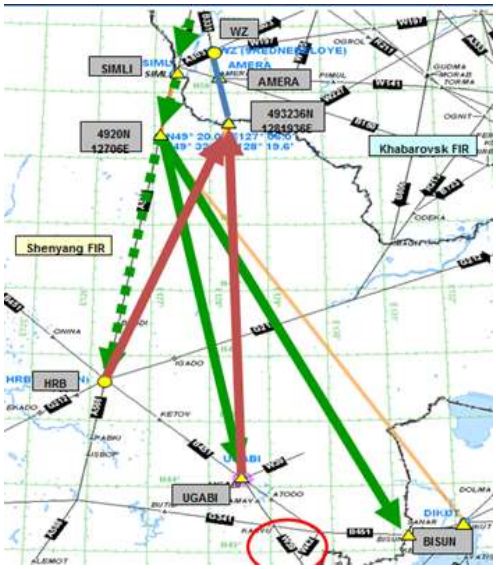
Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 13), for further discussion with JCAB, Japan

Potential City Pairs:

ATS ROUTE NAME: FE0031 / RDGE 16.005 / APAC RUS11

Requested by : IATA / RUS

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of new uni-directional eastbound ATS route: **SIMLI –** **new waypoint 4920N 12706E –** **BISUN** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART** 

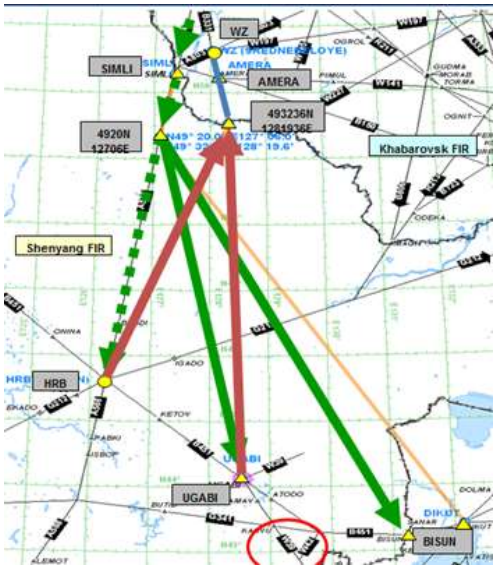
Action Required	IATA
	ICAO Coordination Russian Federation, China

Saving	Per flight	Annual
Mileage / Time	150 NM	
Fuel		
CO_2		
No_x		

Remarks: SIMLI dualisation/reorganisation project

Potential City Pairs:

ATS ROUTE NAME: FE0030 / RDGE 18.020 Requested by : IATA / RUS

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of new bi-directional ATS route segment: **new waypoint 493236N 1281936E –** **AMERA –** **WZ (Srednebeloye)** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART** 

Action Required	IATA
	ICAO Coordination Russian Federation, China

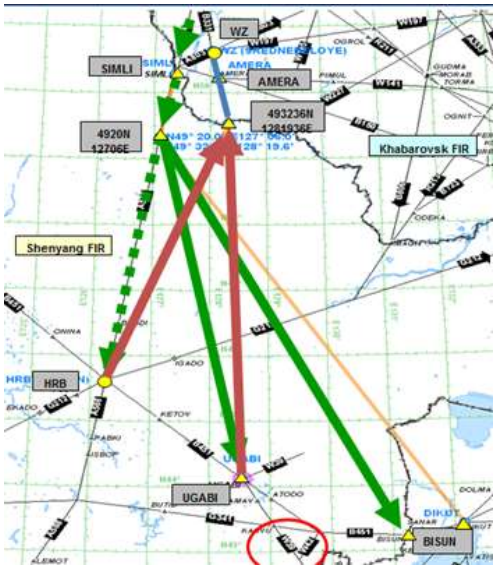
Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: SIMLI dualisation/reorganisation project

Potential City Pairs:

ATS ROUTE NAME: FE0017 / RDGE 15.035 / APAC RUS12

Requested by : IATA / RUS

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of new uni-directional westbound ATS route segment: **WZ (Srednebeloye) –** **along G494 –** **SIMLI** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART** 

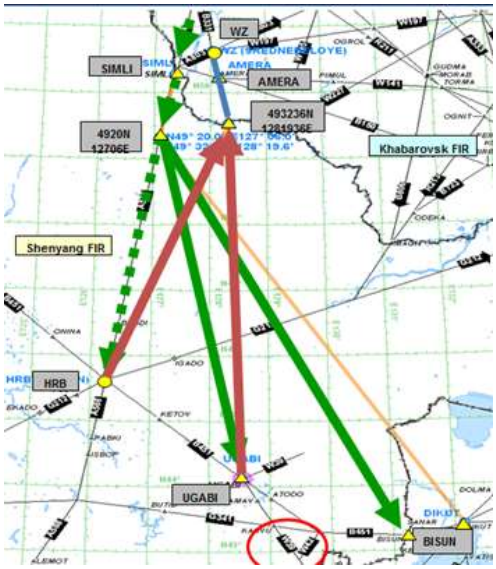
Action Required	IATA
	ICAO Coordination Russian Federation, China

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: SIMLI dualisation/reorganisation project

Potential City Pairs:

ATS ROUTE NAME: FE0029 / RDGE 18.031 / APAC RUS13 Requested by : IATA / RUS

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of new uni-directional eastbound ATS route segment: **SIMLI –** **new waypoint 4920N 12706E –** **UGABI** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART** 

Action Required	IATA
	ICAO Coordination Russian Federation, China

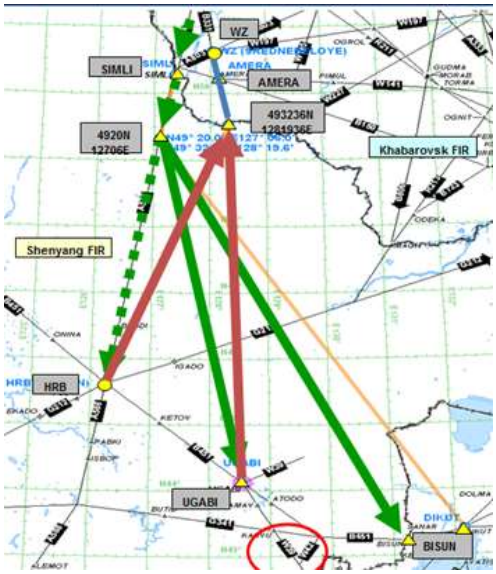
Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: SIMLI dualisation/reorganisation project

Potential City Pairs:

ATS ROUTE NAME: FE0035 / RDGE 18.030 / APAC RUS15

Requested by : IATA / RUS

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of new uni-directional westbound ATS route segment: **UGABI –** **new waypoint 493236N 1281936E –** **AMERA –** **WZ** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART** 

Action Required	IATA
	ICAO Coordination Russian Federation, China

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: SIMLI dualisation/reorganisation project

Potential City Pairs:

ATS ROUTE NAME: FE0041 / RDGE 19.018 Requested by : IATA / RUS

ENTRY/EXIT POINT **ROUTE DESCRIPTION** Implementation of 2 new uni-directional ATS route segments: **a. eastbound unidirectional traffic via NALEB – SIMLI – HEK – 492000N 1270600E – BISUN – SANAR – ARLAS – new waypoint on FIR border – new EKVIK** **b. westbound unidirectional traffic via new EKVIK – new waypoint on FIR border – ARLAS – SANAR – BISUN – new waypoint 493236N 1281936E – AMERA – WZ – NALEB** **FLIGHT LEVEL BAND** **PRIORITY:** HIGH/MED/LOW **PLANNED IMPLEMENTATION DATE**	**CHART**

Action Required	IATA
	ICAO Coordination Russian Federation, China

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Remarks: SIMLI dualisation/reorganisation project, further improvement of north-south traffic flows between Khabarovsk FIR and Fukuoka FIR, alternative proposal to APAC RUS6,

Potential City Pairs:

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		
Fuel		
CO_2		
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	

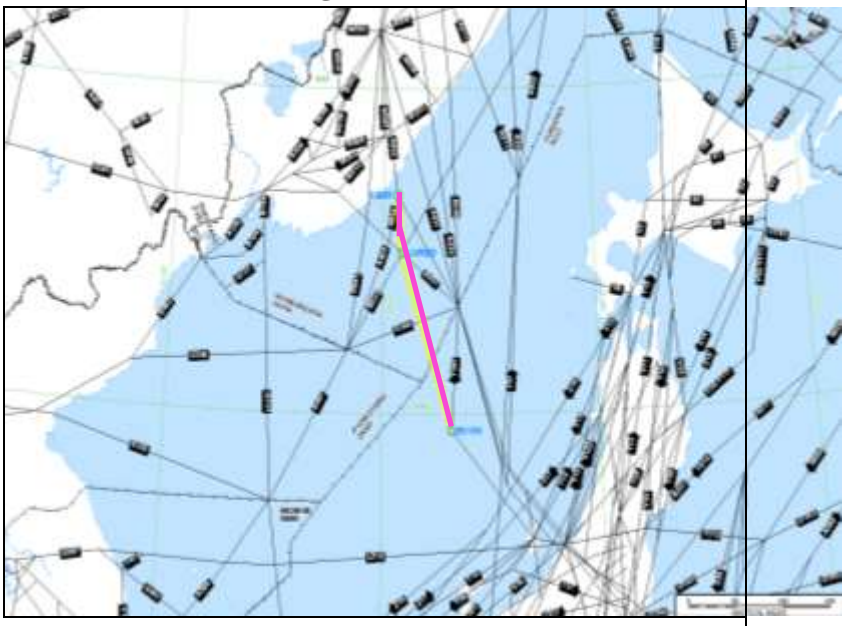
Action Required	IATA
	ICAO

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** 

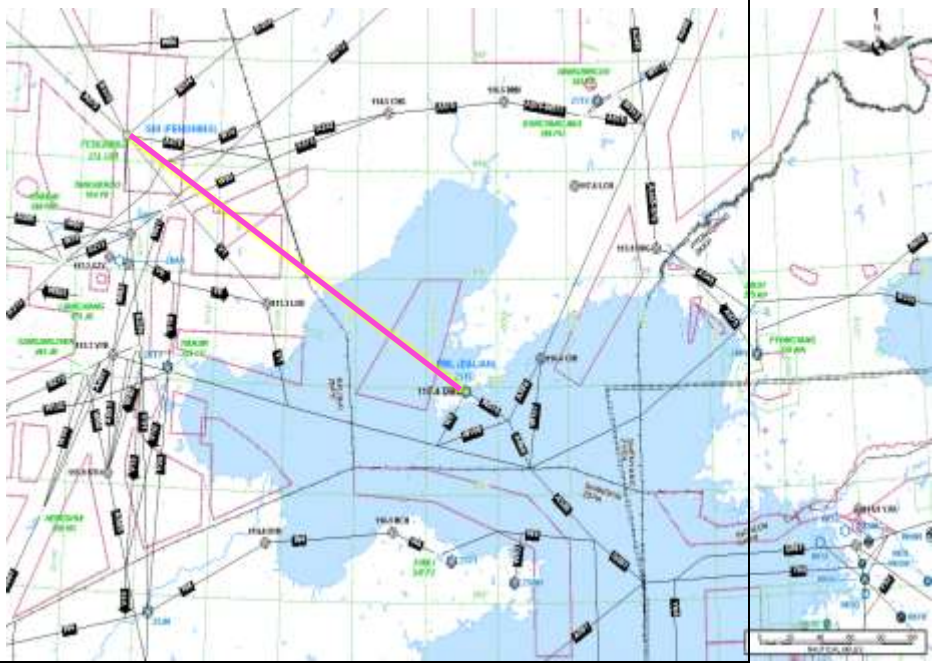
Action Required	IATA
	ICAO

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

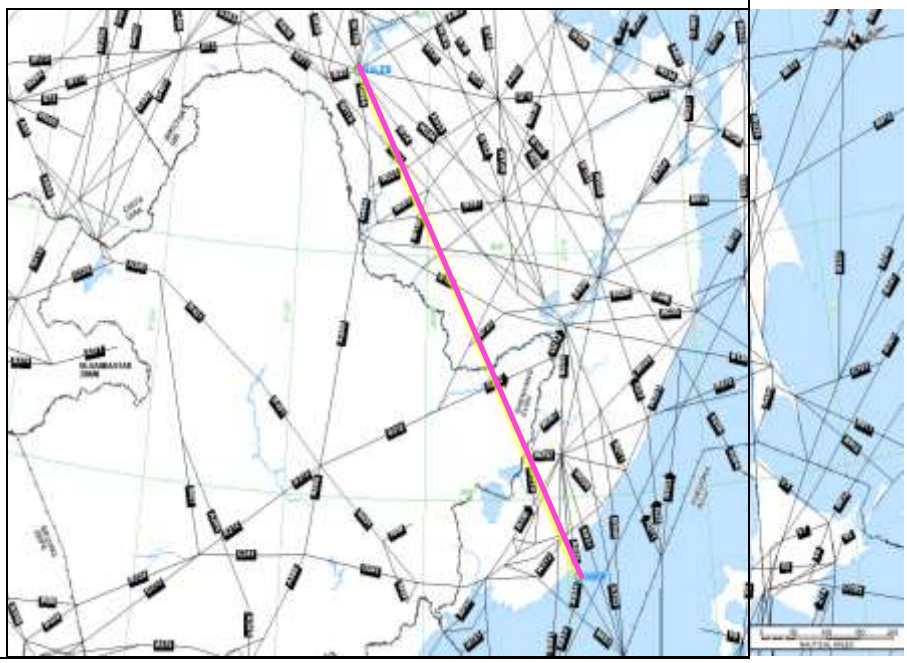
ENTRY/EXIT POINT **ROUTE DESCRIPTION** **FLIGHT LEVEL BAND** ~~**GM**~~ **PIDOX- DBL.** **PRIORITY:** **States concerned** CHINA	**CHART** 

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

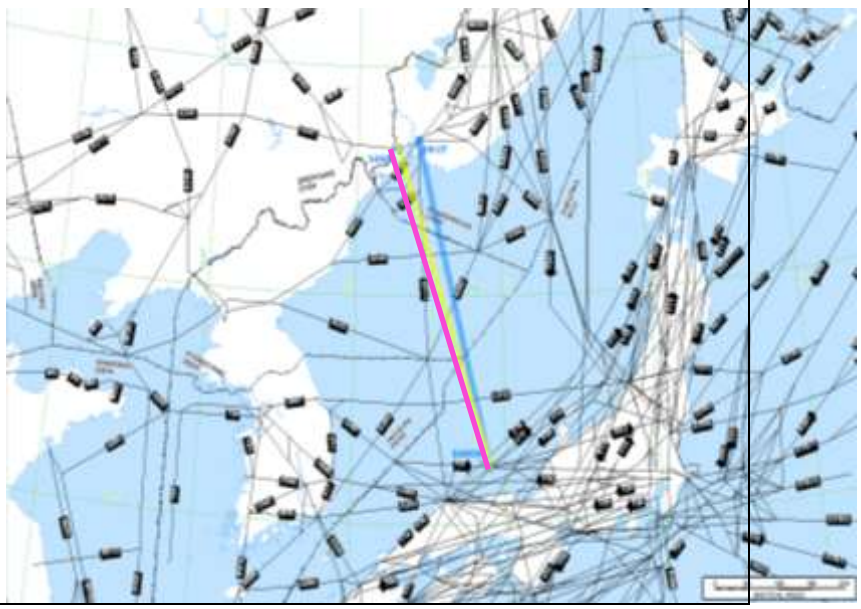
ENTRY/EXIT POINT **ROUTE DESCRIPTION** **FLIGHT LEVEL BAND** **NALEB - SIBIR.** **PRIORITY:** **States concerned** CHINA RUSSIAN FEDERATION	**CHART** 

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	**CHART**
ROUTE DESCRIPTION ATS route segment **DIKUT** or **SANAR - SAMON**. **FLIGHT LEVEL BAND** **PRIORITY:** **States concerned** JAPAN RUSSIAN FEDERATION DEM. PEOPLE'S REP. OF KOREA	

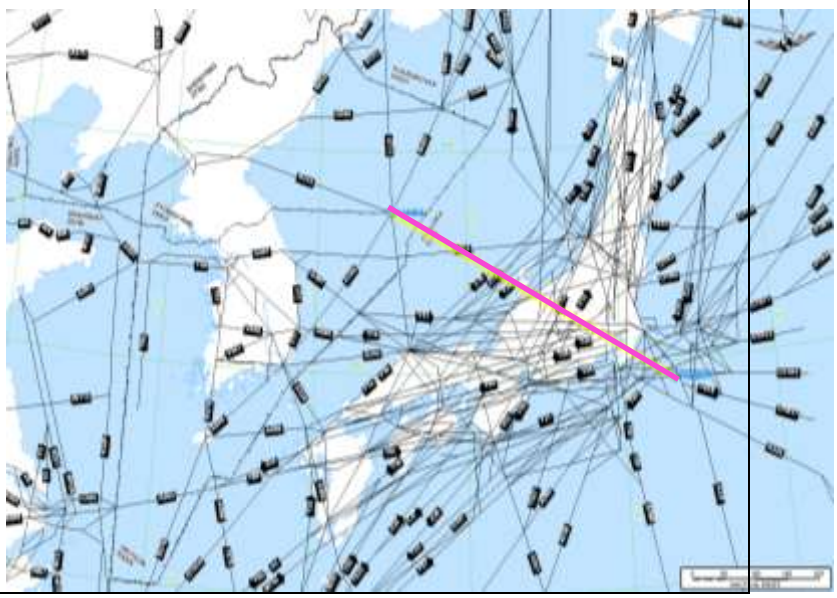
Action Required	IATA
	ICAO

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	**CHART**
ROUTE DESCRIPTION **KANSU - TOMMY**. **FLIGHT LEVEL BAND** **PRIORITY:** **States concerned** KOREA JAPAN	

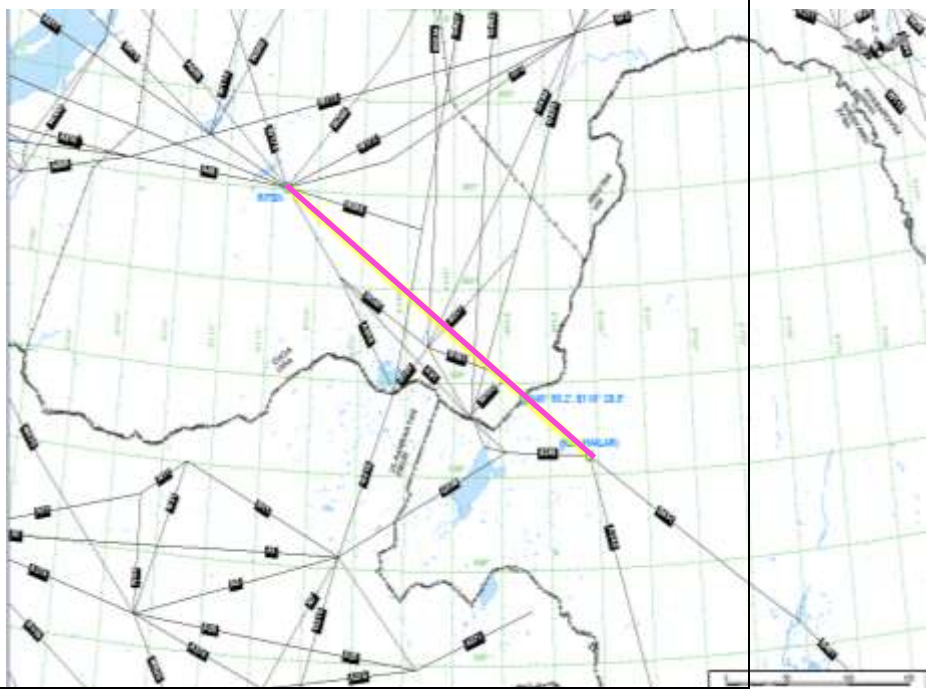
Action Required	IATA
	ICAO

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	**CHART**
ROUTE DESCRIPTION **RITEK- new waypoint 495025N 1182854E - HLD** **FLIGHT LEVEL BAND** **PRIORITY:** **States concerned** CHINA RUSSIAN FEDERATION	

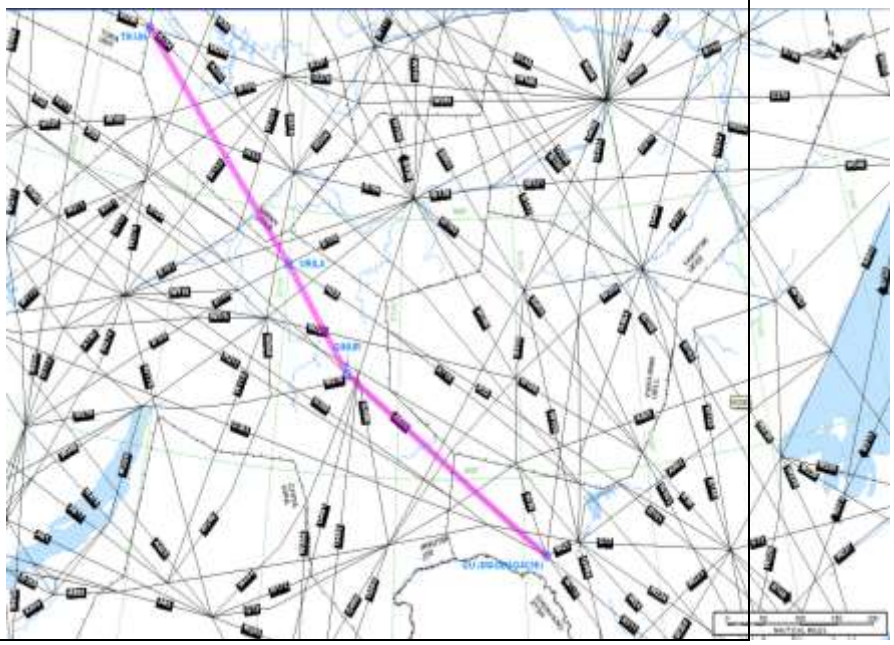
Action Required	IATA
	ICAO

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 comparred to current routing PTG-RITEK-HLD-DIKUT-KANSU

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

ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION **TIKUN - URILA - GINUR - GU.** **FLIGHT LEVEL BAND** **PRIORITY:** **States concerned** CHINA RUSSIAN FEDERATION	

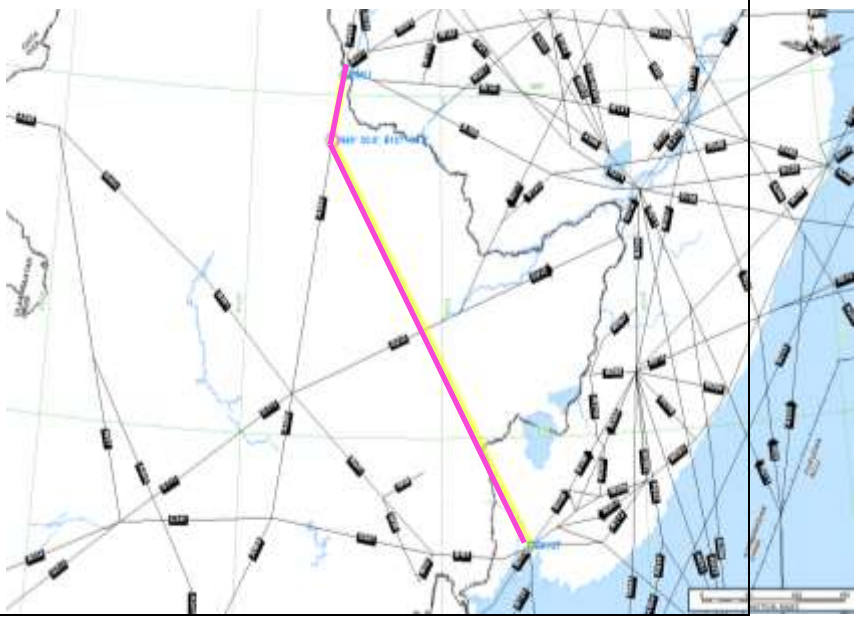
Action Required	IATA
	ICAO

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

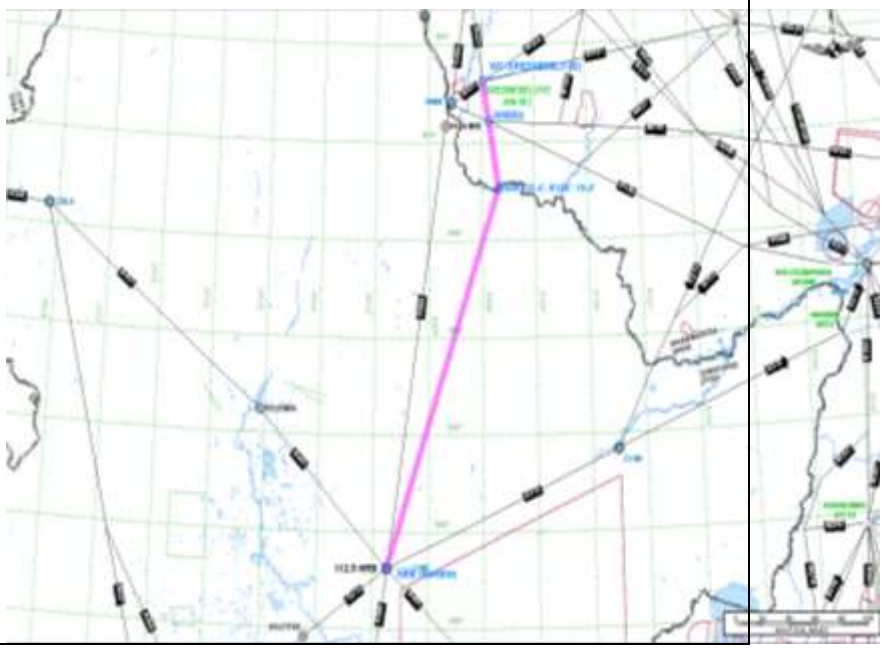
ENTRY/EXIT POINT **ROUTE DESCRIPTION** **SIMLI - new waypoint 492000N 1270600E - DIKUT**. **FLIGHT LEVEL BAND** **PRIORITY:** **States concerned** CHINA RUSSIAN FEDERATION	**CHART** 

Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

Further studies/coordination required. Updates will be given 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

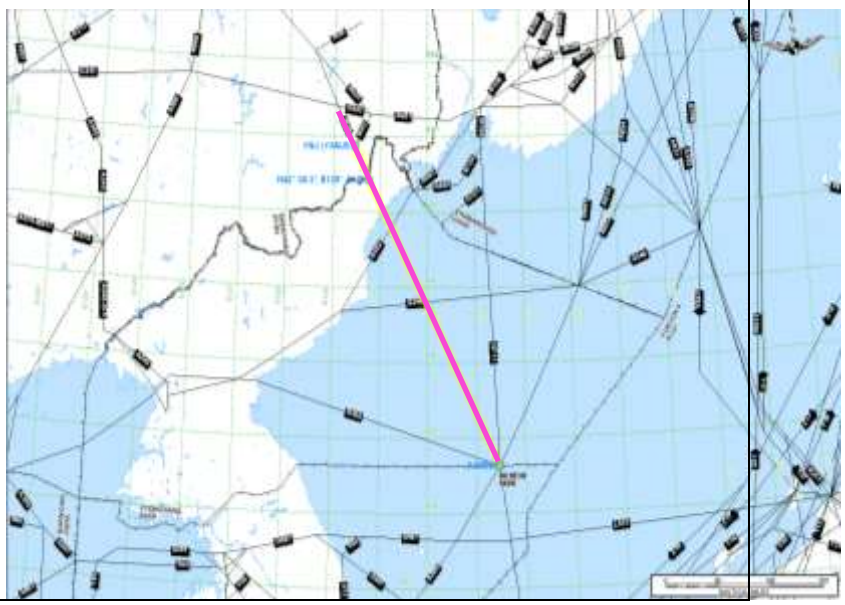
ENTRY/EXIT POINT	**CHART**
ROUTE DESCRIPTION unidirectional Eastbound route **SIMLI - HEK - 492000N 12706E - LEPNI - 422624.7N 1294454.7E - KANSU** **FLIGHT LEVEL BAND** **PRIORITY:** **States concerned** CHINA DEM. PEOPLE'S REP. OF KOREA RUSSIAN FEDERATION	

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

ENTRY/EXIT POINT **ROUTE DESCRIPTION** **FLIGHT LEVEL BAND** **PRIORITY:** **States concerned** CHINA DEM. PEOPLE'S REP. OF KOREA RUSSIAN FEDERATION	**CHART** 

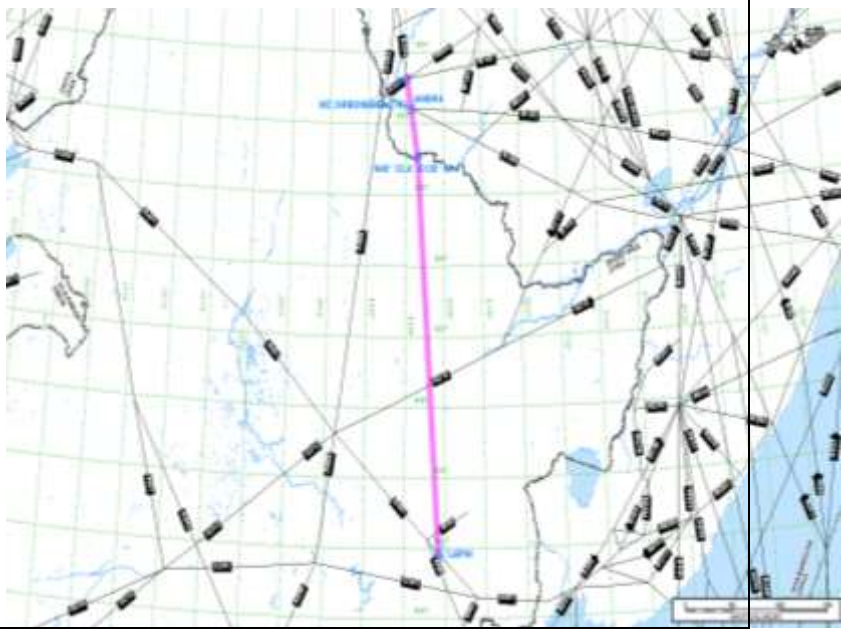
Action Required	IATA
	ICAO

Saving	Per flight	Annual
Mileage / Time		
Fuel		
CO_2		
No_x		

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

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 Tahiti	Moved from Chapter 4. Route Requested by Tahiti