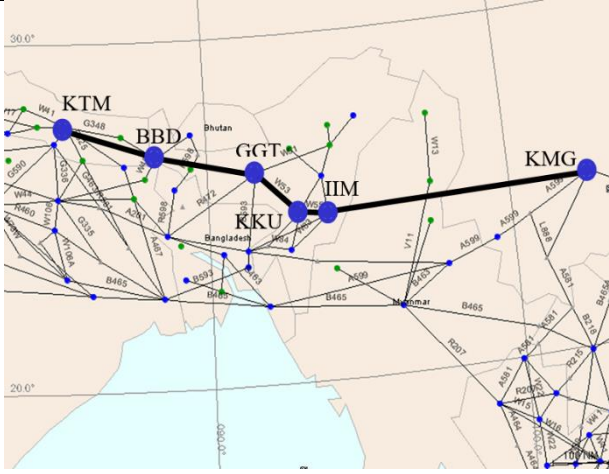
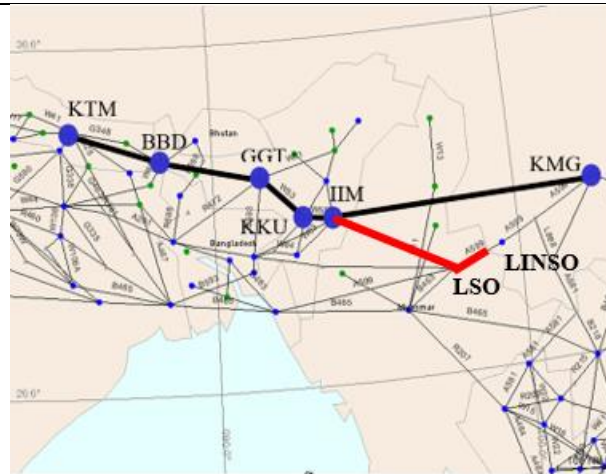
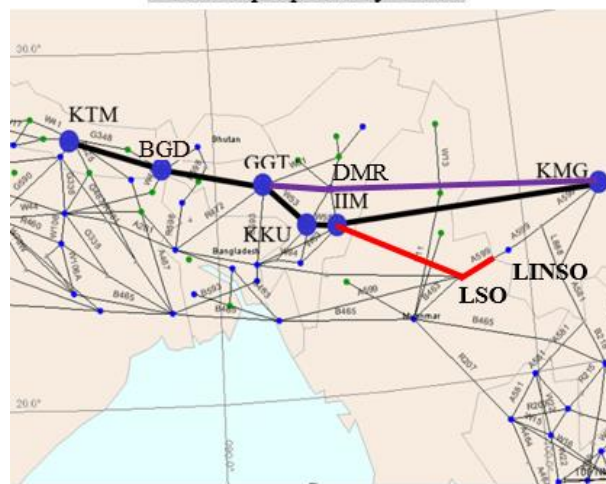


ATS Route Name	HIMALAYA 02
State Priority	D
IATA Priority	HIGH
Requested by (when)	Nepal (01/09/2018)
States/Administrations Involved	Nepal, India, Myanmar, China (Kathmandu, Kolkata, Yangon, Kunming FIRs)
Route Description	<p>Kathmandu (KTM) 2740.5N 08521.0E – Bagdogra (BGD) 264118N 0881934E – Guwahati (GGT) 2606.1N 09135.3E – Silchar (KKU) 2454.8N 09258.9E – Imphal (IIM) 2446.0N 09354.5E – Kunming (KMG) 2501N 10244E</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 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	 <p>The map displays the proposed flight route (Himalaya 02) connecting Kathmandu (KTM) to Kunming (KMG) via Bagdogra (BGD), Guwahati (GGT), Silchar (KKU), and Imphal (IIM). The route is highlighted in black. The map also shows other regional flight paths and airports, including BBD, GGT, KKU, IIM, and KMG. The map covers the region from 20.0°N to 30.0°N latitude and 80.0°E to 100.0°E longitude.</p>

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



— Counter-proposal by China



— Counter-proposal by China
— Suggested by IATA

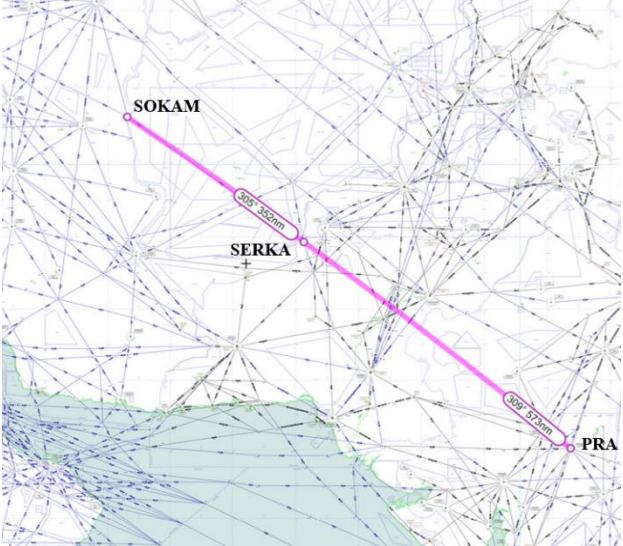
<p>alternate proposal as suggested by IATA, and would coordinate and hold a consultation meeting with the various stakeholders. <u>China commented that it was not possible to establish a new entry/exit point.</u> At BOBTFRG/3: Myanmar supported the proposal by IATA; India expressed its concern in getting 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 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.</p>	
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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.



[Map provided by ICAO]

C

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 needs to renegotiate the proposal with military after comments from Pakistan. 17/08/2020: <u>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	

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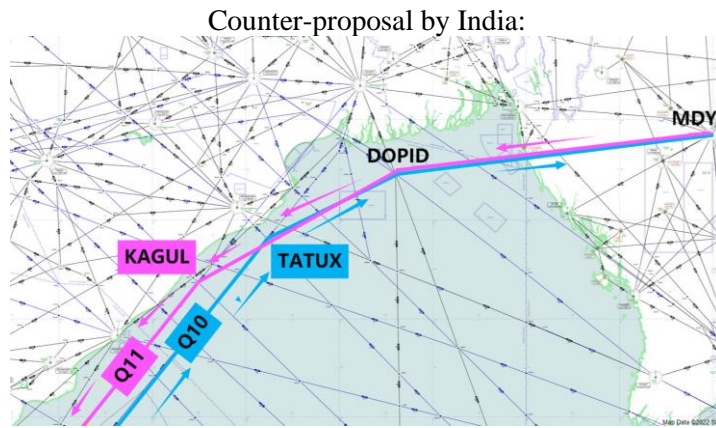
Catalogue. At BOBTFRG/3:
Pakistan re-affirmed that the designated established military areas in Karachi FIR and route structure (crossing routes near the boundary with Delhi and Kabul FIRs) would not permit the establishment of this route.
1/3/2022:IATA wants this proposal to be archived and reintroduced 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.

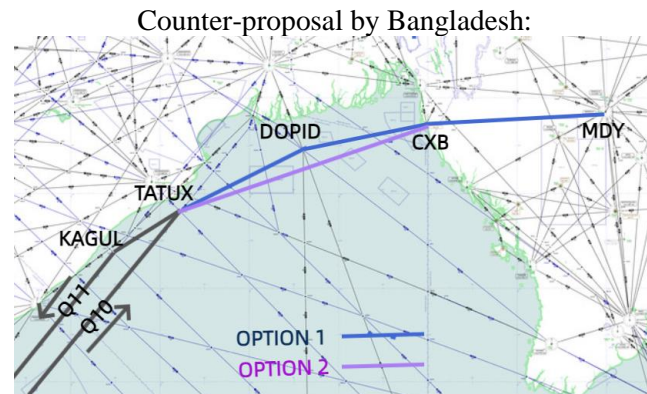
BOBTFRG/4
Appendix F to the Report

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	<p>Option 1: SUGAN 152500N 0825045E – New Waypoint 192600N 092000E (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 092000E (FIR BDRY between Kolkata and Yangon) – Sittwe (STW) – Mandalay (MDY)</p> <p>Counter proposal by India: Eastbound: Q10 - TATUX - DOPID - MDY. Westbound: MDY - DOPID - KAGUL - Q11.</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. 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	<p>The map displays a network of flight routes over the Indian Ocean and South Asia. Two specific routes are highlighted in pink: Option 1 (SUGAN -> 1926N 092000E -> STW -> MDY) and Option 2 (VVZ -> RUMUN -> 1926N 092000E -> STW -> MDY). The map includes geographical features and a grid of flight paths.</p>

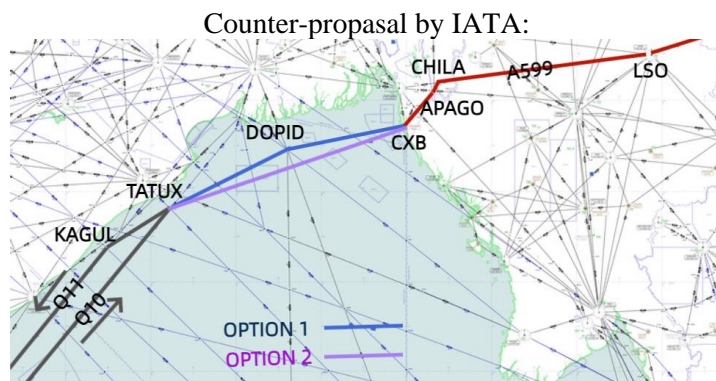
SAIOSEACG/1 meeting (Mar. 2022). (8/8/2022) India in its assessment on BOB01 & BOB02 commented the proposed routes are outside the SUR and VHF coverage imposing unnecessary restrictions for all other cross-cutting routes. Therefore proposed alternatives as below:
 Eastbound aircraft via Q10: TATUX - 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 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



[Map provided by ICAO]


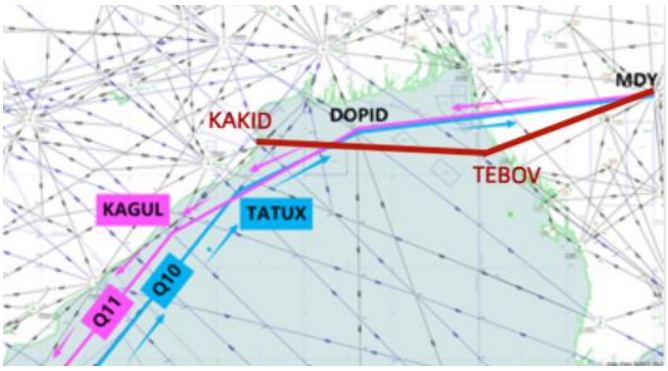


[Map provided by ICAO]



[Map provided by ICAO]

<p>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</p>	
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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) 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)	 <p>Counter-proposal by India vs original proposal by IATA:</p>  <p>[Map provided by ICAO]</p>

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.

(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.

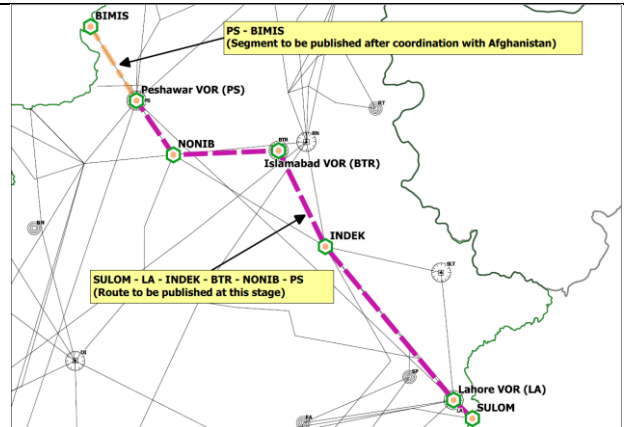
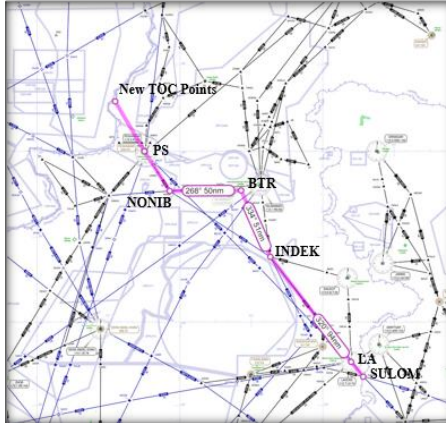
Possible route overflies VGD-31(permanently removed):



[Map provided by IATA]

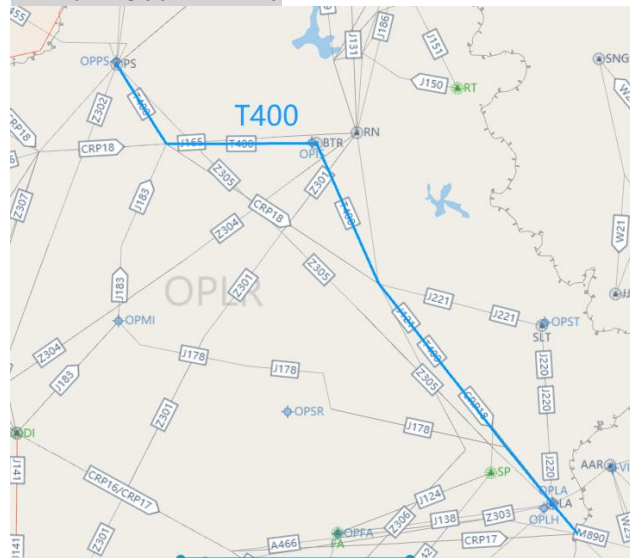
ATS Route Name	AFG 01
State Priority	B
IATA Priority	MEDIUM
Requested by (when)	Afghanistan (03/08/2019: AIRARD TF/4)
States/Administrations Involved	Pakistan, Afghanistan (Lahore, Kabul FIRs)
Route Description	Peshawar (PS) 335841.50N 0713100.90E – SURVI 350606.12N 0702512E
Flight Level Band	
Benefit (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	

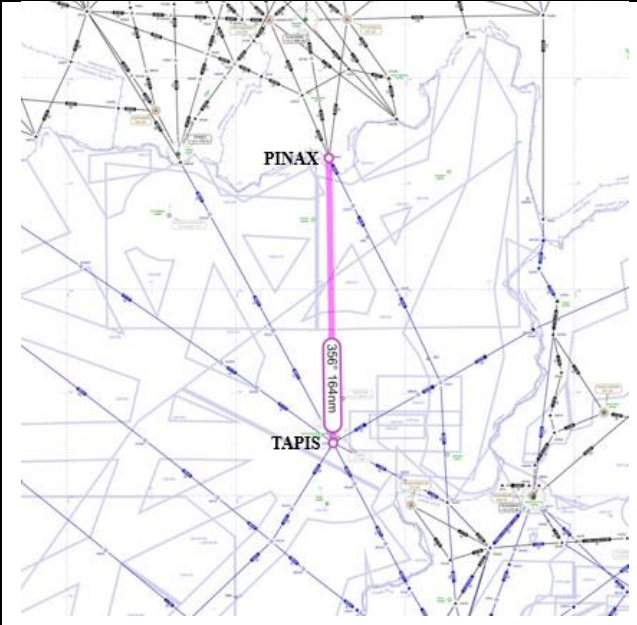
process with Afghanistan and Tajikistan regarding further route connectivity in Afghanistan airspace and beyond from the new TOC points was ongoing.

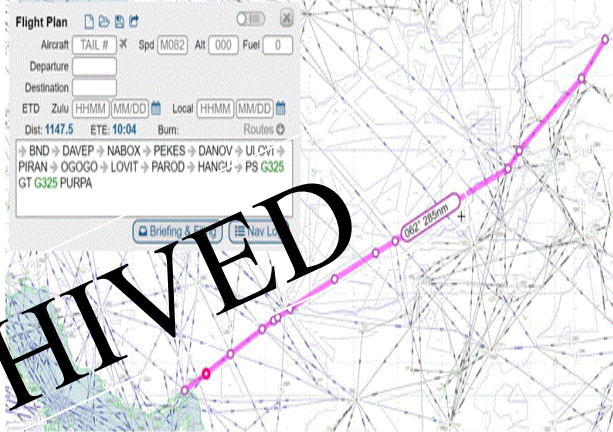


SULOM – Lahore VOR – INDEK - Islamabad VOR (BTR) – NONIB – Peshawar VOR (PS) – BIMIS 343433N, 0710533E (Pak/Afghan new proposed TCP boundary waypoint), Vertical Limit FL300 – FL410

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 and **international** route T400. Further route connectivity in Afghanistan airspace and beyond the new TOC points will be further discussed according to the situation in Afghanistan.



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	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 – 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. 17/08/2020: The proposed entry into Pakistan airspace allows very minimal response time (less than two minutes) for traffic deconfliction at DOBAT and SITAX and other crosser routes.	 <p>ARCHIVED</p> <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. 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.</p>

