ATM/SG/8−WP20
23 – 27/11/2020

NEED FOR EFFECTIVE IMPLEMENTATION OF HIMALAYA 2 ROUTE

Jointly Presented by Nepal and Myanmar

1. INTRODUCTION

- The development of Himalaya 2 route along the southern slope of Himalayas stretches as a part of EMARSSH project in 2002.
- Nepal has been proposing this route in different ICAO forums for almost two decades.
  - ICAO APAC DGCA/56 (2019),
  - APANPIRG/25 (2014),
  - ICAO A38 (2013) and
  - ICAO APAC DGCA/42 (2005).

- APAC Region has been experiencing tremendous air traffic growth.
  - Resulting congestion over Bay of Bengal.

- Once Himalaya 2 route will be implemented, it will help in:
  - decongesting the air traffic flows over the Bay of Bengal and over LSO in Myanmar FIR
  - optimizing airspace use of Nepal, India, Myanmar and China.
  - benefiting the global aviation community if connected with L626 linking East Asia, Middle East and Europe.

- High time to implement the proposed Himalayan-2 route through further enhancement in en-route CNS capacity.

2. DISCUSSION

Need of implementation of Himalaya 2 Route

- Round trip distance saving in Kathmandu-Kunming sector by about 218 nm.
- Round trip distance saving in Kathmandu-Hong Kong sector by about 220 nm to 360 nm.

  - Existing routes being used by Nepal Airlines and Hong Kong Dragon Air have been taken into consideration.

- DCA Myanmar in 1st Nepal-Myanmar ATM Coordination meeting held in Yangon on 31st October – 01st November 2019 agrees to implement the Himalaya 2 route structure as mentioned in ICAO route catalogue.

  - For this, DCA Myanmar will plan to install new surveillance system and RCAG VHF station at Myitkyina Airport by FY 2021/2022.

- Nepal and Myanmar jointly requests concerned States and IATA to review and upgrade their priority for the Himalaya 2 route and ICAO to depict accordingly in APAC Route Catalogue taking into consideration of State consent and the route benefits.

  - India has accepted and opened the route within its territory (Ref. ICAO APAC Route Catalogue, Ver. 19)

  - China has agreed to seriously review the route proposal (Ref. SEA RR/TF/4 report).

  - China and other stakeholders are further requested to expedite the process of implementing the route proposal for greater efficiency and sustainability of operations in this COVID situation.

- Further benefits of the route
  - Round trip flight distance saving by about 220 nm
  - Round trip time saving by about 30 min,
  - Round trip reduction in fuel burn by around 2755 kg
  - Round trip reduction in CO_2 emission by 8706 kg, support in protecting the environment.

Table 1. Benefits of Himalaya 2 route

Sector	Present distance	Future distance on Himalaya-2	Round trip saving per flight per day				Round trip saving per flight per year	
			Saving distance	Time saving	Fuel saving @ 12.64 Kg/NM	Carbon emission reduced @3.16 Kg/ Kg fuel	Total fuel saving	Total Carbon emission reduced
Kathmandu-Kunming	1096 NM	1001 NM	96 +122 = 218NM	28 mins	2755 kg	8706 Kg	1005 tonnes	3178 tonnes
Kunming-Kathmandu	1123 NM	1001 NM						

KATHMANDU - KUNMING

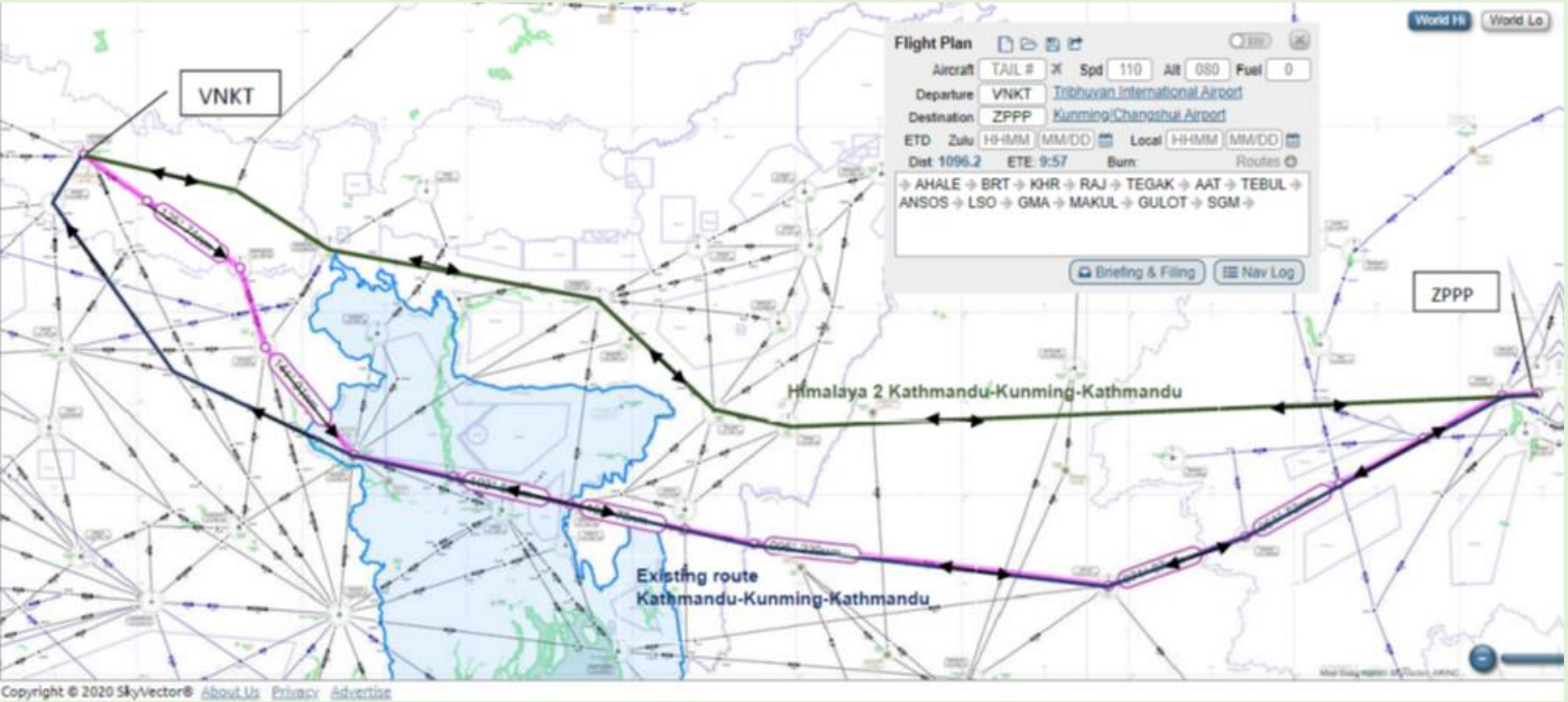


Table 2. Comparison of two airlines operating on Kathmandu- Hong Kong sector and v. v.

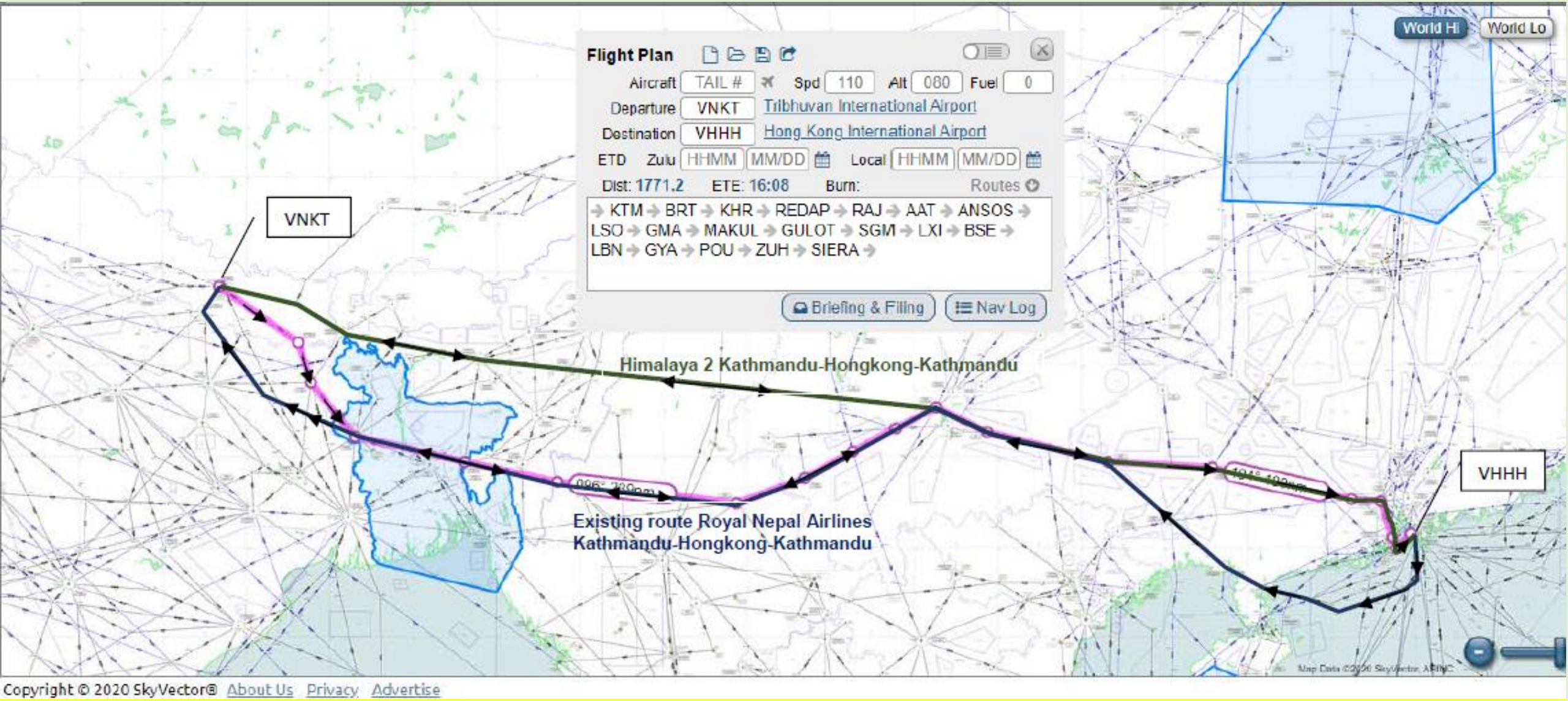
Airline Operators	Via Exiting Route:	Distance (NM)	Round Trips Distance (NM)
Nepal Airlines	Kathmandu to Hongkong: KTM-BRT-R344-RAJ-A201-AAT-A201B-ANSOS-A201 -LSO -A599-SGM-A599-ADBAG-A599-POU-R473-SIERA-DCT HKG	1770 NM	3664 NM
	Hongkong to Kathmandu: HKG-PECAN-V10-SIKOU-R339-BSE-A599-LINSO-A599-LSOA201 -ANSOS-A201B-AAT-A201 -RAJ-G463-ROMEO-DCT-KTM	1894 NM	
Dragon Air	Kathmandu to Hongkong: KTM-R344-RAJ-G463-CTG-B465-AKSAG-B465-LPB-A206-ASSAD-A202-DABUB-A202-SIKOU-V571 -CANTO-HKG	1868 NM	3805 NM
	Hongkong to Kathmandu: HKG-PECAN-V10-SIKOU-A202-SAMAS-A202-DABUB-A202-	1937 NM	

Via Proposed Himalyan-2 Route	Distance (NM)	Round Trips Distance (NM)
Kathmandu to Hongkong: KTM-G348-BGD-W137-GGT-W53-KKU-W55-IIM-SMGA599- ADBAG-A599-POU-R473-SIERA-DCT HKG	1676 NM	3441 NM
Hongkong to Kathmandu: HKG-PECAN1B-PECAN-V10-SIKOU-R339-BSE-A599-SGM-IIM-W55-KKU-W53-GGT-W137-BGD-G348-KTM	1765 NM	

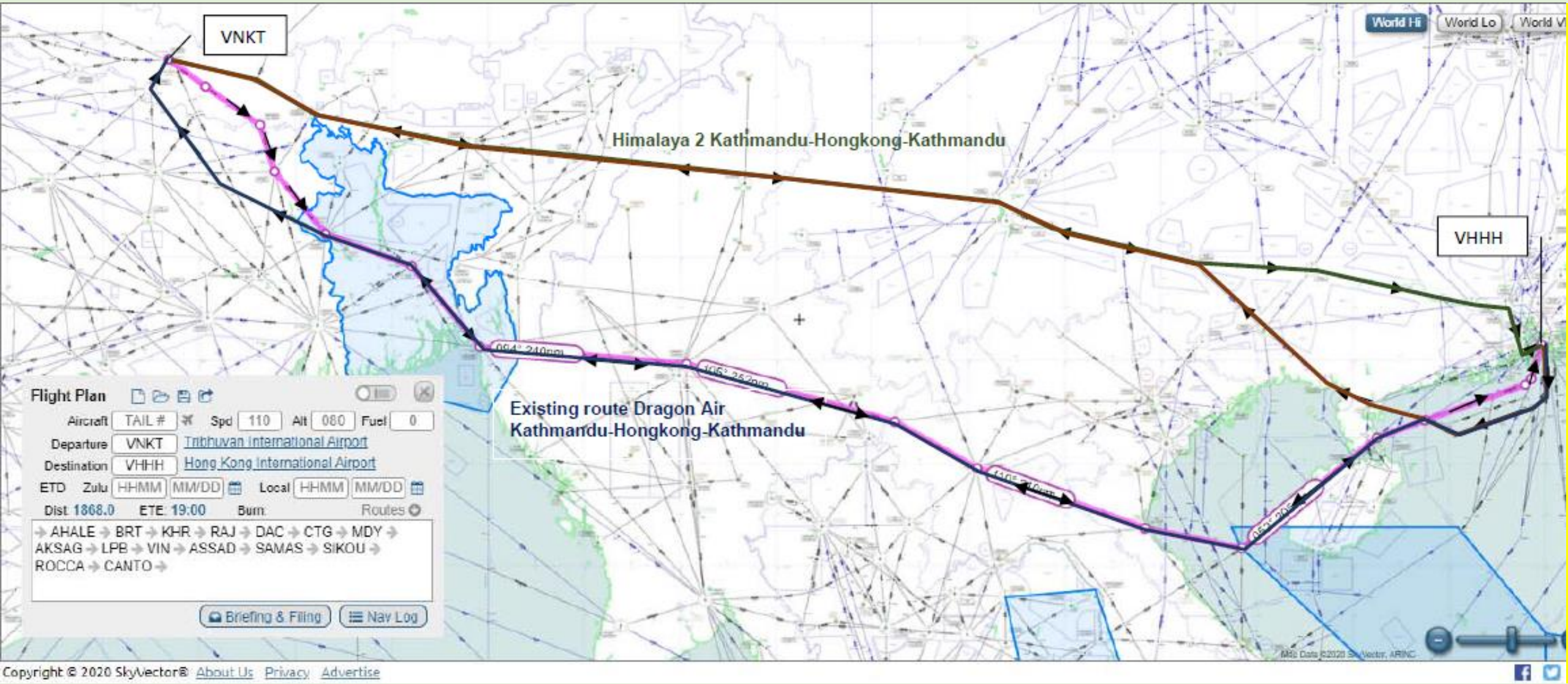
Benefit of Himalyan-2 route :

Himalaya 2 route	Distance Saved (NM)	Time Saved @ speed 470 Kts	Round trip saving per flight per day		Round trip saving per flight per year	
			Fuel saved @12.64 Kg/Nm	Carbon emission reduced @3.16Kg/Kg fuel	Total fuel saving	CO2 saving
Per round trip flight of Nepal Airlines	223 NM	20min	2819 Kg	8909 Kg	1028 tonnes	3251 tonnes
Per round trip of Dragon Air	364 NM	50min	4601 Kg	14539 Kg	1679 tonnes	5306 tonnes

KATHMANDU- HONGKONG BY ROYAL NEPAL AIRLINES



KATHMANDU – HONGKONG BY DRAGON AIR



3. ACTION BY THE MEETING

The meeting is invited to:

- note the information contained in this paper;
- discuss means of support for the long awaited initiative aimed at enhancing safety and efficiency of aircraft operation and protecting the environment; and
- discuss any relevant matters as appropriate.