

ASIA/PACIFIC REGION ATS ROUTE CATALOGUE



INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA/PACIFIC REGIONAL OFFICE

VERSION 19

September 2019

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Foreword

1.1 The *Air Navigation Plan – Asia and Pacific Regions* (Doc 9673) has been superseded, in electronic form by the electronic Air Navigation Plan (eANP), which contains a table of regional ATS routes in Volume II (*Table ATM II- APAC- 1 – Asia and Pacific Regions ATS Routes*).

1.2 The Fourteenth Meeting of the Asia/Pacific 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 to determine present and future route requirements. 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 Region ATS Route Catalogue.

1.3 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 Asia/Pacific Region ATS Route Catalogue under Decision 16/9. The ATS Route Catalogue is intended to be a living document, supplementing the eANP and maintained by the ICAO Asia and Pacific (APAC) Regional Sub-Office on behalf of the ICAO Asia and Pacific Office. Communication related to the ATS Route Catalogue should be made via email to apac-rso@icao.int.

1.4 A Contracting State or qualifying International Organization identifying a need for a new route requirement to be included in the eANP or to change an existing route contained in the eANP, may submit an amendment proposal to the ICAO APAC Regional Office in accordance with established procedures summarized below and the template provided on the ICAO APAC website.

1.5 Appropriately presented and documented proposals to amend the eANP are submitted to the ICAO Secretary General through the Regional Office and circulated to States and International Organizations for comment. If, in reply to the ICAO Regional Office's inquiry, no objection is raised to the proposal by a specified date, it will be deemed that a regional agreement (involving the relevant PIRG) on the subject has been reached. The Regional Office will inform States and International Organizations concerned of the approval and the eANP will be amended accordingly.

1.6 If, in reply to the ICAO Regional Office's inquiry, any objection is raised, and if objection remains after further consultation, the matter will be documented for discussion by APANPIRG and, ultimately for formal consideration by the Air Navigation Commission, if it remains unresolved. If the Commission concludes that the amendment is acceptable in its original or other form, it will present appropriate recommendations to the Council.

1.7 The APAC Regional Sub-Office, which is responsible for maintaining the ATS Route Catalogue, will update the ATS 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. The Asia/Pacific Region ATS Route Catalogue is posted on the ICAO APAC website at (<https://www.icao.int/APAC/Pages/default.aspx>).

1.8 The Asia/Pacific Region ATS Route Catalogue is now as follows: Chapter 1: South Asia; Chapter 2: Southeast Asia; Chapter 3: East Asia; Chapter 4: Trans-Regional (South Asia); Chapter 5: Trans-Regional (East Asia); and Chapter 6: Pacific.

1.9 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 Asia/Pacific Region ATS Route Catalogue by the Regional Office. The APAC Regional Office or

Regional Sub-Office will periodically present to appropriate ATM coordination groups or other suitable bodies the proposals within their geographical area of interest for review.

1.10 The Asia/Pacific Region ATS Route Catalogue contained proposals for route changes that had not yet been agreed and implemented.

1.11 States in APAC were required to reclassify the routes as:

- **Priority A – Short Term** i.e. it could be implemented within 12 months;
- **Priority B – Medium Term** i.e it could be implemented within 13 to 36 months;
- **Priority C – Long term** i.e more than 36 months; and
- **Priority D – Cannot be implemented (reasons to be provided).**

As some States were not represented, these routes were classified as Priority C and will be updated when more information becomes available.

1.12 IATA has also prioritised the routes in terms of efficiency and environmental benefits as:

- **HIGH** – one of top priorities for airlines; or
- **MEDIUM** – has significant benefits but can wait until high priority proposals are implemented; or
- **LOW** – the route proposal may be deleted if the State cannot implement within 36 months.

1.13 After review, the Asia/Pacific Region ATS Route Catalogue may be updated by:

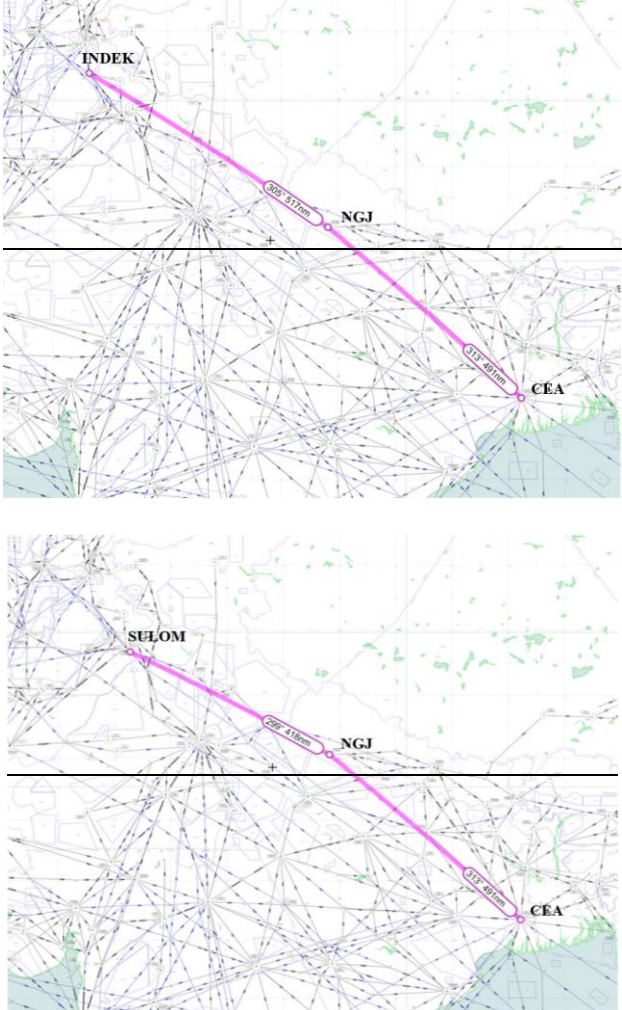
- deletion of the proposal when the proposal has been agreed and entered into the eANP; or
- deletion of the proposal when it has been decided that there is no possibility of implementation in the foreseeable future (i.e.: the proposal has had no progress in the past five years, or it is a Priority C or D and is assigned a LOW priority by IATA); or
- amendment with the addition of supplementary information; or
- addition of a new ATS route proposal.

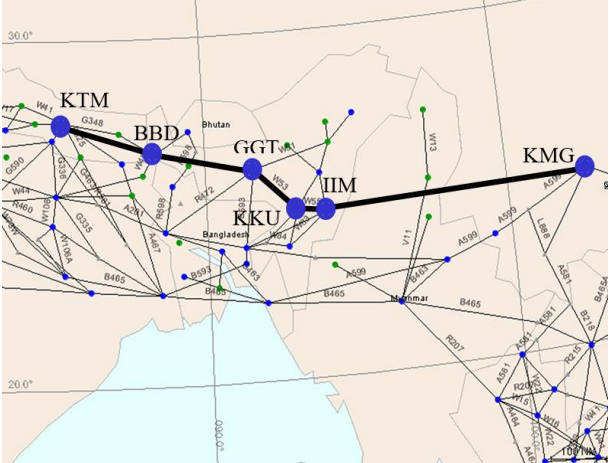
Amendment Record

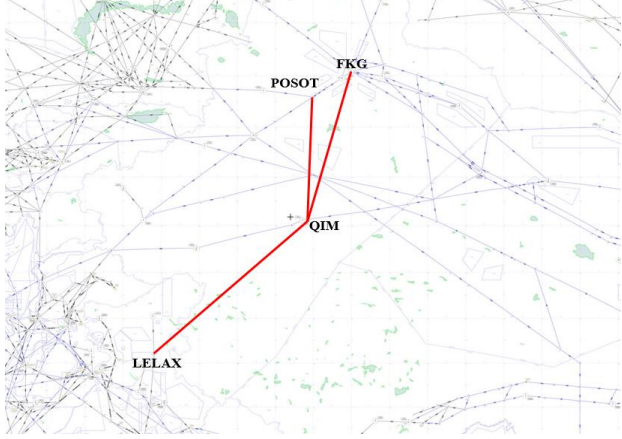
| Version | Date | Amended by | Comments |
|---------|-------------------|---|--|
| 0.1 | 14 February 2005 | - | ARNR/TF/2 developed draft version. |
| 0.2 | 5 May 2005 | ARNR/TF/3 | Finalized format following contribution from members. |
| 0.3 | 29 July 2005 | ATM/AIS/SAR/SG/15 | Sub-Group concluded 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 trans-regional proposals |
| 14 | September 2015 | SAIOACG/SEACG, ATM/SG APANPIRG/26 | Removal of Chapter A (BANP routes). |
| 15 | September 2016 | SAIOACG/SEACG, ATM/SG APANPIRG/27 | Reviewed and updated the Catalogue. |
| 16 | August 2017 | SAIOACG/SEACG, ATM/SG | Reviewed and updated the Catalogue. |
| 17 | September 2018 | SAIOACG/SEACG, ATM/SG | Reviewed and updated the Catalogue, incorporated IATA inputs, added State and IATA priority label. |
| 18 | April 2019 | SAIOACG/9, SEACG/26 | Reviewed and updated the Catalogue. |
| 19 | September 2019 | ATMSG/7, AIRARD TF/4 | Reviewed and updated the Catalogue. |

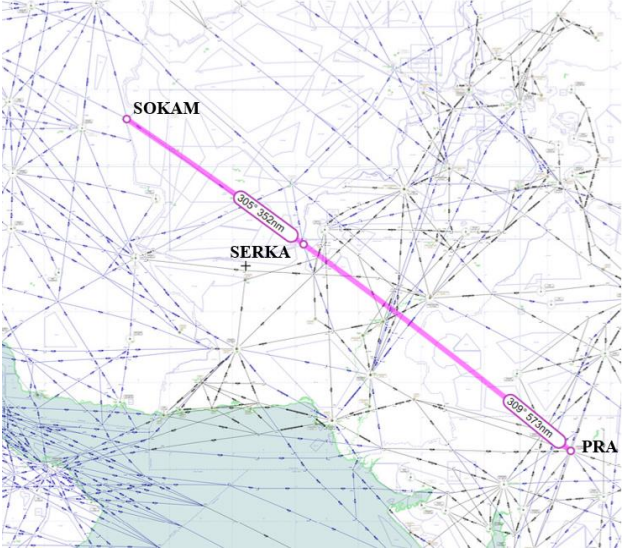
Chapter 1: South Asia

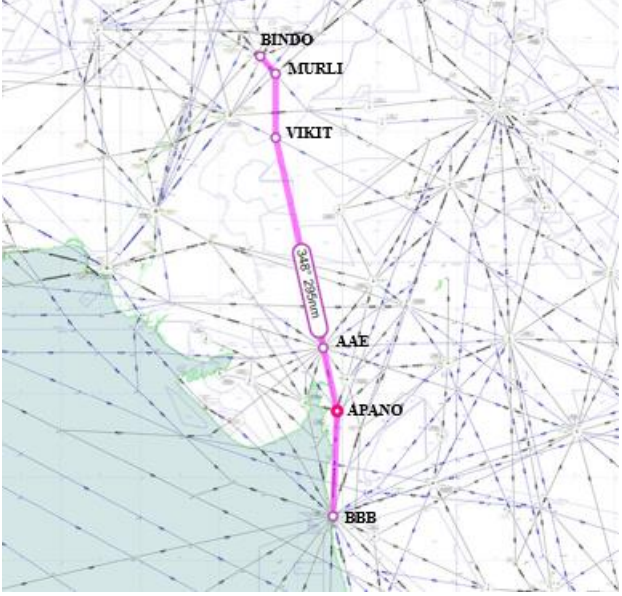
**(referred to: SAIOACG, BOBASIO, ASIOACG as
appropriate for review)**

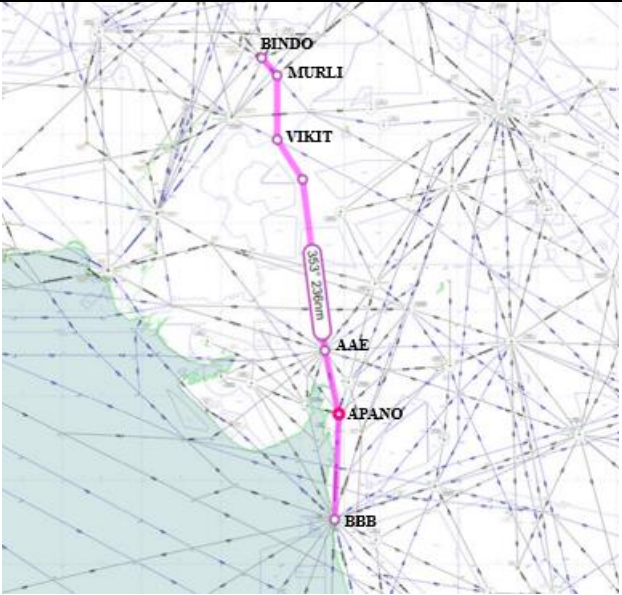
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| ATS Route Name | HIMALAYA 01 |
| State Priority | € |
| IATA Priority | LOW |
| Requested by (when) | Nepal (01/09/2018) |
| States/Administrations Involved | India, Nepal, Pakistan (Kolkata, Delhi, Kathmandu, Lahore FIRs) |
| Route Description | Kolkata (CEA) 2238.7N 08827.2E — Nepalgunj (NGJ) 2806.1N 08139.1E — INDEK 3246.0N 7316.0E or Kolkata (CEA) 2238.7N 08827.2E — Nepalgunj (NGJ) 2806.1N 08139.1E — SULOM 312047N 0743357E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: The extension to L509 serves the purpose at present although is only available for limited hours daily. The availability of another route to the north will provide extra capacity but will need to be amended to link with a new transit route through Kabul. At SAIOACG/9: as this route would traverse military SUAs, India required more time to coordinate with its military authority; and Pakistan counter-proposed for this route via SULOM instead of INDEK. Update from India on 02/08/2019: ATS route L509 implemented from Gaya (GGC) to SULOM. India propose for deletion. At ATMSG/7: Nepal agreed for deletion. |  |

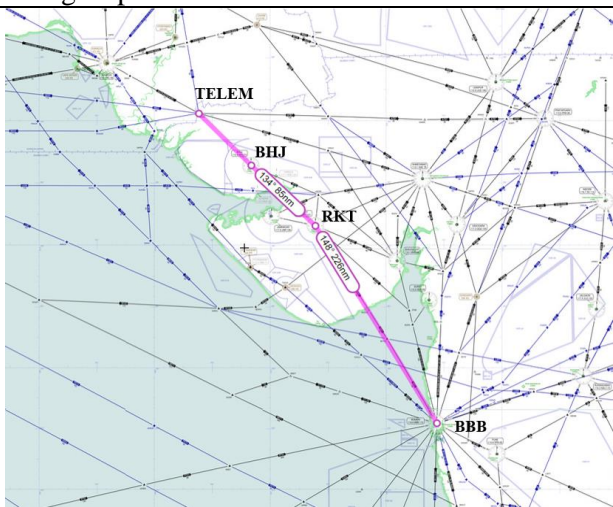
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| ATS Route Name | HIMALAYA 02 |
| State Priority | D |
| IATA Priority | LOW |
| Requested by (when) | Nepal (01/09/2018) |
| States/Administrations Involved | Nepal, India, Myanmar, China (Kathmandu, Kolkata, Yangon, Kunming FIRs) |
| Route Description | Kathmandu (KTM) 2740.5N 08521.0E – Baghdogra (BBD) 2641.3N 08819.8E – Guwahati (GGT) 2606.1N 09135.3E – Silchar (KKU) 2454.8N 09258.9E – Imphal (IIM) 2446.0N 09354.5E – Kunming (KMG) 2501N 10244E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: <u>The route has been implemented except for Imphal to Kunming which China had undertaken to review (as per current remarks).</u> IATA North Asia Office approached China who have indicated this route will be considered as part of the overall China route review – no timeline was given. China advised that they would seriously look at the proposal and would coordinate with Nepal (ref. para 8.4 of the SEA-RR/TF/4 report). At SAIOACG/9: with the improvement of surveillance capability, Myanmar would review this proposal. At ATMSG/7: Under consideration by China; and Myanmar commented this route proposal would be dependent on the enhancement of surveillance and communication coverage in the area. |  <p>The map shows the proposed flight route HIMALAYA 02, highlighted in black, connecting the following airports: Kathmandu (KTM), Baghdogra (BBD), Guwahati (GGT), Silchar (KKU), Imphal (IIM), and Kunming (KMG). The route is plotted over a geographical area covering parts of Nepal, India, Myanmar, and China. The map includes latitude and longitude coordinates (20.0°N to 30.0°N, 100.0°E to 105.0°E) and shows various flight paths and FIR boundaries. Key locations like Bhutan, Bangladesh, and Myanmar are also labeled.</p> |

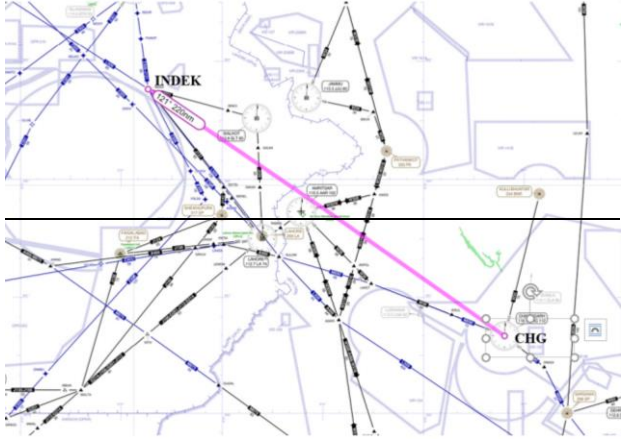
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| ATS Route Name | HIMALAYA 03 |
| State Priority | CD |
| IATA Priority | MEDIUM |
| Requested by (when) | IATA (10/01/2013) |
| States/Administrations Involved | India, China (Delhi, Urumqi FIRs) |
| Route Description | LELAX 3223.5N 07737.9E – Qimo (QIM) 3809.1N 08532.2E – Fukang (FKG) 4410.0N 08759.0E or LELAX 3223.5N 07737.9E – Qimo (QIM) 3809.1N 08532.2E – POSOT 4311.0N 08558.4E – Fukang (FKG) 4410.0N 08759.0E |
| Flight Level Band | |
| Benefit (fuel, environmental) | 257 NM / 23 minutes, 3500 kg fuel, 11,000 kg CO ₂ per flight, 1,265 tonnes fuel, 4,000 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Potential City Pairs: India – North America. Direct to QIM over the Himalaya to support a new route from India into China connecting to Russia onwards polar / trans polar gateways connecting to FKG – TAI – GOPTO – LANBI. 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. Update from India on 02/08/2019: Not agreed by India, and proposed for deletion. At ATMSG/7: China proposed for deletion; and IATA would provide feedback after a comprehensive review of the Catalogue by its focus group, expected in March 2020. |  A map of the Himalayan region showing flight routes. Four cities are marked: LELAX (southwest), QIM (center), POSOT (northwest), and FKG (northeast). Red lines connect LELAX to QIM, QIM to POSOT, and QIM to FKG. A network of other flight routes is visible in the background. |

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| ATS Route Name | IND 07 (N877 Extension) |
| State Priority | D |
| IATA Priority | MEDIUM |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | India, Pakistan, Afghanistan (Mumbai, Delhi, Karachi, Kabul FIRs) |
| Route Description | Pratarah (PRA) 2401.8N 07445.0E – SERKA 2951.0N 06615.0E – SOKAM 3313.3N 06037.9E |
| Flight Level Band | 28,000 - 46,000 ft |
| Benefit (fuel, environmental) | 51 NM / 7 minutes, 835 kg fuel, 2,630 kg CO ₂ per flight, 3,387 tonnes fuel, 10,668 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | LH, KL |
| Remarks: Potential City Pairs: KUL/SIN – MID – EAST/EUROPE. This proposal predates the extension of UL333 through Kabul FIR and has been under consideration for a number of years. The extension of UL333 is under utilised against other Kabul routes largely due the 45 NM 'penalty' in track mileage the current route structure requires. The routes primary benefit at this stage will be westbound and during BOBCAT traffic flow. Extension completed SERKA to SOKAM. Update 08/02/13: PRA – SERKA has been approved by India after lengthy consultation with the military, complementary action from Pakistan awaited. At SAIOACG/9: Pakistan commented this route proposal was very unlikely to be implemented. <u>Future of this route would be decided at SAIOACG/10 in 2020.</u> Update from India on 02/08/2019: Since the proposal is pending concurrence of Pakistan for a long time, India need to renegotiate the proposal with military after comments from Pakistan. |  |

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| ATS Route Name | IND 08 (a) |
| State Priority | C |
| IATA Priority | MEDIUM |
| Requested by (when) | IATA, (25/06/2012: ATM/AIS/SAR/SG-22) |
| States/Administrations Involved | Pakistan, India (Mumbai, Karachi FIRs) |
| Route Description | Mumbai (BBB) 1905.2N 07252.5E – APANO 2135.0N 07259.0E – W13N – Ahmedabad (AAE) 2304.1N 07237.7E – New Waypoint 1 (FIR BDRY between Mumbai and Delhi) – VIKIT 2752.2N 07125.5E – MURLI 2917.7N 07125.4E – BINDO 2940.8N 07101.9E |
| Flight Level Band | |
| Benefit (fuel, environmental) | 67 NM / 10 minutes, 700 kg fuel, 2,205 kg CO ₂ per flight, 72,800 kg fuel, 229,330 kg CO ₂ annually Note: Savings based on HEL – GOI city pair. |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Potential City Pairs: Mumbai – North American cities. Initial request time specific (1600 – 2359) to support late night operations to North America. Segment VIKIT – MURLI – BINDO is within Karachi FIR. MURLI and BINDO is now connected via L750. IND 08 (a) preferred over IND 08 (b). At SAIOACG/9: as this route would traverse military SUAs, India required more time to coordinate with its military authority; and Pakistan counter-proposed for VIKIT P628 RK G202 (using existing route) as this route would also lead to ZB L750 in Karachi FIR. Update from India on 02/08/2019: Proposal for route between Ahmedabad (AAE) to VIKIT is under negotiation with military authority. |  |

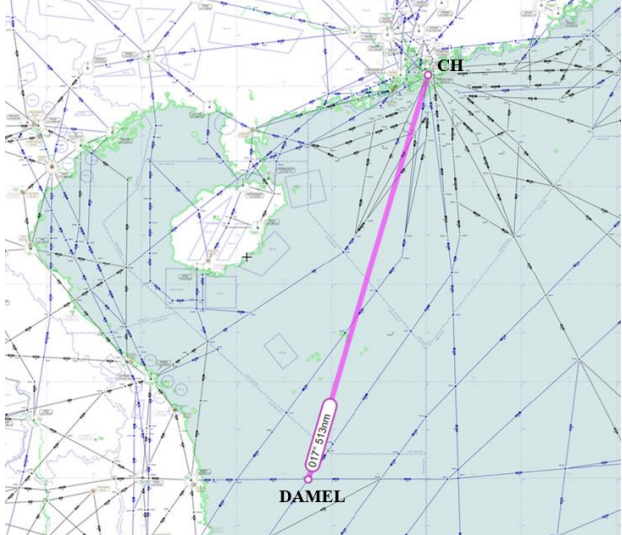
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| ATS Route Name | IND 08 (b) |
| State Priority | C |
| IATA Priority | MEDIUM |
| Requested by (when) | IATA, (25/06/2012: ATM/AIS/SAR/SG-22) |
| States/Administrations Involved | Pakistan, India (Mumbai, Karachi FIRs) |
| Route Description | Mumbai (BBB) 1905.2N 07252.5E – APANO 2135.0N 07259.0E – W13N – Ahmedabad (AAE) 2304.1N 07237.7E – New Waypoint 1 (FIR BDRY between Mumbai and Delhi) – <u>New Waypoint 2 (10 NM clearance from POKHARAN{VI(D)123})</u> – VIKIT 2752.2N 07125.5E – MURLI 2917.7N 07125.4E – BINDO 2940.8N 07101.9E |
| Flight Level Band | |
| Benefit (fuel, environmental) | 101 NM / 13 minutes, 1,132 kg fuel, 3,510 kg CO ₂ per flight Note: Savings based on HEL – GOI city pair. |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Potential City Pairs: Mumbai – North American cities. Initial request time specific (1600 – 2359) to support late night operations to North America. Segment VIKIT – MURLI – BINDO is within Karachi FIR. MURLI and BINDO is now connected via L750. IND 08 (a) preferred over IND 08 (b). At SAIOACG/9: as this route would traverse military SUAs, India required more time to coordinate with its military authority; and Pakistan counter-proposed for VIKIT P628 RK G202 (using existing route) as this route would also lead to ZB L750 in Karachi FIR. Update from India on 02/08/2019: Proposal for route between Ahmedabad (AAE) to VIKIT is under negotiation with military authority. |  |

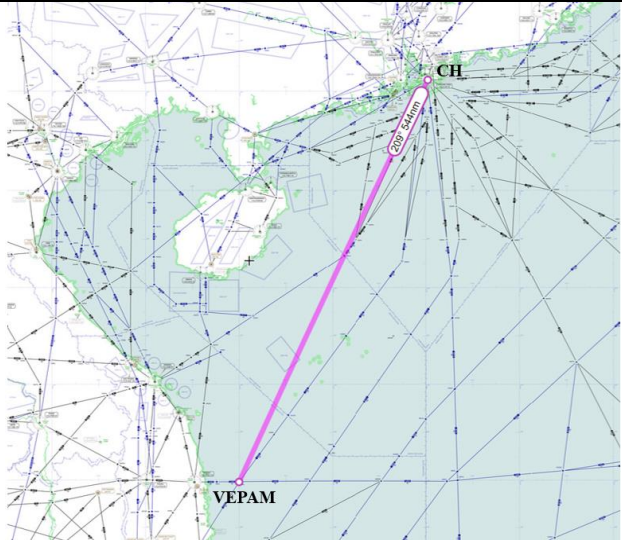
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| ATS Route Name | IND 09 |
| State Priority | CD |
| IATA Priority | MEDIUM |
| Requested by (when) | IATA (01/01/2013) |
| States/Administrations Involved | India (Mumbai FIR) |
| Route Description | TELEM 2407.0N 06846.0E – Bhuj (BHJ) 2316.5N 06940.0E – Rajkot (RKT) 2218.8N 07046.7E – Mumbai (BBB) 1905.2N 07252.5E |
| Flight Level Band | 29,000 – 46,000 ft |
| Benefit (fuel, environmental) | 50 NM / 8 minutes, 751 kg fuel, 2,366 kg CO ₂ per flight, 2,695 tonnes fuel, 8,485 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | 9W, AI, BA, LH, KL 69 flights per week |
| Remarks: Potential City Pairs: Europe – BOM/BLR. Facilitates arrivals into Mumbai, Bangalore from Europe. Reduces congestion around AMD with respect to BOM DEL BOM busy corridor, will assist CDOs that will add further fuel savings. At SAIOACG/9: as this route would traverse military SUAs, India required more time to coordinate with its military authority; and IATA suggested India to at least consider this route as CDR during peak hours. Update from India on 02/08/2019: Not possible for implementation. At ATMSG/7: IATA would provide feedback after a comprehensive review of the Catalogue by its focus group, expected in March 2020. |  |


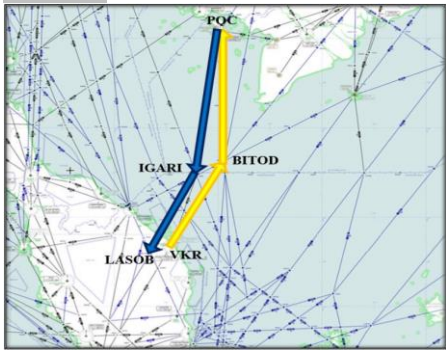
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| ATS Route Name | PAK 02 |
| State Priority | D |
| IATA Priority | LOW |
| Requested by (when) | IATA (01/01/2013) |
| States/Administrations Involved | Pakistan, India (Lahore, Delhi FIRs) |
| Route Description | INDEK 3246.0N 07316.0E — Chandigarh (CHG) 3040.1N 07648.3E |
| Flight Level Band | 29,000 — 46,000 ft |
| Benefit (fuel, environmental) | 10 NM, 158 kg fuel, 498 kg CO ₂ per flight, 156,000 kg fuel, 490,000 kg CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Route will facilitate separating overflying traffic from Delhi ARR/DEP traffic, especially when L509 closes. Although small distance savings but it will help in reducing traffic congestion and facilitating optimum flight levels. At SAIOACG/9: as this route would traverse military SUAs, India required more time to coordinate with its military authority. Future of this route would be decided at SAIOACG/10 in 2020. Update from India on 02/08/2019: ATS route M890 implemented from Chandigarh (CHG) to SULOM. India proposed for deletion. At ATMSG/7: IATA agreed for deletion. <u>Potential City Pairs:</u> Europe — South East Asia/South Asia. |  |

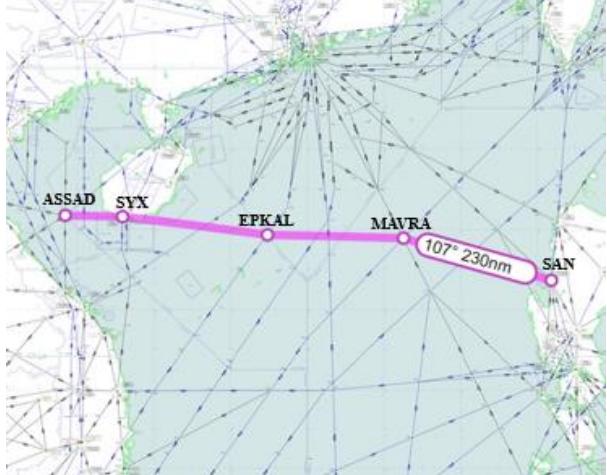
Chapter 2: Southeast Asia


(referred to SEACG for review)

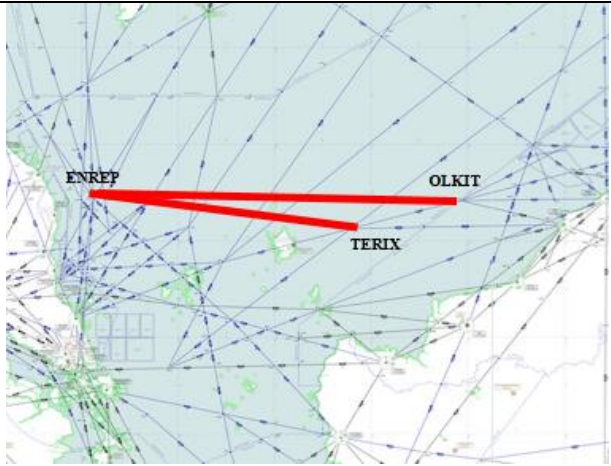
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| ATS Route Name | SCS 01 |
| State Priority | C |
| IATA Priority | MEDIUM |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | Viet Nam, China, Hong Kong China (Ho Chi Minh, Sanya, Hong Kong FIRs) |
| Route Description | DAMEL 1358.7N 11130.6E – Cheung Chau (CH) 2213.2N 11401.8E |
| Flight Level Band | 28,000 – 46,000 ft |
| Benefit (fuel, environmental) | 52 NM / 8 minutes, 870 kg fuel, 2,741 kg CO ₂ per flight, 2,714 tonnes fuel, 8,550 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | CX At least 60flight per week |
| Remarks: Potential City Pairs: SIN – Pearl River Delta Airports. Proposed route shortening for M771 into the Pearl River Delta area. 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. At SEACG/26: Hong Kong China commented they would need to review the integration of this route proposal with its planned airspace enhancement projects. Update from Viet Nam on 22/07/2019: Viet Nam has no objection, subject to agreement from China and Hong Kong China. |  |

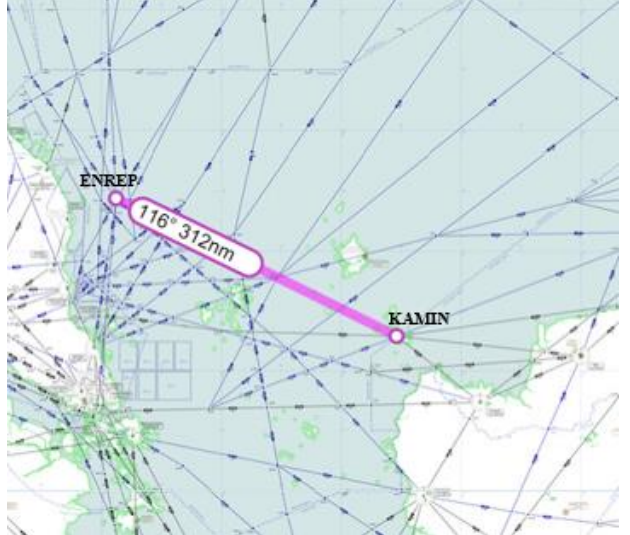
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| ATS Route Name | SCS 02 |
| State Priority | C |
| IATA Priority | HIGH |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | Viet Nam, China, Hong Kong China (Ho Chi Minh, Sanya, Hong Kong FIRs) |
| Route Description | VEPAM 1358.0N 11000.0E – Cheung Chau (CH) 2213.2N 11401.8E |
| Flight Level Band | 28,000 – 46,000 ft |
| Benefit (Environmental) | 24 NM / 3 minutes, 190 kg fuel, 600 kg CO ₂ per flight, 1,520 tonnes fuel, 4,790 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | CX, MH, SQ 154 flights per week |
| Remarks: Potential City Pairs: SIN – Pearl River Delta Airports. Proposed route shortening for L642 out of the Pearl River Delta area. 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. At SEACG/26: Hong Kong China commented they would need to review the integration of this route proposal with its planned airspace enhancement projects. Update from Viet Nam on 22/07/2019: Viet Nam has no objection, subject to agreement from China and Hong Kong China. |  |

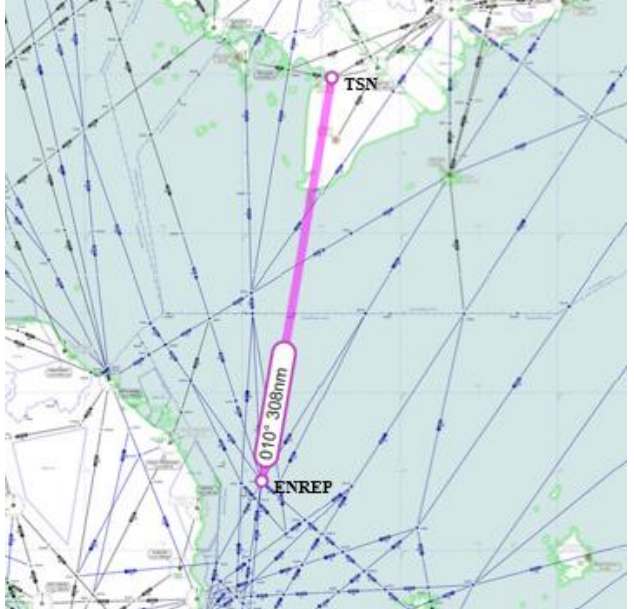
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| ATS Route Name | SCS 11 |
| State Priority | B |
| IATA Priority | MEDIUM |
| Requested by (when) | IATA (10/03/2015: SEACG/22) |
| States/Administrations Involved | Viet Nam, Singapore, Malaysia (Ho Chi Minh, Singapore, Kuala Lumpur FIRs) |
| Route Description | Kuala Terengganu (VKR) 0521.6N 10304.9E – BITOD 0715.4N 10407.1E |
| Flight Level Band | |
| Benefit (fuel, environmental) | 59 NM / 7 minutes, 1,035 kg fuel, 3,260 kg CO ₂ per flight, 1,507 tonnes fuel, 4,747 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | MH, VN 28 flights per week |
| Remarks: Potential City Pairs: KUL – SGN. At SEACG/26: Malaysia, Singapore and Viet Nam had agreed in principle the feasibility of the route proposal. The States concerned would meet to further discuss the proposal in due time, and Malaysia agreed to become the lead coordinator. Update from Viet Nam on 22/07/2019: Viet Nam proposed the following route proposals for consideration by Malaysia and Singapore: Uni-directional eastbound route VKR – BITOD – PQC; and uni-directional westbound route PQC – IGARI – LASOB. |  |
|  <p>At ATMSG/7: Malaysia would lead the tripartite meeting, expected during the SCSTFRG/8 in September 2019.</p> | |

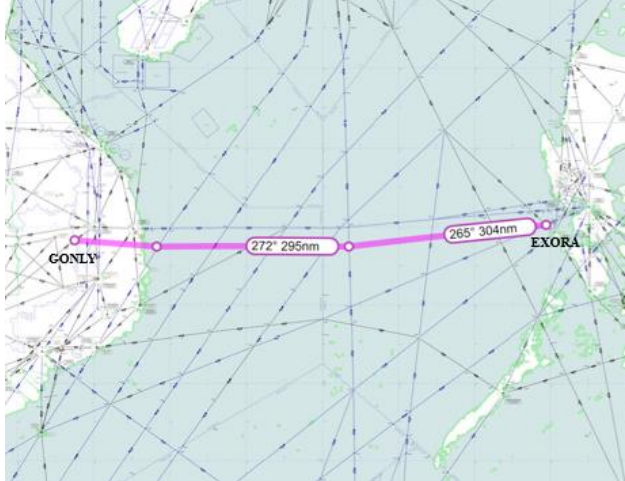
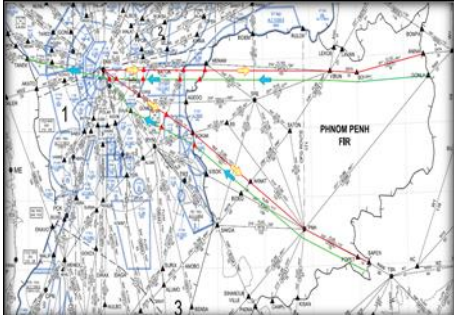
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| ATS Route Name | SCS 12 |
| State Priority | D |
| IATA Priority | MEDIUM |
| Requested by (when) | IATA (30/07/2018) |
| States/Administrations Involved | Viet Nam, China, Hong Kong China, Philippines (Hanoi, Sanya, Hong Kong, Manila FIRs) |
| Route Description | ASSAD 1820.5N 10740.9E – Sanya (SYX) 1818.6N 10910.4E – EPKAL 1751.5N 11257.3E – MAVRA 1746.7N 11630.1E – San Fernando (SAN) 1643.7N 12021.5E |
| Flight Level Band | 28,000 – 46,000 ft (8400 – 15000 meters) |
| Benefit (fuel, environmental) | 114 NM / 10 minutes, 1,189 kg fuel, 3,745 kg CO ₂ per flight, 5,207 tonnes fuel, 16,404 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | QR (3), EK (8), EY (1) |
| Remarks: At SEACG/26: China and Hong Kong China commented that this route proposal was very unlikely to be implemented due to the conflicting combinations of FLAS on ATS route L642/M771/ P901. <u>Future of this route proposal would be decided at SEACG/27 in 2020.</u> Update from Viet Nam on 22/07/2019: Viet Nam has no objection, subject to agreement from China, Hong Kong China, Philippines. |  |


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| ATS Route Name | SCS 13 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Malaysia (26/03/2018: SAIOACG/8 & SEACG/25) |
| States/Administrations Involved | Malaysia, Singapore, Philippines (Kota Kinabalu, Singapore, Manila FIRs) |
| Route Description | NODIN 081059.88N 1161142.00E – LAXOR 094936.84N 1144829.16E |
| Flight Level Band | 30,000 and 38,000 ft (FLAS for M772) |
| Benefit (fuel, environmental) | 39 NM / 8 minutes, 236 kg fuel, 746 kg CO ₂ per flight, 1,550 tonnes fuel, 4,900 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | 9C, AK, CZ 63 flights per week |
| Remarks: Potential City Pairs: BKI – HKG/CAN/SZX/WUH. At SEACG/26: IATA would assign its priority after a comprehensive review of the Catalogue by its focus group. |  |


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| ATS Route Name | SCS 14 |
| State Priority | B |
| IATA Priority | |
| Requested by (when) | Malaysia (26/03/2018: SAIOACG/8 & SEACG/25) |
| States/Administrations Involved | Malaysia, Singapore (Kota Kinabalu, Singapore FIRs) |
| Route Description | ENREP 045223.88N 1041442.00E – OLKIT 045012.12N 1115118.00E or ENREP 045223.88N 1041442.00E – TERIX 041520.88N 1093455.92E |
| Flight Level Band | At or below 29,000 ft |
| Benefit (fuel, environmental) | 107 NM / 12 minutes, 365 kg fuel, 1,153 kg CO ₂ per flight, 266,450 kg fuel, 841,982 kg CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Potential City Pairs: BKI – KBR. Purpose is to circumnavigate major confluence of air traffic at VPK thus providing better efficiency for flight operating from/to KBR. Operation at 29,000 ft and below to avoid crossing traffic within the South Chia Sea airspace. At SEACG/26: Singapore commented implementation of this route would be possible with the implementation of space-based ADS-B in Singapore FIR, planned by end of 2019; and IATA would assign its priority after a comprehensive review of the Catalogue by its focus group. |  |

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| ATS Route Name | SCS 15 |
| State Priority | B |
| IATA Priority | |
| Requested by (when) | Malaysia (26/03/2018: SAIOACG/8 & SEACG/25) |
| States/Administrations Involved | Malaysia, Singapore (Kota Kinabalu, Singapore FIRs) |
| Route Description | ENREP 045223.88N 1041442.00E – KAMIN 023441.88N 1085536.12E |
| Flight Level Band | At or below 29,000 ft |
| Benefit (fuel, environmental) | 107 NM / 12 minutes, 365 kg fuel, 1,153 kg CO ₂ per flight, 266,450 kg fuel, 841,982 kg CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Potential City Pairs: KCH – KBR. Purpose is to circumnavigate major confluence of air traffic at VPK thus providing better efficiency for flight operating from/to KBR. Operation at 29,000 ft and below to avoid crossing traffic within the South Chia Sea airspace. At SEACG/26: Singapore commented implementation of this route would be possible with the implementation of space-based ADS-B in Singapore FIR, planned by end of 2019; and IATA would assign its priority after a comprehensive review of the Catalogue by its focus group. |  |

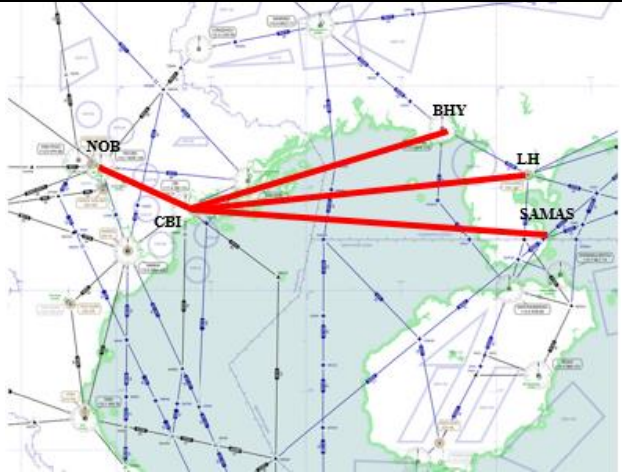
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| ATS Route Name | SCS 16 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Viet Nam, (01/04/2019: SEACG/26) |
| States/Administrations Involved | Singapore, Viet Nam (Singapore, Ho Chi Minh FIRs) |
| Route Description | Implementation of new uni-directional northbound ATS route: ENREP 045223.88N 1041442.00E – New Waypoint (FIR BDRY between Singapore and Ho Chi Minh) – Tan Son Nhat (TSN) 104859.20N 1063844.10E |
| Flight Level Band | |
| Benefit (fuel, environmental) | 48 NM / 6 minutes, 252 kg fuel, 794 kg CO ₂ per flight, 576,576 kg fuel, 1,816 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Potential City Pairs: SIN – SGN. Update from Viet Nam on 22/07/2019: Due to crossing routes, this route proposal would be possible subject to the enhancement of surveillance and ATFM capabilities in the concerned area. |  |

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| ATS Route Name | SCS 17 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Philippines, (01/04/2019: SEACG/26) |
| States/Administrations Involved | Philippines, Viet Nam (Manila, Ho Chi Minh FIRs) |
| Route Description | Implementation of new uni-directional westbound ATS route: EXORA 140334.90N 1195256.80E – New Waypoint 1 (133021N 1144200E) – New Waypoint 2 (FIR BDRY between Manila and Ho Chi Minh) – New Waypoint 3 (133021N 1093920E) – GONLY (134000.12N 1073000.00E) |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | Approximately 200 flights per week |
| Remarks: Potential City Pair: BKK – MNL. This route should join the planned RNAV 2 route parallel to G474 (MK-ATM/CG). Planned NavSpec RNP2. |  |
|  <p>Existing L628 need to be re-designated as RNP 2 and uni-directional eastbound route. Update from Viet Nam on 22/07/2019: Viet Nam would conduct further review. This proposed route would cross very high density traffic (climbing/descending) on ATS route Q1 and Q2.</p> | |

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| ATS Route Name | SCS 18 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Viet Nam (01/04/2019: SEACG/26) |
| States/Administrations Involved | Viet Nam, China, Hong Kong China (Ho Chi Minh, Sanya, Hong Kong FIRs) |
| Route Description | Phu Cat (PCA) 135726.00N 1090233.60E – IKELA 183942.00N 1121442.00E or Phu Cat (PCA) 135726.00N 1090233.60E – LENKO 172456.88N 1101800.00E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Proposed route would reduce flight distance and time for traffic operating between Kuala Lumpur/Ho Chi Minh City or other airports in Malaysia and Viet Nam to destination Hong Kong and beyond. At ATMSG/7: China proposed to concentrate on the implementation of parallel route to A1 (SCSTFRG Priority Area 1). This route proposal may not be needed, if the parallel route to A1 is implemented. |  |

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| ATS Route Name | SEA 12 |
| State Priority | C |
| IATA Priority | HIGH |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | Thailand, Lao PDR, Viet Nam, China (Bangkok, Vientiane, Hanoi, Sanya, Guangzhou FIRs) |
| Route Description | Roiet (ROT) 1607.0N 10346.7E – Huguang (LH) 2107.9N 11020.2E |
| Flight Level Band | 29,000 – 46,000 ft |
| Benefit (fuel, environmental) | 14 NM / 2 minutes, 208 kg fuel, 655 kg CO ₂ per flight, 1,731 tonnes fuel, 5,451 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | CX 160 flights per week |
| Remarks: Potential City Pairs: KUL/SIN/Phnom Penh/JKT – Sanya/HKG. Provide parallel to the A202 route. At SEACG/26: Viet Nam proposed to concentrate on SCSTFRG Priority Area 1: parallel route to A1 proposal. This route proposal to be reviewed at a later stage. |  |

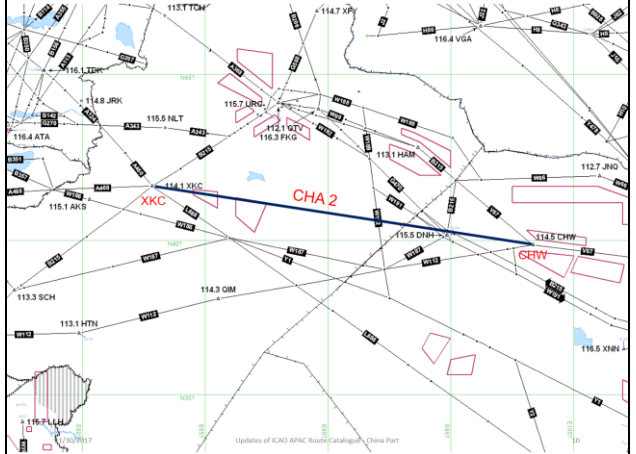
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| ATS Route Name | THA 01 |
| State Priority | D |
| IATA Priority | LOW |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | Myanmar, Thailand (Yangon, Bangkok FIRs) |
| Route Description | Khorat (KRT) 1455.0N 10208.4E – Dawei (DWI) 1405.9N 09812.2E |
| Flight Level Band | 28,000 – 46,000 ft |
| Benefit (fuel, environmental) | 15 NM / 2 minutes, 260 kg fuel, 819 kg CO ₂ per flight, 946,000 kg fuel, 2,981 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Thailand updated the SAIOACG/7 meeting that Bangkok ACC had been tactically routing aircraft direct between KRT and DWI when traffic permitted. However, due to ATC automation transition, the route proposal may need to wait for completion of ATC automation transition to be considered. Myanmar unable to accept 28/4/17. At SEACG/26: <u>Future of this route proposal would be decided at SEACG/27 in 2020.</u> | <p>The map displays the geographical context of the proposed route. A solid black line connects Khorat (KRT) and Dawei (DWI) in Thailand. Other airports shown include SAV, RAMEI, and BKK. The map also indicates the borders of Thailand and Cambodia.</p> |


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| ATS Route Name | VIET NAM 02 |
| State Priority | D |
| IATA Priority | HIGH |
| Requested by (when) | Viet Nam (01/09/2018) |
| States/Administrations Involved | Viet Nam, China (Hanoi, Sanya, Guangzhou FIRs) |
| Route Description | Noi Bai (NOB) 2112.8N 10550.1E – Cat Bi (CBI) 2049.1N 10642.5E – SAMAS 2030.3N 11029.7E or Noi Bai (NOB) 2112.8N 10550.1E – Cat Bi (CBI) 2049.1N 10642.5E – Huguang (LH) 2107.9N 11020.2E or Noi Bai (NOB) 2112.8N 10550.1E – Cat Bi (CBI) 2049.1N 10642.5E – Nankang (BHY) 2135.2N 10925.9E |
| Flight Level Band | 28,000 – 46,000 ft |
| Benefit (fuel, environmental) | 48 NM / 6 minutes, 252 kg fuel, 794 kg CO ₂ per flight, 576,576 kg fuel, 1,816 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | CX 44 flights per week |
| Remarks: Because of small traffic demand and cost/benefit considerations, this route is impossible and can not be implemented at present. Retain proposal for long-term planing (Viet Nam). Retention discussed at SEACG/22. At SEACG/26: China commented that this route proposal was very unlikely to be implemented, and recommended for this route proposal to be deleted from the Catalogue; and Viet Nam proposed alternate option: Noi Bai (NOB) 2112.8N 10550.1E – Cat Bi (CBI) 2049.1N 10642.5E – Nankang (BHY) 2135.2N 10925.9E to serve traffic between Ha Noi/Cat Bi/Van Don (new international airport in Viet Nam) and destinations in China and beyond. <u>Future of this route proposal would be decided at SEACG/27 in 2020.</u> |  |

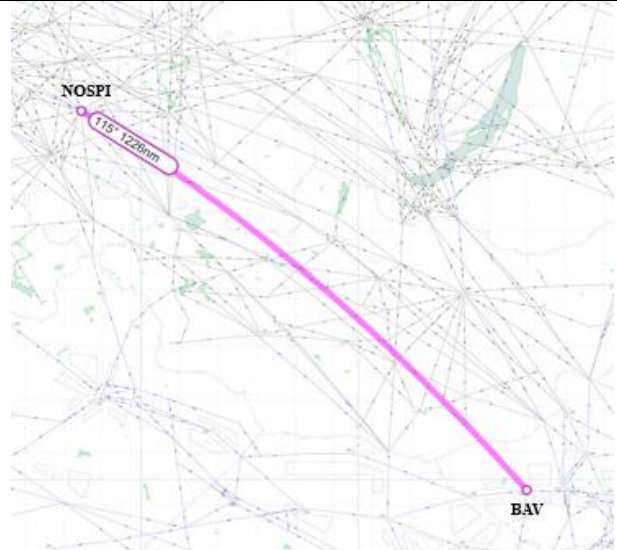
Chapter 3: East Asia

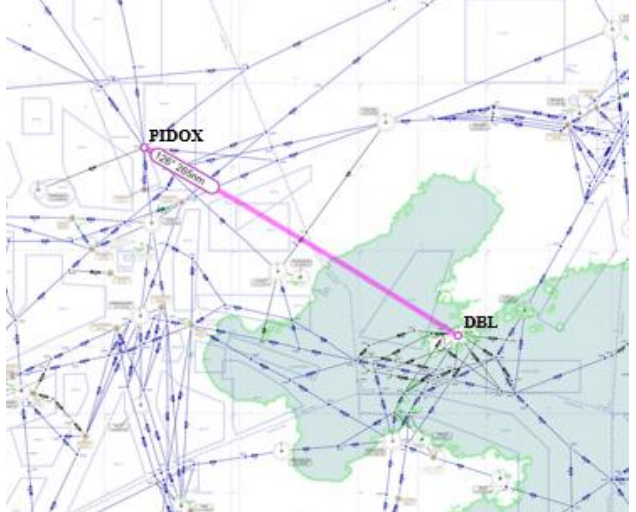
(referred to: States or EATMCG as appropriate for review)


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| ATS Route Name | CHA 01 |
| State Priority | CD |
| IATA Priority | HIGH |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | China (Lanzhou, Beijing, Wuhan FIRs) |
| Route Description | Yinchuan (YHD) 3820.8N 10624.6E – Zhengzhou (CGO) N3431.1 E11350.6 |
| Flight Level Band | 8,400 – 15,000 meters |
| Benefit (fuel, environmental) | 73 NM / 9 minutes, 26,645 kg fuel, 825,995 kg CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Potential City Pairs: Europe – Shanghai. Original proposal: YHD – YAV – CGO – ZHO – SB/HFE. The route segment between CGO – ZHO – HFE has been implemented as part of ATS route B208 since 2008. Therefore, the route description was amended as YHD – CGO accordingly. At ATMSG/7: China commented the proposed route would create numerous conflicts, and was not consistent with its planned route network. | |


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| ATS Route Name | CHA 02 |
| State Priority | D |
| IATA Priority | HIGH |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | China (Urumqi, Lanzhou FIRs) |
| Route Description | Qiuci (XKC) 4140.6N 08250.6E – Jiayuguan (CHW) 3951.3N 09821.0E |
| Flight Level Band | 8,400 – 15,000 meters |
| Benefit (fuel, environmental) | 93 NM / 12 minutes, 4,426 tonnes fuel, 1,372,202 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | 63 flights per week. |
| Remarks: Potential City Pairs: Middle East/Pakistan – China/Korea/ Japan. China comment: there are existing routes between XKC and CHW. Direct route is impossible. At ATMSG/7: China commented the proposed route was not possible for implementation, and proposed for deletion; and IATA would provide feedback after a comprehensive review of the Catalogue by its focus group, expected in March 2020. |  |

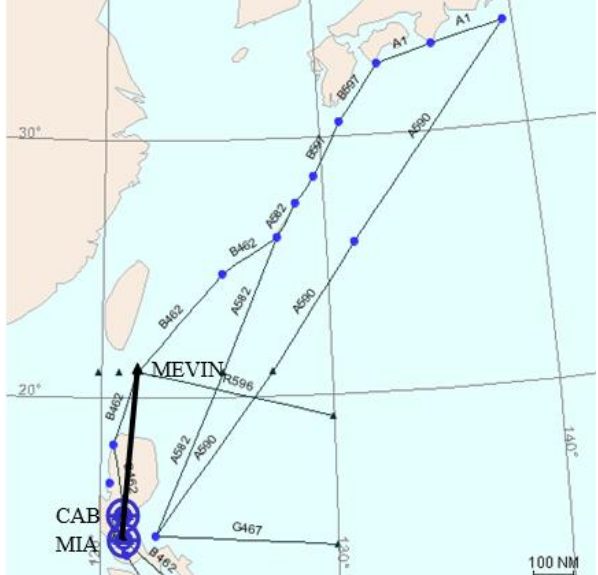
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| ATS Route Name | CHA 03 |
| State Priority | D |
| IATA Priority | HIGH |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | China (Urumqi, Lanzhou FIRs) |
| Route Description | Fukang (FKG) 4410.4N 08759.0E – OMBON 3321.4N 10416.3E |
| Flight Level Band | 8,400 – 15,000 meters |
| Benefit (fuel, environmental) | 16 minutes, 5,824 tonnes fuel, 180,544 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | 56 flights per week |
| Remarks: Potential City Pairs: Europe/Russia – Pearl River Delta Airports. China comment: this direct route is impossible and cannot be implemented at present. At ATMSG/7: China commented the proposed route was not possible for implementation, and proposed for deletion; and IATA would provide feedback after a comprehensive review of the Catalogue by its focus group, expected in March 2020. |  |


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| ATS Route Name | CHA 12 |
| State Priority | ED |
| IATA Priority | HIGH |
| Requested by (when) | IATA (29/08/2018) |
| States/Administrations Involved | Russia, Mongolia, China (Novosibirsk, Krasnoyarsk, Ulaanbatar, Beijing FIRs) |
| Route Description | NOSPI 534912.00N 0865248.00E – New Waypoint (FIR BDRY between Novosibirsk and Krasnoyarsk) – New Waypoint (FIR BDRY between Krasnoyarsk and Ulaanbatar) – New Waypoint (Entry/Exit Point: FIR BDRY between Ulaanbatar and Beijing) – Baotou (BAV) |
| Flight Level Band | 28,000 – 46,000 ft |
| Benefit (fuel, environmental) | 5 minutes, 6,090 tonnes fuel, 19,185 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | 85 flights per week |
| Remarks: New route proposal replacing the previous from Weixian to Novokuznetsk. At ATMSG/7: China and Mongolia commented the proposed route was not possible for implementation; and IATA would provide feedback after a comprehensive review of the Catalogue by its focus group, expected in March 2020. |  |

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| ATS Route Name | CHA 13 |
| State Priority | CD |
| IATA Priority | HIGH |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | China (Beijing, Shenyang FIRs) |
| Route Description | PIDOX 4114.1N 11637.5E – Dalian (DBL) 3857.7N 12134.2E |
| Flight Level Band | 8,400 – 15,000 meters |
| Benefit (fuel, environmental) | 9 minutes, 4,444 tones fuel, 14,000 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | 56 flights per week |
| Remarks: Part of IATA EUR-North Asia package – #EN13. This route proposal will reduce route distance of 67 NM as compared to current routing GM – LADIX – MAKNO. China comment: Further discussions required via ICAO APAC Office. |  |

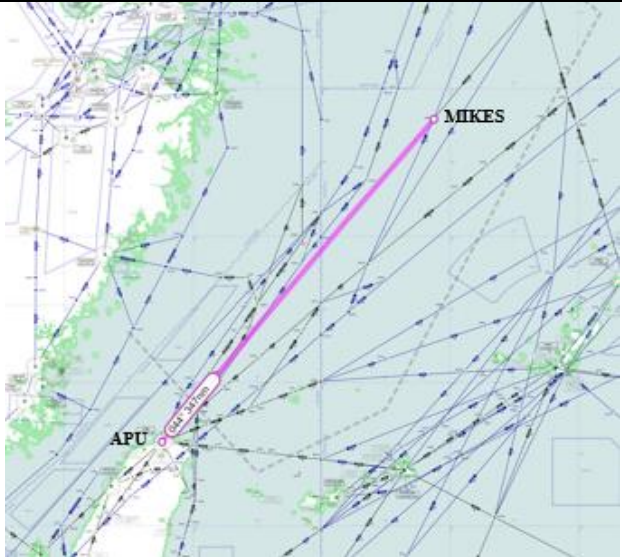
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| ATS Route Name | IATA 02 |
| State Priority | D |
| IATA Priority | HIGH |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | China (Kunming, Guangzhou FIRs) |
| Route Description | OMBON 3321.4N 10416.3E – Sanjiang (SJG) 2546.6N 10936.6E |
| Flight Level Band | 8,400 – 15,000 meters |
| Benefit (fuel, environmental) | 14 minutes, 6,657 tones fuel, 20,636 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | 56 flights per week |
| Remarks: Potential City Pairs: Europe – Pearl River Delta Airports. China comments: There are existing routes between OMBON and RO. Direct route is impossible at present. |  |

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| ATS Route Name | JAP 01 |
| State Priority | C |
| IATA Priority | HIGH |
| Requested by (when) | IATA (25/06/2012) |
| States/Administrations Involved | China, Japan (Shanghai, Fukuoka FIRs) |
| Route Description | APITO 2935.0N 12400.0E – BISIS 2647.4N 12633.0E – Naha (NHC) 2612.5N 12738.6E |
| Flight Level Band | |
| Benefit (fuel, environmental) | 62 NM / 14 minutes, 4,378 tonnes fuel, 13,788 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | CA, MU, NZ, QF 56 flights per week |
| Remarks: Update from Japan on 29/06/2019: Under consideration. |  |

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| ATS Route Name | PHI 01 |
| State Priority | C |
| IATA Priority | MEDIUM |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | Philippines, Japan (Manila, Fukuoka FIRs) |
| Route Description | Manila (MIA) 1430.5N 12101.3E – MEVIN 2100.0N 12233.0E or Cabanatuan (CAB) 1528.9N E12101.5 – MEVIN 2100.0N 12233.0E |
| Flight Level Band | 28,000 – 46,000 ft |
| Benefit (fuel, environmental) | 11 NM / 1.5 minutes, 179 kg fuel, 550 kg CO ₂ per flight, 59,300 kg fuel 200,750 kg CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | 49 flights per week |
| Remarks: Potential City Pairs: Philippines – Japan/North America. Supports traffic between Manila and Japan/North America. Update from Japan on 29/06/2019: Under consideration. At ATMSG/7: Under consideration by Philippines. |  <p>The map displays the proposed ATS route PHI 01. It starts at Manila (MIA) and Cabanatuan (CAB) in the Philippines, both circled in blue. The route proceeds north through several waypoints: B462, A592, A590, G467, MEVIN, A596, B462, A592, A590, B597, A592, A590, B597, A1, and A1*. The map includes latitude lines at 20° and 30° North, and longitude lines at 120° and 140° East. A scale bar indicates 100 NM.</p> |


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| ATS Route Name | RUS 08 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | Japan, ROK, DPRK (Fukuoka, Incheon, Pyongyang FIRs) |
| Route Description | KANSU 383759.88N 1322830.00E – New Waypoint (FIR BDRY between Fukuoka and Incheon) – TOMMY 591510.75N 1554908.64E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Part of IATA EUR-North Asia package-#EN14. China comment: Further discussion between China and Korea also required via ICAO APAC Office. To reduce route distance of 64 NM as compared to current routing KANSU – IGRAS – TOMMY. This involves route within APAC and should be removed from EUR/FE catalogue. Update from Japan on 29/06/2019: Under consideration. At ATMSG/7: Under consideration by Philippines. |  |

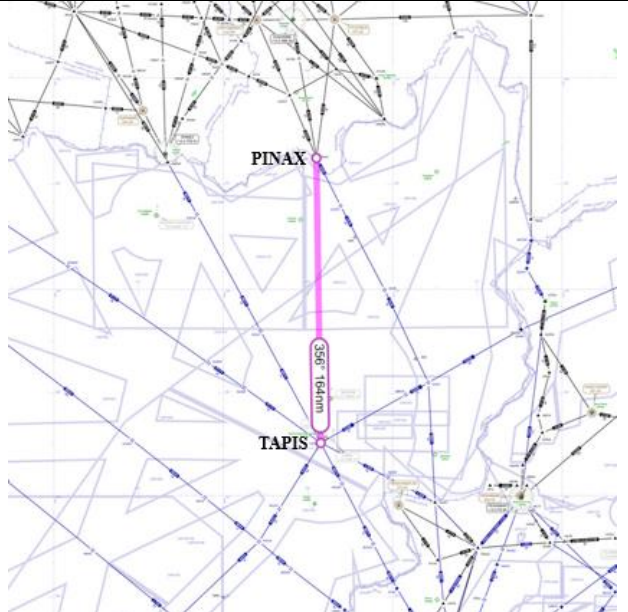
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|--|---|
| ATS Route Name | SCS 08 |
| State Priority | C |
| IATA Priority | HIGH |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | Hong Kong China, Taipei ACC (Hong Kong, Taipei FIRs) |
| Route Description | DULOP 1814.2N 11432.6E – ELATO 2220.0N 11730.0E – A1 or DULOP 1814.2N 11432.6E – ENVAR 2159.5N 11730.0E – M750 or DULOP 1814.2N 11432.6E – KAPLI 2110.0N 11730.0E – G86 |
| Flight Level Band | 28,000 – 46,000 ft |
| Benefit (fuel, environmental) | 6 minutes, 850 kg fuel, 2,687 kg CO ₂ per flight, 1,863 tonnes fuel, 5,868 tonnes CO ₂ annually Note: Savings based on DULOP – ENVAR. |
| Operational Information (potential airlines, flight frequency) | BR, CI At least 42 flights per week |
| Remarks: Supports traffic Northeast Asia – Southeast Asia. Potentially problematic as will impact South China Sea’s traffic arrangements (IATA to review). During SEACG/19 in WP09, Hong Kong China advised they had studied the proposal for track shortening and advised that allowing flights to proceed from M771 DUMOL to ELATO/ENVAR/KAPLI will likely create a bottle neck at these points and result in flights not getting optimum levels or increase ground delay to departures from Hong Kong and Macao to East Asia. However, Hong Kong China would continue to study this proposal. Potential City Pairs: Southeast Asia – North Asia Airports. Most preferred: DULOP – ENVAR. | <p>The map shows the South China Sea region with several flight routes indicated by dashed lines and arrows. The routes are labeled as follows: DULOP (southwest), ELATO (northwest), ENVAR (north), KAPLI (east), and HCN (southeast). The map also shows the coastlines of Taiwan and the Philippines. A scale bar in the bottom right corner indicates 100 NM.</p> |

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|---|---|
| ATS Route Name | TPE 01 |
| State Priority | C |
| IATA Priority | HIGH |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | Taipei ACC, Japan (Taipei, Fukuoka FIRs) |
| Route Description | Anbu (APU) 2510.6N 12131.3E – New Waypoint (FIR BDRY between Taipei and Fukuoka) – MIKES 2935.2N 12544.9E |
| Flight Level Band | 28,000 – 46,000 ft |
| Benefit (fuel, environmental) | 16 NM / 2 minutes, 107 kg fuel, 337 kg CO ₂ per flight, 1,168 tonnes fuel, 3,680 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | BR, CI 210 flights per week |
| Remarks: Potential City Pairs: Southeast Asia/HKG/TPE – Fukuoka. Supports traffic between APU and Japan. Update from Japan on 29/06/2019: Under consideration. |  |

Chapter 4: Trans-Regional (South Asia)

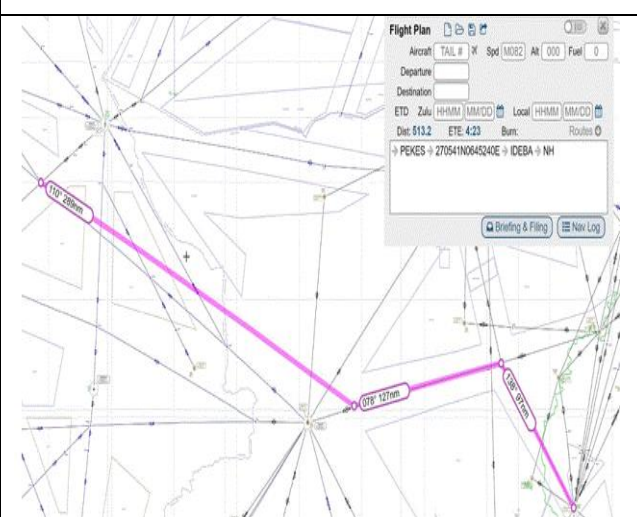
(referred to: States or AIRARD TF as appropriate for review)

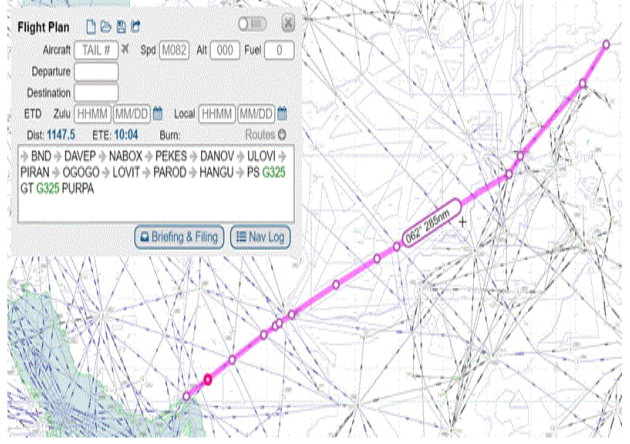
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| ATS Route Name | AFG 01 |
| State Priority | B |
| IATA Priority | |
| Requested by (when) | Afghanistan (03/08/2019: AIRARD TF/4) |
| States/Administrations Involved | Pakistan, Afghanistan (Lahore, Kabul FIRs) |
| Route Description | IMTIL 340559N 0710859E PESHAWAR (PS) 335841.50N 0713100.90E – SURVI 350606.12N 0702512E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: This is an alternative proposal to INDEK-BABEV-SURVI, which will shorten the flight distance. Original proposal: IMTIL – SURVI. At ATMSG/7: Pakistan counter-proposed for this route via SURVI – Peshawar (PS). Pakistan informed the meeting the proposed route between SURVI and PS had been submitted to the relevant authority in Pakistan for approval. |  |

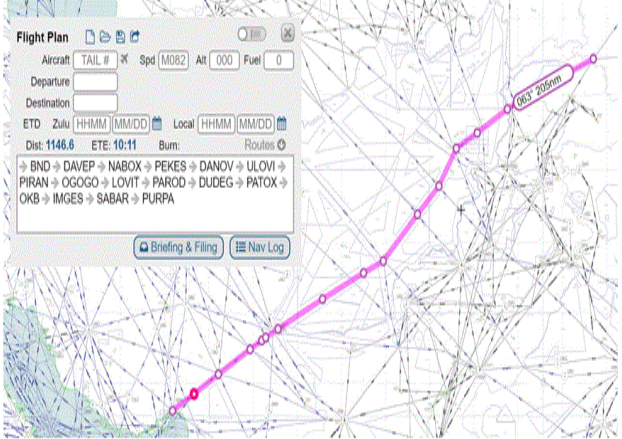
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| ATS Route Name | AFG 02 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Tajikistan (03/08/2019: AIRARD TF/4) |
| States/Administrations Involved | Afghanistan, Tajikistan (Kabul, Dushanbe FIRs) |
| Route Description | TAPIS 343100.12N 0690900E – PINAX 371500N 0690600E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Afghanistan commented that waypoint TAPIS is a converging point for two congested routes, and would review this proposal. <i>Note: continuation of this proposal is 29.007 “TAPIS-PINAX-SORAM-TENRO” in RDGE Middle Asia ATS Route Catalogue.</i> |  |

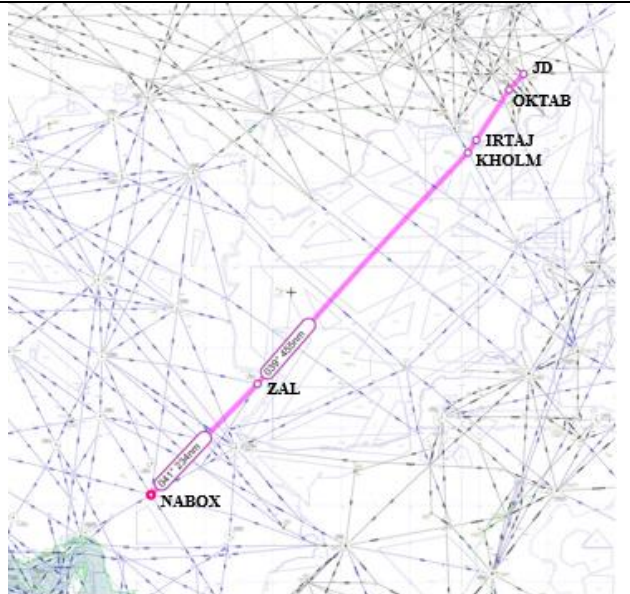
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| ATS Route Name | AFG 03 |
| State Priority | D |
| IATA Priority | |
| Requested by (when) | Afghanistan (03/08/2019: AIRARD/TF/4) |
| States/Administrations Involved | India, China, Tajikistan, Afghanistan (Delhi, Urumqi, Dushanbe, Kabul FIRs) |
| Route Description | Leh (LLH) 340504N 0773438E – Hotan (HTN) 370212N 0795206E – Yarkant (DSC) 381318N 0770418E – NIPIR 370530.12N 0703000E – ALKIB 355939.84N 0695415.84E – ALMOL 353947.16N 0694529.88E – TAPIS 343100.12N 0690900E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Bypass route for Afghanistan – India carriers bypassing Pakistan airspace (if required). Tajikistan would coordinate with China for opening new exit/entry point at the FIR boundary. At ATMSG/7: China commented this route proposal would not be viable at the time being, however, China would provide its assistance and support for any contingency route when necessary, in the event of abrupt closure of Pakistan airspace. | |

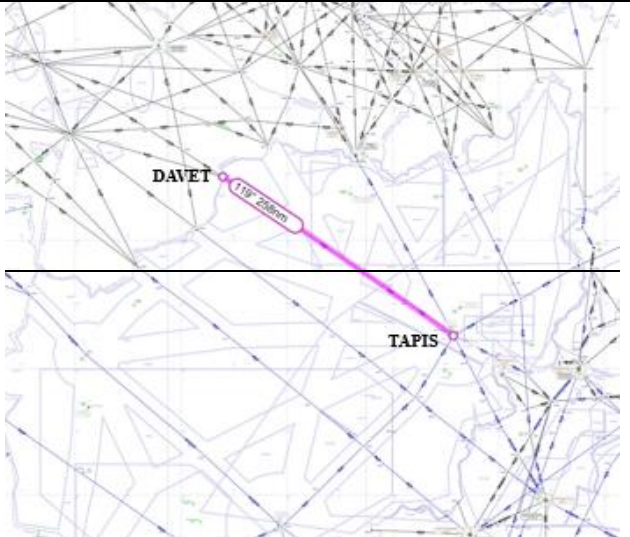
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| ATS Route Name | IRAN 01 |
| State Priority | D |
| IATA Priority | LOW |
| Requested by (when) | Iran (01/09/2018) |
| States/Administrations Involved | Iran, Afghanistan, Pakistan (Tehran, Kabul, Karachi FIRs) |
| Route Description | <p>a. ALROT 3511.3N 05541.6E – Birjand (BJD) 3258.3N 05912.0E – SOKIR 2908.0N 06425.0E – Nawabshah (NH) 2613.1N 06823.1E</p> <p>b. ALROT 3511.3N 05541.6E – Birjand (BJD) 3258.3N 05912.0E – SOKIR 2908.0N 06425.0E – GASIR</p> <p>c. ALROT 3511.3N 05541.6E – Birjand (BJD) 3258.3N 05912.0E – SOKIR 2908.0N 06425.0E – SHANG or BIMLA</p> |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Requested by IRAN and amended by IATA at SAIOACG/3 meeting. IATA suggest amendment to BJD – KAMAR – DAVER – NH. Waypoint GASIR and SHANG need to be verified. | <p>Establish new bi-directional routing from ALROT - BJD (BIRJAND) – SOKIR - NH</p> <p>Distance Comparison (+3nm)</p> <p>ALROT – SOKAM – SERKA - GASIR: 686nm</p> <p>ALROT – BJD – SOKIR – NH (saves 34nm and 4.5min)</p> <p>Note that ALROT – BJD - SOKIR – NH has more than 50nm separation from UL333 in Kabul FIR</p> |

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|---|---|
| ATS Route Name | MID 01 |
| State Priority | B |
| IATA Priority | |
| Requested by (when) | AIRARD TF/2 (04/05/2018) |
| States/Administrations Involved | Iran, Pakistan (Tehran, Karachi FIRs) |
| Route Description | PEKES 2859.5N 05952.3E – New Waypoint (270541N 0645240E) – IDEBA 2727.5N 06713.6E – Nawabshah (NH) 2613.1N 06823.1E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Iran, Pakistan Contingency Route. Agreed upon during the Afghanistan Contingency Coordination Meeting. Potential City Pairs: Europe to East through Teheran FIR |  |

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| ATS Route Name | MID 02 (a) |
| State Priority | B |
| IATA Priority | |
| Requested by (when) | AIRARD TF/2 (04/05/2018) |
| States/Administrations Involved | Iran, Pakistan, Afghanistan (Tehran, Karachi, Kabul, Lahore FIRs) |
| Route Description | Bandar Abbas (BND) 2711.8N 05622.0E – DAVEP 2742.4N 05720.1E – NABOX 2816.5N 05826.0E – PEKES 2859.5N 05952.3E – DANOV 2914.7N 06023.9E – ULOVI 2919.8N 06034.5E – PIRAN 2934.1N 06108.1E – OGOGO 3024.9N 06309.1E – LOVIT 3109.1N 06500.4E – PAROD 3129.0N 06554.0E – A453 – HANGU 3329.1N 07100.3E – Peshawar (PS) 3358.7N 07131.0E – G325 – Gilgit (GT) 3555.2N 07420.1E – G325 – PURPA 3656.5N 07524.4E |
| Flight Level Band | |
| Benefit (fuel, environmental) | 72-84 NM per flight |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: High Priority MID 02 (a) preferred over MID 02 (b) if only one route is chosen. Potential City Pairs: Gulf traffic from/to Far East. |  |

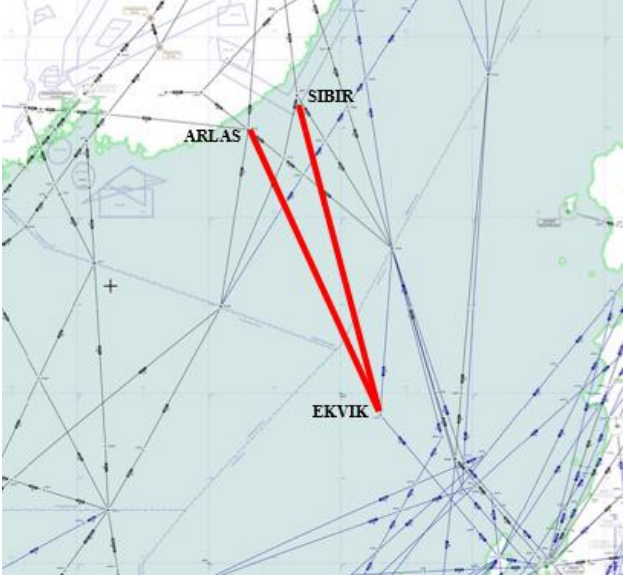
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| ATS Route Name | MID 02 (b) |
| State Priority | B |
| IATA Priority | |
| Requested by (when) | AIRARD TF/2 (04/05/2018) |
| States/Administrations Involved | Iran, Pakistan, Afghanistan (Tehran, Karachi, Kabul, Lahore FIRs) |
| Route Description | Bandar Abbas (BND) – DAVEP 2742.4N 05720.1E – NABOX 2816.5N 05826.0E – PEKES 2859.5N 05952.3E – DANOV 2914.7N 06023.9E – ULOVI 2919.8N 06034.5E – PIRAN 2934.1N 06108.1E – OGOGO 3024.9N 06309.1E – LOVIT 3109.1N 06500.4E – PAROD 3129.0N 06554.0E – DUDEG 3246.5N 06727.0E – PATOX 3332.9N 06825.2E – Kabul (OKB) 3434.0N 06912.4E – IMGES 3459.0N 07009.1E – SABAR – PURPA 3656.5N 07524.4E |
| Flight Level Band | |
| Benefit (fuel, environmental) | 90 NM / 12 minutes, 3,300 kg CO ₂ per flight |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: High Priority MID 02 (a) preferred over MID 02 (b) if only one route is chosen. Affecting Afghanistan. Potential City Pairs: Gulf traffic from/to Far East. <u>Waypoint SABAR need to be verified.</u> |  |

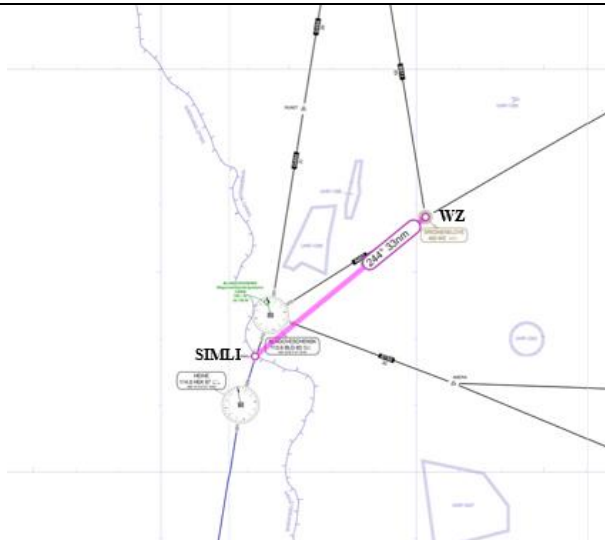

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| ATS Route Name | MID 03 |
| State Priority | A |
| IATA Priority | |
| Requested by (when) | Afghanistan (03/08/2019: AIRARD TF/4) |
| States/Administrations Involved | Iran, Afghanistan, Tajikistan (Tehran, Kabul, Dushanbe FIRs) |
| Route Description | NABOX 281630N 0582600.96E – Zabol (ZAL) 310543.90N 0613230.80E – KHOLM 364300N 0674100E – IRTAJ 370050N 0675550E – OKTAB 381012N 0685248E – Fayzobod (JD) 383238N 0691850E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Afghanistan and Tajikistan has agreed to the implementation of segments within their FIRs. Pending agreement from Iran. B904 BUDBO – HOLM – IRTAJ – JD to Tajikistan (G1380/19 NOTAMN-AFG, O0431/19 NOTAMR -TAJ) was implemented on 7 July 2019. At ATMSG/7: Iran provided its agreement to this route proposal, and would discussed the implementation plan with the respective States. |  |


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| ATS Route Name | P173 |
| State Priority | D |
| IATA Priority | HIGH |
| Requested by (when) | Turkmenistan, IATA (29/07/2018) |
| States/Administrations Involved | Turkmenistan, Afghanistan (Turkmenabat, Kabul FIR(s)) |
| Route Description | P173 (DAVET—TAPIS) change to bi-directional route |
| Flight Level Band | 31,000—43,000 ft |
| Benefit (fuel, environmental) | 21 NM / 4 minutes, 370 kg fuel, 1,150 kg CO ₂ per flight, 500,000 kg fuel, 1,550 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | AY, TG At least 26 flights per week |
| Remarks: Turkmenistan supports change to bi-directional route. At ATM/SG/6, Afghanistan advise they are unable to accept this route as bi-directional even if their surveillance is improved due convergance issues. Update from Afghanistan on 29/06/2019: ATS route P173 has been implemented as bi-directional route. Information is published in Afghanistan AIP (updated on 25/04/2019). |  |


Chapter 5: Trans-Regional (East Asia)

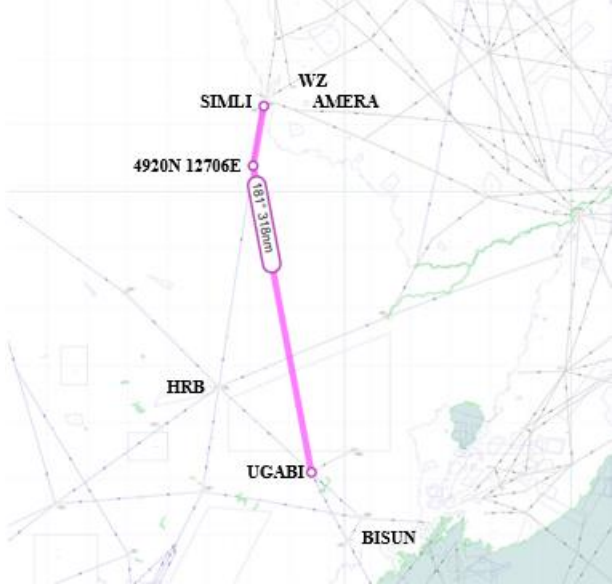
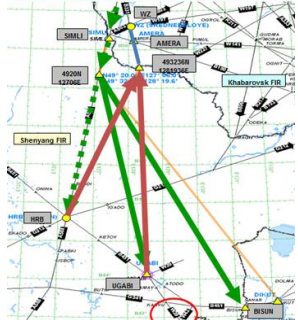
(referred to: AIRARD/TF, RDGE or EATMCG as appropriate for review)



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| ATS Route Name | FE0008 / RDGE 15.003 / APAC RUS 5 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia, Japan (Khabarovsk, Fukuoka FIRs) |
| Route Description | Implementation of two new bi-directional ATS routes: a. SIBIR 432154.00N 1352024.00E – New Waypoint (FIR BDRY between Khabarovsk and Fukuoka) – New EKVIK Waypoint b. ARLAS 425906.00N 1343553.88E– New Waypoint (FIR BDRY between Khabarovsk and Fukuoka) – New EKVIK Waypoint |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: To 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 – LAKTA – LURED – IGROD will be withdrawn. Based on the results from the coordination meeting between the Russian Federation and Japan in February 2017, <u>the implementation could not be progressed as Japan indicated that no further airspace changes for the Fukuoka FIR are acceptable before the 2020 timeframe (RDGE/27).</u> Russian Federation: New waypoint needed 404751N 1361021E (FIR Boundary), coordination with Japan (Fukuoka FIR) required. Alternative bi-directional route to EN15. |  |

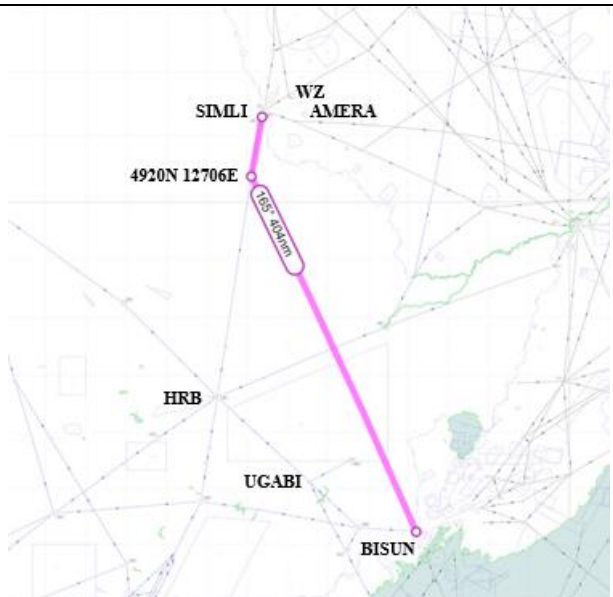

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| ATS Route Name | FE0017 / RDGE 15.035 / APAC RUS 12 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | Implementation of new uni-directional westbound ATS route: Srednebeloye (WZ) 503808.00N 1280207.00E – along G494 – SIMLI 501724.00N 1272205.88E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: SIMLI proposals are awaiting further development as per the outcomes of the bi-lateral meeting between China and Russian Federation conducted 25-26 July 2017, as reported to RDGE 27 by the Russian Federation. Implementation could not be progressed due to lack of information/response from China. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting. <i>Note: Currently connected via WZ A803 BLG G494 SIMLI. RDGE to review should there be any need to retain this proposal.</i> |  |
| <p>SIMLI Package:</p>  | |

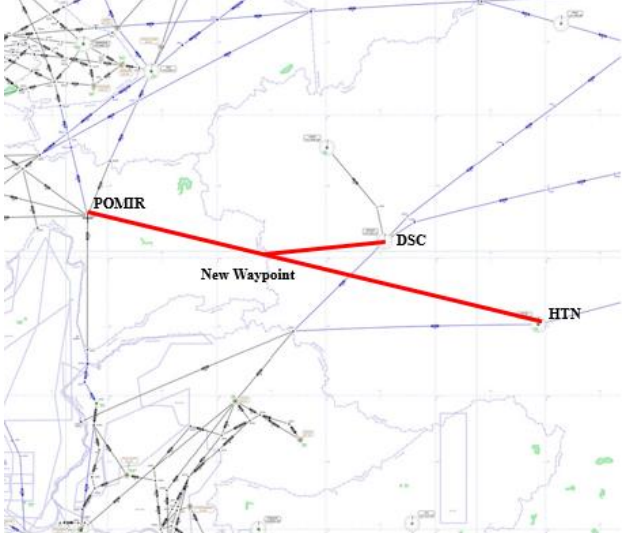
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| ATS Route Name | FE0021 / RDGE 13.028 / APAC RUS 4 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia, Japan (Khabarovsk, Fukuoka FIRs) |
| Route Description | Implementation of new bi-directional ATS route: AVGOK – Niigata (GTC) 375729.90N 1390653.60E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: During a bi-lateral meeting between the State ATM Corporation and the JCAB Japan (in Tokyo, November 2012), <u>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.</u> Based on the results from the coordination meeting between the Russian Federation and Japan in February 2017, the implementation of the bi-directional ATS Route AVGOK – GTC requires further studies due to the involved military area. RDGE/27 meeting in 2017. Could become a conditional route. Further discussion with Japan required through the ICAO APAC Office. To reduce route distance of 13NM as compared to current routing AVGOK – KADBO – GTC. |  |

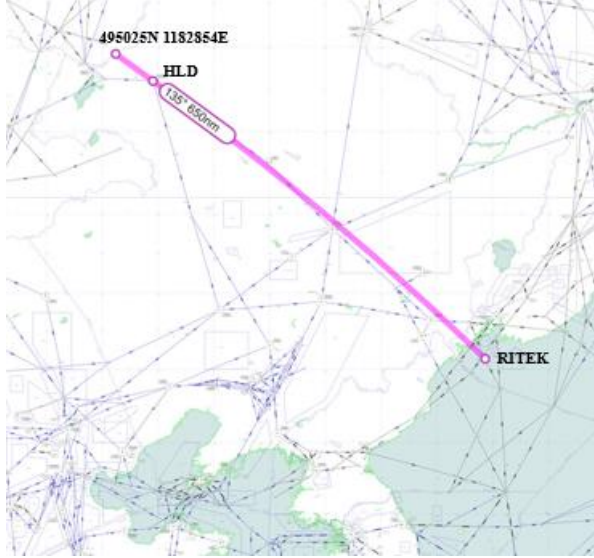
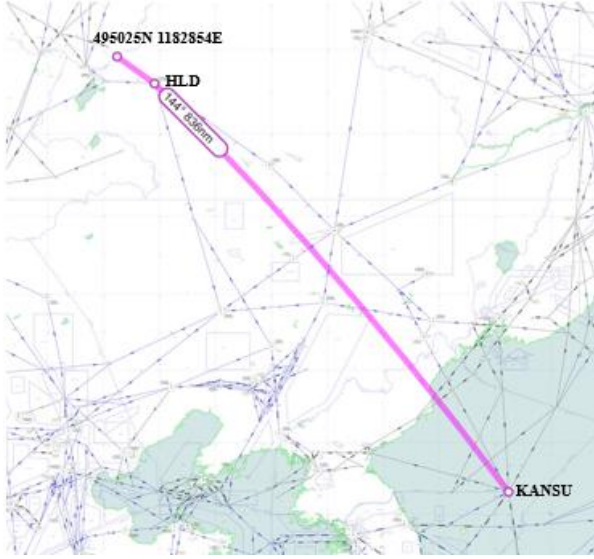
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| ATS Route Name | FE0022 / RDGE 13.033 / APAC RUS 7 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russian Federation, DPRK, ROK, Japan (Khabarovsk, Pyongyang, Incheon, Fukuoka FIRs) |
| Route Description | Implementation of new bi-directional ATS route: SANAR 431254.00N 1312700.00E – RIVAT 412848.00N 1321612.00E – New Waypoint 1 (FIR BDRY between Pyongyang and Incheon) – New Waypoint 2 (FIR BDRY between Incheon and Fukuoka) – SAMON 361434.40N 1343011.90E or DIKUT – New Waypoint 3 (FIR BDRY between Khabarovsk and Pyongyang) – New Waypoint 4 (FIR BDRY between Pyongyang and Fukuoka) – SAMON 361434.40N 1343011.90E |
| Flight Level Band | |
| Benefit (fuel, environmental) | 160 NM |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Revised proposal for bi-directional route from BISUN – TERNI – RIVAT in combination with the Vladivostok/Khabarovsk airspace structure changes. Implementation could not be progressed as there had been no exchange of information between Russia, DPRK and Japan. RDGE/27 meeting in 2017. Waypoint DIKUT need to be verified. |  |



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| ATS Route Name | FE0029 / RDGE 18.031 / APAC RUS 13 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | Implementation of new uni-directional eastbound ATS route: SIMLI 501724.00N 1272205.88E – New Waypoint (4920N 12706E) – UGABI 440712.00N 1283311.88E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: SIMLI dualisation/reorganisation project. SIMLI proposals are awaiting further development as per the outcomes of the bi-lateral meeting between China and Russian Federation conducted 25-26 July 2017, as reported to RDGE 27 by the Russian Federation. Implementation could not be progressed due to lack of information/response from China. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting. |  |
| SIMLI Package: |  |

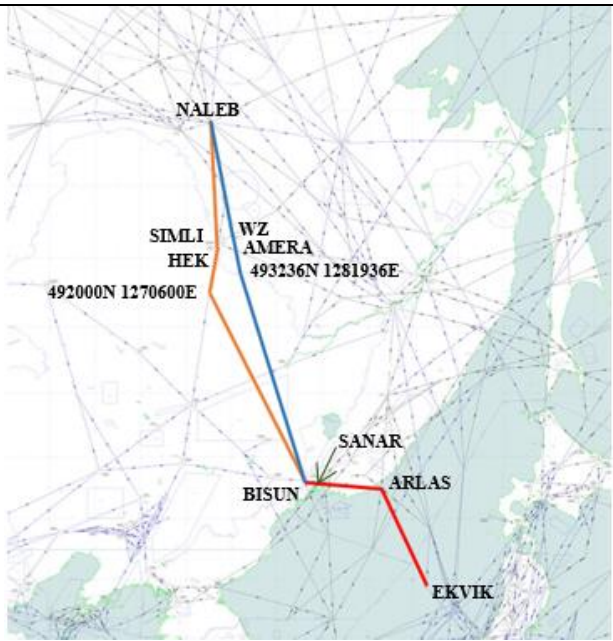
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| ATS Route Name | FE0030 / RDGE 18.020 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | Implementation of new bi-directional ATS route segment: New Waypoint UGABI – New Waypoint (493236N 1281936E) – AMERA 501318.12N 1280842E – Srednebeloye (WZ) 503808.00N 1280207.00E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: SIMLI dualisation/reorganisation project. SIMLI proposals are awaiting further development as per the outcomes of the bi-lateral meeting between China and Russian Federation conducted 25-26 July 2017, as reported to RDGE 27 by the Russian Federation. Implementation could not be progressed due to lack of information/response from China. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting. <i>Note: In the SIMLI Package chart, the only indication of bi-directional route (blue line) is between New Waypoint (493236N 1281936E) – AMERA – Srednebeloye (WZ). RDGE to review and identify the coordinates of New Waypoint UGABI. Should this be HRB – New Waypoint (493236N 1281936E) – AMERA 501318.12N 1280842E – Srednebeloye (WZ) 503808.00N 1280207.00E?</i> |  |
| SIMLI Package: |  |

| | |
|--|---|
| ATS Route Name | FE0031 / RDGE 16.005 / APAC RUS 11 |
| State Priority | B |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | Implementation of new uni-directional eastbound ATS route: SIMLI 501724.00N 1272205.88E – New Waypoint (4920N 12706E) – BISUN 431359.88N 1311148.12E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | 150 NM |
| Remarks: SIMLI dualisation/reorganisation project. SIMLI proposals are awaiting further development as per the outcomes of the bi-lateral meeting between China and Russian Federation conducted 25-26 July 2017, as reported to RDGE 27 by the Russian Federation. Implementation could not be progressed due to lack of information/response from China. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting. |  |
| SIMLI Package: |  |

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| ATS Route Name | FE0032 / RDGE 17.005 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Tajikistan, IATA (01/09/2018) |
| States/Administrations Involved | Tajikistan, China (Dushanbe, Urumqi FIRs) |
| Route Description | Implementation of new bi-directional ATS route segment: TOPAZ POMIR 383500N 0713800E – New Waypoint (FIR BDRY between Dushanbe and Urumqi) – Yarkant (DSC) 381318N 0770418E; or TOPAZ POMIR 383500N 0713800E – New Waypoint (FIR BDRY between Dushanbe and Urumqi) – Hotan (HTN) 370212N 0795206E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Further improve ATS route network in the interface between China and Tajikistan. Waypoint TOPAZ need to be verified (PAMIR?). RDGE to review and provide the missing data. At ATMSG/7: Tajikistan amended its proposal to: POMIR 383500N 0713800E – New Waypoint (FIR BDRY between Dushanbe and Urumqi) – Yarkant (DSC) 381318N 0770418E; or POMIR 383500N 0713800E New Waypoint (FIR BDRY between Dushanbe and Urumqi) – Hotan (HTN) 370212N 0795206E. |  |

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| ATS Route Name | FE0034 / RDGE 16.027 / APAC RUS 9 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia, China, (Irkutsk, Shenyang, Khabarovsk FIRs) |
| Route Description | Implementation of new bi-directional ATS route segment: RITEK 421612.00N 1314348.00E – New Waypoint (495025N 1182854E) – Hailar (HLD) 491212.00N 1194918.00E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | 159 NM |
| <p>Remarks: No update at RDGE/27 meeting in 2017. Implementation could not be progressed as no information from China for RDGE/28. At ATMSG/7: China proposed to concentrate on the SIMLI package, and this route proposal would be reviewed at a later stage.</p> <p><i>Note: should the route proposal be New Waypoint (495025.00N 1182854.00E) – HLD – New Waypoint (FIR BDRY between Shenyang and Khabarovsk) – RITEK or New Waypoint (495025.00N 1182854.00E) – HLD – New Waypoint (FIR BDRY between Shenyang and Pyongyang) – KANSU (383759.88N 1322830E)? RDGE to review and provide the missing data.</i></p> <p>Information from Version 17:</p> |   |

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| ATS Route Name | FE0035 / RDGE 18.030 / APAC RUS 15 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | Implementation of new uni-directional westbound ATS route: UGABI 440712.00N 1283311.88E – New Waypoint (493236N 1281936E) – AMERA 501318.12N 1280842E – Srednebeloye (WZ) 503808.00N 1280207.00E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: SIMLI dualisation/reorganisation project. SIMLI proposals are awaiting further development as per the outcomes of the bi-lateral meeting between China and Russian Federation conducted 25-26 July 2017, as reported to RDGE 27 by the Russian Federation. Implementation could not be progressed due to lack of information/response from China. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting. |  |
| <p>SIMLI Package:</p>  | |

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| ATS Route Name | FE0041 / RDGE 19.018 RUS 6 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia, China, Japan (Khabarovsk, Shenyang, Fukuoka FIRs) |
| Route Description: Update from Japan on 29/06/2019: Under consideration. | Implementation of two new uni-directional ATS route: a. Eastbound uni-directional traffic via NALEB – SIMLI 501724.00N 1272205.88E – Heihe (HEK) 501006.00N 1271836.00E – New Waypoint (492000N 1270600E) – BISUN 431359.88N 1311148.12E – SANAR 431254.00N 1312700.00E – ARLAS 425906.00N 1343553.88E – New Waypoint (FIR BDRY between Khabarovsk and Fukuoka) – New Waypoint EKVIK b. Westbound uni-directional traffic via New Waypoint EKVIK – New Waypoint (FIR BDRY between Khabarovsk and Fukuoka) – ARLAS 425906.00N 1343553.88E – SANAR 431254.00N 1312700.00E – BISUN 431359.88N 1311148.12E – New Waypoint (493236N 1281936E) – AMERA 501318.12N 1280842E – Srednebeloye (WZ) 503808.00N 1280207.00E – NALEB 534130.12N 1270517.88E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: SIMLI dualisation/reorganisation project, further improvement of north-south traffic flows between Khabarovsk FIR and Fukuoka FIR. SIMLI proposals are awaiting further development as per the outcomes of the bi-lateral meeting between China and Russian Federation conducted 25-26 July 2017, as reported to RDGE 27 by the Russian Federation. Implementation could not be progressed due to lack of information/response from China. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting. <i>Note: Route proposal ARLAS – EKVIK is also provided as FE0008 / RDGE 15.003 / APAC RUS 5.</i> |  |


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|---|---|
| ATS Route Name | FE0049 / RDGE 20.010 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | DPRK, Russia (01/09/2018) |
| States/Administrations Involved | Russia, DPRK (Khabarovsk, Pyongyang FIRs) |
| Route Description | Implementation of new uni-directional eastbound ATS route: KICHA 404103N 1291140E – ADNUR 421230N 1304810E – Vladivostok (KN) 432303N 1320708E |
| Flight Level Band | 17,000 – 53,000 ft |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Planned implementation date as part of project in 2015. Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 6) | |

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|--|--|
| ATS Route Name | FE0050 / RDGE 20.011 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | DPRK, Russia (01/09/2018) |
| States/Administrations Involved | Russia, DPRK (Khabarovsk, Pyongyang FIRs) |
| Route Description | Implementation of new uni-directional westbound ATS route for B355: Muraveyka (BG) 435303N 1331511E – VATIS 425143N 1320851E – TERNI 422213N 1314003E – BUMEP 415350N 1311255E – KICHA 404106N 1291140E |
| Flight Level Band | 18,000 – 51,000 ft |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Planned implementation date as part of project in 2015. Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 7). | |

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|---|--|
| ATS Route Name | FE0051 / RDGE 20.012 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | DPRK, Russia (01/09/2018) |
| States/Administrations Involved | Russia, DPRK (Khabarovsk, Pyongyang FIRs) |
| Route Description | Implementation of new uni-directional eastbound ATS route segment: MESOV 383800N 1302300E – ADNUR 421230N 1304810E |
| Flight Level Band | 29,000 – 53,000 ft |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Planned implementation date as part of project in 2015. Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 8). Implementation has not progressed as the connection/ continuation of this ATS route (implemented ATS routes end at FIR border over High Seas) into Incheon FIR still missing. No information was received from DPRK and South Korea (ROK) via the ICAO APAC Office. Implementation could not be progressed as no information from DPRK at RDGE/28. | <p>Proposals for discussion: 1 - to withdraw; 2 - to establish</p> |

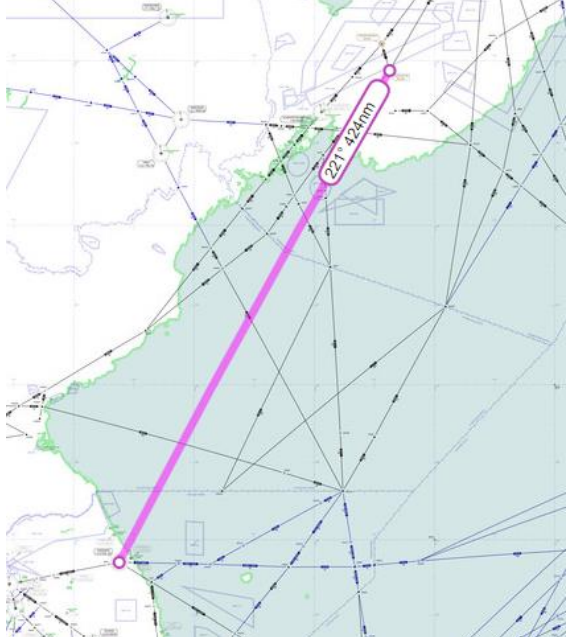
| | |
|---|---|
| ATS Route Name | FE0052 / RDGE 20.013 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | DPRK, Russia (01/09/2018) |
| States/Administrations Involved | Russia, DPRK (Khabarovsk, Pyongyang FIRs) |
| Route Description | BUMEP 415350N 1311255E – MESOV 383800N 1302300E |
| Flight Level Band | 28,000 – 51,000 ft |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 9). Implementation has not progressed as the connection/continuation of this ATS route (implemented ATS routes end at FIR border over High Seas) into Incheon FIR still missing. No information was received from South Korea (ROK) via the ICAO APAC Office. Implementation could not be progressed as no information from DPRK at RDGE/28. | |

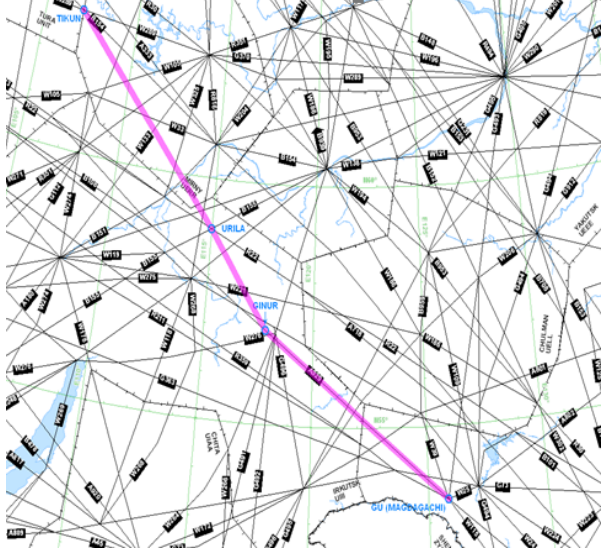
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|--|---|
| ATS Route Name | FE0053 / RDGE 20.014 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | DPRK, Russia (01/09/2018) |
| States/Administrations Involved | Russia, DPRK (Khabarovsk, Pyongyang FIRs) |
| Route Description | New G711 BISUN 431400N 1311148E – TERNI 422213N 1314003E – RIVAT 412900N 1321600E |
| Flight Level Band | 21,000 – 53,000 ft |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 10). <i>Note: to verify has this route been implemented as G705?</i> | <p>Proposals for discussion: - to withdraw; - to establish</p> |

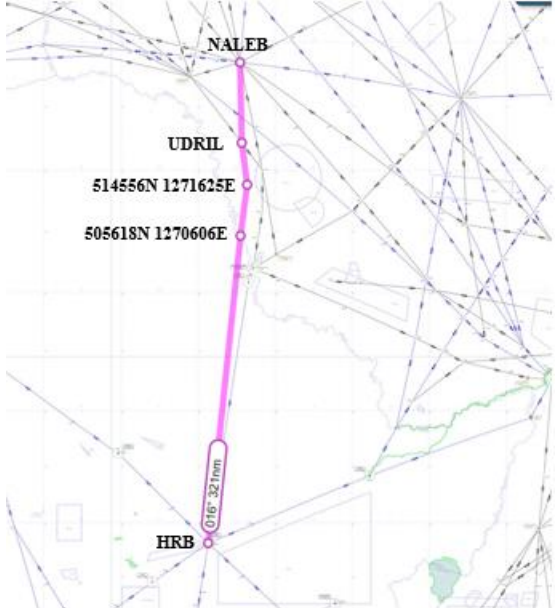
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| ATS Route Name | FE0054 / RDGE 20.015 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | DPRK, Russia (01/09/2018) |
| States/Administrations Involved | Russia, DPRK (Khabarovsk, Pyongyang FIRs) |
| Route Description | Implementation of new bi-directional ATS route: RIVAT 412900N 1321600E – MESOV 383800N 1302300E |
| Flight Level Band | 21,000 – 53,000 ft |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 11). Planned implementation date 11 December 2014. <i>Note: to verify has this route been implemented as N513?</i> |  <p>The map displays the proposed ATS route (FE0054 / RDGE 20.015) between RIVAT and MESOV. It shows the Khabarovsk FIR, Vladivostok FIR, and parts of the DPRK FIRs (Pyongyang and Vorka). Key airports and navigation aids are marked, including Khabarovsk (KICHA), Vladivostok (VATIS), and various military bases (e.g., Muraveyka BG, KANVU). The route is shown as a green line with numbered waypoints (1-13). A legend indicates that red lines with a red circle and slash represent proposals to be withdrawn, and green lines with a green circle and slash represent proposals to be established. The map also shows existing routes like N421230 E1304810 and N415350 E1311255.</p> |


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| ATS Route Name | FE0055 / RDGE 20.016 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | DPRK, Russia (01/09/2018) |
| States/Administrations Involved | Russia, DPRK (Khabarovsk, Pyongyang FIRs) |
| Route Description | Implementation of new bi-directional ATS route: NULAR 405912N 1341100E – MESOV 383800N 1302300E |
| Flight Level Band | 28,000 – 53,000 ft |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 12). Planned implementation date 11 December 2014. <i>Note: to verify has this route been implemented as L771?</i> | |

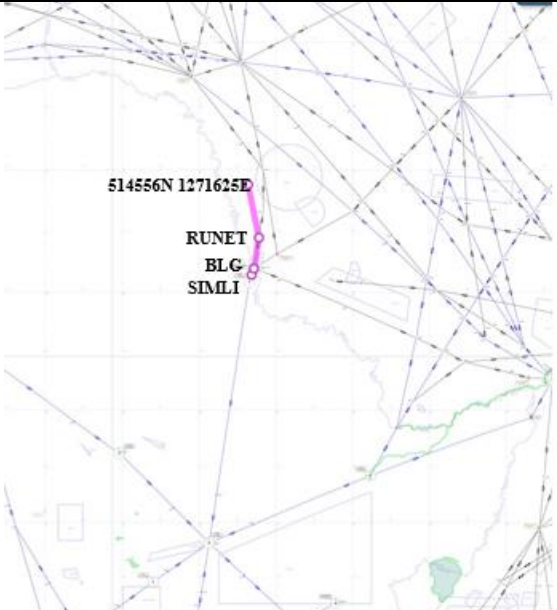
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|--|---|
| ATS Route Name | FE0056 / RDGE 20.017 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | DPRK, Russia (01/09/2018) |
| States/Administrations Involved | Russia, DPRK, Japan (Khabarovsk, Pyongyang, Fukuoka FIRs) |
| Route Description | Implementation of new bi-directional ATS route segment: RIVAT 412900N 1321600E – New Waypoint (FIR BDRY between Pyongyang and Fukuoka) |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 13), for further discussion with JCAB, Japan. Planned implementation date as part of project in 2015. Implementation could not be progressed as no information from China at RDGE/28. | |

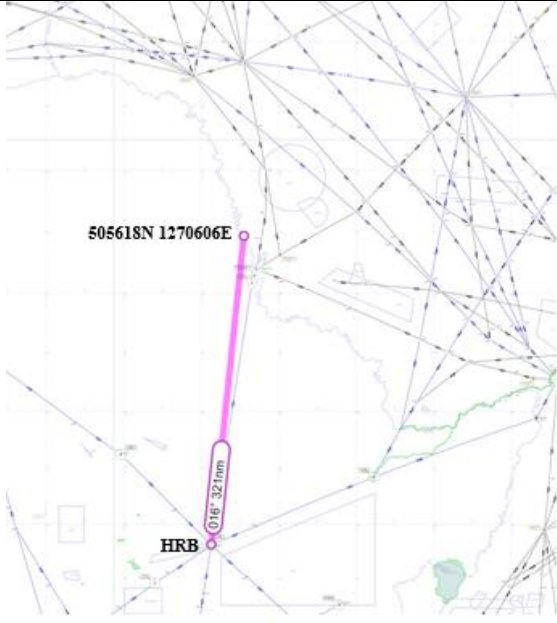
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| ATS Route Name | RUS 03 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | IATA (01/09/2018) |
| States/Administrations Involved | Russia, DPRK, ROK (Khabarovsk, Pyongyang, Incheon FIRs) |
| Route Description | Muraveyka (BG) 435303.00N 1331511.00E – TELOD 421936.12N 1321148.12E – New Waypoint 1 (FIR BDRY between Khabarovsk and Pyongyang) – New Waypoint 2 (FIR BDRY between Pyongyang and Incheon) – Gangwon (KAE) 374202.70N 1284513.5E |
| Flight Level Band | 28,000 – 46,000 ft |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Potential City Pairs: North America – Incheon. New Waypoint 2 (FIR BDRY between Pyongyang and Incheon) approximately 3838.0N 12924.7E. At ATMSG/7: Under consideration by ROK. |  |

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| ATS Route Name | RUS 10 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia, IATA (01/09/2018) |
| States/Administrations Involved | Russia (Mirny, Irkutsk, Khabarovsk FIRs) |
| Route Description | TIKUN – URILA 585812.00N 1145812.00E – GINUR – Magdagachi (GU) 532814.00N 1254746.00E |
| Flight Level Band | |
| Benefit (fuel, environmental) | To reduce route distance of 150 NM as compared to current routing TIKUN – IVADA – TD – DIKUT. |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: Part of IATA EUR-North Asia package-#EN10. China comment: Proposal can partly be withdrawn due to lack of CNS capabilities for the segment URILA-492000N 1270600E. Alternative proposal made. Russian Federation comment: Further studies/discussion required. Route segment inside the Russian Federation up to GU has been implemented, but implementation could not be progressed as no information from China was received for RDGE/26. RDGE/27 meeting in 2017. Waypoint TIKUN and GINUR need to be verified. <i>Note: proposed route is within Russia FIRs, need to verify why this route proposal was listed in this Catalogue.</i> |  |

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| ATS Route Name | 26.FE 01/APAC RUS 18 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia (01/09/2018) |
| States/Administrations Involved | China, Russia (Khabarovsk, Shenyang FIRs) |
| Route Description | Harbin (HRB) 453736.00N 1261536.00E – New Waypoint 1 (FIR BDRY between Shenyang and Khabarovsk 505618.00N 1270606.00E) – New Waypoint 2 (514556.00N 1271625.00E) – UDRIL 522607.00N 1270803.00E – NALEB 534132.00N 1270522.00E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: New entry/exit point near SIMLI was discussed. The Russian Federation agreed with the China proposal regarding the opening of a new point with the following coordinates: 505618N 1270606E for the northbound flights. The Chinese side agreed to request ICAO APAC Office a 5LNC for the new point. Both sides agreed to exchange information on preparedness for opening of a new entry/exit point by the end of first quarter of 2018. |  |

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| ATS Route Name | 26.FE 02/APAC RUS 19 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | SIMLI 504724.00N 1272206.00E – PARIS 512001.00N 1300004.00E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: |  |

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|--|--|
| ATS Route Name | 26.FE 03/APAC RUS 20 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | New Waypoint (514556.00N 1271625.00E) – RUNET (505413.00N 1273328.00E) – Blagoveshchensk (BLG) 502336.00N 1272535.20E – SIMLI (504724.00N 1272206.00E) |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: <i>Note: to verify whether this route is still necessary if 26.FE 01/APAC RUS 18 implemented?</i> |  |

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|---|--|
| ATS Route Name | FE0063/25.011/APAC RUS 21 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | Harbin (HRB) 453736.00N 1261536.00E – New Waypoint (FIR BDRY between Shenyang and Khabarovsk 505618.00N 1270606.00E) |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| <p>Remarks: SIMLI proposals are awaiting further development as per the outcomes of the bi-lateral meeting between China and Russian Federation conducted 25-26 July 2017, as reported to RDGE 27 by the Russian Federation. Implementation could not be progressed due to lack of information/response from China. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting.</p> <p><i>Note: this route proposal is similar to 26.FE 01/APAC RUS 18, except that this route proposal terminate at FIR BDRY between Shenyang and Khabarovsk 505618.00N 1270606.00E.</i></p> |  |

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|---|---|
| ATS Route Name | FE0064/25.012 APAC RUS 22 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | Implementation of new uni-directional ATS Route: from China to New Waypoint HARBIN (505618N 1270606E) – New Waypoint (514556N 1271624E) – UDRIL 522607.00N 1270803.00E – NALEB 534132.00N 1270522.00E |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: At the RDGE 27 the proposal was amended to reverse the traffic flow from China to NALEB. Implementation could not be progressed as no information from China at RDGE/28. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting. <i>Note: Coordinates for New Waypoint HARBIN (505618N 1270606E) is actually the FIR BDRY between Shenyang and Khabarovsk. To be reviewed by RDGE.</i> | |

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| ATS Route Name | FE0065/25.013/ APAC RUS 23 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia (01/09/2018) |
| States/Administrations Involved | Russia, China (Khabarovsk, Shenyang FIRs) |
| Route Description | Implementation of new uni-directional ATS route: New Waypoint 1 (493236.00N 1281936.00E) – AMERA 501318.12N 1280842.00E – Srednebeloye (WZ) 503808.00N 1280207.00E – New Waypoint 2 (514556.00N 1271625.00E) |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| <p>Remarks: SIMLI proposals are awaiting further development as per the outcomes of the bi-lateral meeting between China and Russian Federation conducted 25-26 July 2017, as reported to RDGE 27 by the Russian Federation. Implementation could not be progressed as no information from China at RDGE/28. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting.</p> <p><i>Note: this proposal is similar to FE0030 / RDGE 18.020. To be reviewed by RDGE. Subject to the establishment of new exit/entry point (FIR BDRY between Shenyang and Khabarovsk) 493236.00N 1281936.00E.</i></p> | |

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| ATS Route Name | FE0066/25.014/ APAC RUS 24 |
| State Priority | C |
| IATA Priority | |
| Requested by (when) | Russia (01/09/2018) |
| States/Administrations Involved | Russia, China (Yakutsk, Khabarovsk, Shenyang FIRs) |
| Route Description | Implementation of new uni-directional ATS route: New Waypoint (493236.00N 1281936.00E) – PARIS 512001.00N 1300004.00E – RIDLO 535437.00N 1305710.00E – LUKUT 572708.00N 1323147.00E – TONPI 582002.00N 1325423.00E – BUMAD 602202.00N 1342605.00E – KURAK 624702.00N 1365106.00E – LURET 703729.00N 1475347.00E (Chokurdakh), and the further continuation on G494 to ORVIT. |
| Flight Level Band | |
| Benefit (fuel, environmental) | |
| Operational Information (potential airlines, flight frequency) | |
| Remarks: SIMLI proposals are awaiting further development as per the outcomes of the bi-lateral meeting between China and Russian Federation conducted 25-26 July 2017, as reported to RDGE 27 by the Russian Federation. Implementation could not be progressed as no information from China at RDGE/28. At ATMSG/7: China commented bilateral meeting between China and Russia was expected by end of 2019, and SIMLI package would be discussed at that meeting. Subject to the establishment of new exit/entry point (FIR BDRY between Shenyang and Khabarovsk) 493236.00N 1281936.00E. | |

Chapter 6: Pacific

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

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| ATS Route Name | WPC 01 |
| State Priority | C |
| IATA Priority | HIGH |
| Requested by (when) | IATA (30/07/2018) |
| States/Administrations Involved | Papua New Guinea, Indonesia, USA, Philippines, Japan, Taipei ACC (Port Moresby, Ujung Pandang, Oakland Oceanic, Manila, Fukuoka, Taipei FIR) |
| Route Description | Port Moresby (PY) 0927.2S 14712.9E – Vanimo (VNO) 0240.7S 14118.2E – Koror (ROR) 0722.1N 13433.0E – ENDAX 1415.0N 13000.0E – BISIG 2027.0N 12500.0E – TINHO 2421.2N 12201.7E |
| Flight Level Band | FL250 – FL430 |
| Benefit (fuel, environmental) | 163 NM / 15 minutes, 1,604 kg fuel, 5,053 kg CO ₂ , 5,000 tonnes fuel, 15,700 tonnes CO ₂ annually |
| Operational Information (potential airlines, flight frequency) | 60 flights/week |
| Remarks: BISIG replaces the waypoint that was published in the ICAO route catalogue as that waypoint no longer exists. Potential City Pairs: Flights between Taipei and beyond to Papua New Guinea, Australia and New Zealand. May also be useable as an offload route for flights between Manila and Australasia. At ATM/SG/6: PNG positive, Indonesia positive, Japan are reviewing, Philippines and Taipei yet to be discussed. At ATMSG/7: Under consideration by Philippines. | |