

ASIA/PACIFIC REGION ATS ROUTE CATALOGUE



INTERNATIONAL CIVIL AVIATION ORGANIZATION
ASIA/PACIFIC REGIONAL OFFICE

VERSION 20

December 2020

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1.1 The *Air Navigation Plan – Asia and Pacific Regions* (Doc 9673) has been superseded, in electronic form by the electronic Air Navigation Plan (eANP), which contains a table of regional ATS routes in Volume II (*Table ATM II- APAC- 1 – Asia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

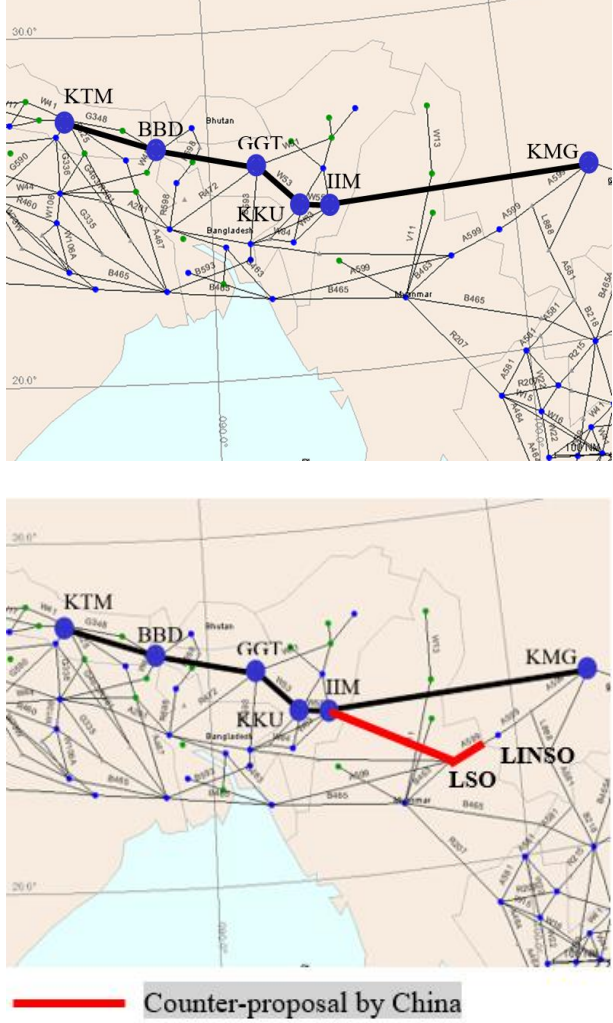
Amendment Record

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.

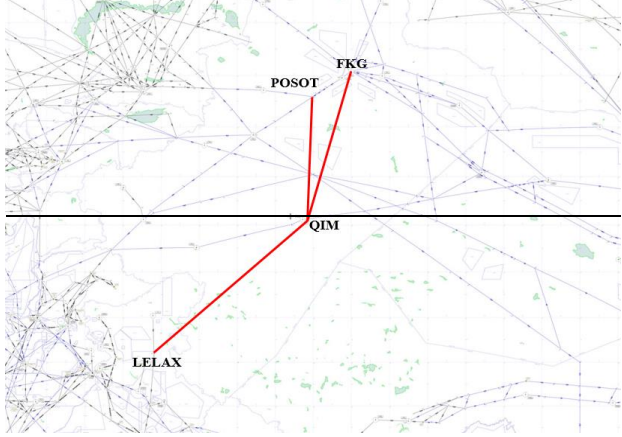
20	December 2020	ATMSG/8	Reviewed and updated the Catalogue.
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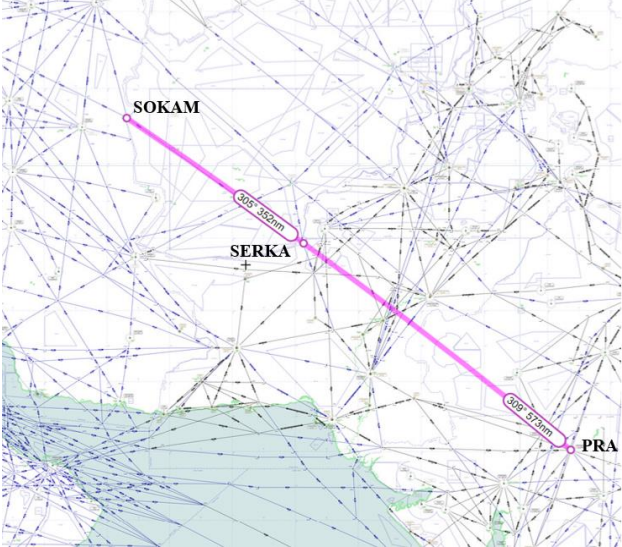
Chapter 1: South Asia

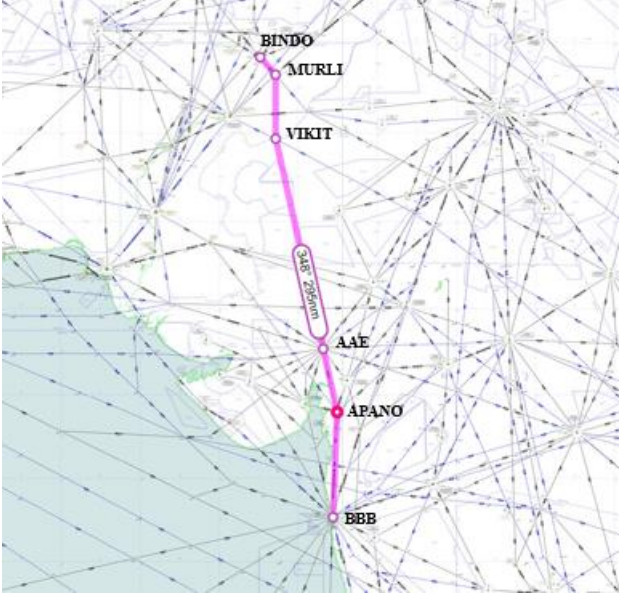
**(referred to: SAIOACG, BOBASIO, ASIOACG as
appropriate for review)**

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)	110 NM / 15 minutes, 520 kg fuel, 1640 kg CO ₂ per flight
Operational Information (potential airlines, flight frequency, potential city pairs)	
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. 26/09/2020: Nepal updated this route proposal was under discussion with Myanmar, and they were optimistic that communication and surveillance capabilities would be available in Yangon FIR in the near future to support the implementation of this route. 20/11/2020: China commented that it was not possible to establish a new entry/exit point, and counter-proposed to re-align IIM – LSO – LINSO (existing entry/exit point between Yangon and Kunming FIRs). At ATM/SG/8: In response to China’s counter-proposal, Myanmar provided	 <p>The figure consists of two maps of the South Asian region, specifically focusing on the area between Nepal, India, and Myanmar. The top map shows the proposed route HIMALAYA 02, which is a black line connecting several airports: Kathmandu (KTM), Baghdogra (BBD), Guwahati (GGT), Silchar (KKU), Imphal (IIM), and Kunming (KMG). The bottom map shows the same route but with a red line segment from Imphal (IIM) to LSO, which is labeled as a 'Counter-proposal by China'. A legend below the maps indicates that the red line represents this counter-proposal. The maps also show various other airports and flight paths in the region, with labels for countries like Bhutan, Bangladesh, and Myanmar.</p>

<p>their disagreement; and India commented the existing established routes in Kolkata FIR (i.e. W137, W53 and W55) was for domestic operations only, and India would need to review the possibility of opening these routes for international operations. India also suggested that in light of this, and the delay of more than nine years and the positions of Myanmar and China, Nepal may wish to consider a new proposal.</p>	
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ATS Route Name	HIMALAYA 03
State Priority	D
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, potential city pairs)	India — North America
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. 23/10/2020: China commented that inspite of all efforts over the past 7 years, this route proposal was not possible for implementation and proposed for deletion based on relevant working procedures of the Catalogue. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue. <i>Note: In accordance with the established management protocols of the Catalogue, this route proposal was deleted.</i>	 A map of the Himalayan region showing flight routes. The map includes several airports marked with their ICAO codes: LELAX (Leh), QIM (Qimo), POSOT (Poso), and FKG (Fukang). Red lines indicate the proposed flight routes: LELAX to QIM, QIM to POSOT, and POSOT to FKG. The map also shows a network of other flight routes in the region, represented by thin grey lines.

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, potential city pairs)	LH, KL KUL/SIN – Middle East – East/Europe
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. <u>Extension completed SERKA to SOKAM.</u> 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. Future of this route would be decided at SAIOACG/10 in 2020. 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. 17/08/2020: The designated established military areas in Karachi FIR and route structure (crosser routes near the boundary with Delhi and Kabul FIRs) does not allow the establishment of this route. Pakistan proposed for deletion. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.	

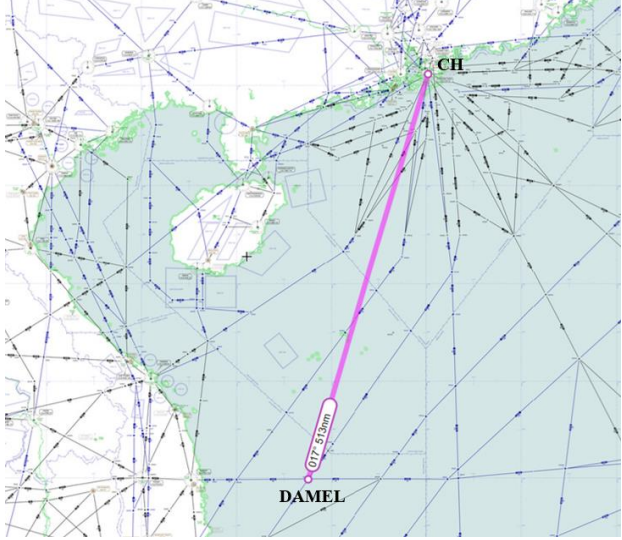
ATS Route Name	IND 08 (a)
State Priority	C
IATA Priority	MEDIUM
Requested by (when)	IATA, (25/06/2012: ATM/AIS/SAR/SG-22)
States/Administrations Involved	Pakistan, India (Mumbai, Karachi FIRs)
Route Description	Mumbai (BBB) 1905.2N 07252.5E – APANO 2135.0N 07259.0E – W13N – Ahmedabad (AAE) 2304.1N 07237.7E – 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, potential city pairs)	Mumbai – North America
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. 30/10/2020: India commented the proposal was still under negotiation with military.	

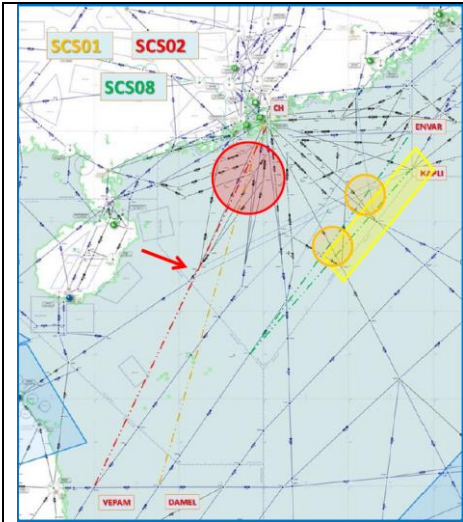
ATS Route Name	IND-08 (b)
State Priority	C
IATA Priority	MEDIUM
Requested by (when)	IATA, (25/06/2012: ATM/AIS/SAR/SG-22)
States/Administrations Involved	Pakistan, India (Mumbai, Karachi FIRs)
Route Description	Mumbai (BBB) 1905.2N 07252.5E — APANO 2135.0N 07259.0E — W13N — Ahmedabad (AAE) 2304.1N 07237.7E — New Waypoint 1 (FIR-BDRY between Mumbai and Delhi) — New Waypoint 2 (10 NM clearance from POKHARAN(VI(D)123)) — 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. At ATMSG/8: IATA proposed for deletion.	

ATS Route Name	IND-09
State Priority	D
IATA Priority	MEDIUM
Requested by (when)	IATA (01/01/2013)
States/Administrations Involved	India (Mumbai FIR)
Route Description	TELEM 2407.0N 06846.0E — Bhuj (BHI) 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. At ATMSG/8: IATA proposed for deletion.	

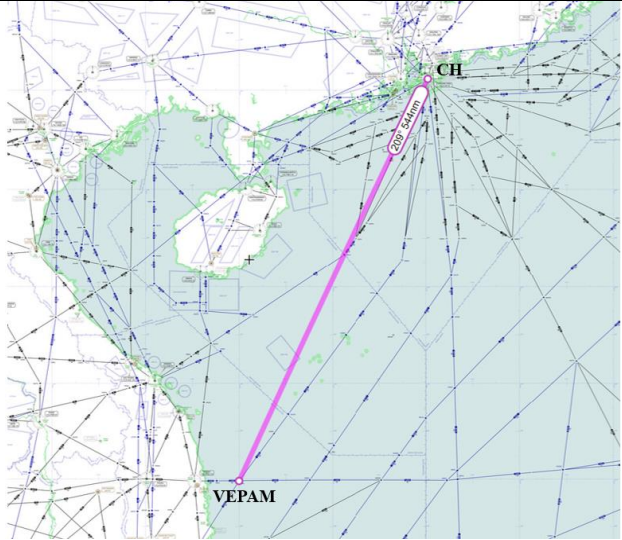
Chapter 2: Southeast Asia

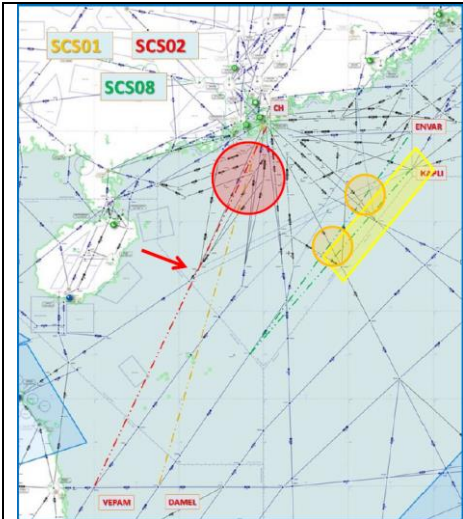
(referred to SEACG for review)

ATS Route Name	SCS 01
State Priority	C
IATA Priority	MEDIUM 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	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 23 NM / 4 minutes, 300 kg fuel per flight, 1,560 tonnes fuel, 4,914 tonnes CO ₂ annually
Operational Information (potential airlines, flight frequency, potential city pairs)	CX, KA, MH, SQ At least 60 100 flights per week SIN – Pearl River Delta airports
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. 23/10/2020: China commented the proposal was under consideration. 30/10/2020: Hong Kong China commented SCS 01 and SCS 02 were conflicting with each other (see the red circle in the figure below). The two routes would create additional confliction points in the most congested ATC sector and ATS route segment in the Hong Kong FIR (see the red circle and arrow in the figure below). Therefore, these two routes were not recommended.	


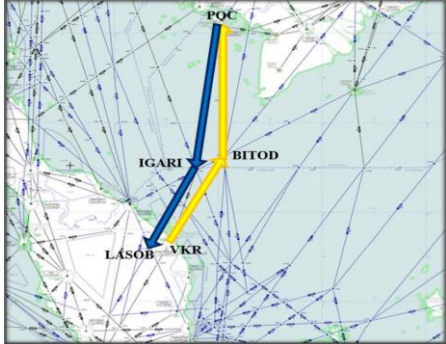



At ATMSG/8: IATA provided updates on IATA priority; implementation benefits; and operational information.


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 12 NM / 1 minutes, 200 kg fuel per flight, 2,080 tonnes fuel, 8,580 tonnes CO ₂ annually
Operational Information (potential airlines, flight frequency, potential city pairs)	CX, KA, MH, SQ At least 154 200 flights per week SIN – Pearl River Delta airports.
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. 23/10/2020: China commented the proposal was under consideration. 30/10/2020: Hong Kong China commented SCS 01 and SCS 02 were conflicting with each other (see the red circle in the figure below). The two routes would create additional confliction points in the most congested ATC sector and ATS route segment in the Hong Kong FIR (see the red circle and arrow in the figure below). Therefore, these two routes were not recommended.	

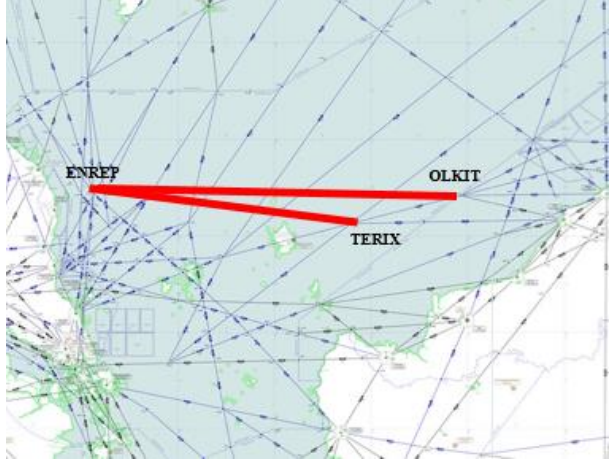


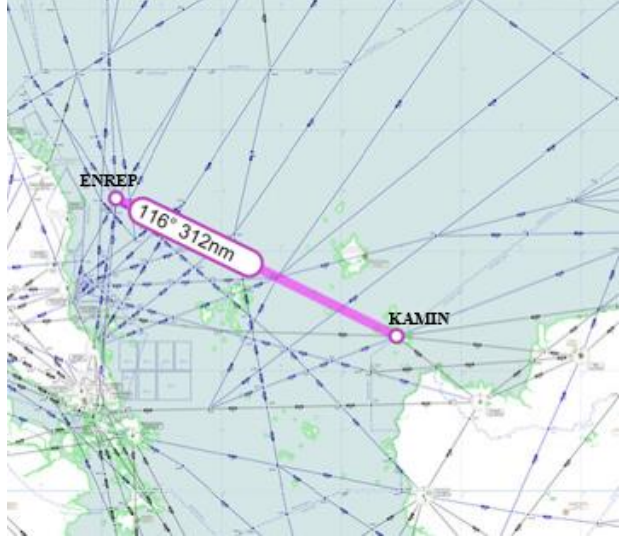
At ATMSG/8: IATA provided updates on implementation benefits; and operational information.

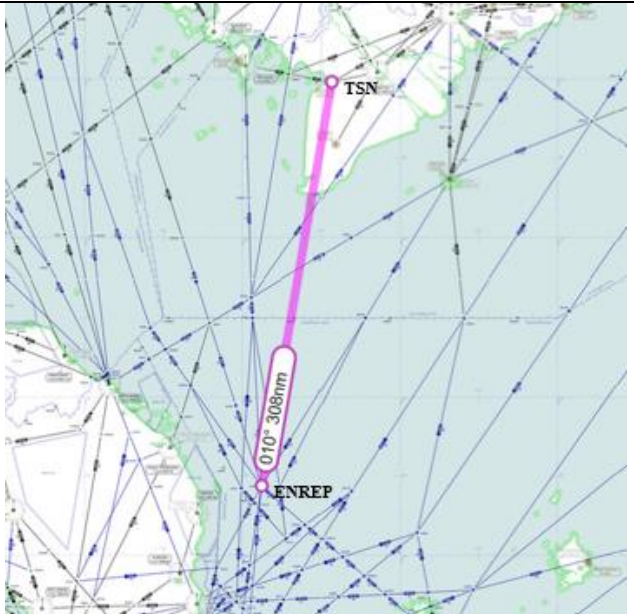
ATS Route Name	SCS 11
State Priority	B
IATA Priority	MEDIUM LOW
Requested by (when)	IATA (10/03/2015: SEACG/22)
States/Administrations Involved	Viet Nam, Singapore, Malaysia (Ho Chi Minh, Singapore, Kuala Lumpur FIRs)
Route Description	Kuala Terengganu (VKR) 0521.6N 10304.9E – BITOD 0715.4N 10407.1E
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 6 NM / 0 minutes, 23 kg fuel per flight, 167 tonnes fuel, 527 tonnes CO ₂ annually
Operational Information (potential airlines, flight frequency, potential city pairs)	MH, VN At least 28 20 flights per week KUL – HAN/PNH/SGN
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. At ATMSG/8: This route proposal was under consideration by Viet Nam; and IATA provided updates on IATA priority, implementation benefits and operational information.</p>	

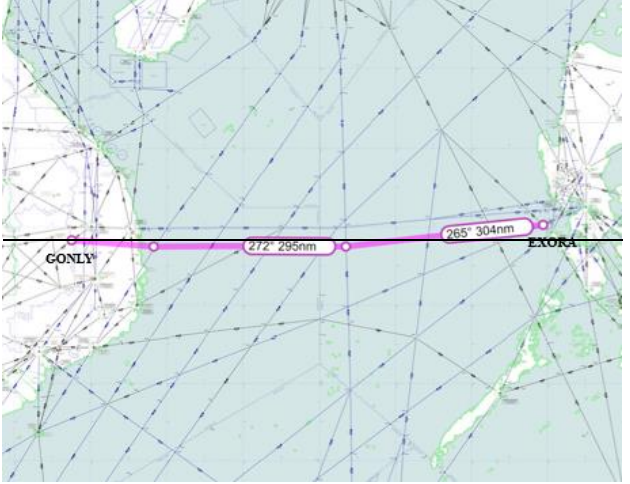
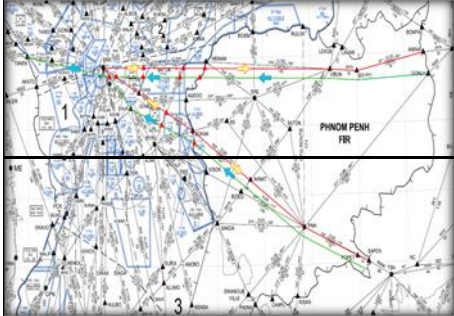
ATS Route Name	SCS 12
State Priority	D
IATA Priority	MEDIUM
Requested by (when)	IATA (30/07/2018)
States/Administrations Involved	Viet Nam, China, Hong Kong China, Philippines (Hanoi, Sanya, Hong Kong, Manila FIRs)
Route Description	ASSAD 1820.5N 10740.9E – Sanya (SYX) 1818.6N 10910.4E – EPKAL 1751.5N 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. Future of this route proposal would be decided at SEACG/27 in 2020. Update from Viet Nam on 22/07/2019: Viet Nam has no objection, subject to agreement from China, Hong Kong China, Philippines. At ATMSG/8: IATA proposed for deletion.	

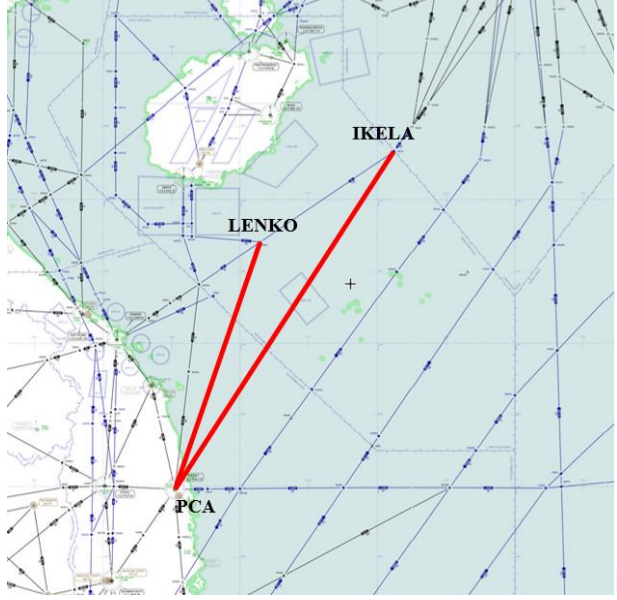
ATS Route Name	SCS 13
State Priority	CD
IATA Priority	LOW
Requested by (when)	Malaysia (26/03/2018: SAIOACG/8 & SEACG/25)
States/Administrations Involved	Malaysia, Singapore, Philippines (Kota Kinabalu, Singapore, Manila FIRs)
Route Description	NODIN 081059.88N 1161142.00E – LAXOR 094936.84N 1144829.16E
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, potential city pairs)	9C, AK, CZ 63 flights per week BKI – CAN/HKG/SZX/WUH
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. 15/05/2020: this route proposal was discussed at the bi-lateral meeting between Philippines and Singapore in August 2019. Both States agreed that it was not feasible to be implemented, as there were existing two routes converging at waypoint LAXOR, with only two FLAS level allocated (FL300 and FL380) and 10-minutes longitudinal separation. At ATMSG/8: IATA assigned “ LOW ” priority and recommended for deletion.	


ATS Route Name	SCS 14
State Priority	B
IATA Priority	LOW
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, potential city pairs)	BKI – KBR
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 China 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. 15/05/2020: discussion on this route proposal would be conducted when the COVID-19 situation improved, and a face-to-face meeting could be conducted between Malaysia and Singapore. At ATMSG/8: Indonesia commented future discussion on this route proposal would require their involvements; and IATA assigned “ LOW ” priority and recommended for deletion.	

ATS Route Name	SCS 15
State Priority	B
IATA Priority	LOW
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, potential city pairs)	KCH – KBR
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 China 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. 15/05/2020: discussion on this route proposal would be conducted when the COVID-19 situation improved, and a face-to-face meeting could be conducted between Malaysia and Singapore. At ATMSG/8: Indonesia commented future discussion on this route proposal would require their involvements; and IATA assigned “ LOW ” priority and recommended for deletion.	

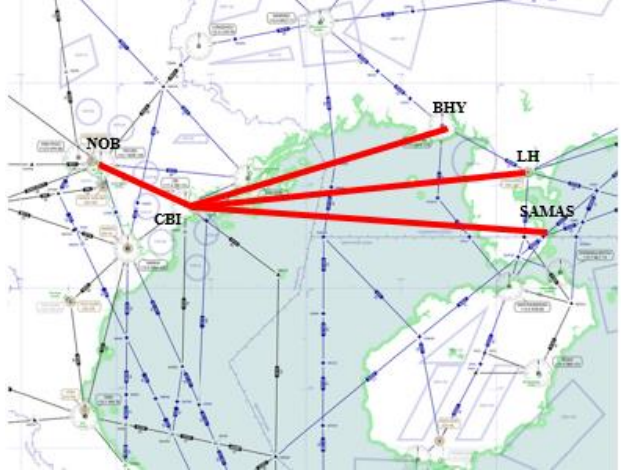
ATS Route Name	SCS 16
State Priority	C
IATA Priority	MEDIUM
Requested by (when)	Viet Nam, (01/04/2019: SEACG/26)
States/Administrations Involved	Singapore, Viet Nam (Singapore, Ho Chi Minh FIRs)
Route Description	Implementation of new uni-directional northbound ATS route: ENREP 045223.88N 1041442.00E – 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, potential city pairs)	SIN – SGN
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. At ATMSG/8: Viet Nam commented this route proposal was under consideration; and IATA assigned “ MEDIUM ” priority.	

ATS Route Name	SCS-17
State Priority	€
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. 17/01/2020: Philippines commented that this route is no longer viable and proposed for deletion.</p>	

ATS Route Name	SCS 18
State Priority	C
IATA Priority	LOW
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)	52 NM / 5 minutes, 220 kg fuel per flight, 435 tonnes fuel, 1,370 tonnes CO ₂ annually
Operational Information (potential airlines, flight frequency, potential city pairs)	KA, MH At least 30 flights per week KUL – SGN – East Asia
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. 23/10/2020: No update (SCSTFRG/9 postponed to 2021). At ATMSG/8: IATA provided updates on IATA priority; implementation benefits; and operational information.	

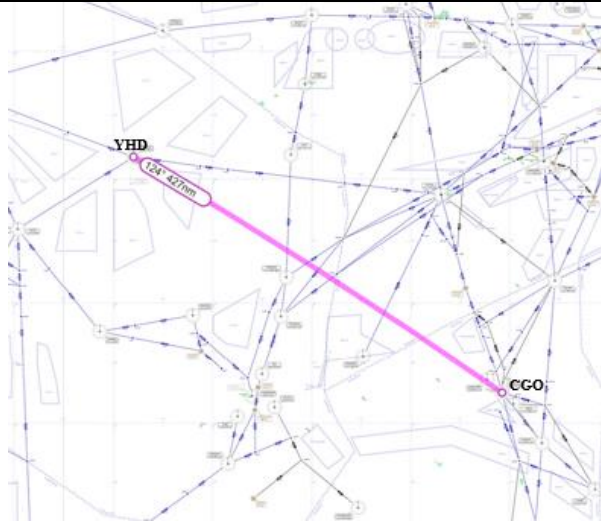
ATS Route Name	SEA 12
State Priority	C
IATA Priority	HIGH
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	Thailand, Lao PDR, Viet Nam, China (Bangkok, Vientiane, Hanoi, Sanya, Guangzhou FIRs)
Route Description	Roiet (ROT) 1607.0N 10346.7E – Huguang (LH) 2107.9N 11020.2E
Flight Level 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, potential city pairs)	CX 160 flights per week JKT/KUL/PNH/SIN – HKG/SYX
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. 23/10/2020: No update (SCSTFRG/9 postponed to 2021).	

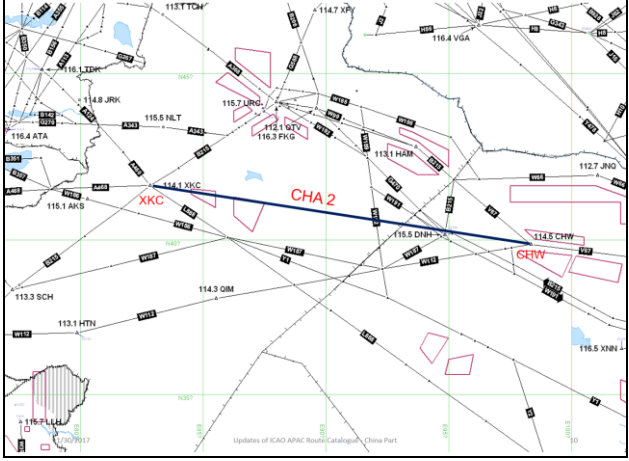
ATS Route Name	THA 01
State Priority	D
IATA Priority	LOW
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	Myanmar, Thailand (Yangon, Bangkok FIRs)
Route Description	Khorat (KRT) 1455.0N 10208.4E — Dawei (DWI) 1405.9N 09812.2E
Flight Level Band	28,000 — 46,000 ft
Benefit (fuel, environmental)	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: Future of this route proposal would be decided at SEACG/27 in 2020. At ATMSG/8: IATA proposed for deletion.	

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, potential city pairs)	CX 44 flights per week
Remarks: Because of small traffic demand and cost/benefit considerations, this route is impossible and cannot 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. Future of this route proposal would be decided at SEACG/27 in 2020. 23/10/2020: China commented the proposal was under consideration. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.	

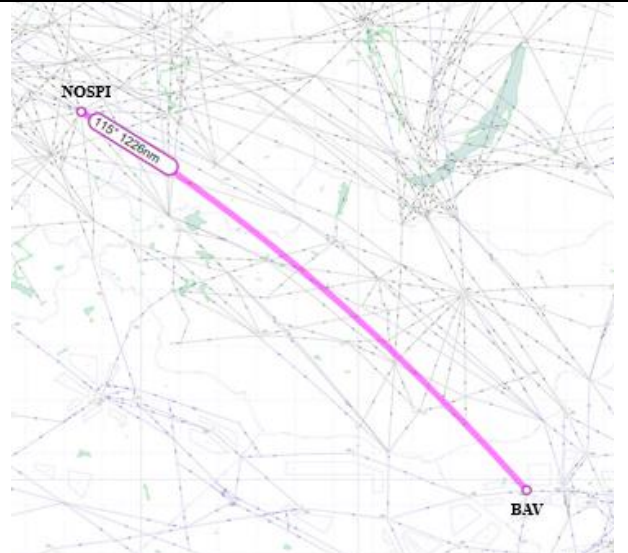
Chapter 3: East Asia

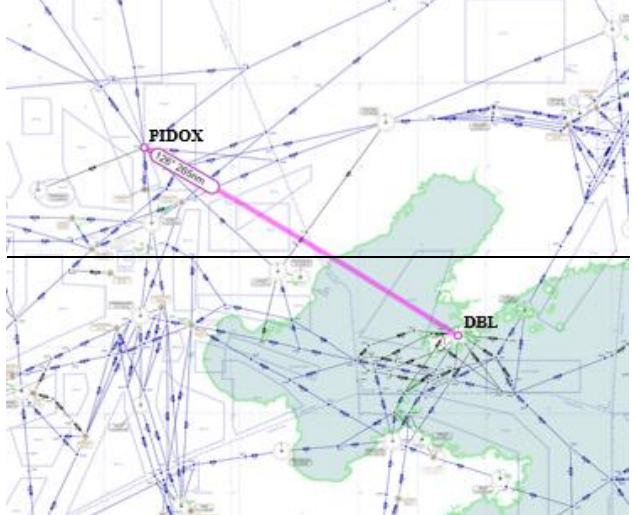
(referred to: States or EATMCG as appropriate for review)


ATS Route Name	CHA 01
State Priority	D
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, potential city pairs)	Europe – Shanghai
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. 23/10/2020: China commented there was no progress on this proposal. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue, and proposed the route segment between CGO – ZHO – HFE to be made available for eastbound too. In response to IATA’s proposal, China commented the following uni-directional routing systems had been implemented for flight planning: (a) eastbound: HFE – FYG – ZHO – CGO. (b) westbound: CGO – W129/KAMDA – W128/FYG.	


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, potential city pairs)	63 flights per week Middle East/Pakistan – China/Japan/Korea
Remarks: Potential City Pairs: Middle East/Pakistan – China/Korea/ Japan. China comment: there are existing routes between XKC and CHW. <u>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.</u> 23/10/2020: China proposed for deletion. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.	

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. At ATMSG/8: IATA proposed for deletion.	

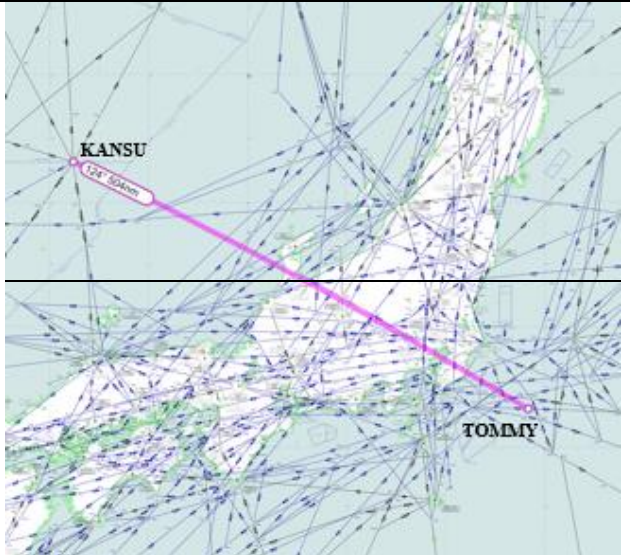
ATS Route Name	CHA 12
State Priority	D
IATA Priority	HIGH
Requested by (when)	IATA (29/08/2018)
States/Administrations Involved	Russia, Mongolia, China (Novosibirsk, Krasnoyarsk, Ulaanbatar, Beijing FIRs)
Route Description	NOSPI 534912.00N 0865248.00E – New Waypoint (FIR BDRY between Novosibirsk and 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, potential city pairs)	85 flights per week
Remarks: New route proposal replacing the previous from Weixian to Novokuznetsk. <u>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. 23/10/2020: China proposed for deletion. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.</u>	

ATS Route Name	CHA 13
State Priority	D
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. At ATMSG/8: IATA proposed for deletion.	

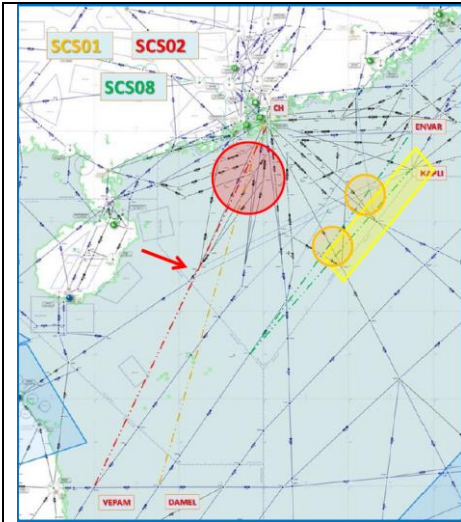
ATS Route Name	IATA 02
State Priority	D
IATA Priority	HIGH
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	China (Kunming, Guangzhou FIRs)
Route Description	OMBON 3321.4N 10416.3E – Sanjiang (SJG) 2546.6N 10936.6E
Flight Level Band	8,400 – 15,000 meters
Benefit (fuel, environmental)	14 minutes, 6,657 tones fuel, 20,636 tonnes CO ₂ annually
Operational Information (potential airlines, flight frequency, potential city pairs)	56 flights per week Europe – Pearl River Delta airports
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. 23/10/2020: China proposed for deletion. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.	

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 — BASIS 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, potential city pairs)	CA, MU, NZ, QF 56 flights per week
Remarks: Update from Japan on 29/06/2019: Under consideration. 23/10/2020: Japan commented this proposal was under consideration; and China commented that inspite of all efforts over the past 8 years, this route proposal was not possible for implementation and proposed for deletion based on relevant working procedures of the Catalogue. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue. <i>Note: In accordance with the established management protocols of the Catalogue, this route proposal was deleted.</i>	

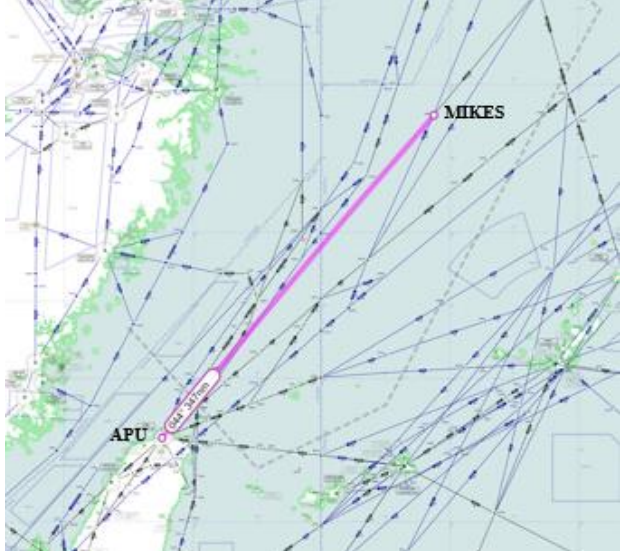
ATS Route Name	PHI 01
State Priority	C
IATA Priority	MEDIUM
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	Philippines, Japan (Manila, Fukuoka FIRs)
Route Description	Manila (MIA) 1430.5N 12101.3E — MEVIN 2100.0N 12233.0E or Cabanatuan (CAB) 1528.9N E12101.5 — MEVIN 2100.0N 12233.0E
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. 17/01/2020: Philippines commented this route was not possible for implementation and proposed for deletion. At ATMSG/8: IATA agreed for deletion.	<p>The map displays the flight routes for ATS Route PHI 01. It shows the Philippines and parts of Japan. Key locations marked include Manila (MIA) and Cabanatuan (CAB) in the Philippines, and MEVIN, A1, and A1* in Japan. Several waypoints are labeled along the routes: B462, A5812, A5830, A5832, A5833, B597, B5971, and A5820. A scale bar indicates 100 NM. The map also shows latitude lines at 20° and 30° North and longitude lines at 120° and 140° East.</p>

ATS Route Name	RUS 08
State Priority	€
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. <i>Note: to confirm waypoint TOMMY (ANSAD?)</i> At ATMSG/8: IATA proposed for deletion.	

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, potential city pairs)	BR, CI At least 42 flights per week Southeast Asia – North Asia airports
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. 30/10/2020: Hong Kong China commented these two routes are too close to the Hong Kong and Manila FIR boundary (see the yellow shaded areas in the figure below). New confliction points would be created and the distance/time available for traffic resolution is not sufficient. There are safety concerns and these proposed routes were not recommended. Therefore, the two routes are not recommended.	<p>The map displays the South China Sea region with several flight routes and airports marked. DULOP is located in the southwest. Three routes are shown: DULOP-ELATO, DULOP-ENVAR, and DULOP-KAPLI. ELATO, ENVAR, and KAPLI are clustered together in the northeast. HCN is also marked in the northeast. A1 and G86 are also indicated near ELATO. The map shows the coastlines of Taiwan and the Philippines. A scale bar indicates 100 NM. Yellow shaded areas represent the FIR boundaries of Hong Kong and Manila.</p>

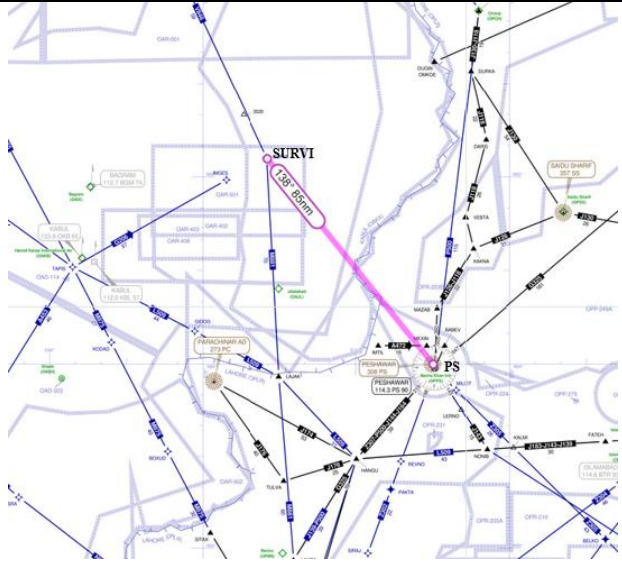


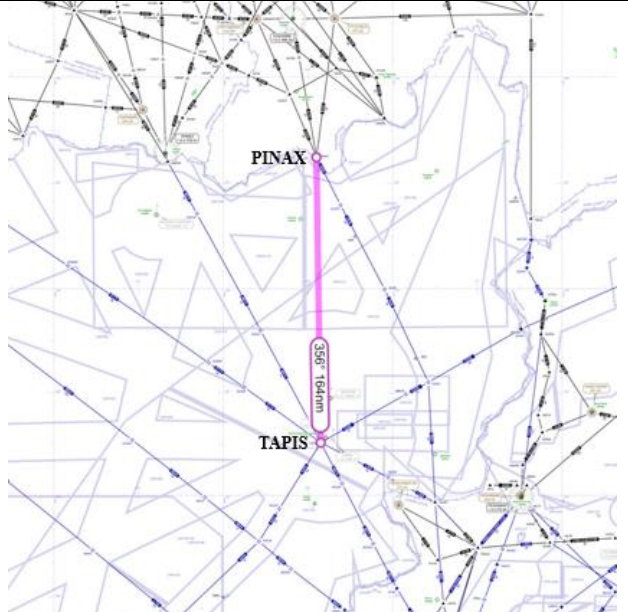
At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.

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, potential city pairs)	BR, CI 210 flights per week Southeast Asia/HKG/TPE – Fukuoka
Remarks: Potential City Pairs: Southeast Asia/HKG/TPE – Fukuoka. Supports traffic between APU and Japan. Update from Japan on 29/06/2019: Under consideration. 23/10/2020: Japan commented this proposal was under consideration. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.	

Chapter 4: Trans-Regional (South Asia)

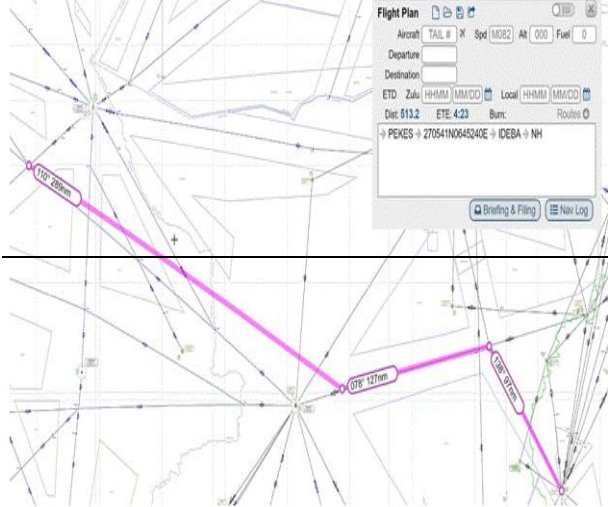
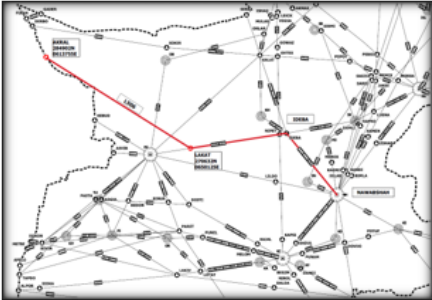
(referred to: States or AIRARD TF as appropriate for review)

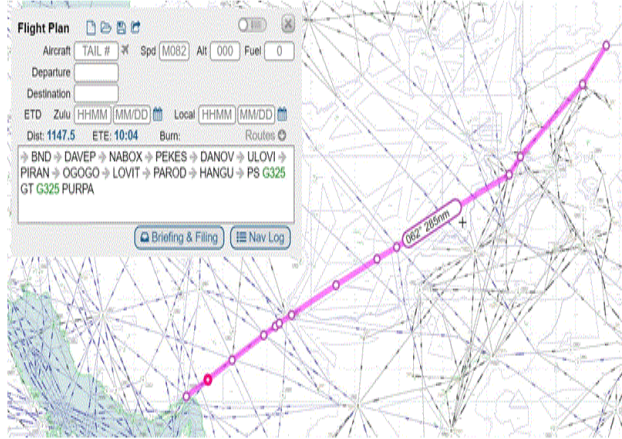
ATS Route Name	AFG 01
State Priority	B
IATA Priority	MEDIUM
Requested by (when)	Afghanistan (03/08/2019: AIRARD TF/4)
States/Administrations Involved	Pakistan, Afghanistan (Lahore, Kabul FIRs)
Route Description	Peshawar (PS) 335841.50N 0713100.90E – SURVI 350606.12N 0702512E
Flight Level Band	
Benefit (fuel, environmental)	32 NM / 4 minutes, 400 kg fuel per flight, 957 tonnes fuel, 3,014 tonnes CO ₂ annually
Operational Information (potential airlines, flight frequency, potential city pairs)	AI, AY, TG About 46 flights per week (some operating during winter season only) HEL – BKK/SIN
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 authorities of Pakistan for approval. 17/08/2020: Pakistan informed this route proposal was still under consideration by the relevant authorities. At ATMSG/8: IATA assigned “MEDIUM” priority; implementation benefits; and operational information. IATA also proposed to review the time restrictions LAJAK-SULOM (1500-2359Z) to make proposal beneficial to more traffic.	

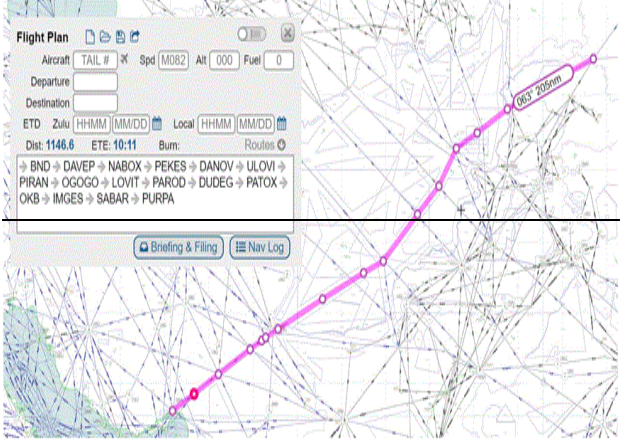
ATS Route Name	AFG 02
State Priority	C
IATA Priority	LOW
Requested by (when)	Tajikistan (03/08/2019: AIRARD TF/4)
States/Administrations Involved	Afghanistan, Tajikistan (Kabul, Dushanbe FIRs)
Route Description	TAPIS 343100.12N 0690900E – PINAX 371500N 0690600E
Flight Level Band	
Benefit (fuel, environmental)	
Operational Information (potential airlines, flight frequency, potential city pairs)	
<p>Remarks: Afghanistan commented that waypoint TAPIS is a converging point for two congested routes, and would review this proposal. At ATMSG/8: IATA assigned “LOW” priority and recommended for deletion.</p> <p><i>Note: continuation of this proposal is 29.007 “TAPIS-PINAX-SORAM-TENRO” in RDGE Middle Asia ATS Route Catalogue.</i></p>	

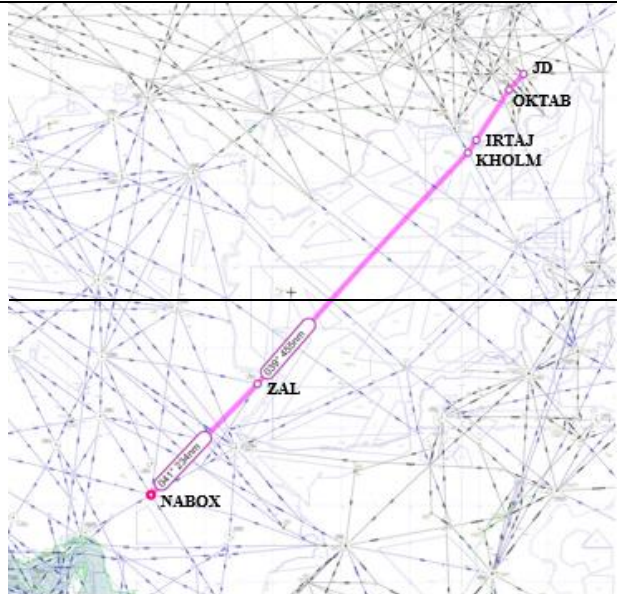
ATS Route Name	AFG 03
State Priority	D
IATA Priority	LOW
Requested by (when)	Afghanistan (03/08/2019: AIRARD/TF/4)
States/Administrations Involved	India, China, Tajikistan, Afghanistan (Delhi, Urumqi, Dushanbe, Kabul FIRs)
Route Description	Leh (LLH) 340504N 0773438E – Hotan (HTN) 370212N 0795206E – 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, potential city pairs)	
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. At ATMSG/8: IATA assigned “ LOW ” priority and recommended for deletion.	

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, potential city pairs)	
<p>Remarks: Requested by IRAN and amended by IATA at SAIOACG/3 meeting. IATA suggest amendment to BJD – KAMAR – DAVER – NH. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.</p> <p><i>Note: Waypoint GASIR and SHANG need to be verified.</i></p>	<p>Establish new bi-directional routing from ALROT - BJD (BIRJAND) – SOKIR - NH</p> <p>Distance Comparison (+3nm) ALROT – SOKAM – SERKA - GASIR: 686nm ALROT – BJD – SOKIR – NH (saves 34nm and 4.5min) Note that ALROT – BJD - SOKIR – NH has more than 50nm separation from UL333 in Kabul FIR</p>

ATS Route Name	MID-01
State Priority	B
IATA Priority	LOW
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, potential city pairs)	Europe — East (through Teheran FIR)
Remarks: Iran, Pakistan Contingency Route. Agreed upon during the Afghanistan Contingency Coordination Meeting. 17/08/2020: L506 (also known as Afghan Contingency Route) connecting AKRAL 284902N 0613755E – LAKAT 270632N 06502125E – IDEBA – NH has been established.	
 <p>Presently this route is available only if Kabul FIR is closed. The request to open this route for regular operations to facilitate the traffic flows between Europe/Middle East and APAC Regions is under the considerations of the relevant agencies of Pakistan. At ATMSG/8: IATA assigned “LOW” priority and recommended for deletion.</p>	

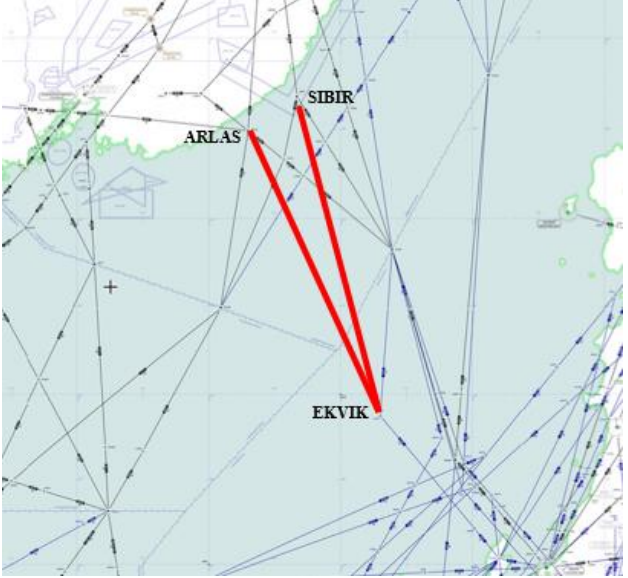
ATS Route Name	MID 02 (a)
State Priority	B
IATA Priority	HIGH
Requested by (when)	AIRARD TF/2 (04/05/2018)
States/Administrations Involved	Iran, Pakistan, Afghanistan (Tehran, Karachi, Kabul, Lahore FIRs)
Route Description	Bandar Abbas (BND) 2711.8N 05622.0E – DAVEP 2742.4N 05720.1E – NABOX 2816.5N 05826.0E – 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 40 NM / 3 minutes, 600 kg fuel per flight, 1,342 tonnes fuel, 4,262 tonnes CO ₂ annually
Operational Information (potential airlines, flight frequency, potential city pairs)	EK, EY, QR About 43 flights per week
Remarks: High Priority MID 02 (a) preferred over MID 02 (b) if only one route is chosen. 17/08/2020: The proposed entry into Pakistan airspace allows very minimal response time (less than two minutes) for traffic de-confliction at DOBAT and SITAX and other crosser routes.	 <p>Pakistan proposed for deletion. At ATMSG/8: IATA assigned “HIGH” priority; implementation benefits; and operational information. IATA preferred this route to be retained in the Catalogue and commented this route could be used for contingency and for aircraft with limited oxygen requirements.</p>

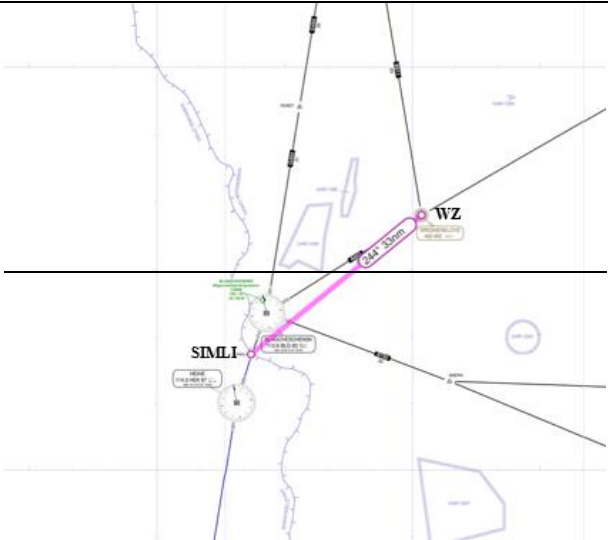

ATS Route Name	MID-02 (b)
State Priority	B
IATA Priority	
Requested by (when)	AIRARD TF/2 (04/05/2018)
States/Administrations Involved	Iran, Pakistan, Afghanistan (Tehran, Karachi, Kabul, Lahore FIRs)
Route Description	Bandar Abbas (BND) — DAVEP 2742.4N 05720.1E — NABOX 2816.5N 05826.0E — PEKES 2859.5N 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. Waypoint <u>SABAR</u> need to be verified. <i>Note: ATS route BND — A453 — TAPIS — G206 — PURPA has been established. Need to confirm the relevancy of this route proposal. At ATMSG/8: IATA proposed for deletion.</i>	

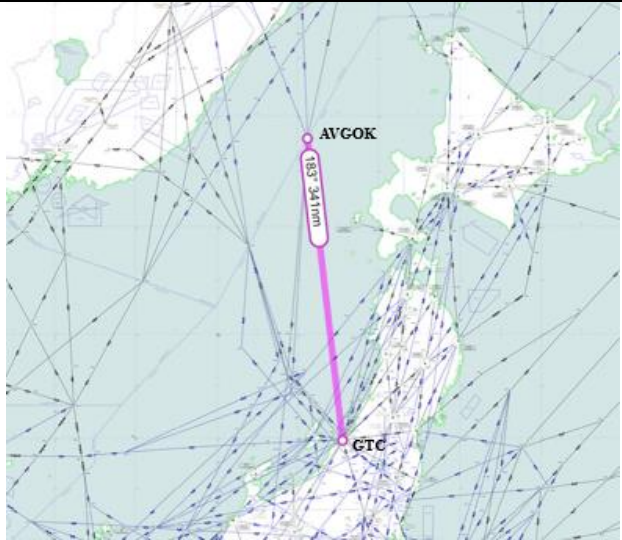
ATS Route Name	MID-03
State Priority	A
IATA Priority	LOW
Requested by (when)	Afghanistan (03/08/2019: AIRARD TF/4)
States/Administrations Involved	Iran, Afghanistan, Tajikistan (Tehran, Kabul, Dushanbe FIRs)
Route Description	NABOX 281630N 0582600.96E — Zabol (ZAL) 310543.90N 0613230.80E — KHOLM 364300N 0674100E — IRTAJ 370050N 0675550E — OKTAB 381012N 0685248E — Fayzobod (JD) 383238N 0691850E
Flight Level Band	
Benefit (fuel, environmental)	22 NM / 3 minutes, 307 kg fuel per flight, 127 tonnes fuel, 402 tonnes CO ₂ annually
Operational Information (potential airlines, flight frequency, potential city pairs)	About 8 flights per week
Remarks: Afghanistan and Tajikistan had agreed to the implementation of segments within their FIRs. Pending agreement from Iran. B904 BUDBO—KHOLM—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. 14/09/2020: Afghanistan confirmed ATS route B904 and Z627 have been established, and proposed for deletion.	

Chapter 5: Trans-Regional (East Asia)

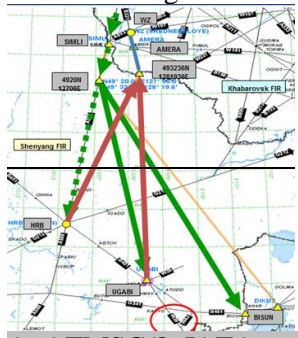
**(referred to: AIRARD/TF, RDGE or EATMCG as
appropriate for review)**

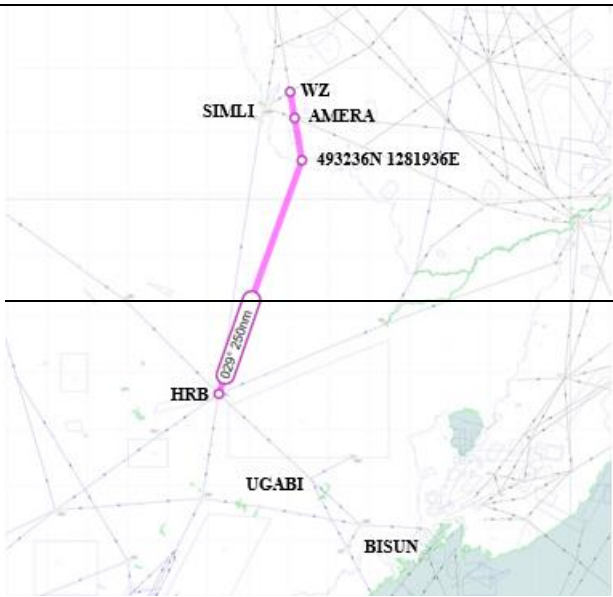

ATS Route Name	FE0008 / RDGE 15.003 / APAC RUS 5
State Priority	C
IATA Priority	MEDIUM
Requested by (when)	Russia, IATA (01/09/2018)
States/Administrations Involved	Russia, Japan (Khabarovsk, Fukuoka FIRs)
Route Description	Implementation of two new bi-directional ATS routes: a. SIBIR 432154.00N 1352024.00E – 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)	No fuel gain but could help to reduce ground delays for HND/KIXNRT operations to Europe.
Operational Information (potential airlines, flight frequency, potential city pairs)	AF, BA, KL, LH
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. 23/10/2020: Japan commented no update. At ATMSG/8: IATA assigned “ MEDIUM ” priority and recommended for this route to be retained in the Catalogue.	

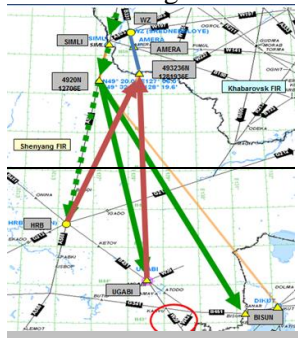
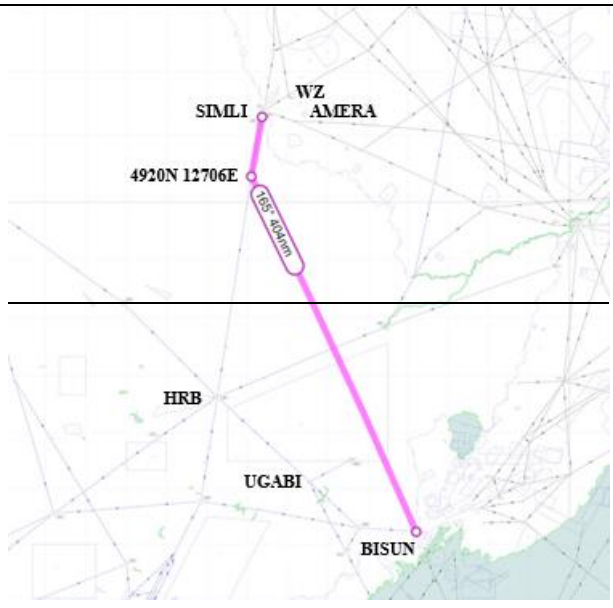
ATS Route Name	FE0017 / RDGE 15.035 / APAC RUS 12
State Priority	€
IATA Priority	
Requested by (when)	Russia, IATA (01/09/2018)
States/Administrations Involved	Russia, China (Khabarovsk, Shenyang FIRs)
Route Description	Implementation of new uni-directional westbound ATS route: Srednebeloye (WZ) 503808.00N 1280207.00E — along G494 — SIMLI 501724.00N 1272205.88E
Flight Level Band	
Benefit (fuel, environmental)	
Operational Information (potential airlines, flight frequency)	
<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. 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: Currently connected via WZ A803-BLG-G494-SIMLI. RDGE to review should there be any need to retain this proposal.</i></p> <p>SIMLI Package:</p>   <p>At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.</p>	

ATS Route Name	FE0021 / RDGE 13.028 / APAC RUS 4
State Priority	C
IATA Priority	HIGH
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)	20 NM / 4 minutes, 440 kg fuel per flight, 2,400 tonnes fuel, 7,550 tonnes CO ₂ annually
Operational Information (potential airlines, flight frequency, potential city pair)	AF, AY, JL, KL, NH About 105 flights per week HND/NRT to Europe
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. 23/10/2020: Japan commented no update. At ATMSG/8: IATA assigned “ HIGH ” priority and recommended for this route to be retained in the Catalogue.	

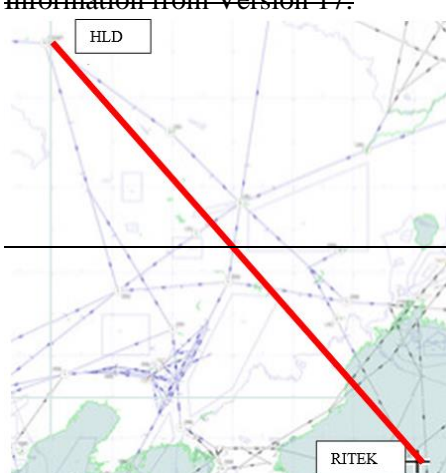
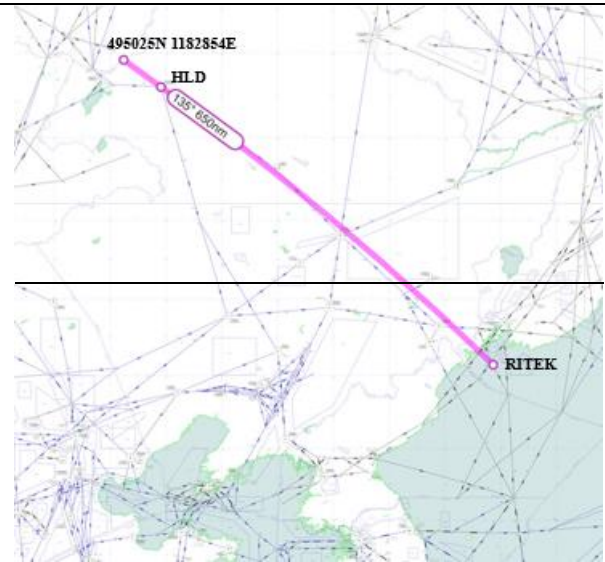
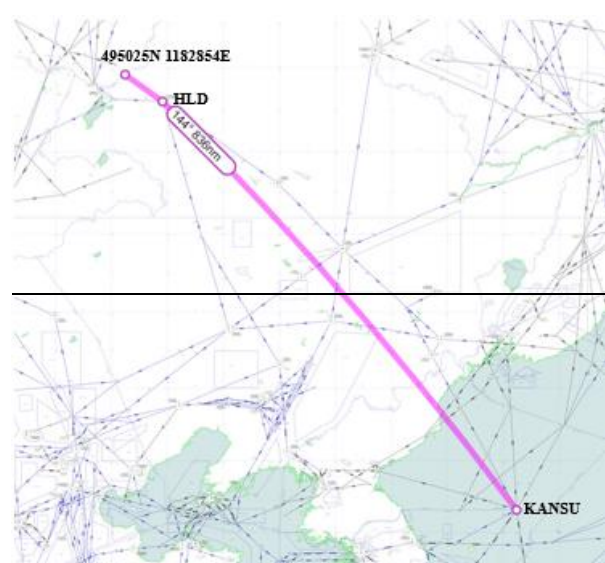
ATS Route Name	FE0022 / RDGE 13.033 / APAC RUS 7
State Priority	€
IATA Priority	
Requested by (when)	Russia, IATA (01/09/2018)
States/Administrations Involved	Russian Federation, DPRK, ROK, Japan (Khabarovsk, Pyongyang, Incheon, Fukuoka FIRs)
Route Description	Implementation of new bi-directional ATS 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. At ATMSG/8: IATA commented no support from airlines and proposed for deletion from this Catalogue.	


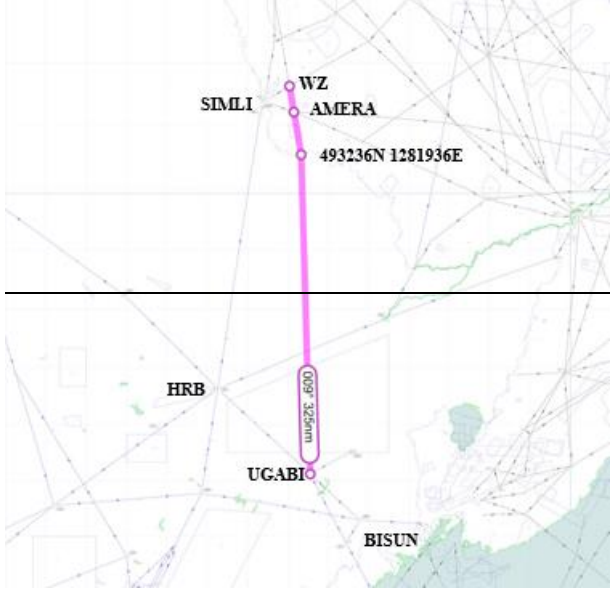
ATS Route Name	FE0029 / RDGE 18.031 / APAC RUS 13
State Priority	€
IATA Priority	
Requested by (when)	Russia, IATA (01/09/2018)
States/Administrations Involved	Russia, China (Khabarovsk, Shenyang FIRs)
Route Description	Implementation of new uni-directional eastbound ATS route: SIMLI 501724.00N 1272205.88E — 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. 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:  <p>At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.</p>	

ATS Route Name	FE0030 / RDGE 18.020
State Priority	€
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. 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:	
 <p>At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.</p>	

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. 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:  <p>At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.</p>	

ATS Route Name	FE0032 / RDGE 17.005
State Priority	€
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: 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
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. 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. At ATMSG/8: IATA commented no support from airlines and proposed for deletion from this Catalogue (discussion on this route to be continued at RDGE).	

ATS Route Name	FE0034 / RDGE 16.027 / APAC RUS 9
State Priority	€
IATA Priority	
Requested by (when)	Russia, IATA (01/09/2018)
States/Administrations Involved	Russia, China, (Irkutsk, Shenyang, Khabarovsk FIR(s))
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. At ATMSG/7: China proposed to concentrate on the SIMLI package, and this route proposal would be reviewed at a later stage. <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>  <p>At ATMSG/8: IATA commented no support from airlines and proposed for deletion from this Catalogue (discussion on this route to be continued at RDGE).</p>	 

ATS Route Name	FE0035 / RDGE 18.030 / APAC RUS 15
State Priority	€
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. 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:  At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.	

ATS Route Name	FE0041 / RDGE 19.018 / APAC RUS 6
State Priority	€
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.	<p>Implementation of two new uni-directional ATS route:</p> <p>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</p> <p>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</p>
Flight Level Band	
Benefit (fuel, environmental)	
Operational Information (potential airlines, flight frequency)	
<p>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. 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: Route proposal ARLAS—EKVIK is also provided as FE0008 / RDGE 15.003 / APAC RUS 5. At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.</i></p>	

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, potential city pairs)	
Remarks: Planned implementation date as part of project in 2015. Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 6)	

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, potential city pairs)	
Remarks: Planned implementation date as part of project in 2015. Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 7).	

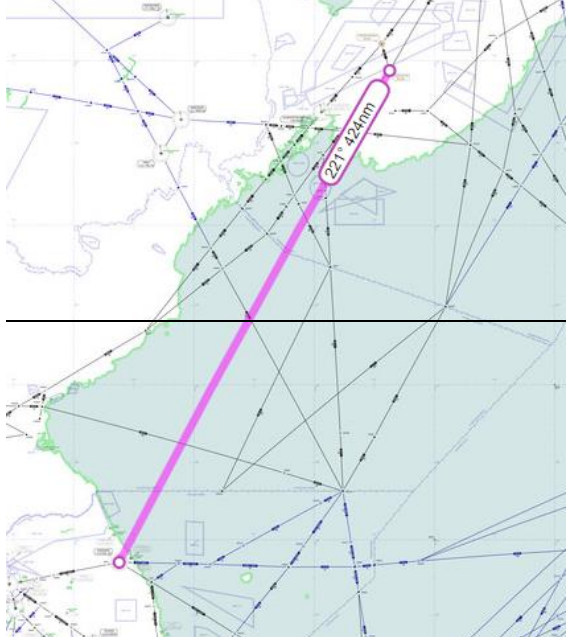
ATS Route Name	FE0051 / RDGE 20.012
State Priority	C
IATA Priority	
Requested by (when)	DPRK, Russia (01/09/2018)
States/Administrations Involved	Russia, DPRK (Khabarovsk, Pyongyang FIRs)
Route Description	Implementation of new uni-directional eastbound ATS route segment: MESOV 383800N 1302300E – ADNUR 421230N 1304810E
Flight Level Band	29,000 – 53,000 ft
Benefit (fuel, environmental)	
Operational Information (potential airlines, flight frequency, potential city pairs)	
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.	

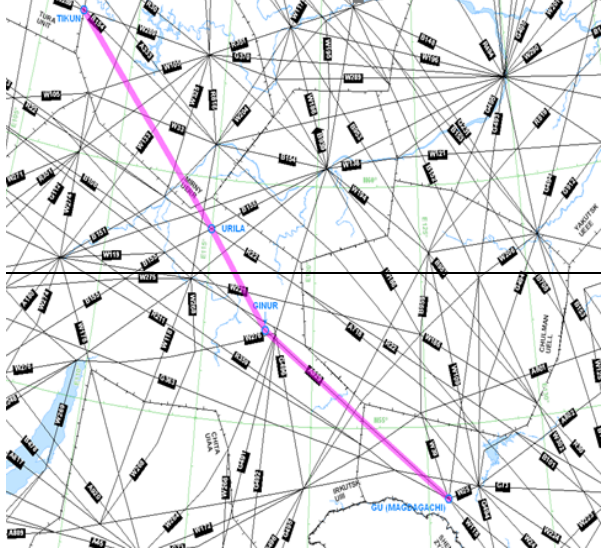
ATS Route Name	FE0052 / RDGE 20.013
State Priority	C
IATA Priority	
Requested by (when)	DPRK, Russia (01/09/2018)
States/Administrations Involved	Russia, DPRK (Khabarovsk, Pyongyang FIRs)
Route Description	BUMEP 415350N 1311255E – MESOV 383800N 1302300E
Flight Level Band	28,000 – 51,000 ft
Benefit (fuel, environmental)	
Operational Information (potential airlines, flight frequency, potential city pairs)	
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.	

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, potential city pairs)	
Remarks: Khabarovsk/Vladivostok airspace re-organisation project, (in map No. 10). <i>Note: to verify has this route been implemented as G705?</i>	

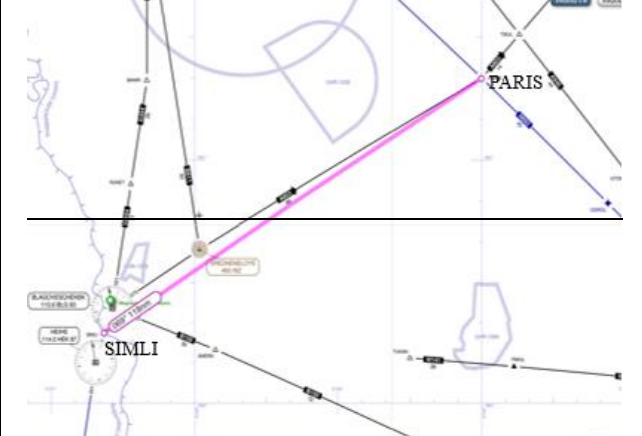
ATS Route Name	FE0054 / RDGE 20.015
State Priority	C
IATA Priority	
Requested by (when)	DPRK, Russia (01/09/2018)
States/Administrations Involved	Russia, DPRK (Khabarovsk, Pyongyang FIRs)
Route Description	Implementation of new bi-directional ATS route: RIVAT 412900N 1321600E – MESOV 383800N 1302300E
Flight Level Band	21,000 – 53,000 ft
Benefit (fuel, environmental)	
Operational Information (potential airlines, flight frequency, potential city pairs)	
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>	

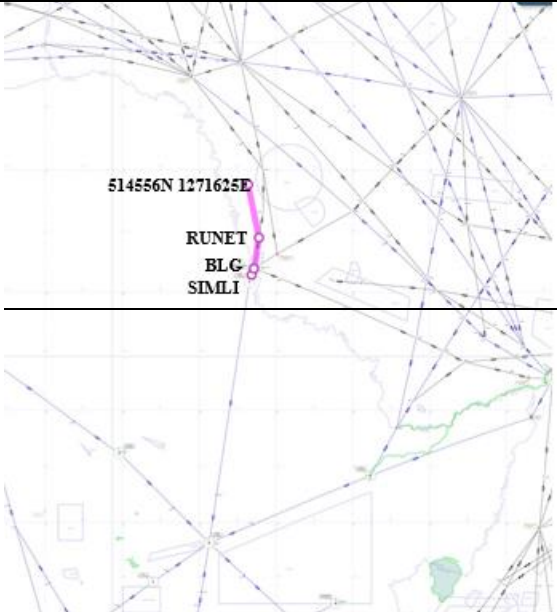
ATS Route Name	FE0056 / RDGE 20.017
State Priority	C
IATA Priority	
Requested by (when)	DPRK, Russia (01/09/2018)
States/Administrations Involved	Russia, DPRK, Japan (Khabarovsk, Pyongyang, Fukuoka FIRs)
Route Description	Implementation of new bi-directional ATS route segment: RIVAT 412900N 1321600E – New Waypoint (FIR BDRY between Pyongyang and Fukuoka)
Flight Level Band	
Benefit (fuel, environmental)	
Operational Information (potential airlines, flight frequency, potential city pairs)	
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.	

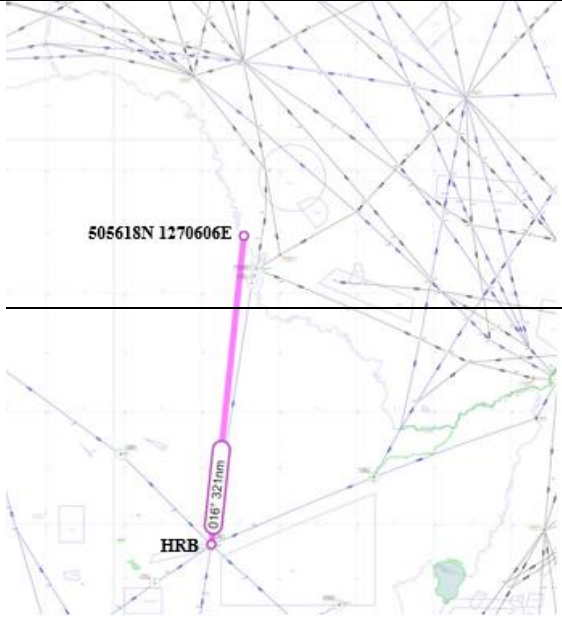
ATS Route Name	RUS 03
State Priority	€
IATA Priority	
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	Russia, DPRK, ROK (Khabarovsk, Pyongyang, Incheon FIRs)
Route Description	Muraveyka (BG) 435303.00N 1331511.00E — TELOD 421936.12N 1321148.12E — New Waypoint 1 (FIR BDRY between 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. At ATMSG/8: IATA commented no support from airlines and proposed for deletion from this Catalogue (discussion on this route to be continued at RDGE).	

ATS Route Name	RUS 10
State Priority	€
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. This proposed route was within Russia airspace.	

ATS Route Name	26.FE 01/APAC RUS 18
State Priority	€
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, potential city pairs)	
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. At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.	

ATS Route Name	26.FE 02/APAC RUS 19
State Priority	€
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, potential city pairs)	
Remarks: At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.	

ATS Route Name	26.FE 03/APAC RUS 20
State Priority	€
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, potential city pairs)	
Remarks: <i>Note: to verify whether this route is still necessary if 26.FE 01/APAC RUS 18 implemented?</i> At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.	

ATS Route Name	FE0063/25.011/APAC RUS 21
State Priority	€
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)	
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. 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: 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> At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.	

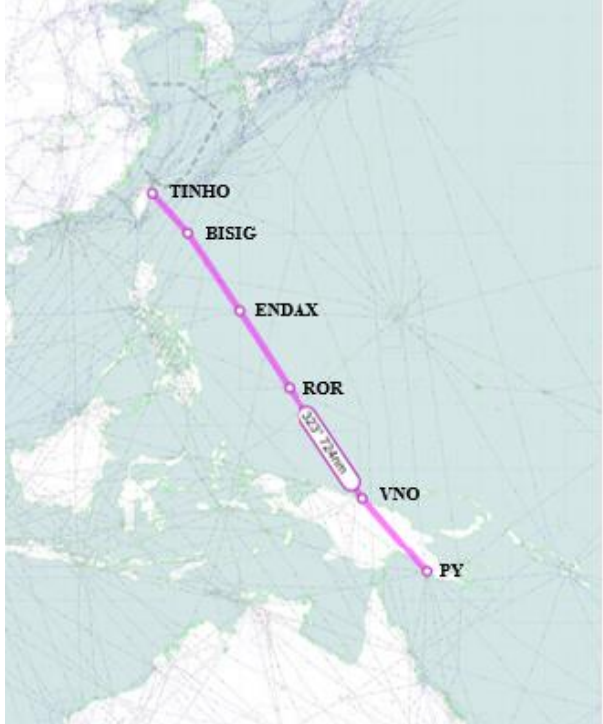
ATS Route Name	FE0064/25.012 APAC RUS 22
State Priority	€
IATA Priority	
Requested by (when)	Russia (01/09/2018)
States/Administrations Involved	Russia, China (Khabarovsk, Shenyang FIRs)
Route Description	Implementation of new uni-directional ATS Route: from China to New Waypoint HARBIN (505618N 1270606E) — 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. 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> At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.	

ATS Route Name	FE0065/25.013/ APAC RUS 23
State Priority	€
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)	
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. 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: 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> At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.	

ATS Route Name	FE0066/25.014/ APAC RUS 24
State Priority	€
IATA Priority	
Requested by (when)	Russia (01/09/2018)
States/Administrations Involved	Russia, China (Yakutsk, Khabarovsk, Shenyang FIR(s))
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, potential city pairs)	
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. 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. At ATMSG/8: IATA proposed for deletion from this Catalogue, and discussion on this route to be continued at RDGE.	

Chapter 6: Pacific

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

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, potential city pairs)	60 flights per week Taipei and beyond – Australia, New Zealand, and Papua New Guinea
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 was reviewing, Philippines and Taipei yet to be discussed. At ATMSG/7: Under consideration by Philippines. 17/01/2020: Philippines supported the implementation of this route. 23/10/2020: Japan commented this route proposal was under consideration.	 <p>The map displays the flight route WPC 01, highlighted in pink, connecting Port Moresby (PY) to Vanimo (VNO) via Koror (ROR), ENDAX, BISIG, and TINHO. The route is shown over the Pacific Ocean region, with the waypoints clearly marked along the path.</p>