



ICAO

International Civil Aviation Organization

Third Meeting of the Bay of Bengal Traffic Flow Review Group (BOBTFRG/3)

Video Teleconference, 14 – 15 December 2021

Agenda Item 4: Discussion on PBN Route Development

**REVIEW OF SELECTED ATS ROUTE PROPOSALS FROM THE ASIA/PACIFIC REGION
ATS ROUTE CATALOGUE**

(Presented by the Secretariat)

SUMMARY

This paper presents selected ATS route proposals from the *Asia/Pacific Region ATS Route Catalogue* that are of relevance to the BOBTFRG, for review and update.

1. INTRODUCTION

1.1 The *Asia/Pacific Region ATS Route Catalogue* records the status of route proposals, which may not have reached the stage of the formal proposal stage through the Regional Air Navigation Plan Proposal for Amendment (PfA) process.

1.2 The most recent Version 21 of the *Asia/Pacific Region ATS Route Catalogue* is available at the ICAO Asia/Pacific website (<https://www.icao.int/APAC/Pages/default.aspx>) under the menu 'APAC eDocuments'.

2. DISCUSSION

Review of ATS Route Proposals

2.1 The ICAO APAC Regional Sub-Office updates the *Asia/Pacific Region ATS Route Catalogue* based on the information provided by States and airspace users through email correspondence and meetings.

2.2 During the Ninth Meeting of the ATM Sub-Group of APANPIRG (ATM/SG/9, 01 – 05 November 2021), IATA provided status update on relevant ATS route proposals and proposed two new ATS route proposals, i.e. BOB 01 and BOB 02, which are of relevance to BOBTFRG Administrations.

2.3 The ATS route proposals from the *Asia/Pacific Region ATS Route Catalogue* that are of relevance to BOBTFRG Administrations is provided in **Attachment A** to this working paper, for review by the meeting.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) review and provide feedback on the status of ATS route proposals in **Attachment A**, particularly on classification of State Priority [as Priority A – short term i.e. it could be

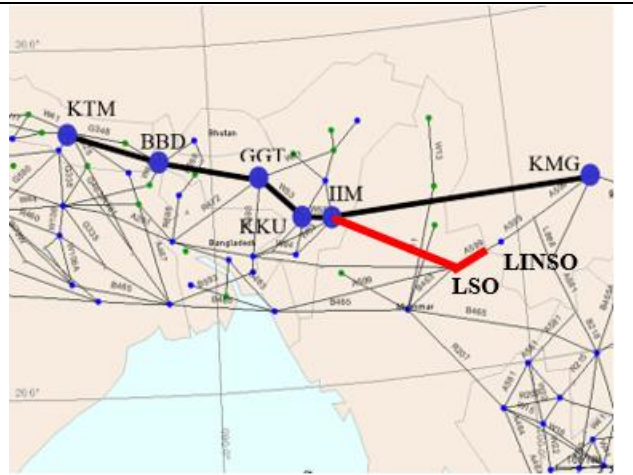
implemented within 12 months; Priority B – medium term i.e. it could be implemented within 13 to 36 months; Priority C – long term i.e. more than 36 months; or Priority D – cannot be implemented (reasons to be provided)]; and

- c) discuss any relevant matters as appropriate.

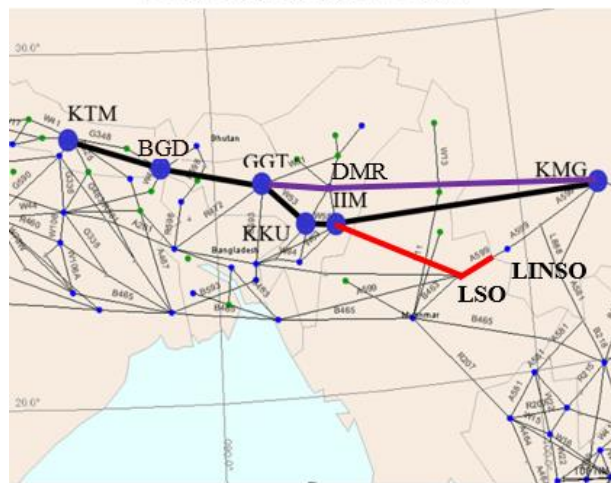
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ATS Route Name	HIMALAYA 02
State Priority	D
IATA Priority	LOW HIGH
Requested by (when)	Nepal (01/09/2018)
States/Administrations Involved	Nepal, India, Myanmar, China (Kathmandu, Kolkata, Yangon, Kunming FIRs)
Route Description	<p>Kathmandu (KTM) 2740.5N 08521.0E – Bagdogra (BBD) 2641.3N 08819.8E 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</p> <p>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</p>
Flight Level Band	
Benefit (fuel, environmental)	110 NM / 15 minutes, 520 kg fuel, 1640 kg CO ₂ per flight
Operational Information (potential airlines, flight frequency, potential city pairs)	
Remarks: The route has been implemented except for Imphal to Kunming which China had undertaken to review (as per current 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	

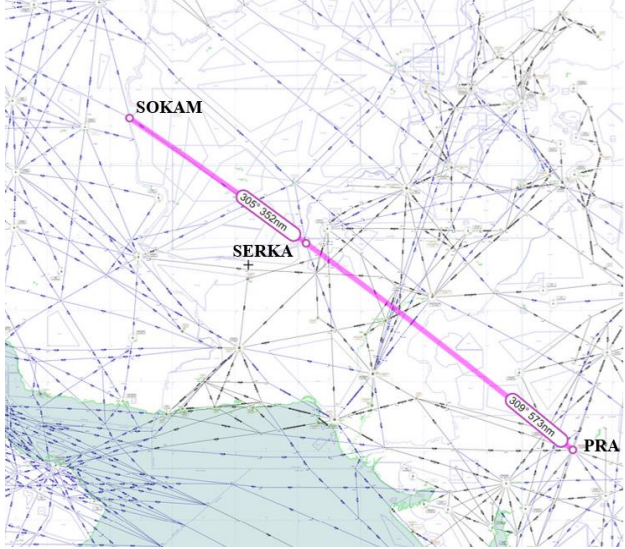
route. 20/11/2020: China commented that it was not possible to establish a new entry/exit point, and counter-proposed to re-align IIM – LSO – LINSO (existing entry/exit point between Yangon and Kunming FIRs). At ATM/SG/8: In response to China’s counter-proposal, Myanmar provided their disagreement; and 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. China commented that it was not possible to establish a new entry/exit point.

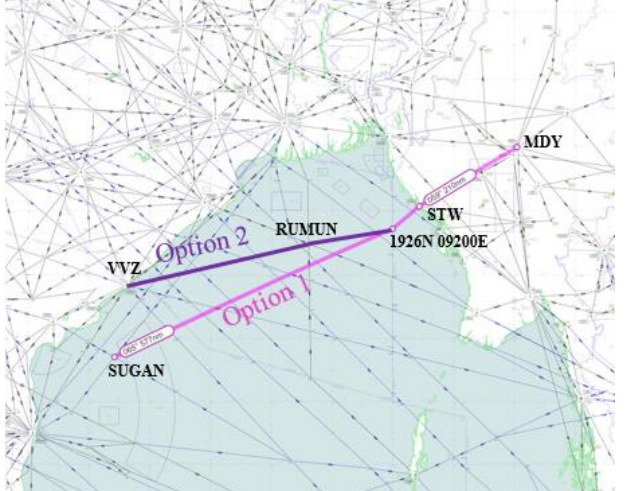



Counter-proposal by China

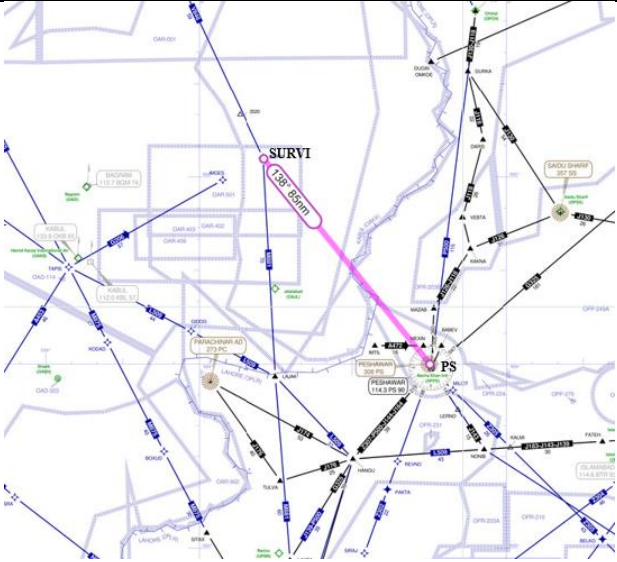


Counter-proposal by China
Suggested by IATA

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 routes primary benefit at this stage will be westbound and during BOBCAT traffic flow. Extension completed SERKA to SOKAM. Update 08/02/13: PRA–SERKA has been approved by India after lengthy consultation with the military, complementary action from Pakistan awaited. At SAIOACG/9: Pakistan commented this route proposal was very unlikely to be implemented. 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. <u>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.</u> At ATMSG/8: IATA preferred this route proposal to be retained in the Catalogue.	

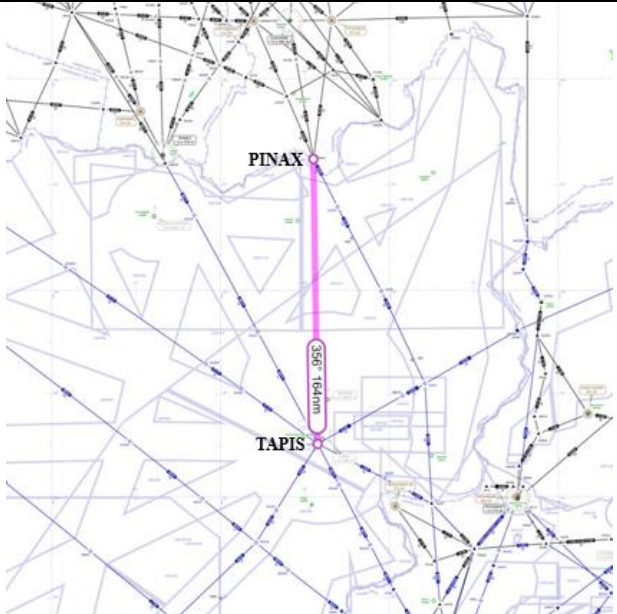
ATS Route Name	BOB 01
State Priority	
IATA Priority	HIGH
Requested by (when)	IATA (05/11/2021: ATM/SG/9)
States/Administrations Involved	India, Myanmar (Chennai, Kolkata, Yangon FIRs)
Route Description	<p>Option 1: SUGAN 152500N 0825045E – New Waypoint 192600N 0920000E (FIR BDRY between Kolkata and Yangon) – Sittwe (STW) – Mandalay (MDY)</p> <p>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)</p>
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)	<p>Option 1: Narrow body fleet: 94 NM / 12 minutes, 456 kg fuel, 1.5 tonnes CO₂ per flight, 166 tonnes fuel, 548 tonnes CO₂ annually Wide body fleet: 94 NM / 12 minutes, 900 kg fuel, 3.0 tonnes CO₂ per flight, 329 tonnes fuel, 1095 tonnes CO₂ annually</p> <p>Option 2: Narrow body fleet: 71 NM / 9 minutes, 344 kg fuel, 1.1 tonnes CO₂ per flight, 126 tonnes fuel, 402 tonnes CO₂ annually Wide body fleet: 71 NM / 9 minutes, 679 kg fuel, 2.2 tonnes CO₂ per flight, 248 tonnes fuel, 803 tonnes CO₂ annually</p>
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.	 <p>The map displays a network of flight routes in the South West Bay of Bengal region. Two specific routes are highlighted: Option 1 (pink line) and Option 2 (purple line). Option 1 starts at SUGAN (152500N 0825045E), passes through a new waypoint at 192600N 0920000E, then to Sittwe (STW) and Mandalay (MDY). Option 2 starts at Vishakhapatnam (VVZ) (174003.90N 0831510.00E), passes through RUMUN (185805N 0891420E), then through the same new waypoint, to Sittwe (STW) and Mandalay (MDY). The map also shows other regional flight paths and geographical features.</p>

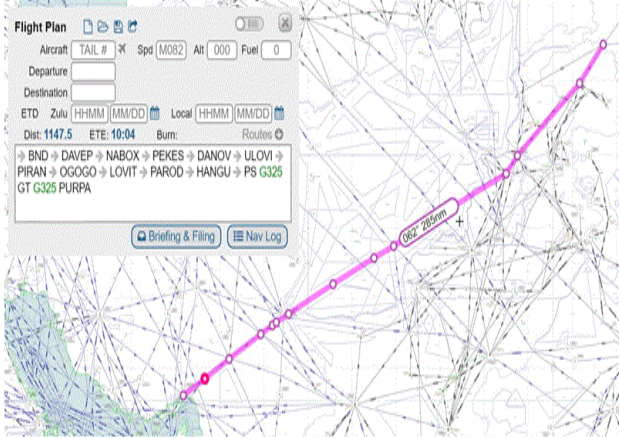
ATS Route Name	BOB 02
State Priority	
IATA Priority	HIGH
Requested by (when)	IATA (05/11/2021: ATM/SG/9)
States/Administrations Involved	India, Myanmar (Kolkata, Yangon FIRs)
Route Description	KAKID 203833N 0865951E – TEBOV 202504N 0915949E – Mandalay (MDY)
Flight Level Band	All suitable flight levels
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.	

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.



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

ATS Route Name	MID 02 (a)
State Priority	B
IATA Priority	HIGH
Requested by (when)	AIRARD TF/2 (04/05/2018)
States/Administrations Involved	Iran, Pakistan, Afghanistan (Tehran, Karachi, Kabul, Lahore FIRs)
Route Description	Bandar Abbas (BND) 2711.8N 05622.0E – DAVEP 2742.4N 05720.1E – NABOX 2816.5N 05826.0E – PEKES 2859.5N 05952.3E – DANOV 2914.7N 06023.9E – ULOVI 2919.8N 06034.5E – PIRAN 2934.1N 06108.1E – OGOGO 3024.9N 06309.1E – LOVIT 3109.1N 06500.4E – PAROD 3129.0N 06554.0E – A453 – HANGU 3329.1N 07100.3E – Peshawar (PS) 3358.7N 07131.0E – G325 – Gilgit (GT) 3555.2N 07420.1E – G325 – PURPA 3656.5N 07524.4E
Flight Level Band	
Benefit (fuel, environmental)	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. <u>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.</u>	 <p>Pakistan proposed for deletion. At ATMSG/8: IATA assigned “HIGH” priority; implementation benefits; and operational information. IATA preferred this route to be retained in the Catalogue and commented this route could be used for contingency and for aircraft with limited oxygen requirements.</p>