

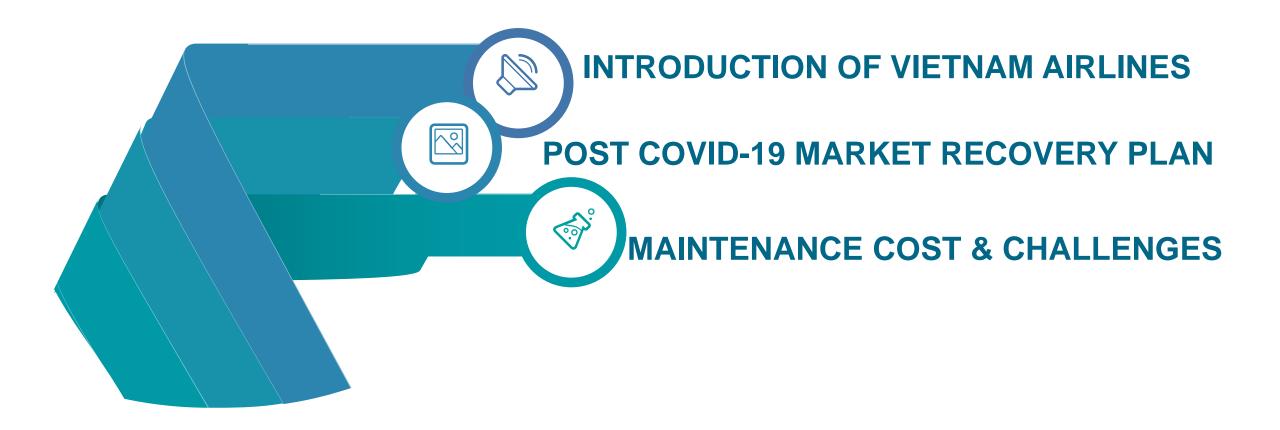


VIETNAM AIRLINES POST COVID-19 RECOVERY

Presented by **Mr. Nguyen Chien Thang** Vietnam Airlines Executive Vice President

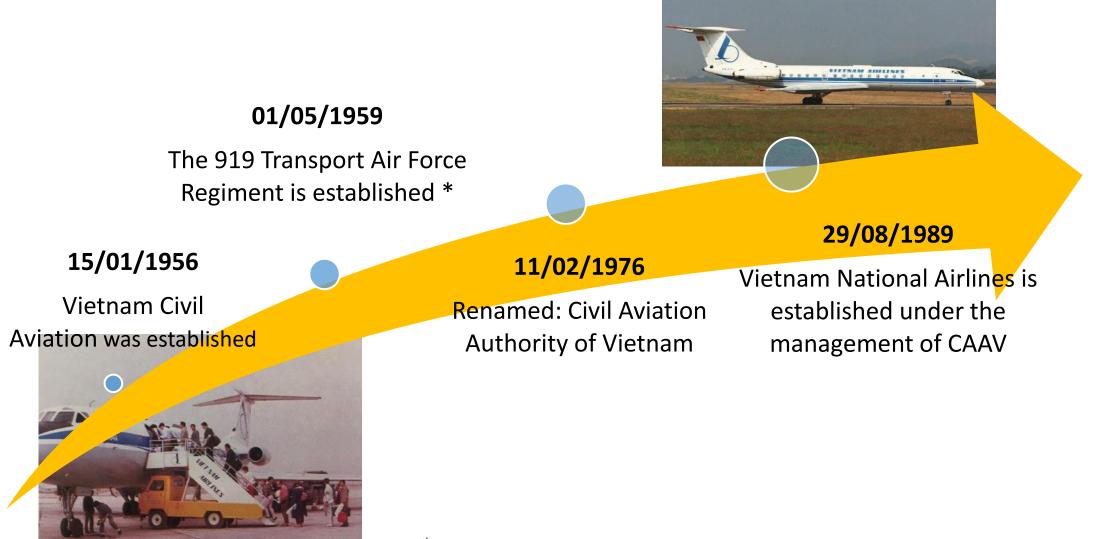
Hanoi, Oct 2023.IATA Maintenance Cost Conference

TABLE OF CONTENS



INTRODUCTION OF VIETNAM AIRLINES

HISTORY OF DEVELOPMENT: from civil authority and military to Vietnam Airlines

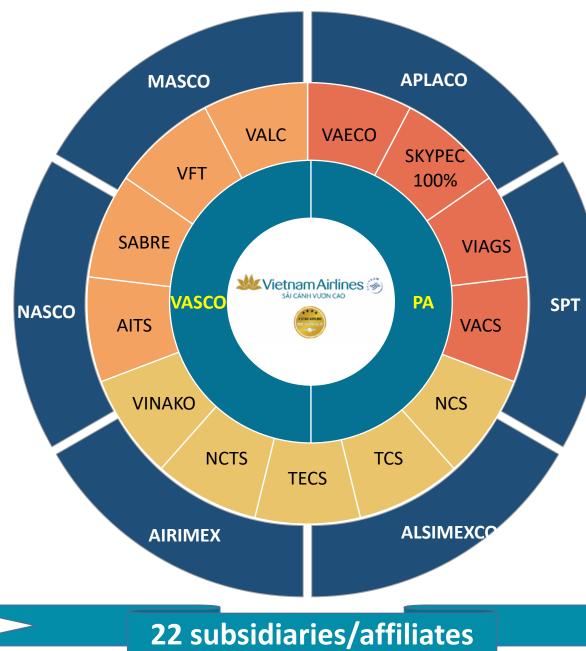


* the 919 Transport Air Force Regiment is Vietnam's first civil aviation - military transport flight unit, predecessor of Flight 919 which currently is the pilot department of VNA 4



HISTORY OF DEVELOPMENT

VNA GROUP



<u>Airlines (3)</u>

VNA (VN), PA(BL), VASCO(0V) Single shareholder ltd.(4) **VAECO**, SKYPEC, VACS, VIAGS Cargo/catering (5) TCS, TECS, NCTS, NCS, VINAKO Other companies in aviation eco-system (4) AITS, VFT, SABRE VN, VALC Less related to aviation eco-system (6) AIRIMEX, MASCO, NASCO, ALSIMEXCO APLACO,

SPT

VNA Strategy: Vision - Mission - Core Values - Targets

core Values

- **Safety** is the top priority and the basis of every activity.
- Customer-centric approach. Our development tightly links to customers' trust.
- Employees are the most valuable asset.
- Creativity is the business motto.
- Responsible airline group, ensure all decisions made and actions taken are ion Mission in line with social sustainability



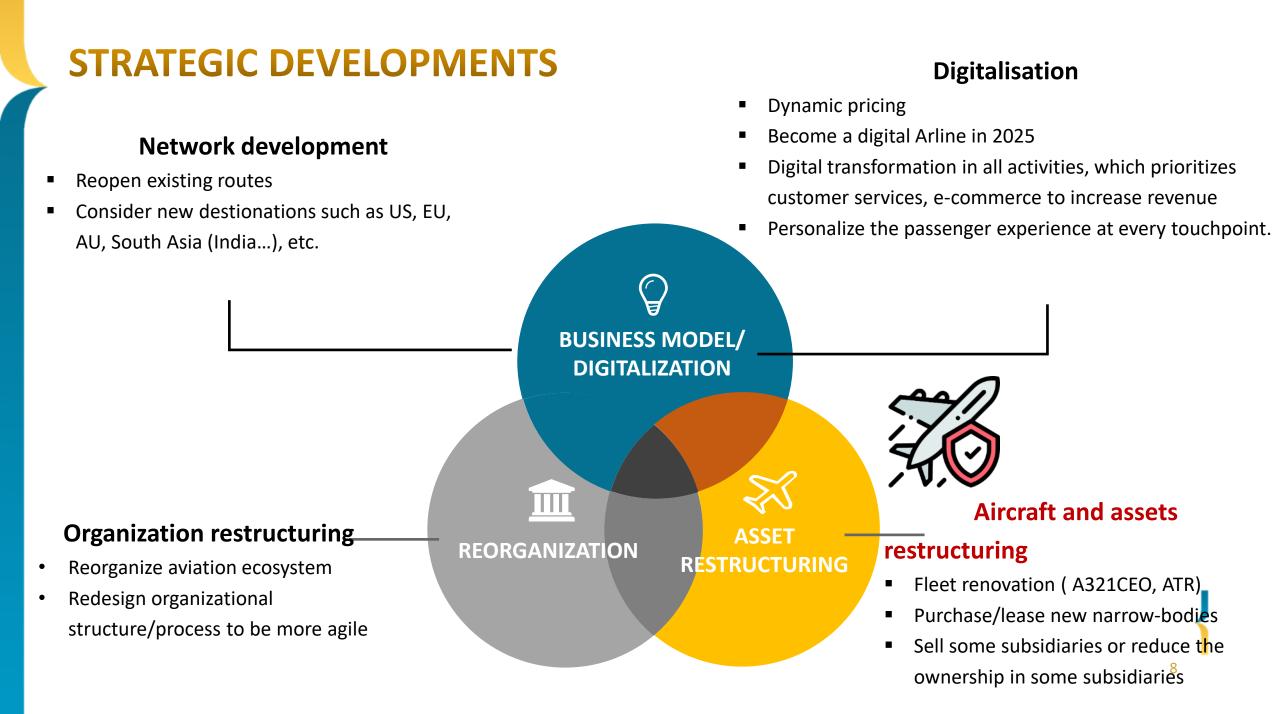
Airline Passenger Experience Association (APEX) certified VNA as 5 stars Airlines 25/09/2023

By 2025:

Jargets

- Top 3 leading airline group in Southeast Asia in terms of revenue.
- Vietnam Airlines to be on top 10 favorite airlines in Asia. Top 3 airlines in Southeast Asia in terms of scale.
- Advance 4-star airline services and progressively achieve 5-star Strategic airline standards for Vietnam Airlines.
 - Implement resilient digital transformation to become a comprehensive Digital Airline Group.
 - Become one of the most favorite workplaces in Vietnam.

- Uphold the No. 1 position as Vietnam's aviation group leader
- Vietnam Airlines to become a leading Asian airline of customer's choice and be the main force transportation of Vietnam as a flag carrier.
- Provide diverse and high-quality air transport up to customers' expectations
- Create a civilized and professional working environment with various opportunities for career development for employees.
- Run effective business operation, ensure sustainable benefits for shareholders.



VNA FLEET

One of the first airlines, to operate the next generation eco-friendly aircraft (A350, B787, A321 NEO)

Vietnam Airlines (including VASCO)

Aircraft	Quantity
Wide-body	29 (14 A350, 15 B787)
Narrow-body	65 A321
Turboprop	06 AT7
Total	100



14 A350-900

11 B787-9



20 A321 NEO







45 A321 CEO



9

Pacific Airlines

Aircraft	Quantity
Narrow-body	10 A320
Total	10

As of Sep 2023

STRONG PARTNERSHIP

Strategic Shareholder: ANA



Bilateral Partnerships:

Through bilateral partnerships, Vietnam Airlines' network has been expanded to 195 routes to 130 destinations globally on all 5 continents, out of which 146 routes to 93 destinations have not been operated directly by VNA.

Joint Ventures:

AIRFRANCE

- Vietnam Airlines/
 - After 3 years of cooperation on HAN/SGN-CDG, VNA and Air France have achieved certain positive results that help improve their business.
- Vietnam Airlines/Pacific Airlines: cooperation on _ HAN-SGN have improved business results of both airlines in the domestic trunk route.



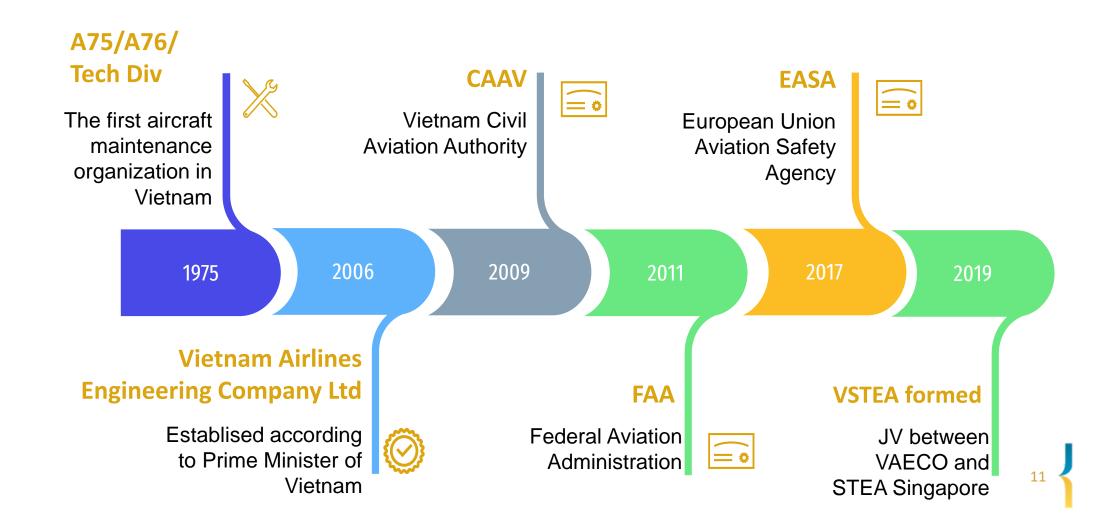
Alliance: Skyteam

Vietnam Airlines enthusiastically participated in SkyTeam's activities and projects, which motivated us to upgrade our system and service standards to meet the Alliance's requirements.

10

VAECO'S HISTORY OF DEVELOPMENT

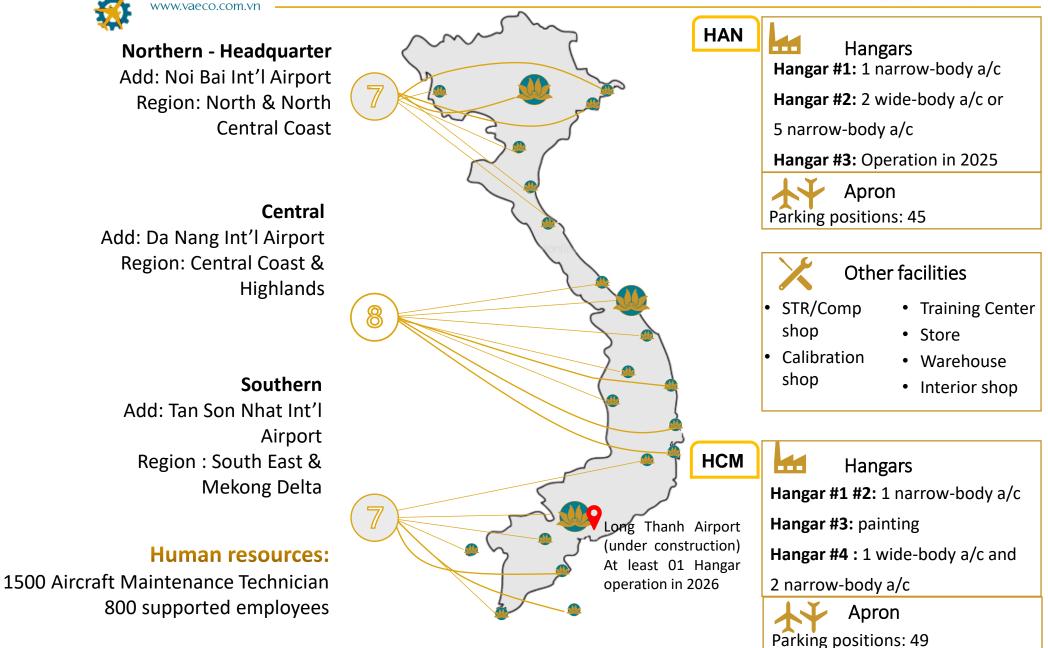




VAECO's LOCATION and FACILITY







12



VAECO's CAPABILITY

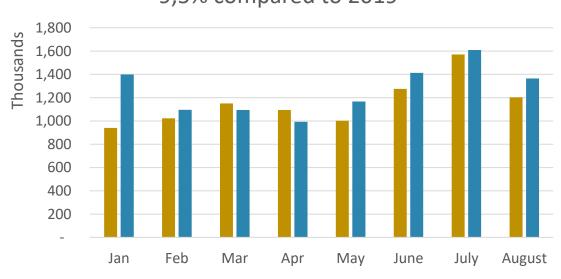


	CA	CAAV		FAA		EASA	
_	BASE		BASE	LINEOG	BASE		
STILL MARKET MARK	★	*			★		
ATR42/72-Series	eries →: 20000FH-36000FC-12year				→ 20000FH-36000FC-12years		
AND	<u>↑</u> ↑	†	<u>↑</u> ↑	★★	*	★★	
A319/320/321-Series	→→: 45000FH-27400FC-12years		41200FH-27400FC-12years		→ 30000FH-20000FC-12years		
1932	<u>*</u>	★	<u>↑</u> ↑	★★		★★	
A330-200/300	 → 60000FH-20000FC-12years → 3200FH-1200FC-12months 		→ → 35000FH-13200FC-6years				
	<u>*</u>	★	<u>↑</u> ↑	<u>↑</u> ↑		★	
A350-900				 → 24000FH-6000FC-48months → 12000FH-3000FC-24months 			
	↑	★	<u>↑</u> ↑	<u>↑</u> ↑		★	
B777 series	→→: 24000FH-32			24000FH-32000FC-6000days			
	<u><u></u></u>	★	<u>↑</u> ↑	<u>↑</u> ↑		★	
B787-9		→ 12000FH-5000FC-2years → 35000FH-15000FC-9years		 → 12000FH-5000FC-24months → 18000FH-6000FC-36months 			
		★		<u>↑</u> ↑			
B737series							

↑ All Stations ↑ HAN Station ↑ SGN Station

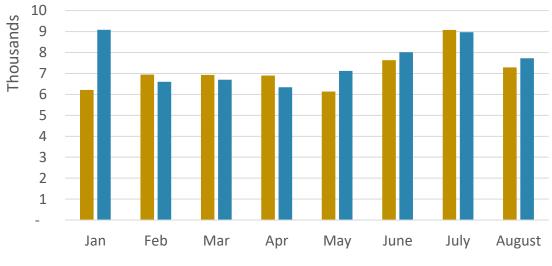
POST COVID-19 MARKET RECOVERY PLAN

VNA'S DOMESTIC MARKET RECOVERY

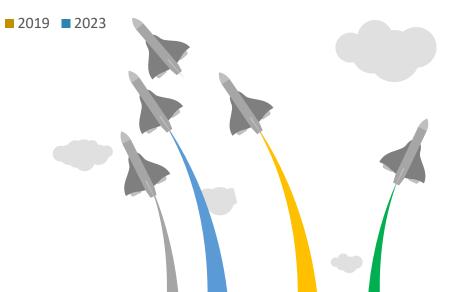


Number of pax in first 8M 2023 increased by 9,5% compared to 2019

Number of flights in first 8M 2023 increased by 6,0% compared to 2019



2019 2023



VNA'S DOMESTIC MARKET RECOVERY



Domestic routes

(fully recovered in compared with 2019)

Destinations

(almost fully recovered except for DIN is closed for repairing)

Number of domestic frequencies compared to 2019. **931** flight2w/week (Average 8M of 2023)

VNA'S INTERNATIONAL MARKET RECOVERY

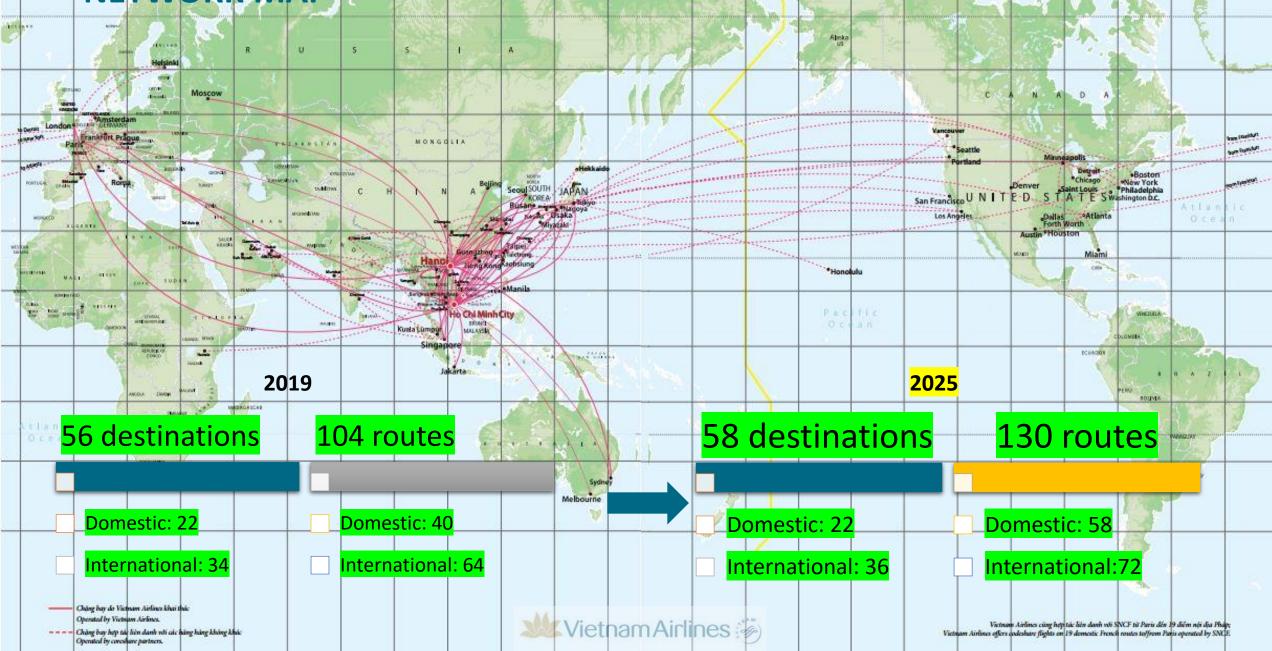


United States: San Francisco; Europe: Frankfurt, Paris, London; Australia: Sydney, Melbourne; North East Asia: Tokyo, Nagoya, Osaka, Fukuoka, Incheon, Busan, Shanghai, Guangzhou, Beijing, Hongkong, Taipei, Kaohsiung; South East Asia: Thailand, Singapore, Kuala Lumpur, Jakarta, Siem Reap, Phnom Penh, Luang Prabang, Vientiane South Asia: New Delhi, Mumbai

Q4/2023: Re-open: DADDMK (DADBKK), HANTFU; New routes: SGNPER, CXRPUS, HAN/SGN-PKX, HAN/SGN-MNL Number of international frequencies compared to 2019 **349** flight2w/week (Average 8M of 2023)

69%

NETWORK MAP

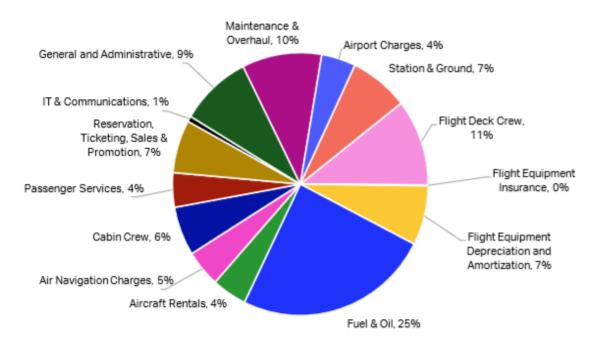


Greenland

MAINTENANCE COST AND CHALLENGES

AIRLINES COST STRUCTURE

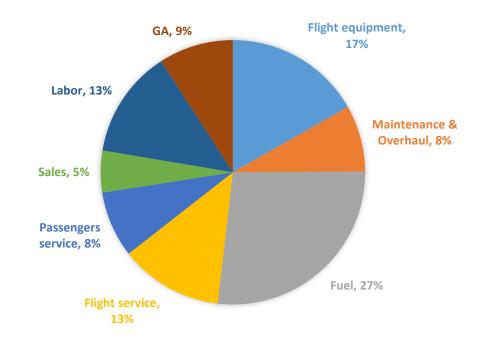
Chart 9: ACMG airline operating expenses 2019



According to ACMG 2019 (data of 51 Airlines), Fuel accounts for highest proportion of total cost, at 25%. Flight deck crew and Maintenance had lower percentages, at 11% and 10%, respectively.

Source: Airlines cost management group (ACMG) Annual report 2020 (FY2019)

AAPA 2019



According to AAPA 2019 (based on data of 15 Asia Airlines), Fuel cost makes up a highest percentages of total cost, at 27%, followed by Flight equipment cost (17%). Flight Service and maintenance cost respectively account for 13% and 8% of total cost.

COMPARISON BETWEEN VNA'S COST STRUCTURE AND OTHERS



Percentage of Maintenance & Overhaul and Flight equipment cost are higher than that of region airlines (ACMG, AAPA).

Causes: AC utilization not optimized. Long TAT of Check, Components Overhaul Capabilities of MRO limited







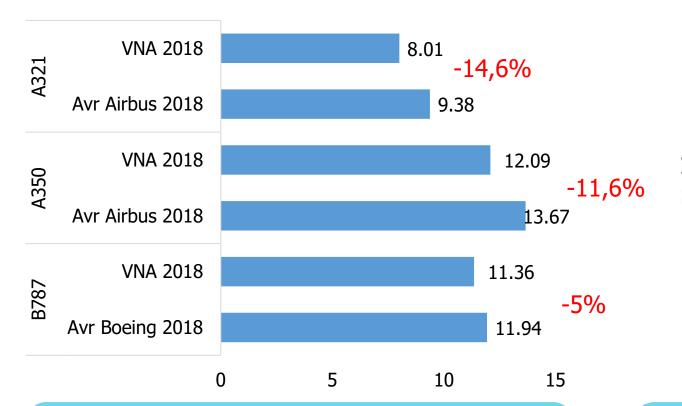
Percentage of Labor and General Administration cost are low in compared with regional airlines (AAPA, ACMG).

Causes: Labor cost in Vietnam is at average level

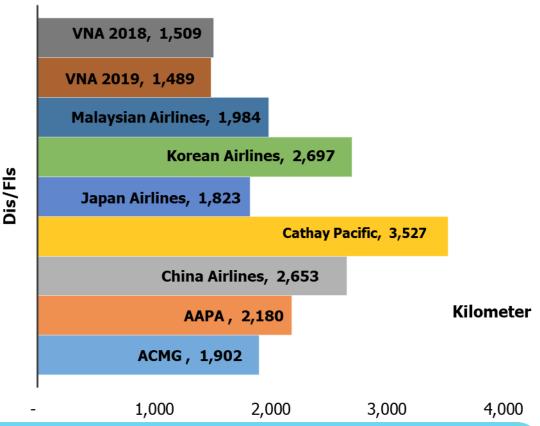
Percentage of sales, passenger service, flight service cost are equivalent to that of AAPA, ACMG airlines

AIRCRAFT UTILISATION

AC UTILIZATION (FH)



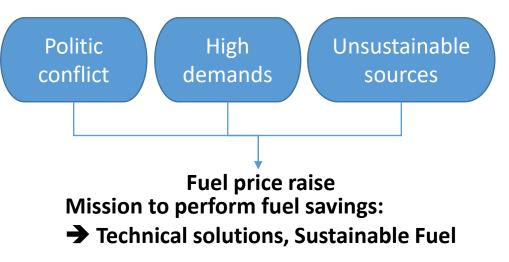
VNA AC utilization is quite low in compared with Boeing/Airbus data, which caused the increase of maintenance cost and flight equipment cost (Those cost are fixed cost) **STAGE LENGTH 2019**

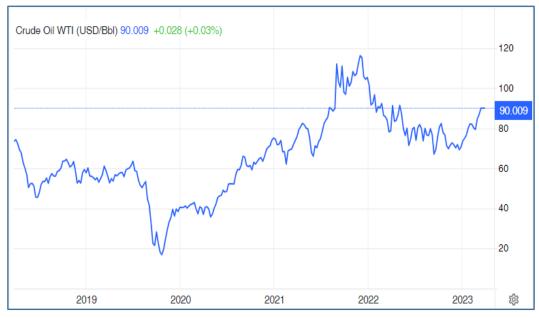


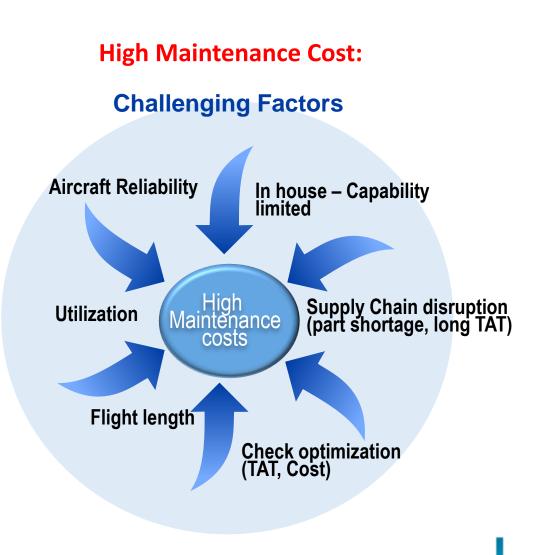
Stage length of VNA flight is shorter than average number of ACMG Airlines due to short domestic flights (especially 02 bases in HAN and SGN), which caused low utilization (FH/FC) \rightarrow engines, landing gears, brakes, tires deteriorates faster \rightarrow Increase of maintenance cost

VNA'S CHALLENGES

High Fuel cost since 2022







VNA'S CHALLENGES – DIGITAL TRANSFORMATION- A PARTHWAY TO MAINTENANCE COST OPTIMIZATION

Reader

Data

1	Digital Transformation Project in Technical Department	Status	RFID Tag	
	MRO IT - AMOS: Using new MRO-IT System (AMOS) replacing the old System (AMASIS): The core system of controlling all maintenance activities.	Ready 2024 (April)	tinb lug	Data Data
	RFID : Controlling the Hard time components by Radio Frequency Identification.	Ready 2023 (Nov – Dec)		[
	E-Techlog :. Recording maintenance activities in Line maintenance to e-Techlog, monitoring Aircraft Status.	Ready 2024		·
	Smart software : Monitoring the Aircraft Health through AHM (Boeing), SHM, SPM (Airbus). Monitoring the Engine Health through ADEM, EHM, Remote Diagnostic, ECPM (engine OEMs)	READY TO USA		
	TIMS : Technical Information Maintenance System: Core Platform for monitoring maintenance activities, processing workflow by digitalizing the working process,	READY TO USE		

DISCUSSION





THANK YOU