ASIA/PACIFIC REGION ATS ROUTE CATALOGUE

INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASIA/PACIFIC REGIONAL OFFICE

VERSION 23.2

April 2024

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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1.1 The *Air Navigation Plan – Asia and Pacific Regions* (Doc 9673) has been superseded, in electronic form by the electronic Air Navigation Plan (eANP), which contains a table of regional ATS routes in Volume II (*Table ATM II- APAC- 1 – Asia and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 (more than 36 months) by States and is assigned a LOW priority by IATA]; or
- amendment with the addition of supplementary information; or
- addition of a new ATS route proposal.

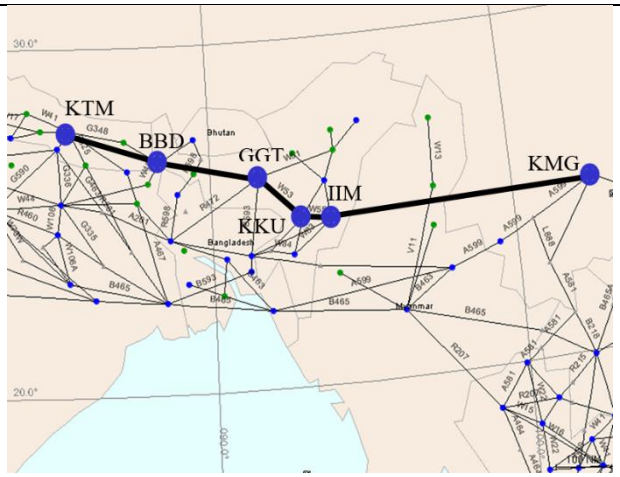
Amendment Record

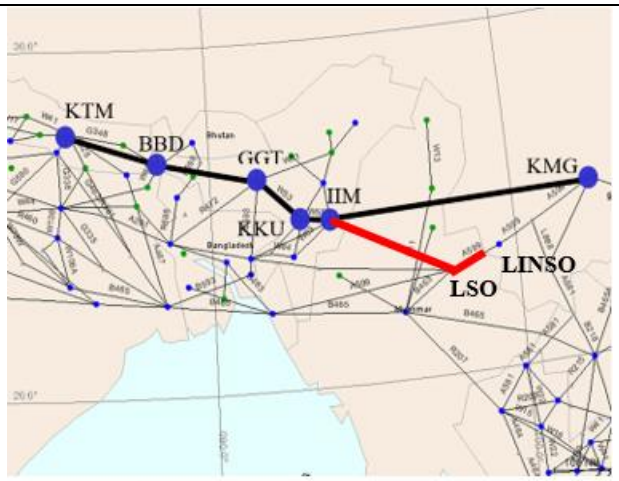
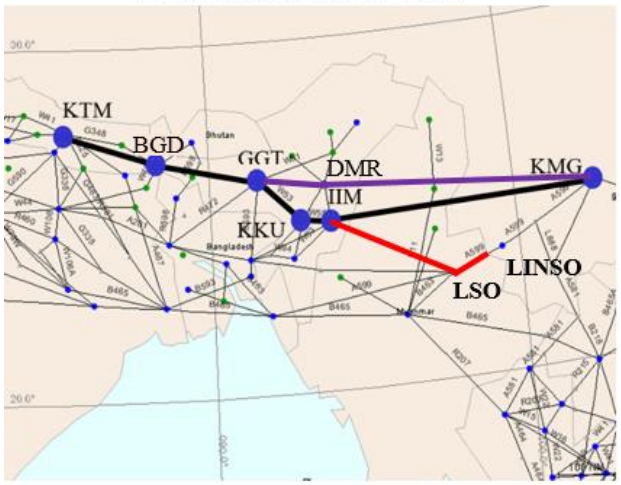
Version	Date	Amended by	Comments
0.1	14 February 2005	-	ARNR/TF/2 developed draft version.
0.2	5 May 2005	ARNR/TF/3	Finalized format following contribution from members.
0.3	29 July 2005	ATM/AIS/SAR/SG/15	Sub-Group concluded the Catalogue be adopted (Draft Conclusion 15/3).
1	26 August 2005	APANPIRG/16	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.
21	November 2021 March 2022, October 2022 December	SAIOACG/10, SEACG/27, ATM/SG/9, SAIOSEACG/1, ATM/SG/10 BOBTFRG/4	Reviewed and updated the Catalogue.
22	March 2023 July 2023	SAIOSEACG/2 SCSTFRG/11	Reviewed and updated the Catalogue.
23	October 2023 December 2023 April 2024	ATMSG/11 BOBTFRG/5 SAIOSEACG/3	Reviewed and updated the Catalogue.

Chapter 1: South Asia

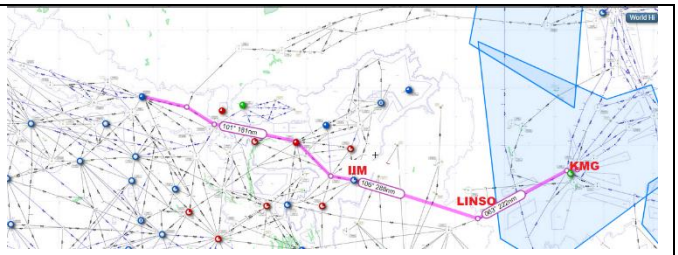
(referred to: SAIOACG, BOBASIO, ASIOACG as appropriate for review)

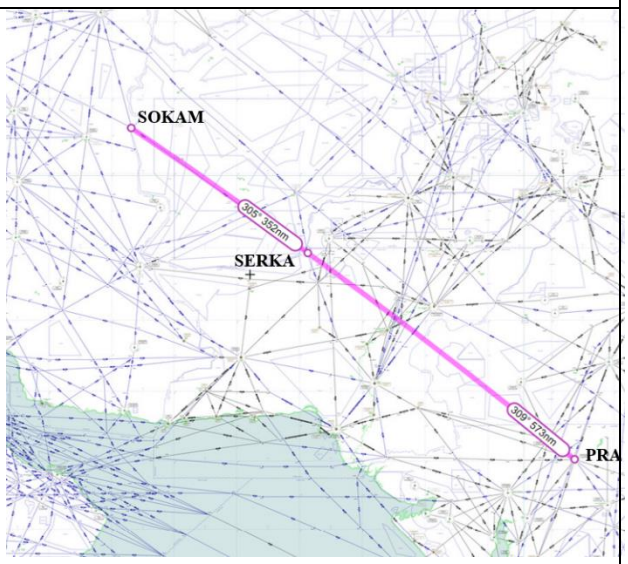
ATS Route Name	**HIMALAYA 02**
State Priority	**D**
IATA Priority	**HIGH**
Requested by (when)	Nepal (01/09/2018)
States/Administrations Involved	Nepal, India, Myanmar, China (Kathmandu, Kolkata, Yangon, Kunming FIRs)
Route Description	Kathmandu (KTM) 2740.5N 08521.0E –Bagdogra (BGD) 264118N 0881934E – Guwahati (GGT) 2606.1N 09135.3E – Silchar (KKU) 2454.8N 09258.9E – Imphal (IIM) 2446.0N 09354.5E – Kunming (KMG) 2501N 10244E Alternate proposal by IATA: Kathmandu (KTM) 2740.5N 08521.0E – Bagdogra (BGD) 264118N 0881934E – Guwahati (GGT) 2606.1N 09135.3E – Dimapur (DMR) 255251.30N 0934655.29E – Kunming (KMG) 2501N 10244E
Flight Level Band	
Benefit (fuel, environmental)	110 NM / 15 minutes, 520 kg fuel, 1640 kg CO_2 per flight Potential to save 19 to 25 minutes per flight and assist in decongesting A599/Lashio.
Operational Information (potential airlines, flight frequency, potential city pairs)	
Remarks: 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 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. At ATM/SG/9: IATA commented that based on detailed re-assessment conducted by airlines, it confirmed a '**HIGH**' priority to HIMALAYA 02. In addition, IATA suggested an alternate proposal which had potential to save up to 19 to 25 minutes, and would also help to decongest ATS route A599/Lashio (LSO) and save additional 88 NM compared with IIM – LSO – LINSO route. IATA also requested India to consider keeping ATS route J7 (CDR2/3 route between GGT – DMR) available based on traffic demand timings. Nepal supported the alternate proposal as suggested by IATA, and would coordinate and hold a consultation meeting with the various stakeholders. <u>China commented that it was not possible to establish a new entry/exit point.</u> At BOBTFRG/3: Myanmar supported the proposal by IATA; India expressed its concern in getting a favourable response from its military authorities for the route between Guwahati (GGT) – Dimapur (DMR) – Kunming (KMG). According to India, implementing the route from Imphal (IIM) to Kunming (KMG) was more feasible. Given the fact that China had revised the priority as "D", IATA was requested to consider the position of China before pursuing the proposal; and Bangladesh suggested IATA to consider: Kathmandu (KTM) – Saidpur (SDP) – Silchar (KKU) – Imphal (IIM) – Kunming (KMG). 27/1/2022: Nepal is having in-house discussion and consultation with different stakeholders and planning to	 Counter-proposal by China  Counter-proposal by China Suggested by IATA

coordinate with the affected States soon. 1/3/2022: IATA may request that China explores possibility in near future of opening up additional entry/exit as this has direct savings to flights from Nepal and China. 3/3/2022: China commented there is no status update. In August 2022, China commented that there was no plan to establish a new entry/exit point and suggested considering the route proposal based on the current existing entry/exit point LINSO. BOBTFRG/4: Noting that with the upgradation of Bangladesh's CNS/ATM system, full coverage of communication in Dhaka FIR would be available shortly, so taking consideration of China's counter-proposal, Bangladesh proposed two route options as: Kathmandu (KTM)-Saidpur (SDP)-SYT-LSO or,Kathmandu (KTM)- Saidpur (SDP)-SYT- Imphal (IIM)-LSO. India commented that further meaningful discussion of this proposal should be based on the basic agreement between China and Myanmar. Before SAIOSEACG/2, Nepal implied that they would like to insist on their initial proposal if IATA's proposal is not acceptable and pointed out that Nepal would put further efforts to discuss with the Chinese Authority to see the further possibilities without deviating much from the initial proposal. At SAIOSEACG/2 a)Nepal reiterated that they would like to retain their initial proposal if IATA's proposal is not acceptable and pointed out that Nepal would put further efforts into discussing with the relevant States to see the further possibilities without deviating much from the initial proposal. IATA supported. b)Considering the divergence on the segment, in terms of FMS load for track change from KTM to KMG, Bangladesh requested IATA to reconsider their proposal for the	 [Map provided by ICAO]

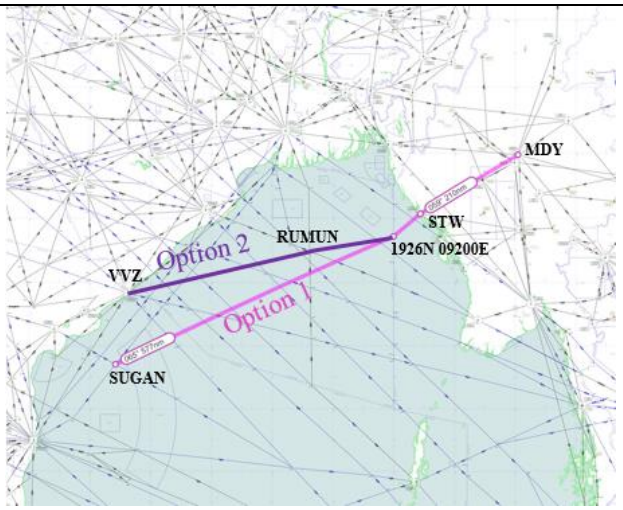
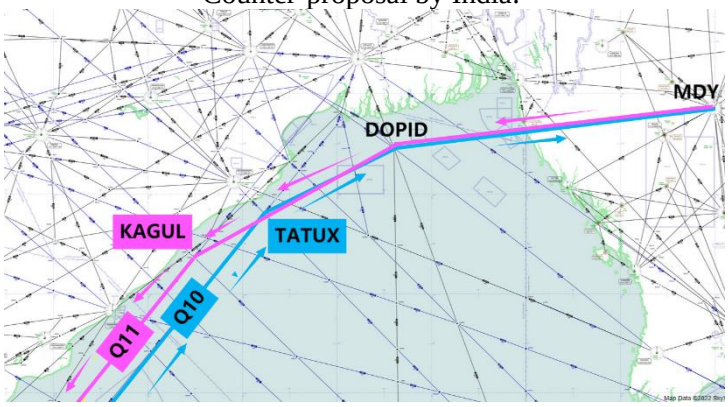
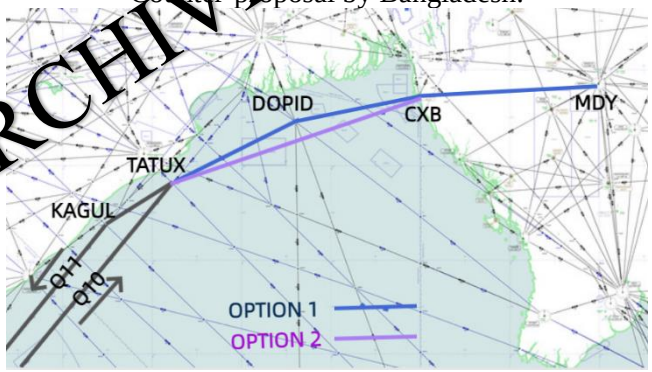
segment from: Kathmandu (KTM)- Saidpur (SDP)- SYT- Imphal (IIM). c)Myanmar stated they did not agree with the road segment from IIM – LSO – LINSO. d)China commented that there was no plan to establish a new entry/exit point so far. e)Given that the situation had not changed for more than 15 years, India suggested Nepal re-evaluate this proposal. In response, Nepal stated that they would re-evaluate the proposal, and if there would be a possibility for modification, they would present a working paper accordingly in the next appropriate ICAO forum. At ATMSG/11 During the meeting, Nepal suggested that the Hymalaya02 route should remain in this catalogue. In response, the Regional Sub-Office will continueously discuss it within the ATS route catalogue. At SAIOSEACG/3, Nepal introduced the Himalaya-2 route at the meeting, emphasising its potential to enhance economic viability and environmental sustainability for air travel. India stated that since domestic routes are involved, it has to review international operations on these routes. It also stated that this route passes through military areas, for which discussion with military authority is required. India also suggested that Nepal's route may be finalised and discussed with Myanmar (an important stakeholder) first before consideration by other concerned states. Bangladesh suggested Nepal to consider their proposal for the segment from Kathmandu (KTM) - Saidpur (SDP) - SYT - Imphal (IIM). The meeting recognised that further meaningful discussion of this proposal should be based on the basics of	

Myanmar's presence. In this connection, Nepal agreed to refine the route proposal taking into consideration of comments from Bangladesh and China and requested ICAO to set up a coordination meeting that involved all stakeholders, including Myanmar, for necessary discussion on the matter. At the side meeting, China and Nepal reviewed all four proposed schemes for this route proposal and particularly discussed the fourth scheme (i.e. IIM-LINSO) in depth. China acknowledged about using the existing entry/exit FIR boundary point, etc. Nepal agreed to consider these technical concerns further. Both China and Nepal agreed that they would continue to maintain close contact on this proposal via ICAO RSO.	 Himalaya 2 as New Proposal by Nepal

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	Pratagarh (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: 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 route's primary benefit at this stage will be westbound and during BOBCAT traffic flow. Extension completed SERKA to SOKAM. Update 08/02/13: PRA – SERKA has been approved by India after lengthy consultation with the military, complementary action from Pakistan awaited. At SAIOACG/9: Pakistan commented this route proposal was very unlikely to be implemented. 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. At BOBTFRG/3: Pakistan re-affirmed that the designated established military areas in Karachi FIR and route structure (crossing routes near the boundary with Delhi and Kabul	

FIRs) would not permit the establishment of this route. 1/3/2022:IATA wants this proposal to be archived and reintroduced if/when future possibilities permit its success. BOBTFRG/4: Pakistan reaffirmed that the proposed route was not feasible and supported archiving this proposal for future possibility, and IATA had no objection.	

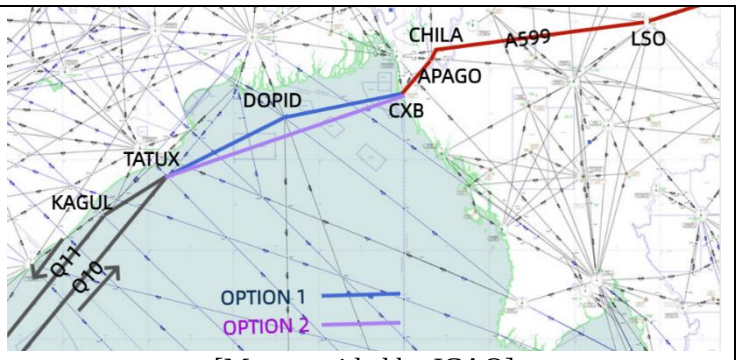
ATS Route Name	BOB 01
State Priority	
IATA Priority	**HIGH**
Requested by (when)	IATA (05/11/2021: ATM/SG/9)
States/Administrations Involved	India, Bangladesh, Myanmar (Chennai, Kolkata, Dhaka, Yangon FIRs)
Route Description	Option 1: SUGAN 152500N 0825045E – New Waypoint 192600N 0920000E (FIR BDRY between Kolkata and Yangon) – Sittwe (STW) – Mandalay (MDY) Option 2: Vishakhapatnam (VVZ) 174003.90N 0831510.00E – RUMUN 185805N 0891420E – New Waypoint 192600N 0920000E (FIR BDRY between Kolkata and Yangon) – Sittwe (STW) – Mandalay (MDY) Counter proposal by India: Eastbound: Q10 - TATUX - DOPID - MDY. Westbound: MDY - DOPID - KAGUL - Q11. Counter proposal by Bangladesh: TATUX-DOPID-Cox's Bazar -CHILA-A599- LSO-LINSO
Flight Level Band	All suitable bi-directional flight levels. Else, at least suitable eastbound flight levels. (airline operators preferred flight level would be FL330 as primary and FL310 as secondary)
Benefit (fuel, environmental)	Option 1: Narrow body fleet: 94 NM / 12 minutes, 456 kg fuel, 1.5 tonnes CO_2 per flight, 166 tonnes fuel, 548 tonnes CO_2 annually Wide body fleet: 94 NM / 12 minutes, 900 kg fuel, 3.0 tonnes CO_2 per flight, 329 tonnes fuel, 1095 tonnes CO_2 annually Option 2: Narrow body fleet: 71 NM / 9 minutes, 344 kg fuel, 1.1 tonnes CO_2 per flight, 126 tonnes fuel, 402 tonnes CO_2 annually Wide body fleet: 71 NM / 9 minutes, 679 kg fuel, 2.2 tonnes CO_2 per flight, 248 tonnes fuel, 803 tonnes CO_2 annually
Operational Information (potential airlines, flight frequency, potential city pairs)	About 110 flights per week Africa/South Asia – Far East, Southern India – East Coast of the United States

Remarks: The proposed routes would efficiently connect South West Bay of Bengal traffic and Far East. At BOBTFRG/3: In order to conduct better assessment, India requested IATA to provide the analysis of the fleet equipage in ADS-C/CPDLC and PBCS. IATA provided its analysis result on fleet readiness of its members in the SAIOSEACG/1 meeting (Mar. 2022). (8/8/2022)India in its assessment on BOB01 & BOB02 commented the proposed routes are outside the SUR and VHF coverage imposing unnecessary restrictions for all other cross-cutting routes. Therefore proposed alternatives as below: Eastbound aircraft via Q10: TATUX - DOPID - MDY. Westbound aircraft: MDY - DOPID - KAGUL - Q11. India stated this would improve the availability of getting optimum flight levels (well covered by SUR and VHF in Kolkata FIR) and require the approval of Bangladesh and Myanmar. ATMSG/10: Bangladesh commented that India's counter-proposal overflies the designated established military areas, so Bangladesh needs to consult with the military authorities. BOBTFRG/4: Bangladesh noted that the consultation with the military authority was still under process. To avoid the Danger area, two more alternative options are proposed with a connection to the new DVOR (Cox's Bazar, CXB), which is under construction and	 Counter-proposal by India:  [Map provided by ICAO] Counter-proposal by Bangladesh:  [Map provided by ICAO] Counter-propasal by IATA:

would be available in three months, detailed as follow:
DOPID-Cox's Bazar (CXB DVOR)-MDY or,
TATUX-Cox's Bazar (CXB DVOR)-MDY.
In response to Bangladesh's counterproposal, IATA suggested specifying a new waypoint at the position of Cox's Bazar instead of waiting for the availability of the new DVOR and proposed the following route connecting Cox Bazar-APAGO-CHILA and onwards joining ATS Route A599:
TATUX-DOPID-Cox's Bazar -APAGO-CHILA-A599- LSO-LINSO

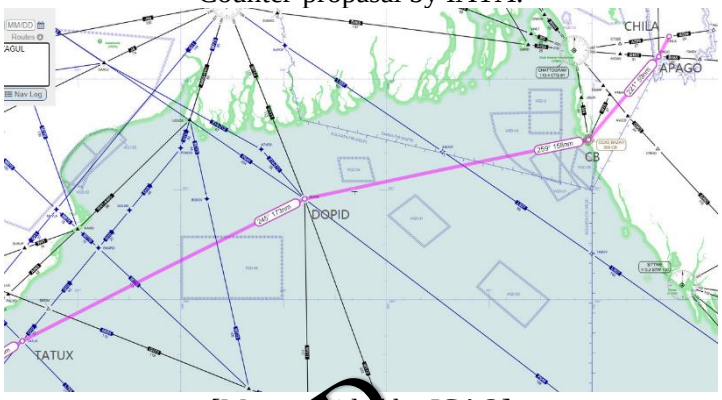
Before SAIOSEACG/2, all stakeholders had extensive discussion on the BOB01. IATA affirmed its proposal: A599 – CHILA - APAGO – CB (Coxs Bazar) – DOPID – TATUX - KAGUL Q11. Bangladesh suggested to skip the waypoint "APAGO".

At the SAIOSEACG/2:
a) India and IATA had no objection to Bangladesh's counter-proposal in principle.
b) In response to India's concern about the handover separation, Bangladesh confirmed that they could accept the transfer separation from Yangon FIR.
c) Myanmar suggested to consider Bangladesh's counter proposal: A599 – CHILA– CB (Coxs Bazar) – DOPID – TATUX - KAGUL Q11, and pointed out that the optimization of the FLAS operation was the



[Map provided by ICAO]

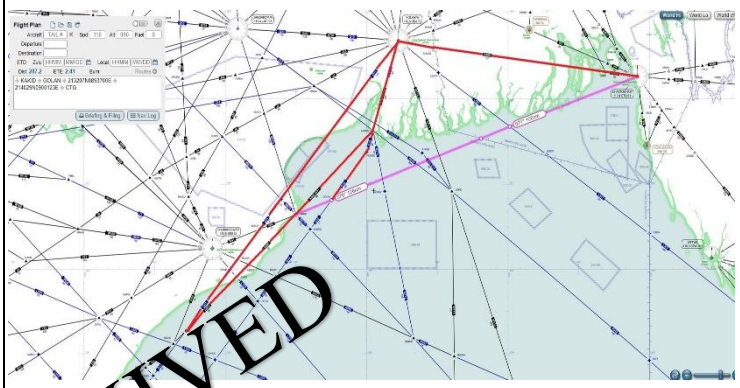
Counter-propasal by IATA:



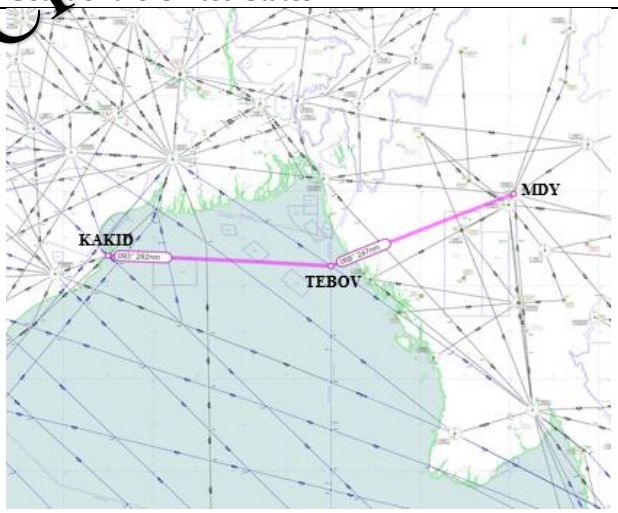
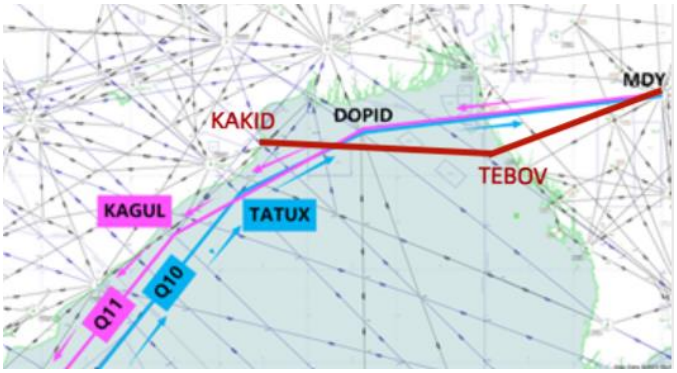
[Map provided by ICAO]

Counter-propasal by Bangladesh:

[Map provided by IATA]

major issue which needed to be addressed before the establishment of the new route. d) Bangladesh suggested the resolution on the new route would be finalized considering the revision of LOA between Bangladesh-India and Bangladesh-Myanmar. e) IATA suggested Bangladesh and India to consider an interim solution – making BOB 01 an Eastbound airway, establishing eastbound air traffic on present A599 and B465 airways before entering into Yangon FIR; till the time Myanmar raised FLAS issues are sorted out, then enabling BOB01 for Westbound flights. After SAIOSEACG/2: ICAO RSO hosted a special coordination meeting (Video Teleconference, 11 May 2023), involving Bangladesh, India and IATA. The Special coordination meeting formally agreed to establish the BOB01 Route proposal connecting SURUP - KAKID – GOLAN - (WPT1) - (WPT 2) - Chattogram (CTG). This bi-directional route option saves about 55NM, expected to benefit about 110 weekly flights. At the BOBTFGR/5, The discussion highlighted the near-finalization of new route proposals involving Bangladesh and India. The meeting was informed that the Route designator has been approved as P632. The need for a formal safety assessment process for the	 Formally agreed BOB01 Route Proposal (Pink line – Agreed Direct Route, Red lines – Present routes)

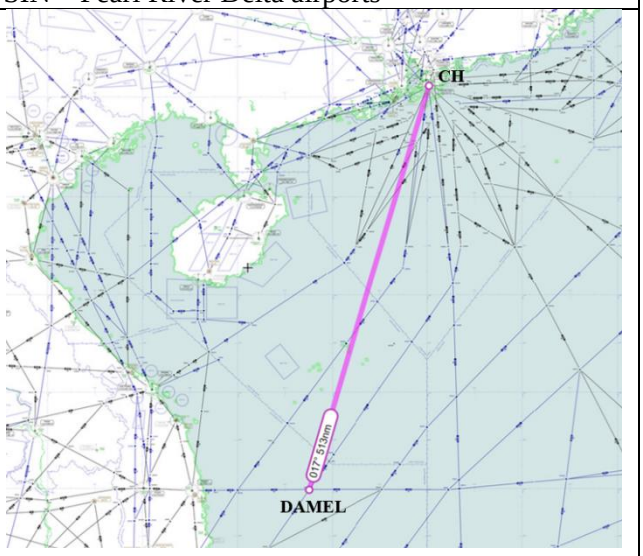
proposed routes was emphasized. Bangladesh and India indicated their commitment to finalizing the necessary safety assessments, including participation from ICAO for supervisory guidance. Participants expressed hope that the proposed amendments to the routes would be promulgated in the first quarter of 2024, subject to the completion of safety assessments. At the SAIOSEACG/3 meeting, Bangladesh and India presented the update of establishing BOB 01 route. It was intimated that Bangladesh and India have already conducted a safety assessment in the second week of April. The PfA has already been submitted to the ICAO APAC office. Following the approval of PfA by the ICAO Office and the signing of the LoA by both states, the ATS route shall be promulgated by both countries, which will be a part of a regional network of ATS Routes.	

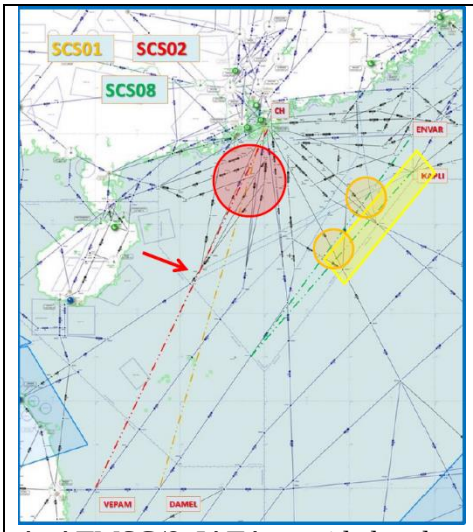
ATS Route Name	BOB 02
State Priority	
IATA Priority	**HIGH**
Requested by (when)	IATA (05/11/2021: ATM/SG/9)
States/Administrations Involved	India, Bangladesh, Myanmar (Kolkata, Yangon FIRs)
Route Description	KAKID 203833N 0865951E – TEBOV 202504N 0915949E – Mandalay (MDY) Counter proposal by India: Eastbound: Q10 - TATUX - DOPID - MDY. Westbound: MDY - DOPID - KAGUL - Q11.
Flight Level Band	All suitable flight levels
Benefit (fuel, environmental)	Narrow body fleet: 50 NM / 6 minutes, 228 kg fuel, 750 kg CO_2 per flight, 83 tonnes fuel, 274 tonnes CO_2 annually Wide body fleet: 50 NM / 6 minutes, 450 kg fuel, 1.5 tonnes CO_2 per flight, 164 tonnes fuel, 548 tonnes CO_2 annually
Operational Information (potential airlines, flight frequency, potential city pairs)	About 110 flights per week Africa/South Asia – Far East, Southern India – East Coast of the United States
Remarks: The proposed route would not only provide efficient connection over Bay of Bengal, but it would also help in de-congesting ATS routes A791, B465, Q19 and Q20. At BOBTFRG/3: In order to conduct better assessment, India requested IATA to provide the analysis of the fleet equipage in ADS-C/CPDLC and PBCS. (08/08/2022)India in its assessment on BOB01 & BOB02 commented the proposed routes are outside the SUR and VHF coverage imposing unnecessary restrictions for all other cross-cutting routes. Therefore proposed alternatives as below: Eastbound aircraft via Q10: TATUX - DOPID - MDY. Westbound aircraft: MDY - DOPID - KAGUL - Q11. India stated this would improve the availability of getting optimum flight levels (well covered by SUR and VHF in Kolkata FIR) and require the approval of Bangladesh and Myanmar.	 Counter-proposal by India vs original proposal by IATA:  [Map provided by ICAO]

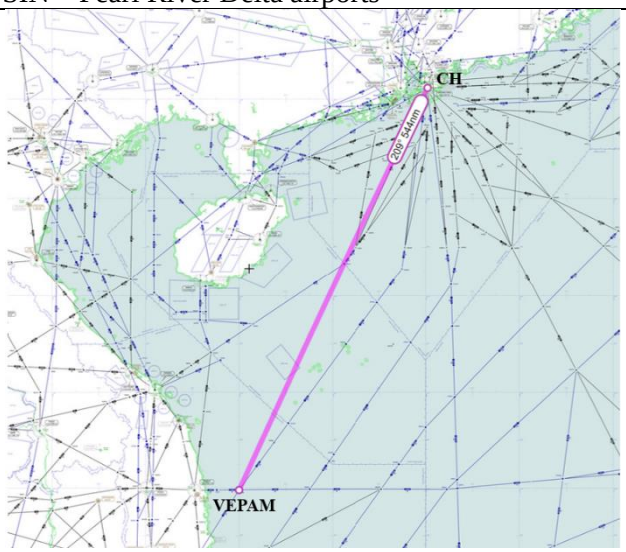
ATMSG/10: Bangladesh commented that India's counter-proposal overflies the designated established military areas, so Bangladesh needs to consult with the military authorities. (16/11/2022) In response to India's concerns about SUR and VHF coverage, IATA suggested that with the issuing of the ADS/C &CPDLC mandate, PBCS-equipped aircraft could operate on this proposed route. Regarding the military area, IATA pointed out that the danger area VGD-31 was permanently removed; thus, the possible route connecting DOPID (India proposed waypoint)-TEBOV is not affected by the consequent restrictions(see the Map provided by IATA). Considering the complexity of this airspace, IATA preferred this route to be retained separately and discussed in tandem with BOB01. BOBTFRG/4: Considering the complexity and constraints in the area, Bangladesh and India wanted to focus on Bangladesh's counter-proposes for BOB 01 in the first place. Since the SWG has prioritised the BOB01 as the primary task, it was proposed by IATA that BOB02 to be archived for future possibility. The SAIOSEACG/2 agreed that BOB02 be retained in the route catalogue. At the BOBTFGR/5, there was a consensus to move the BOB 02 route proposal into archives since the BOB 01 route has reached it's final stages of implementation. IATA, Bangladesh, and India agreed with this decision	Possible route overflies VGD-31(permanently removed):  [Map provided by IATA]

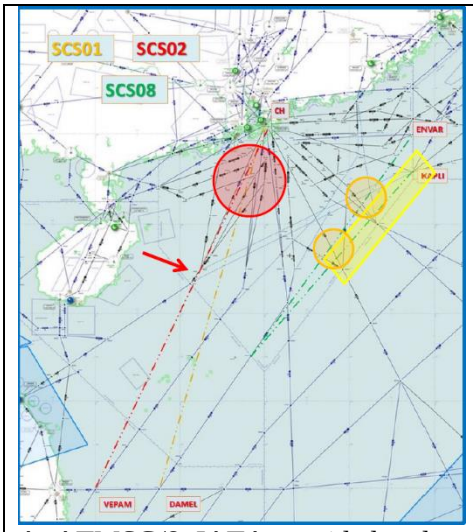
Chapter 2: Southeast Asia

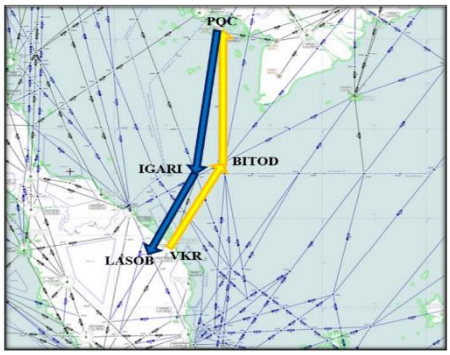
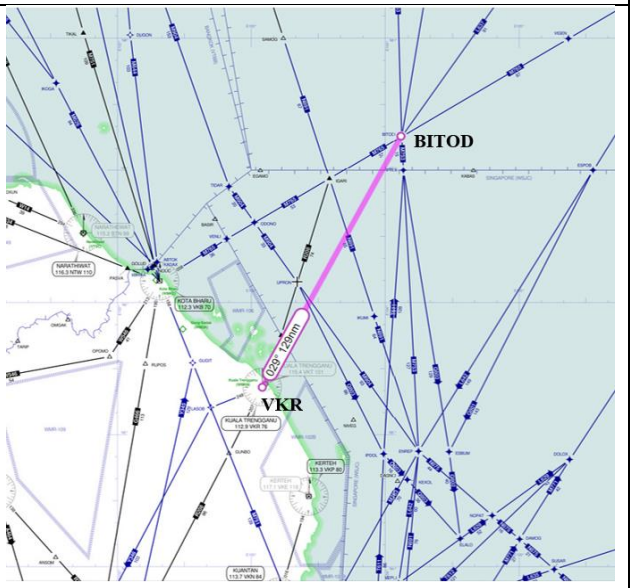
(referred to SEACG for review)

ATS Route Name	SCS 01
State Priority	**D**
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	DAMEL 1358.7N 11130.6E – Cheung Chau (CH) 2213.2N 11401.8E
Flight Level Band	28,000 – 46,000 ft
Benefit (fuel, environmental)	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 More than 100 flights per week SIN – Pearl River Delta airports
Remarks: 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. <u>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.</u>	

 At ATMSG/8: IATA provided updates on IATA priority; implementation benefits; and operational information. 29/09/2021: China commented SCS 01 would create conflict with existing ATS routes A1, L642 and M771, and therefore not recommended for implementation. At ATM/SG/9: IATA provided update on the route operational information.	

ATS Route Name	SCS 02
State Priority	**D**
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)	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 More than 200 flights per week SIN – Pearl River Delta airports
Remarks: 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. 29/09/2021: China commented SCS 02 would create conflict with existing ATS routes A1, L642 and M771, and therefore not recommended for implementation. At ATM/SG/9: IATA provided update on the route operational information.	

ATS Route Name	SCS 11
State Priority	**B**
IATA Priority	**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)	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 20 flights per week KUL – HAN/PNH/SGN
Remarks: 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.  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. 08/10/2021: Malaysia commented they would host the meeting between Malaysia, Singapore and Viet Nam in Q4 2021 or Q1 2022. 22/2/2022: the tripartite meeting btw Malaysia, Singapore and Viet Nam was canceled and will be rescheduled	

to report the discussion outcome to SCSTFRG/10 meeting (scheduled 31/5 – 1/6 2022)
In the tripartite meeting in Sept 2022, Viet Nam proposed the following route proposals:
unidirectional Eastbound: VKR-IPRIX-BITOD-PQU; and
unidirectional Westbound: PQU-IGARI-LASOB.

Upon agreement by States concerned (Malaysia and Viet Nam), IATA proposed an extention from IPRIX to VIGEN to this proposal for smooth joining to M765 saving 5-6 NM for eastbound flights.

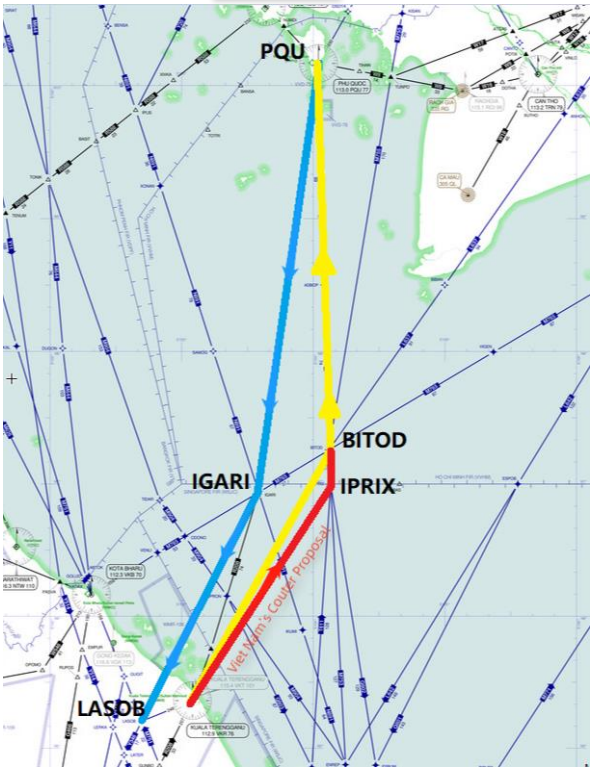
Before SAIOSEACG/2, Malaysia indicated that Malaysia, Singapore and Vietnam have broadly agreed to the proposal. Malaysia's proposal for the Coordination Procedure has been agreed by Singapore pending Viet Nam acknowledgement.

At SAIOSEACG/2, regarding the additional proposal by IATA to further line up the IPRIX to VIGEN, Viet Nam declined based on their safety and efficiency evaluation.

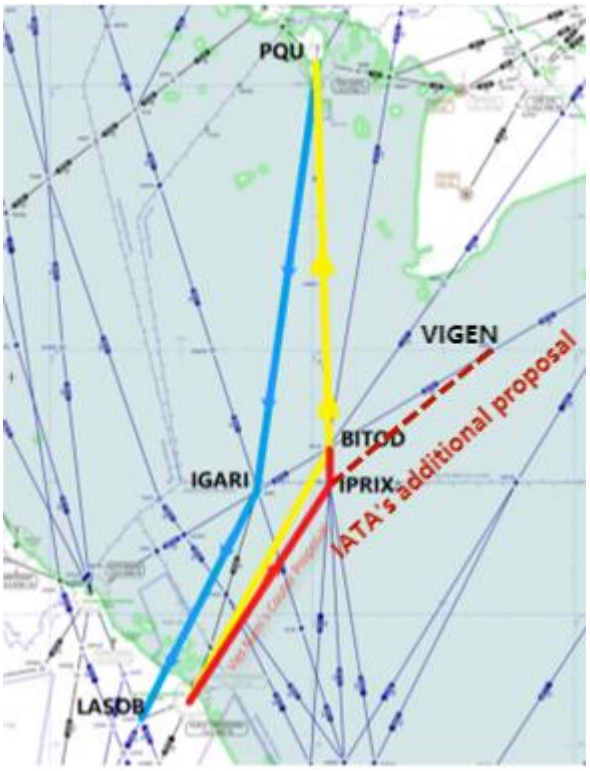
At SCSTFRG/11, Viet Nam submitted the IP05 that commented at the Tripartite Meeting (through a video teleconference) between Malaysia, Viet Nam, and Singapore on the ATS route, and other relevant issues on 28 July 2022. Viet Nam principally agreed to the proposal for the establishment of a new ATS route as requested by IATA. Viet Nam suggested a minor adjustment to the proposal, stating that VKR–IPRIX should be used instead of VKR–BITOD to minimize the number of transfer points at IPRIX and reduce the workload of ATC. Viet Nam also suggested RNAV 2/RNP 2 for both routes. The timeline depends on the Malaysia and Singapore sides.

At the SAIOSEACG/3 meeting, Malaysia suggested to apply RNP10 route specification on the proposed

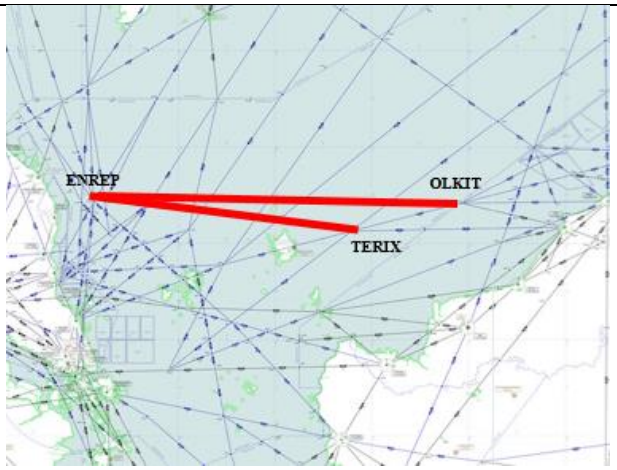
Counter-proposal by Viet Nam:



Suggested by IATA:



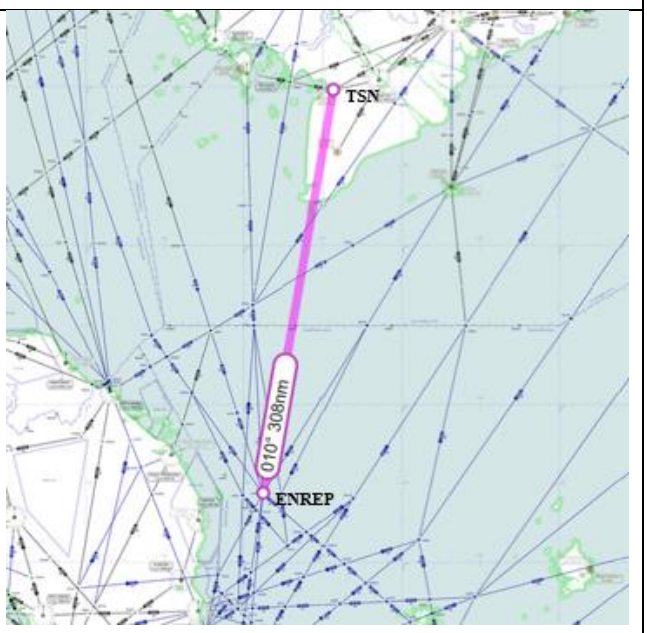
routes. Singapore had no objections to either RNP2 or RNP10 navigation specifications for the proposed routes but highlighted that there are some operational details that need to be further discussed between the three States involved. In line with the APAC Seamless ANS Plan, ICAO recommended RNAV2 and RNP 4 as preferable options for future air navigation, and the suggestion was echoed by Viet Nam. As requested by Malaysia, IATA agreed to investigate the fleet equipage operating in the area.	

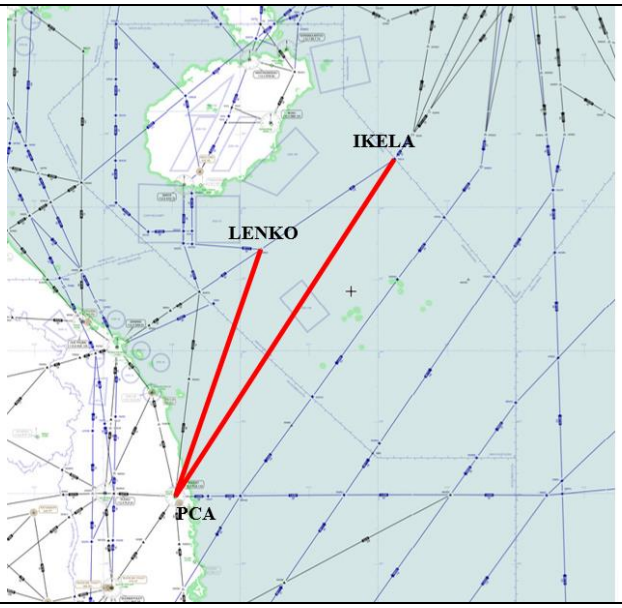
ATS Route Name	SCS 14
State Priority	**B**
IATA Priority	**LOW**
Requested by (when)	Malaysia (26/03/2018: SAIOACG/8 & SEACG/25)
States/Administrations Involved	Malaysia, Singapore (Kota Kinabalu, Singapore FIRs), Indonesia
Route Description	ENREP 045223.88N 1041442.00E – OLKIT 045012.12N 1115118.00E 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: 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. 16/09/2021: Singapore commented that, as the COVID-19 situation had not improved, the face-to-face meeting between the States involved had yet to materialise. At the SAIOSEACG/3 meeting Malaysia proposed withdrawing the route proposal. Singapore informed that they have no objections to the withdrawal of SCS14. IATA	

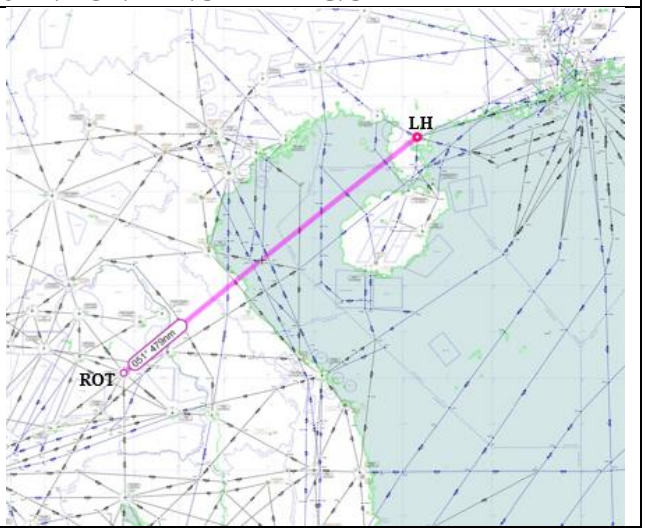
suggested that the two route proposals be archived for future use instead of withdrawn. The meeting agreed to archive the two route proposals from the ATS Route Catalogue.	

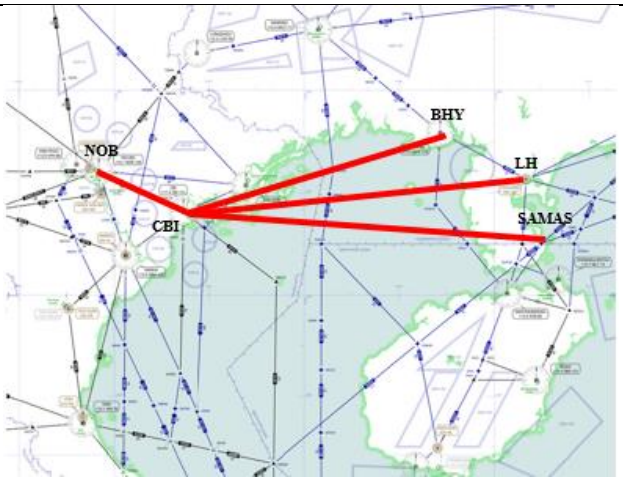
ATS Route Name	SCS 15
State Priority	**B**
IATA Priority	**LOW**
Requested by (when)	Malaysia (26/03/2018: SAIOACG/8 & SEACG/25)
States/Administrations Involved	Malaysia, Singapore (Kota Kinabalu, Singapore FIRs)
Route Description	ENREP 045223.88N 1041442.00E – KAMIN 023441.88N 1085536.12E
Flight Level 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: 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. 16/09/2021: Singapore commented that, as the COVID-19 situation had not improved, the face-to-face meeting between the States involved had yet to materialise. At the SAIOSEACG/3 meeting Malaysia proposed withdrawing the route proposal. Singapore informed that they have no objections to the withdrawal of SCS15. IATA suggested that the two route proposals be archived for future use instead of withdrawn. The meeting agreed to archive the	

two route proposals from the ATS Route Catalogue.	

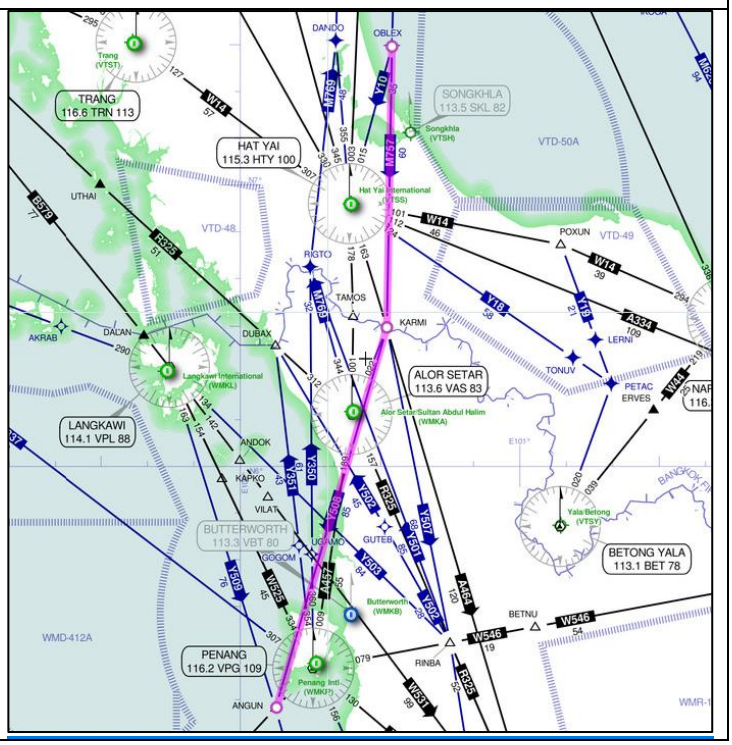
ATS Route Name	**SCS 16**
State Priority	**C**
IATA Priority	**MEDIUM**
Requested by (when)	Viet Nam (01/04/2019: SEACG/26)
States/Administrations Involved	Singapore, Viet Nam (Singapore, Ho Chi Minh FIRs)
Route Description	Implementation of new uni-directional northbound ATS route: ENREP 045223.88N 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 Reduction in Distance/Time/Fuel/CO2 by 19NM/2MIN/600LBS/860KGS per flight with B744ERF for SIN/SGN portion on the basis of annual average wind conditions.
Operational Information (potential airlines, flight frequency, potential city pairs)	SIN – SGN
Remarks: 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. 11/2/2022: Singapore commented the concerned area is fully covered by ADS-B to support the proposal and ready to discuss on the implementation. 11/02/2022: Viet Nam commented they will continue to assess a necessity of this ATS/PBN route requirement adding ATS surveillance (SSR and ADS-B) capability has been enhanced by cooperation btw Viet Nam and Singapore, and new ATM aoutomation/AFTM capability will be enhanced with a long-term plan	

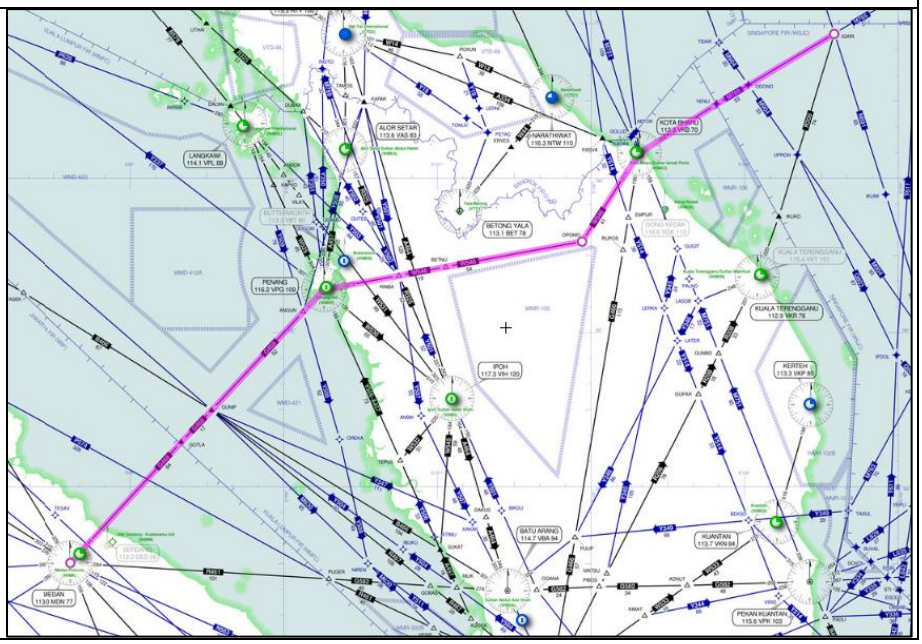
ATS Route Name	SCS 18
State Priority	C
IATA Priority	LOW
Requested by (when)	Viet Nam (01/04/2019: SEACG/26)
States/Administrations Involved	Viet Nam, China, Hong Kong China (Ho Chi Minh, Sanya, Hong Kong FIRs)
Route Description	Phu Cat (PCA) 135726.00N 1090233.60E – IKELA 183942.00N 1121442.00E or Phu 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: 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. At ATM/SG/9: No update (discussion on planned implementation of parallel route to A1 was still ongoing at the SCSTFRG meeting).	

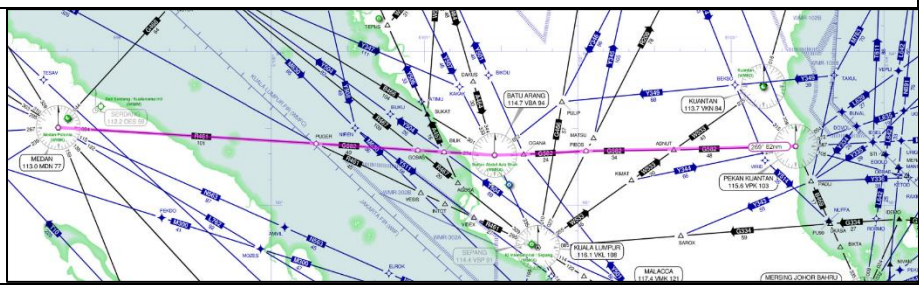
ATS Route Name	SEA 12
State Priority	C
IATA Priority	HIGH
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	Thailand, Lao PDR, Viet Nam, China (Bangkok, Vientiane, Hanoi, Sanya, Guangzhou FIRs)
Route Description	Roiet (ROT) 1607.0N 10346.7E – Huguang (LH) 2107.9N 11020.2E
Flight Level 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: 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). At ATM/SG/9: No update (discussion on planned implementation of parallel route to A1 was still ongoing at the SCSTFRG meeting).	

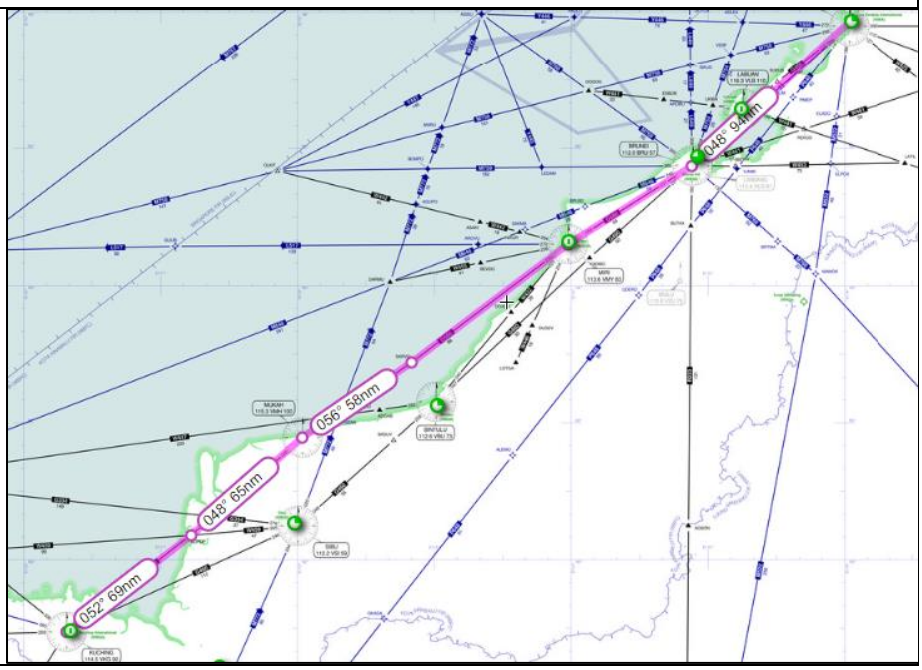
ATS Route Name	VIET NAM 02
State Priority	**D**
IATA Priority	**HIGH**
Requested by (when)	Viet Nam (01/09/2018)
States/Administrations Involved	Viet Nam, China (Hanoi, Sanya, Guangzhou FIRs)
Route Description	Noi Bai (NOB) 2112.8N 10550.1E – Cat Bi (CBI) 2049.1N 10642.5E – SAMAS 2030.3N 11029.7E or 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 For ZGGG-VVNB with B789, Vietnam02 can reduce the flight distance by 73NM, reduce the flight time by 9 minutes, and save 700Kg of fuel.
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. 23/10/2020: China commented the proposal was under consideration. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue. 29/09/2021: China commented the proposal was still under consideration. 1/3/2022:IATA preferred this route proposal to be retained in the Catalogue. Despite currently low traffic due to the epidemic, as traffic returns this proposed route can give airlines more flight route options	

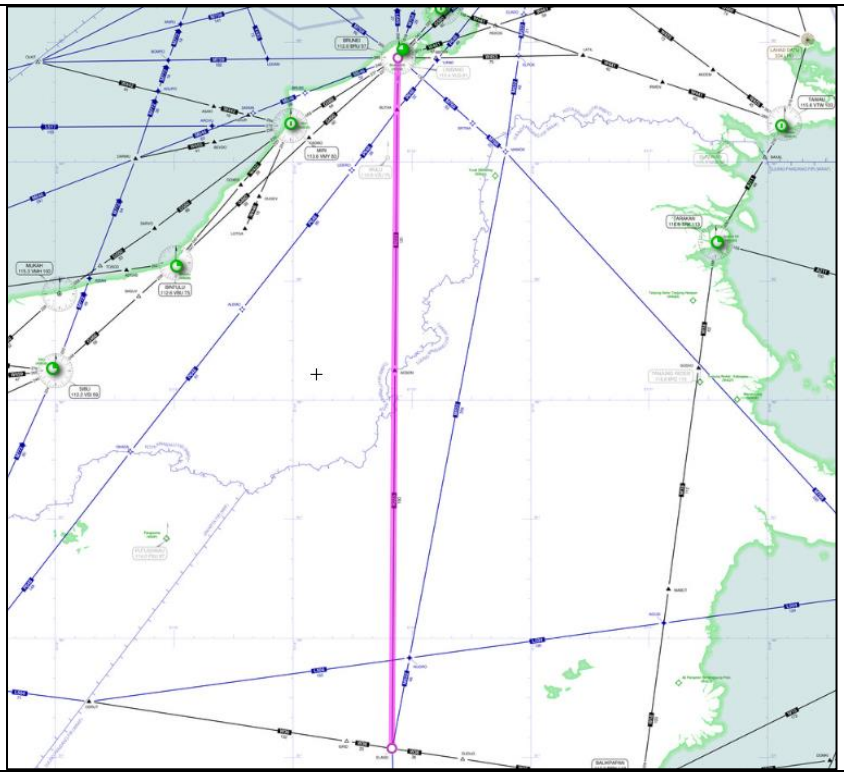
between China and Vietnam and beyond. 3/3/2022: China proposed for deletion due to inconsistency with overall flight flow. At SCSTFRG/11, Viet Nam suggested this route proposal be retained in the APAC Route Catalogue and wished that China would reconsider the feasibility of this new route. It was also supported by IATA. In response, China confirmed that they would further assess this route proposal internally and discuss it with Viet Nam during their upcoming bilateral meeting.	

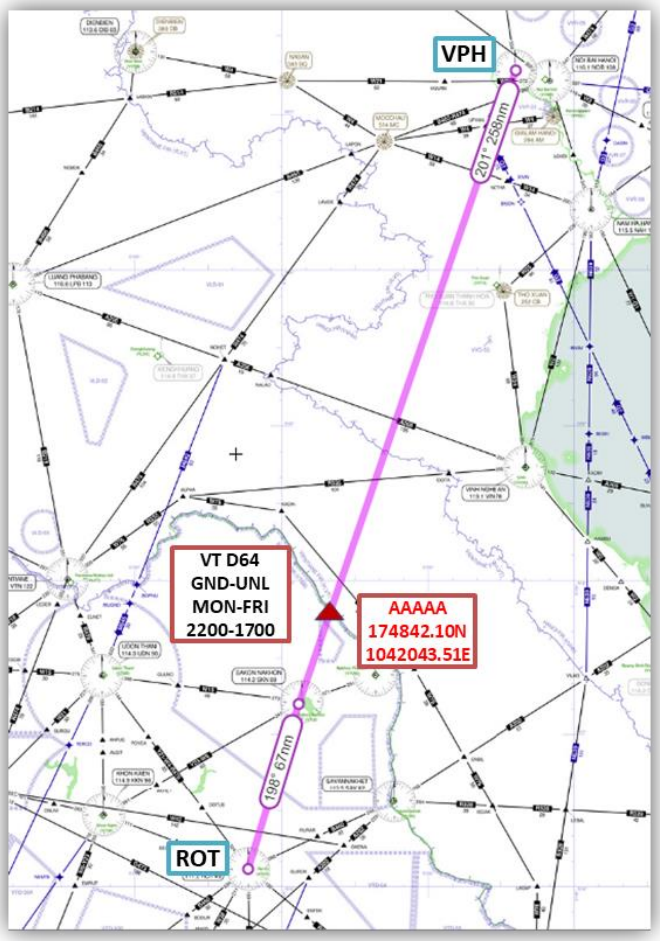
ATS Route Name	SCS19
State Priority	**A**
IATA Priority	MEDIUM
Requested by (when)	Malaysia (20/Mar/2023)
States/Administrations Involved	Malaysia, Thailand
Route Description	This proposal essentially focuses on extending M757 to replace the conventional route Y508
Flight Level Band	
Benefit (fuel, environmental)	The implementation of PBN Airspace and to simplify FPL in Kuala Lumpur FIR.
Operational Information (potential airlines, flight frequency)	
Remarks: At SAIOSEACG/2, Thailand indicated its full support for the extension of M757.	

ATS Route Name	SCS20
State Priority	**B**
IATA Priority	MEDIUM
Requested by (when)	Malaysia (20/Mar/2023)
States/Administrations Involved	Malaysia,Singapore, Indonesia, Viet Nam
Route Description	This proposal essentially focuses on extending M765 to replace the conventional routes W546 and G468.
Flight Level Band	
Benefit (fuel, environmental)	The implementation of PBN Airspace and to simplify FPL in Kuala Lumpur FIR.
Operational Information (potential airlines, flight frequency)	
Remarks: At SAIOSEACG/2, Indonesia expressed its favourable consideration on this proposal, further assessment was needed.	

ATS Route Name	SCS21
State Priority	**B**
IATA Priority	MEDIUM
Requested by (when)	Malaysia (20/Mar/2023)
States/Administrations Involved	Malaysia,Singapore, Indonesia
Route Description	This proposal essentially focuses on extending M758 to replace the conventional routes G582 and R461 (PUGER to MDN).
Flight Level Band	
Benefit (fuel, environmental)	The implementation of PBN Airspace and to simplify FPL in Kuala Lumpur FIR.
Operational Information (potential airlines, flight frequency)	
Remarks: At SAIOSEACG/2, Indonesia expressed its favourable consideration on this proposal, further assessment was needed.	

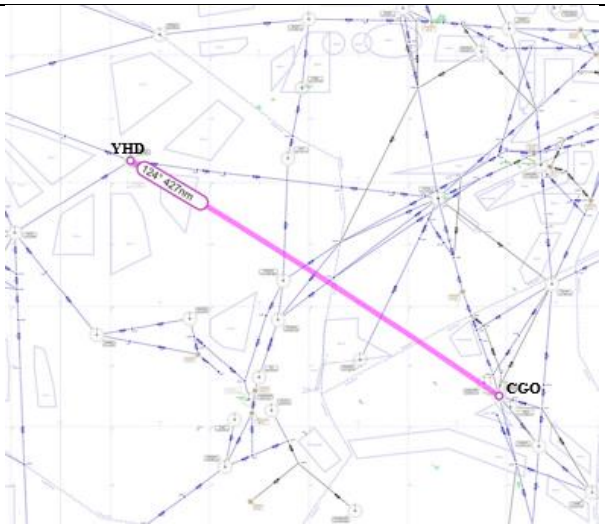
ATS Route Name	SCS22
State Priority	**B**
IATA Priority	MEDIUM
Requested by (when)	Malaysia (20/Mar/2023)
States/Administrations Involved	Malaysia, Singapore, Indonesia
Route Description	Upgrade a portion of conventional ATS routes G580 (VKG to VJN) to PBN Route
Flight Level Band	
Benefit (fuel, environmental)	The implementation of PBN Airspace.
Operational Information (potential airlines, flight frequency)	
Remarks: At SAIOSEACG/2, Indonesia expressed its favourable consideration on this proposal, further assessment was needed.	

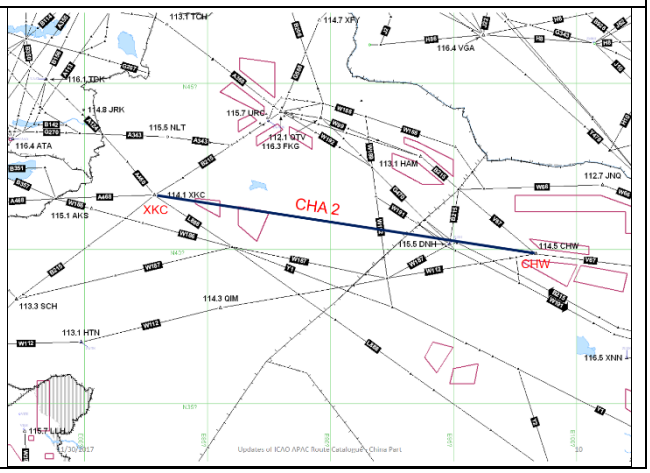
ATS Route Name	SCS23
State Priority	**B**
IATA Priority	MEDIUM
Requested by (when)	Malaysia (20/Mar/2023)
States/Administrations Involved	Malaysia, Singapore, Indonesia
Route Description	Upgrade from conventional ATS routes R223 to PBN Route
Flight Level Band	
Benefit (fuel, environmental)	The implementation of PBN Airspace.
Operational Information (potential airlines, flight frequency)	
Remarks:	

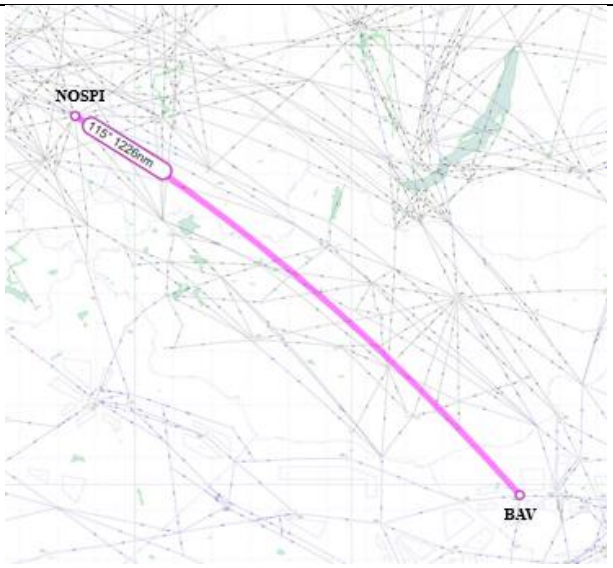
ATS Route Name	MEKONG 01
State Priority	**B**
IATA Priority	MEDIUM
Requested by (when)	Thailand /Vietnam (21/Mar/2023)
States/Administrations Involved	Thailand, Lao PDR, Vietnam (Bangkok, Vientiane, Hanoi)
Route Description	VINH PHUC (VPH) 211634N 1053604E – Bangkok/Vientiane FIR BDRY 174842.10N 1042043.51E - SAKON NAKHON (SKN) 171250.89N 1040812.34E – ROT-ET (ROT) 160700.59N 1034619.45E
Flight Level Band	
Benefit (fuel, environmental)	Potential to save 12 minutes and 750 kilograms of fuel per flight (VVNB – VDSR)
Operational Information (potential airlines, flight frequency)	Allow flights from Guangzhou FIR and beyond on the ATS route R474 to fly shorter distance into Bangkok FIR/VTBS/VDSR
Remarks: This route was proposed as Conditional Route (CDR) to promote international CDR arrangement among the Mekong states. The route availability will be subject to civil-military coordination in pre-tactical and tactical level. At SAIOSEACG/2, Viet Nam supported the initiative by Thailand, and added that the new route would be further realigned with the existing primary routes within Hanoi FIR. For the update, the approval procedure of the route proposal by its higher authority is in progress, and which expected to be completed soon. It is suggested that Thailand organize a tripartite meeting involving all States concerned to further discuss the detail.	

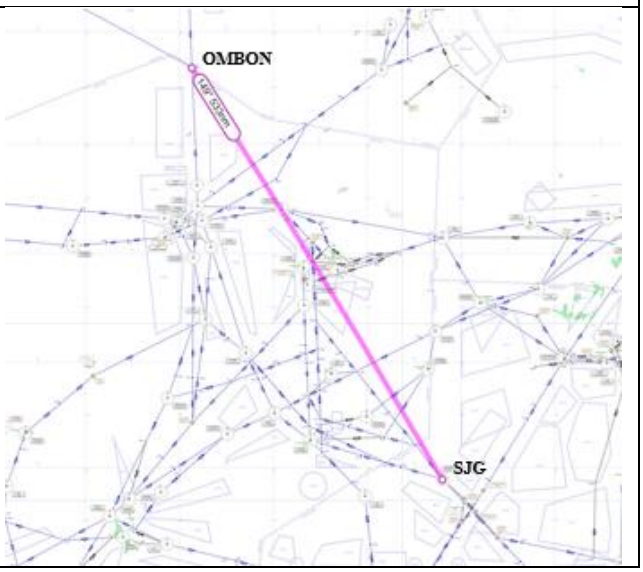
Chapter 3: East Asia

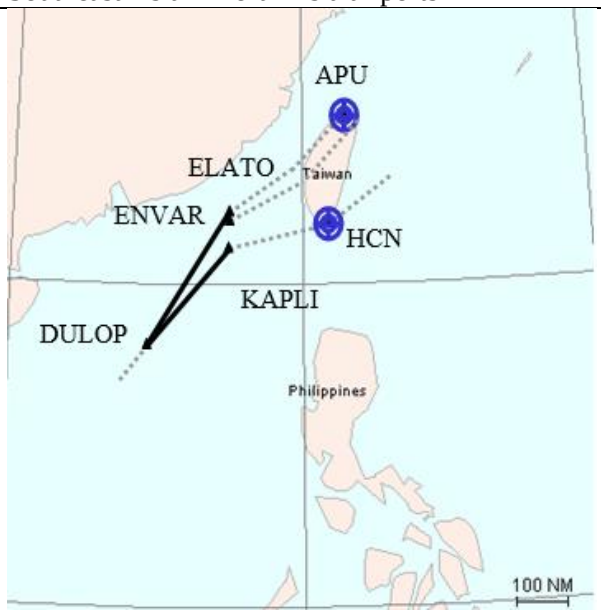
(referred to: States or EATMCG as appropriate for review)

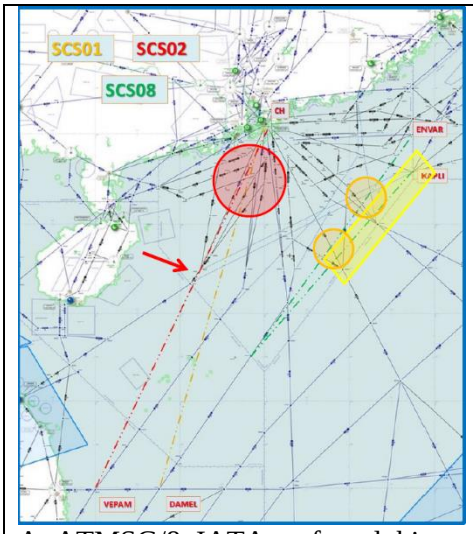
ATS Route Name	**CHA 01**
State Priority	**D**
IATA Priority	**HIGH**
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	China (Lanzhou, Beijing, Wuhan FIRs)
Route Description	Yinchuan (YHD) 3820.8N 10624.6E – Zhengzhou (CGO) N3431.1 E11350.6
Flight Level Band	8,400 – 15,000 meters
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: 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 – ZHOU – CGO. (b) westbound: CGO – W129/KAMDA – W128/FYG. At SAIOACG/10 and SEACG/27: China proposed for deletion. 3/3/2022: China commented how the current uni-directiona routing system works in actual operation (see the Map provided by China) adding that it could reduce heavy traffic and conflict over ZHO.	  [Map provided by China]

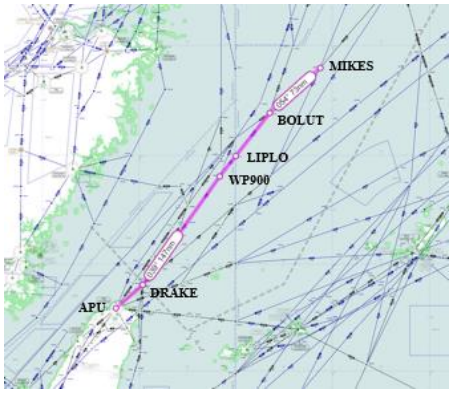
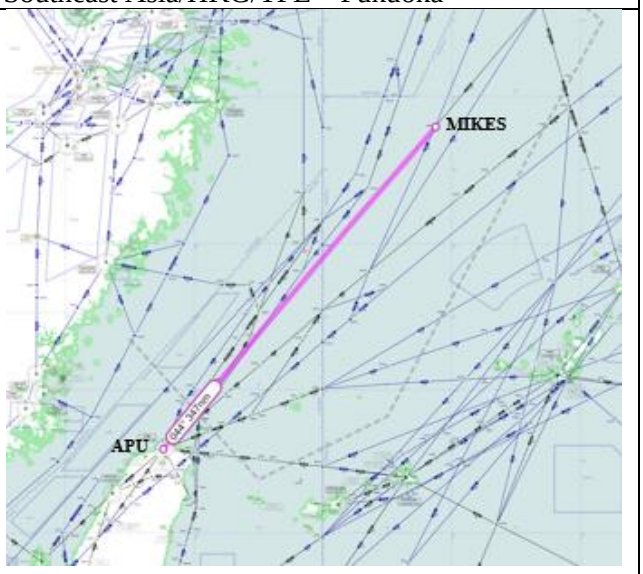
ATS Route Name	**CHA 02**
State Priority	**D**
IATA Priority	**HIGH**
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	China (Urumqi, Lanzhou FIRs)
Route Description	Qiuci (XKC) 4140.6N 08250.6E – Jiayuguan (CHW) 3951.3N 09821.0E
Flight Level Band	8,400 – 15,000 meters
Benefit (fuel, 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: China comment: there are existing routes between XKC and CHW. 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. 23/10/2020: China proposed for deletion. At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.	

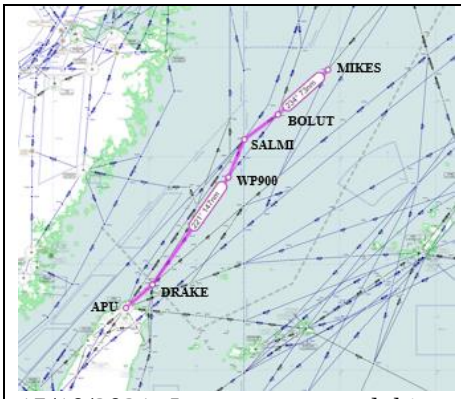
ATS Route Name	**CHA 12**
State Priority	**D**
IATA Priority	**HIGH**
Requested by (when)	IATA (29/08/2018)
States/Administrations Involved	Russia, Mongolia, China (Novosibirsk, Krasnoyarsk, Ulaanbatar, Beijing FIRs)
Route Description	NOSPI 534912.00N 0865248.00E – New Waypoint (FIR BDRY between Novosibirsk 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. At ATMSG/7: China and Mongolia commented the proposed route was not possible for implemention; 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.	

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: 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	SCS 08
State Priority	**D**
IATA Priority	**HIGH**
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	Hong Kong China, Taibei ACC (Hong Kong, Taibei 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. 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.	

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

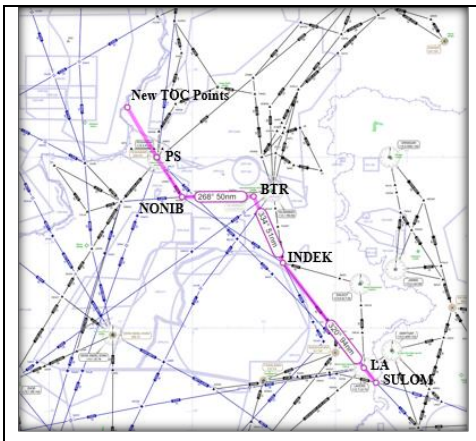
ATS Route Name	**TPE 01**
State Priority	**C**
IATA Priority	**HIGH**
Requested by (when)	IATA (01/09/2018)
States/Administrations Involved	Taibei ACC, Japan (Taibei, Fukuoka FIRs)
Route Description	Anbu (APU) 2510.6N 12131.3E – New Waypoint (FIR BDRY beween Taibei and Fukuoka) – MIKES 2935.2N 12544.9E
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: 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. 16/09/2021: Based on information provided by the IFATCA, the proposed route TPE 01 partially overlaps ATS route Q11 and several other ATS routes that already existed in the area, and therefore it was not possible to implement a new route in Taibei FIR. Counter-proposal: Northbound traffic: APU – A1 – DRAKE – Q11 – WP900 – L4 – LIPLO – Y741 – BOLUT – MIKES.  Southbound traffic: MIKES – BOLUT – B576 – SALMI – Q11 – DRAKE – APU.	

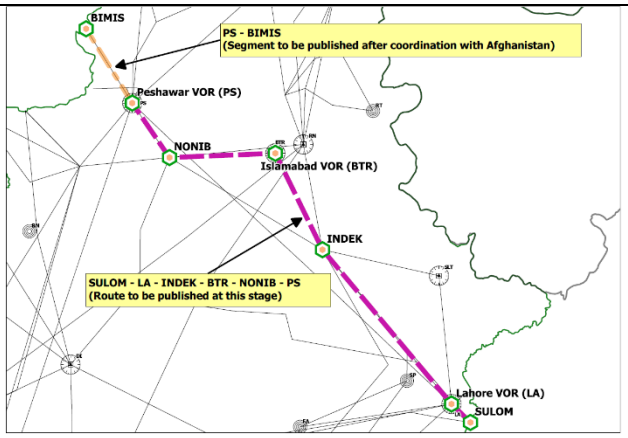
 15/10/2021: Japan commented this proposal was still under consideration. 25/2/2022: Japan commented no progress at this stage, although this proposal is recognized as one of the business coordination projects by both Taibei and Fukuoka ACCs. 23/9/2022: IFATCA, the segment in the counter-proposal for both north and south already existing, the segment btw BOLUT and MIKES is subject to the Fukuoka FIR.	

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. At SAIOACG/10 and SEACG/27: Pakistan informed this route proposal was still under consideration by the military authority. 15/09/2021: Pakistan informed that the military authorities of Pakistan had approved the following ATS route proposal (bi-directional), on the request of Tajikistan and Uzbekistan: SULOM – Lahore (LA) – INDEK – Islamabad (BTR) – NONIB – Peshawar (PS) – 343433N 0710533E (new TOC points between Afghanistan and Pakistan). The above route proposal was under approval process of Pakistan Federal Government and coordination process with Afghanistan and Tajikistan regarding further route connectivity in Afghanistan airspace and beyond from the new TOC points was ongoing.	

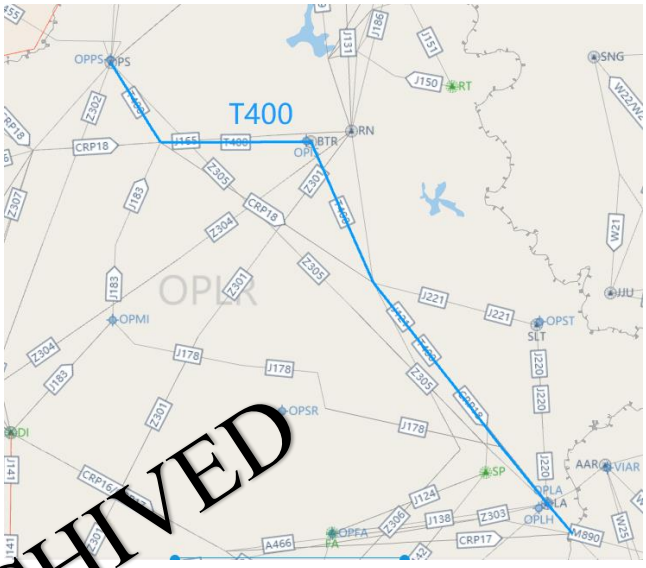




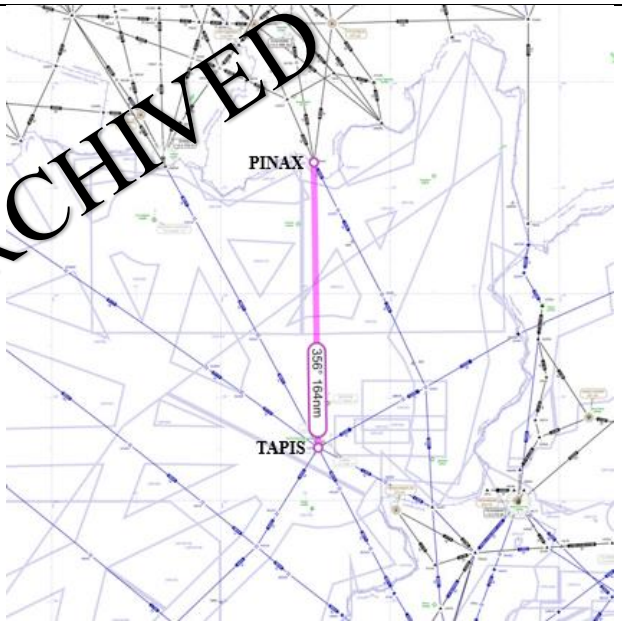
18/02/2022: Upon approval on a new RNAV bi-directional int. ATS route in Lahore FIR by the Federal Government of Pakistan, Pakistan requested a new RNAV Route designator to APAC RO awaiting the response from Afghanistan for further connectivity in Kabul FIR (the last segment from Peshawar VOR to PAK/AFGHAN new TCP BIMIS (Lahore FIR)), and saying a joint PfA will be processed
In April 2022, the segment in Lahore FIR, Pakistan was established: SULOM – Lahore VOR – INDEK - Islamabad VOR (BTR) – NONIB – Peshawar VOR as the domestic route T400. Further route connectivity in Afghanistan airspace and beyond the new TOC points will be further discussed according to the situation in Afghanistan.
BOBTFRG/4: –Pakistan affirmed that airway T400 starting from point SULOM (TOC with India) - INDEK – NONIB – PS - BIMIS was already operational and available for flights at this stage after being approved by the relevant government authorities. Further connectivity to BIMIS (TOC with Afghanistan) was subject to the response from Afghanistan.

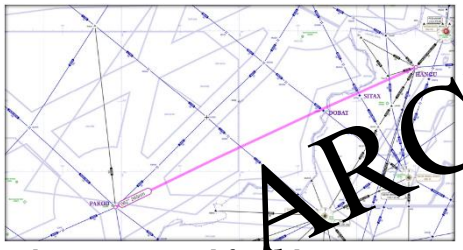
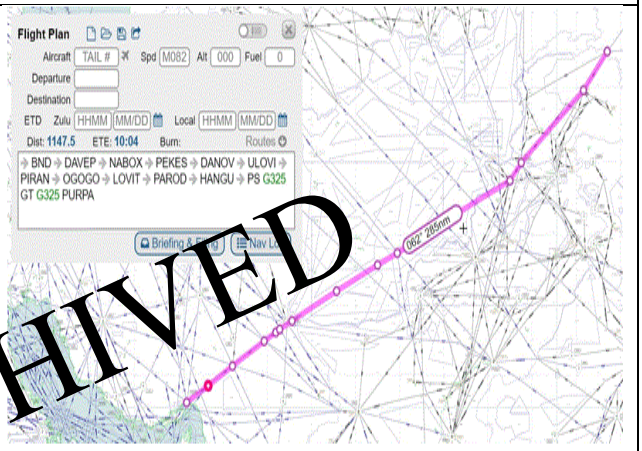
At SAIOSEACG/2, Pakistan preferred that this route proposal should be retained in the catalogue and be re-activated according to the situation in Afghanistan. Pakistan also affirmed that airway T400 starting from point SULOM (TOC with India) - INDEK – NONIB – PS providing connectivity with P500 (MOTMO-FIRUZ) was

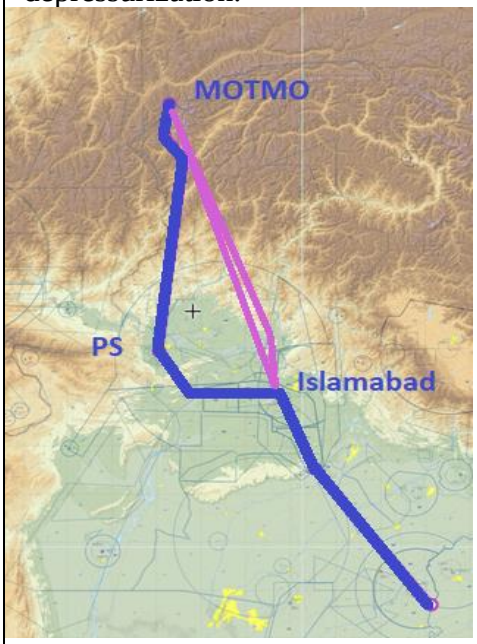
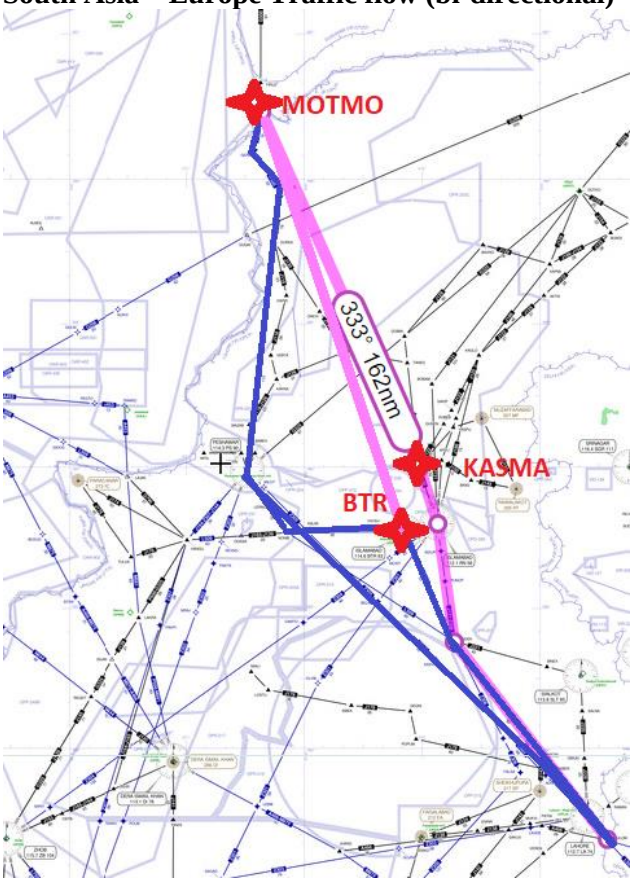
SULOM – Lahore VOR – INDEK – Islamabad VOR (BTR) – NONIB – Peshawar VOR (PS) – BIMIS 343433N, 0710533E (<u>Pak/Afghan new proposed TCP boundary waypoint</u>), Vertical Limit FL300 – FL410



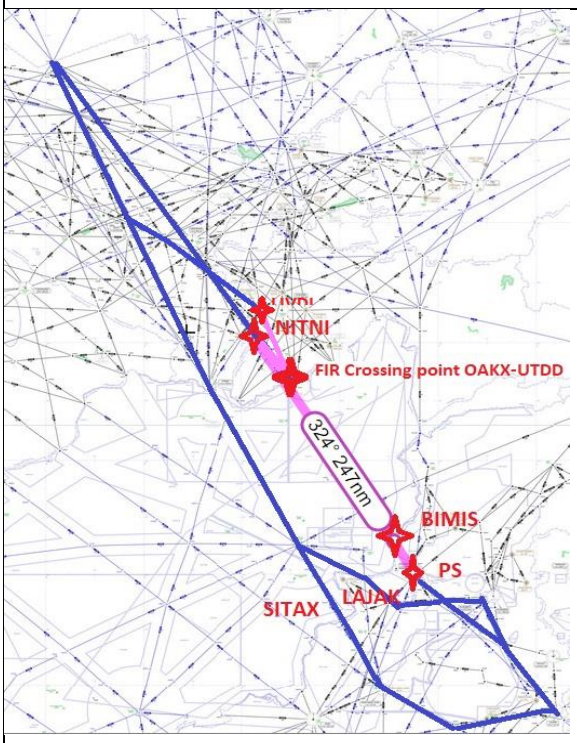
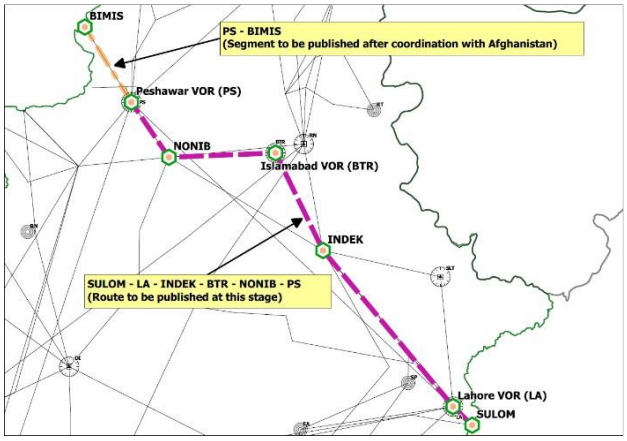
already operational and available for flights. The portion between PS-BIMIS is approved but further connectivity to/from PS-BIMIS (TOC with Afghanistan) is subject to the response from Afghanistan. At the BOBTFGR/5, discussions about route proposals involving Afghanistan were influenced by the current situation in the States. Given the sanctions and focus on restoring air traffic services in Afghanistan, it was suggested that these route proposals be held in abeyance or archived until further notice.	

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)	
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. *Note: continuation of this proposal is 29.007 "TAPIS-PINAX-SORAM-TENRO" in RDGE Middle Asia ATS Route Catalogue.*	

ATS Route Name	MID 02 (a)
State Priority	**D**
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 – Penshawar (PS) 3358.7N 07131.0E – G325 – Gilgit (GT) 3555.2N 07420.1E – G325 – PURPA 3656.5N 07524.4E
Flight Level Band	
Benefit (fuel, environmental)	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.  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. At BOBTFRG/3: Pakistan re-affirmed that the proposed route was not feasible. BOBTFRG/4: Pakistan reaffirmed that the proposed route was not feasible and supported archiving this proposal for future possibility and IATA had no objection.	 ARCHIVED

ATS Route Name	PAK 01
State Priority	—
IATA Priority	HIGH
Requested by (when)	IATA (either by ATM/SG/12 or earlier)
States/Administrations Involved	Pakistan (Kabul FIR)
Route Description	Option 1: INDEK J121 RN J130 KASMA DCT MOTMO Option 2: INDEK T400 BTR (Islamabad) DCT MOTMO
Flight Level Band	As suitable
Benefit (fuel, environmental)	Estimated Potential Savings Per Flight: 50 NM, Equivalent to 500Kg Fuel, 1.6 Ton CO2
Operational Information (potential airlines, flight frequency, potential city pairs) This proposed air route will primarily cater to long-haul wide-body flights between South Asia and Europe. It will not only promise reductions in CO2 emissions but also enhance safety. By optimizing emergency diversion routes, especially over the Hindukush high terrain, it helps minimise critical passenger oxygen requirements in the event of rapid depressurization. 	**South Asia – Europe Traffic flow (bi-directional)** 

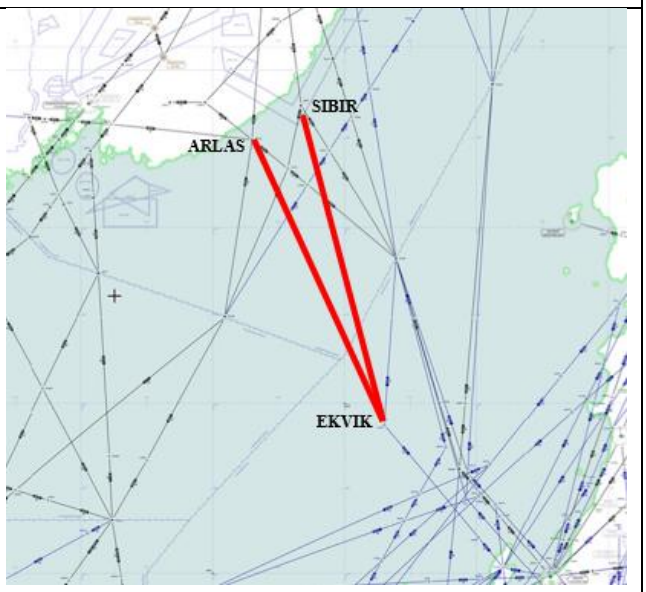
At the SAIOSEACG/3 meeting, IATA has suggested new air routes to improve flight efficiency between South Asia and Europe. PAK 01, includes two options that shorten the current Lahore FIR route by about 48 and 49 nautical miles by using direct paths to MOTMO. These routes are expected to reduce CO2 emissions and increase safety by providing better options for emergency diversions over difficult terrain. Pakistan mentioned restructuring of ATS Route T400 (route connectivity with P500) back in 2022 to facilitate traffic avoiding Kabul FIR and, in this regard, referred to its A41-WP/68. Pakistan reiterated its commitment to safety and flight efficiency while acknowledging airspace constraints due to restricted and prohibited areas near the proposed route. Pakistan emphasised the need for a detailed assessment of the proposal. IATA expressed openness to suitable alterations and encouraged the exploration of opportunities.	

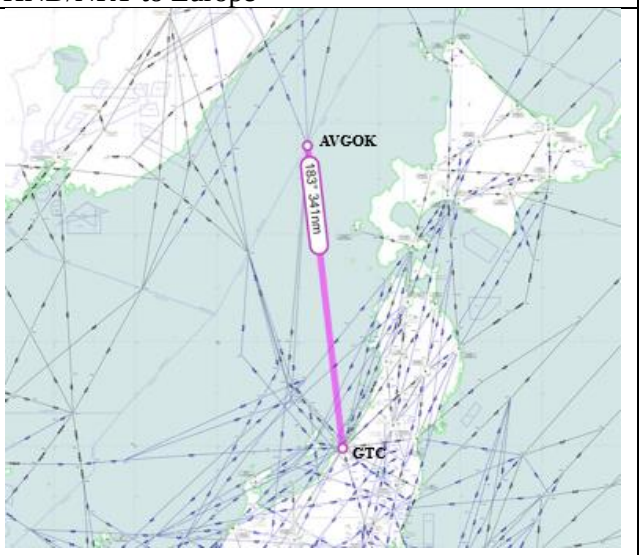
ATS Route Name	**AFG 03**
State Priority	—
IATA Priority	**HIGH / MEDIUM**
Requested by (when)	IATA (Either as the Afghanistan Contingency route plan /or as the airspace reopens for flight operations)
States/Administrations Involved	Pakistan, Afghanistan, Tajikistan (Lahore, Kabul, Dushanbe FIRs)
Route Description	Peshawar (PS) - BIMIS – DCT –37 08 41N 069 20 43E (new FIR crossing point between OAKX and UTDD) – DCT LIVDI and DCT NITNI
Flight Level Band	As suitable
Benefit (fuel, environmental)	Estimated Potential Savings Per Flight: Compared to SITAX: 71NM equivalent to 700Kg fuel, 2.2Ton CO2 Compared to LAJAK: 41NM equivalent to 400Kg fuel, 1.3Ton Co2
Operational Information (potential airlines, flight frequency, potential city pairs) Primarily intended for long-haul wide-body ULR (Ultra Long-Range) flights between South Asia and Europe, this new route not only promises environmental advantages but also aligns with the BOBCAT Tactical ATFM efforts. By offering an additional FIR crossing between Pakistan and Afghanistan, upon the reopening of Afghanistan's airspace, it could mitigate congestion at (OPLA-OAKX) FIR crossing points SITAX and LAJAK. - Pakistan agreed to publish PS – BIMIS after coordination with Afghanistan (… ref AFG 01 proposal in the Route catalogue)	**South Asia – Europe Traffic flow (bi-directional)**  

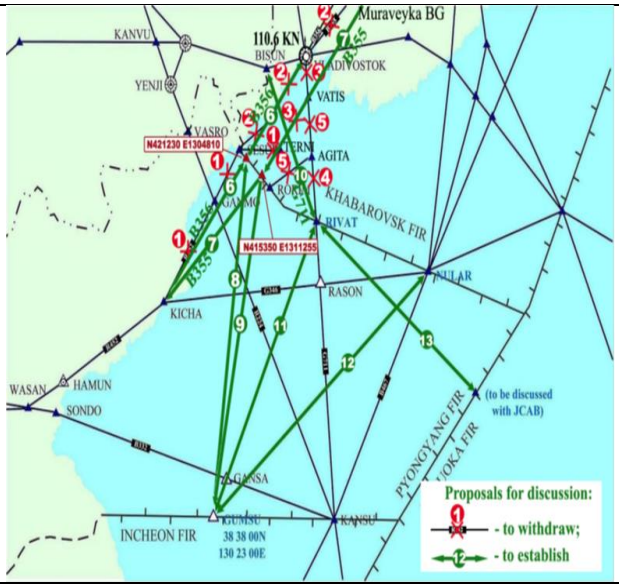
At the SAIOSEACG/3 meeting, IATA has suggested new air routes AFG 03, aiming to open a new route through Kabul's airspace, linking Peshawar with waypoints in Dushanbe, which could save up to 71 nautical miles. This route would help reopen Afghanistan's airspace, reduce environmental impact, and ease congestion at critical crossing points. Targeted primarily at long-haul, wide-body flights, these proposals are part of broader efforts to enhance air traffic management for improved efficiency and safety. Pakistan affirmed its readiness to enhance airspace efficiency and mentioned the approval of the AFG 01 route from Peshawar to BIMIS. However, due to the contingency situation in Afghanistan's airspace, further exploration of this route awaits Afghanistan's readiness. IATA urged ICAO to consider updating this route as a contingency option or at a suitable time when Afghanistan's airspace stabilizes. ICAO RSO agreed to seek assistance from the ICAO APAC office to explore the feasibility of the project.	

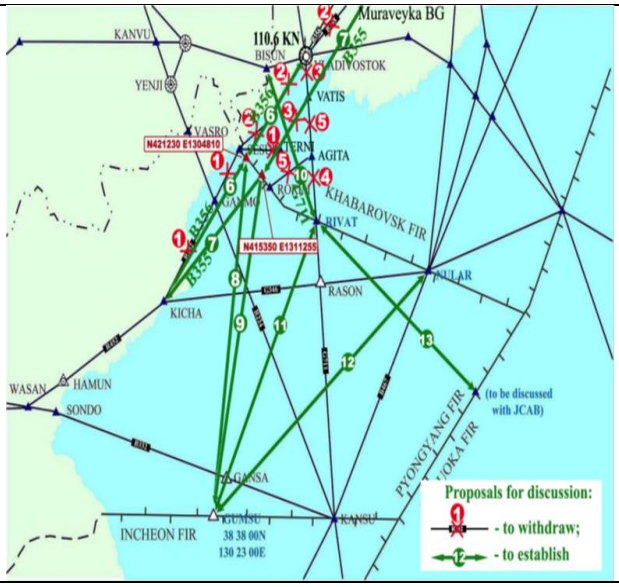
Chapter 5: Trans-Regional (East Asia)

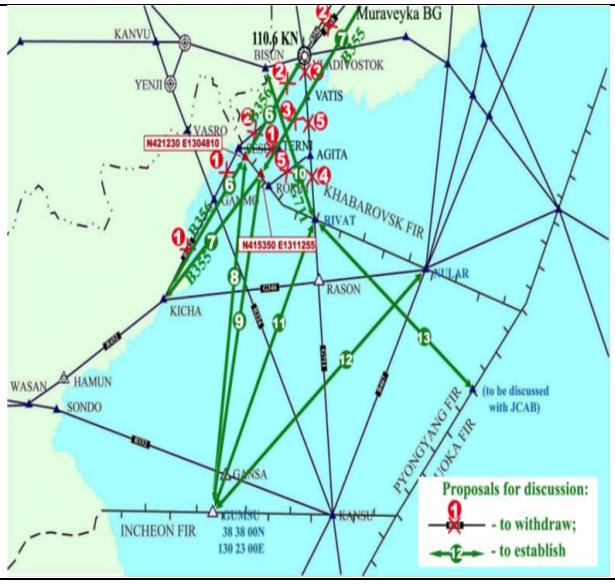
(referred to: AIRARD/TF, RDGE or EATMCG as appropriate for review)

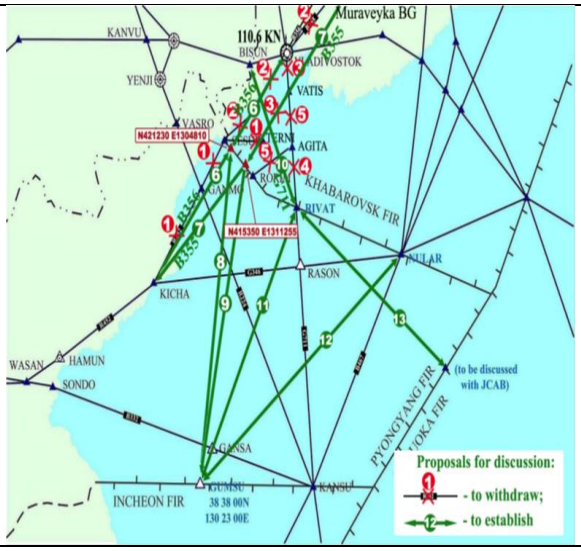
ATS Route Name	**FE0008 / RDGE 15.003 / APAC RUS 5**
State Priority	**C**
IATA Priority	**MEDIUM**
Requested by (when)	Russia, IATA (01/09/2018)
States/Administrations Involved	Russia, Japan (Khabarovsk, Fukuoka FIRs)
Route Description	Implementation of two new bi-directional ATS routes: a. SIBIR 432154.00N 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, 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). 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. 15/10/2021: Japan commented no update.	

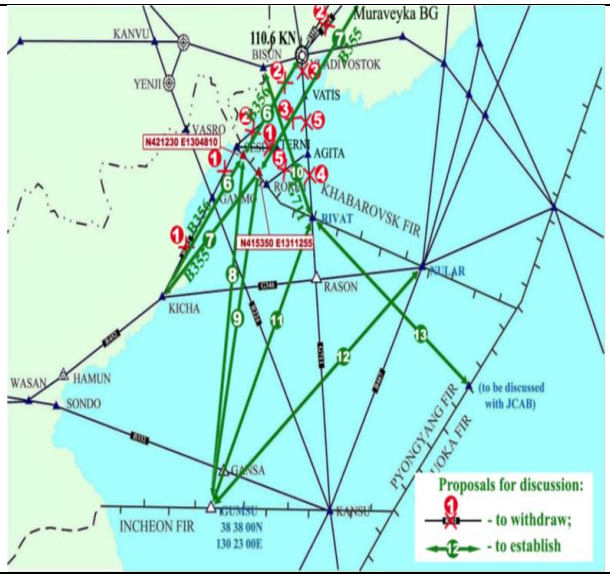
ATS Route Name	**FE0021 / RDGE 13.028 / APAC RUS 4**
State Priority	**C**
IATA Priority	**HIGH**
Requested by (when)	Russia, IATA (01/09/2018)
States/Administrations Involved	Russia, Japan (Khabarovsk, Fukuoka FIRs)
Route Description	Implementation of new bi-directional ATS route: AVGOK – Niigata (GTC) 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 bilateral meeting between the State ATM Corporation and the JCAB Japan (in Tokyo, November 2012), a difference in coordinates of the AVGOK waypoint was identified in the aeronautical information publications of Russia and Japan. The incorrect coordinates were confirmed by Japan and a decision was made to report this issue to the appropriate Regional ICAO Offices. The Russian Federation proposes the following coordinates (4336N and 13815E) for the AVGOK waypoint. 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 is 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. 15/10/2021: Japan commented no update.	

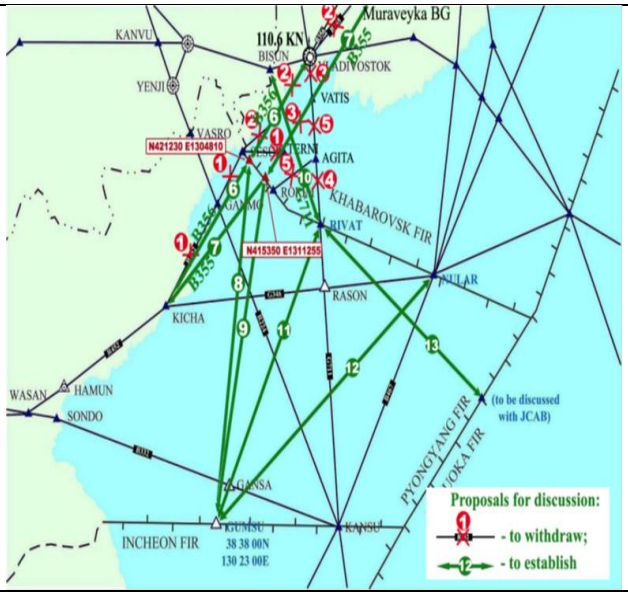
ATS Route Name	**FE0049 / RDGE 20.010**
State Priority	C
IATA Priority	
Requested by (when)	DPRK, Russia (01/09/2018)
States/Administrations Involved	Russia, DPRK (Khabarovsk, Pyongyang FIRs)
Route Description	Implementation of new uni-directional eastbound ATS route: KICHA 404103N 1291140E – ADNUR 421230N 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)	

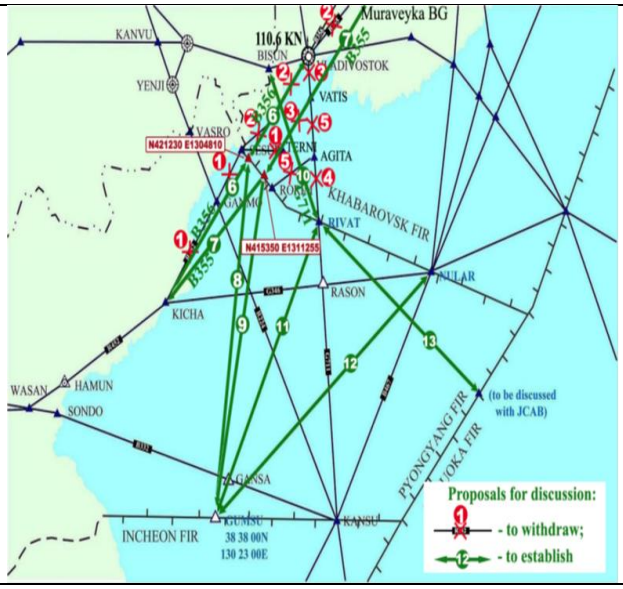
ATS Route Name	**FE0050 / RDGE 20.011**
State Priority	C
IATA Priority	
Requested by (when)	DPRK, Russia (01/09/2018)
States/Administrations Involved	Russia, DPRK (Khabarovsk, Pyongyang FIRs)
Route Description	Implementation of new uni-directional westbound ATS route for B355: Muraveyka (BG) 435303N 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).	

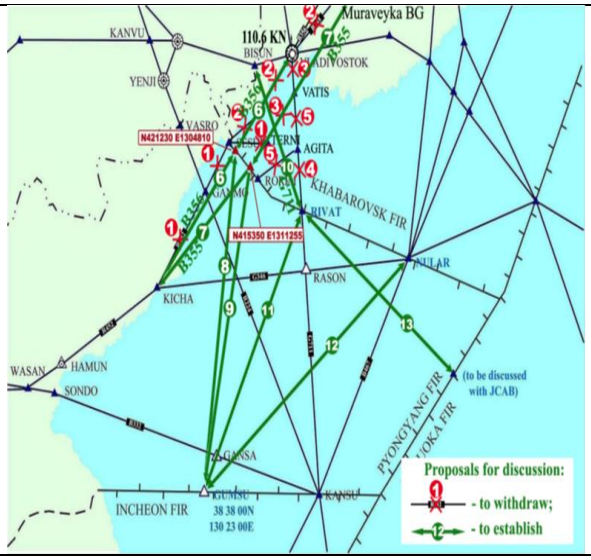
ATS Route Name	**FE0051 / RDGE 20.012**
State Priority	C
IATA Priority	
Requested by (when)	DPRK, Russia (01/09/2018)
States/Administrations Involved	Russia, DPRK (Khabarovsk, Pyongyang FIRs)
Route Description	Implementation of new uni-directional eastbound ATS route segment: MESOV 383800N 1302300E – 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). *Note: to verify has this route been implemented as G705?*	

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. *Note: to verify has this route been implemented as N513?*	

ATS Route Name	**FE0055 / RDGE 20.016**
State Priority	C
IATA Priority	
Requested by (when)	DPRK, Russia (01/09/2018)
States/Administrations Involved	Russia, DPRK (Khabarovsk, Pyongyang FIRs)
Route Description	Implementation of new bi-directional ATS route: NULAR 405912N 1341100E – MESOV 383800N 1302300^{E}
Flight Level Band	28,000 – 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. 12). Planned implementation date 11 December 2014. *Note: to verify has this route been implemented as L771?*	

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.	

Chapter 6: Pacific

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

ATS Route Name	**WPC 01**
State Priority	**D**
IATA Priority	**HIGH**
Requested by (when)	IATA (30/07/2018)
States/Administrations Involved	Papua New Guinea, Indonesia, USA, Philippines, Japan, Taibei ACC (Port Moresby, Ujung Pandang, Oakland Oceanic, Manila, Fukuoka, Taibei 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 Taibei 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. 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 Taibei 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. 16/09/2021: Based on information provided by the IFATCA, implementation of this proposed route in Taibei FIR was not possible because it would cross ATS routes G581 and Q13, and traverse restricted area RCR 17. Proposed for deletion. 15/10/2021: Japan commented this route proposal was still under consideration. 25/2/2022: Japan commented no discussion, but if necessary it would be put on the agenda at future meeting. 23/9/2022: IFATCA, this proposal requires further coordination with the military.