



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

● BRUNEI DARUSSALAM

**PENGANGKUTAN UDARA YANG SELAMAT DAN  
BERTARAF ANTARABANGSA: MENDEKATKAN DUNIA**

1. Impak Pengangkutan Udara
2. Bagaimana pengangkutan udara dijalankan
3. Cabaran dan masa depan

**KEYWORDS**



**SUSTAINABLE**

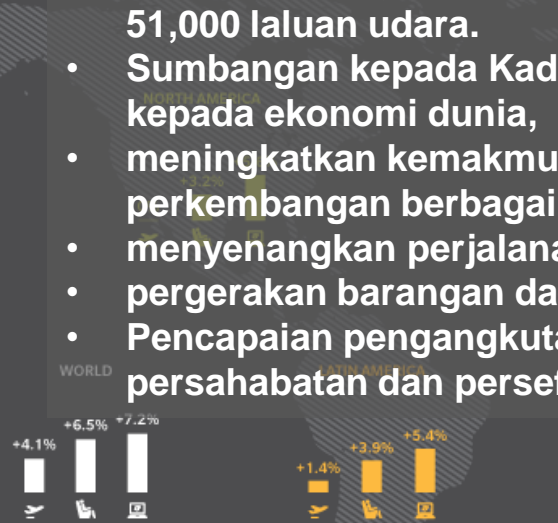
**P**ROFITABLE



# GLOBAL AVIATION OUTLOOK

- Mengangkut sebanyak 3.5 billion orang dan 51 juta ton metric barangan (2015)
- Melibatkan 10 juta pekerja, 26,000 kapal terbang; 100,000 penerbangan setiap hari; 51,000 laluan udara.
- Sumbangan kepada Kadar Keluaran Negara Kasar (GDP) kira-kira US\$2.7 trillion kepada ekonomi dunia,
- meningkatkan kemakmuran dan kesejahteraan melalui pemberian pekerjaan dan perkembangan berbagai industri termasuk industri perjalanan dan pelancongan.
- menyenangkan perjalanan dan merapatkan hubungan keluarga dan kawan.
- pergerakan barangan dan perkhidmatan.
- Pencapaian pengangkutan udara yang paling utama ialah meningkatkan hubungan persahabatan dan persefahaman antara umat manusia di dunia.

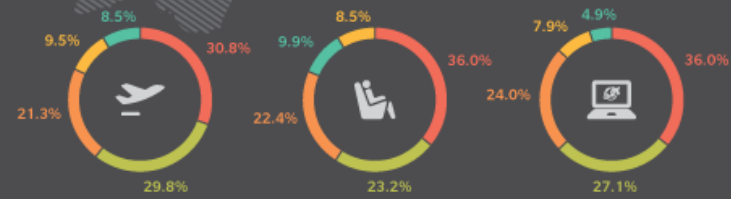
WORLD CAPACITY YEAR-END FEBRUARY 2015 VERSUS 2016



WORLD CAPACITY INDEX JANUARY 2011-FEBRUARY 2016



RELATIVE AVIATION MARKET SIZE BY WORLD REGION FEBRUARY 2016



Departures    
 Seats    
 Available seat-miles

Source: Platts.com by Oliver Wyman

RELIGION

FAMILY

TOURISM

# IMPACT OF AIR TRANSPORT

BRUNEI DARUSSALAM

DIPLOMACY

BUSINESS

EDUCATION

SPORTS

EMPLOYMENT

## CONFIDENCE + CONNECTIVITY = GROWTH

- Legislation
- Regulations
- Effective Implementation (Audits)
- Master Plans
- Airport & Airline Ranking
- Human Resource
- Sustainable

- Air Services Agreement
- Infrastructure
- Airlines
- Integrated
- Reliability

- Economic Growth
- Passenger
- Cargo
- Air Movements
- 'Relationships'
- Sustainable
- Profitable

# BRUNEI AVIATION HISTORY

- 1922: First overfly (Tutong)
- World War II – first runway at the current old airport
- 1951: Anduki Airport completed
- 1953: first commercial air transport - to Anduki
- Serving the oil industry
- Flights to Labuan & Lutong
- 1974: completion of Brunei International Airport
- 1974 (Nov): formation of Royal Brunei Airlines



Source: Rozan Yunos, the Brunei Resources

# PERKEMBANGAN PENERBANGAN AWAM BRUNEI

- Jarak landasan dari 3,000 kaki pada 60 tahun lalu kepada 12,000 kaki,
- Landasan yang dulunya hanya mampu menampung 'light aircraft' sekarang mampu menampung pesawat B747,
- Penaiktarafan sistem 'Airfield lighting',
- Pemasangan 'Instrument Landing System (ILS)',
- Terminal Penumpang yang dulunya hanya mampu mengendalikan penumpang dalam skala kecil kini telah jauh meningkat (di mana InsyaAllah sedikit masa lagi akan dapat menampung jumlah penumpang 3 juta),
- Sistem kawalan lalulintas udara dulu tidak memiliki radar kini telah memiliki radar,
- Perkhidmatan Kawalan Lalu Lintas Udara beroperasi 24/7 sejak Januari 1984,
- Penumpang dulu hanya menggunakan tangga untuk turun dari pesawat, sekarang sudah menggunakan titisawat (*aerobridge*) yang menghubungkan pesawat ke terminal,
- Dulu tenaga pekerja kebanyakannya pekerja-pekerja asing, namun sekarang anak tempatan telah banyak berkhidmat dalam industri penerbangan.
- Jumlah penerbangan yang ditangani oleh Lapangan Terbang kini jauh meningkat.
- Keupayaan perkhidmatan bomba lapangan terbang telah jauh meningkat,
- Destinasi penerbangan hanya pada peringkat 'regional' kini telah 'go international'



# INTERNATIONAL CIVIL AVIATION ORGANISATION

INTERNATIONAL CIVIL AVIATION DAY 2015-2018  
WORKING TOGETHER TO ENSURE NO COUNTRY IS LEFT BEHIND



ICAO

UNITING AVIATION

- The Chicago Convention (1944)
- Persetujuan terhadap beberapa prinsip dan pengaturan bagi perkembangan penerbangan awam berkembang dengan selamat dan teratur;
- perkhidmatan pengangkutan udara antarabangsa akan dibuat berdasarkan persamaan peluang;
- dijalankan dengan teratur dan 'economically'
- Setiap negara mempunyai kedaulatan yang penuh dan eksklusif ke atas ruang udara di atas wilayah tanah dan perairannya.



ORGANISATION DE L'AVIATION  
CIVILE INTERNATIONALE

INTERNATIONAL CIVIL  
AVIATION ORGANIZATION

## **CIVIL AVIATION ORDER 2006**

2. The long title of this Order is "An Order to establish a regulatory framework for monitoring, enhancing and promotion the safety of civil aviation in accordance with the principles of the Convention on International Civil Aviation drawn up at Chicago, any Protocols amending it and the Standards and Recommended Practices adopted under the Convention and published by International Civil Aviation Organization as Annexes thereto".

## **CIVIL AVIATION REGULATION 2006**

- Registration & Marking of Aircraft
- Air Operator's Certificate
- Airworthiness Requirements
- Aviation Personnel Licensing
- Operation of Aircraft
- Aircrew Fatigue & Flight Limitations
- Documents & Records
- Movement of Aircraft
- Enforcement & Offences

## HOW IS COMPLIANCE MONITORED?

### SAFETY: USOAP

- ICAO's Universal Safety Oversight Audit Programme (USOAP) is regular audits of safety oversight systems of ICAO Member States.
- The ultimate goal of USOAP is promoting global aviation safety through
- USOAP audits focus on a State's capability in providing safety oversight by assessing whether the State has effectively and consistently implemented the critical elements of a safety oversight system and determining the State's level of implementation of ICAO's safety-related Standards and Recommended Practices (SARPs) and associated procedures and guidance material.

### SECURITY: USAP-CMA

ICAO's Universal Security Audit Programme Continuous Monitoring Approach is to promote global aviation security through continuous auditing and monitoring of Member States' aviation security performance, in order to enhance their aviation security compliance and oversight capabilities

# AIR SERVICES AGREEMENT

## First Freedom

Airlines may fly over the territory of a signatory state without landing.



## Second Freedom

Airlines may land in the territory of a signatory state for non-commercial purposes, such as refuelling or emergency repairs.



## Third Freedom

Passengers and cargo may be flown from the airline's own country to another signatory state.



## Fourth Freedom

Passengers and cargo may be picked up in another signatory state and transported to the airline's own country.



## Fifth Freedom

Airlines may transport passengers and cargo between one signatory state and a third state; however, the flight must originate or terminate in the airline's own country.



## Sixth Freedom

Airlines may pick up passengers and cargo from abroad and fly them on to a third state after stopping in their own country.



## Seventh Freedom

Airlines may transport passengers and cargo between two signatory states without taking off or landing in their own country.



## Eighth Freedom

Also known as cabotage, this freedom allows airlines to conduct flights within a foreign country in which it is not domiciled. This far-reaching liberalisation was implemented in the EU in 1997.



- perjanjian yang ditandatangani antara dua negara yang membolehkan perkhidmatan pengangkutan udara komersial antara kedua-dua negara
- meliputi asas dan rangka kerja di mana syarikat-syarikat penerbangan diberikan hak dua hala ekonomi untuk terbang di antara kedua negara.
- meliputi kekerapan penerbangan, syarikat-syarikat penerbangan yang dibenarkan, jenis pesawat, hak trafik ('traffic rights'), origin and intermediat points dan cukai.
- hak trafik ataupun 'traffic rights' adalah berdasarkan prinsip kebebasan udara ataupun 'freedoms of the air' melalui satu set hak penerbangan komersial melibatkan laluan pesawat udara komersial melalui ruang udara dan lapangan terbang asing bagi tujuan pengangkutan orang, mel dan barangan.
- Negara Brunei Darussalam telah memeterai Perjanjian Perkhidmatan Udara bersama 37 buah negara.

# LAPANGAN ANTARABANGSA BRUNEI

‘To make LTAB among the best airport with management of services and infrastructure that is safe, secure, efficient, modern and comfortable in compliance with international standards and requirements’

- **Passenger Capacity: 3 million per annum**
- **Passenger Traffic (2015): 1.7 million**
- **Outbound: 740K**
- **Inbound: 733K**
- **Transit: 244K**
- **Cargo: 21.62 juta ton**
- **Mail: 1.12 juta ton**



# SURAU LAPANGAN ANTARABANGSA BRUNEI

The image shows the Surau Lapangan Antarabangsa Brunei, a large and modern Islamic prayer hall. The building is primarily white with intricate gold-colored Islamic geometric patterns on the facade. It features a large central dome with a blue and white floral pattern, and several tall, slender minarets with blue-tipped domes. The architecture is characterized by arched doorways and a clean, contemporary design. The sky is bright blue with scattered white clouds.

- Lambang keislaman
- 300 jemaah

# LANDASAN LAPANGAN ANTARABANGSA BRUNEI

An aerial photograph of the Brunei International Airport. The central focus is the long, straight runway, flanked by taxiways and grassy areas. The airport is situated in a lush, green landscape with scattered buildings and structures. In the background, there are rolling hills and a clear blue sky with some light clouds. The overall scene is well-maintained and modern.

- **Runway Length: 12,000 feet /3,658 metre**
- **Code E aircraft (eg Boeing 747)**
- **Commercial Aircraft Movement: 13,970 (2015)**
- **Capacity: 30 – 40 movements per hour**

# KAWALAN LALU LINTAS UDARA

- Sistem kawalan lalulintas udara menggunakan radar
- Perkhidmatan Kawalan Lalu Lintas Udara beroperasi 24/7 sejak Januari 1984
- 2016: peralatan & sistem kawalan lalu lintas udara yang baru bagi memenuhi keperluan ICAO



# ROYAL BRUNEI AIRLINES

- Formed in 1974
- Top 10 SKYTRAX most loved airlines (2016)
- Ranked 95<sup>th</sup> in Top 100 Airlines
- 787 Dreamliners
- Fleet Renewal
- Doa sebelum berlepas
- Garispandu sembahyang





**16** destinations  
**12** countries

**WINDOW TO THE WORLD**



## DCA ASPIRATION

### ECONOMIC GROWTH

COMMERCIAL  
AIRCRAFT  
MOVEMENT



PASSENGER  
MOVEMENT



CARGO  
MOVEMENT



2%  
AVIATION  
CONTRIBUTION  
TO GDP

### CONNECTIVITY

NUMBER OF  
AIRLINES



NUMBER OF  
ROUTES



AIRCRAFT  
MOVEMENT  
(SCHEDULED)



2014

2017

2020

2035

AIRPORT  
MASTER  
PLAN

### CONFIDENCE: SAFETY & SECURITY

UNIVERSAL SAFETY  
OVERSIGHT AUDIT PROGRAM

2007: 64%

80%

100%

UNIVERSAL SECURITY  
AUDIT PROGRAM

2012: 47%

WORLD AIRPORT  
RANKING

TOP  
100

TOP  
50

### EMPLOYMENT

2,035

4,070

10,175

30,000

## vision

- World Class Civil Aviation Authority
- Excellent Air Navigation Services
- World Class Airport / Facilitation Services

- Compliance to International Standards & Recommended Practices
- Infrastructure Investment to meet bigger aircraft and increased traffic
- Human Capacity eg air traffic controllers, regulators & engineering
- Open Skies Policy: Liberalisation vs Protectionism
- Low cost carriers
- New technology eg drones

# THE FUTURE... ?

- Airport Corportisation & Commercialisation
- Civil Aviation Authority
- New Terminal
- Second Runway
- New Cargo Terminal
- Second airlines

