



ICAO

ECONOMIC DEVELOPMENT

ICAN2018

Round Table Discussion: Setting the Scene

Boubacar Djibo

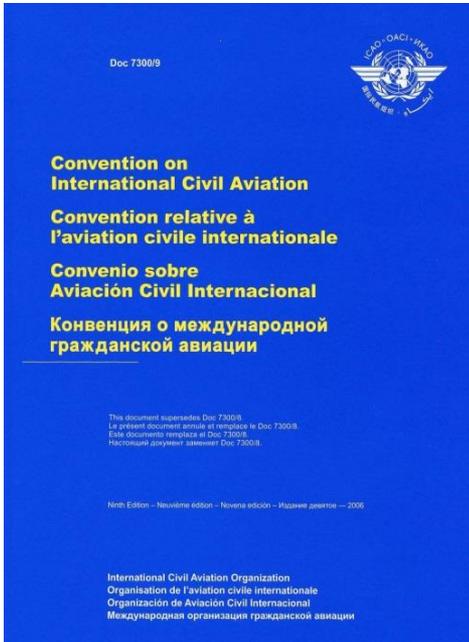
Director, Air Transport Bureau, ICAO

Nairobi, Kenya

10 December 2018



Chicago Convention



Preamble

THEREFORE, the undersigned governments having agreed on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be establish on the basis of equality of opportunity and operated soundly and economically.

Article 44

d) Meet the needs of the peoples of the world for safe, regular, efficient and economical air transport



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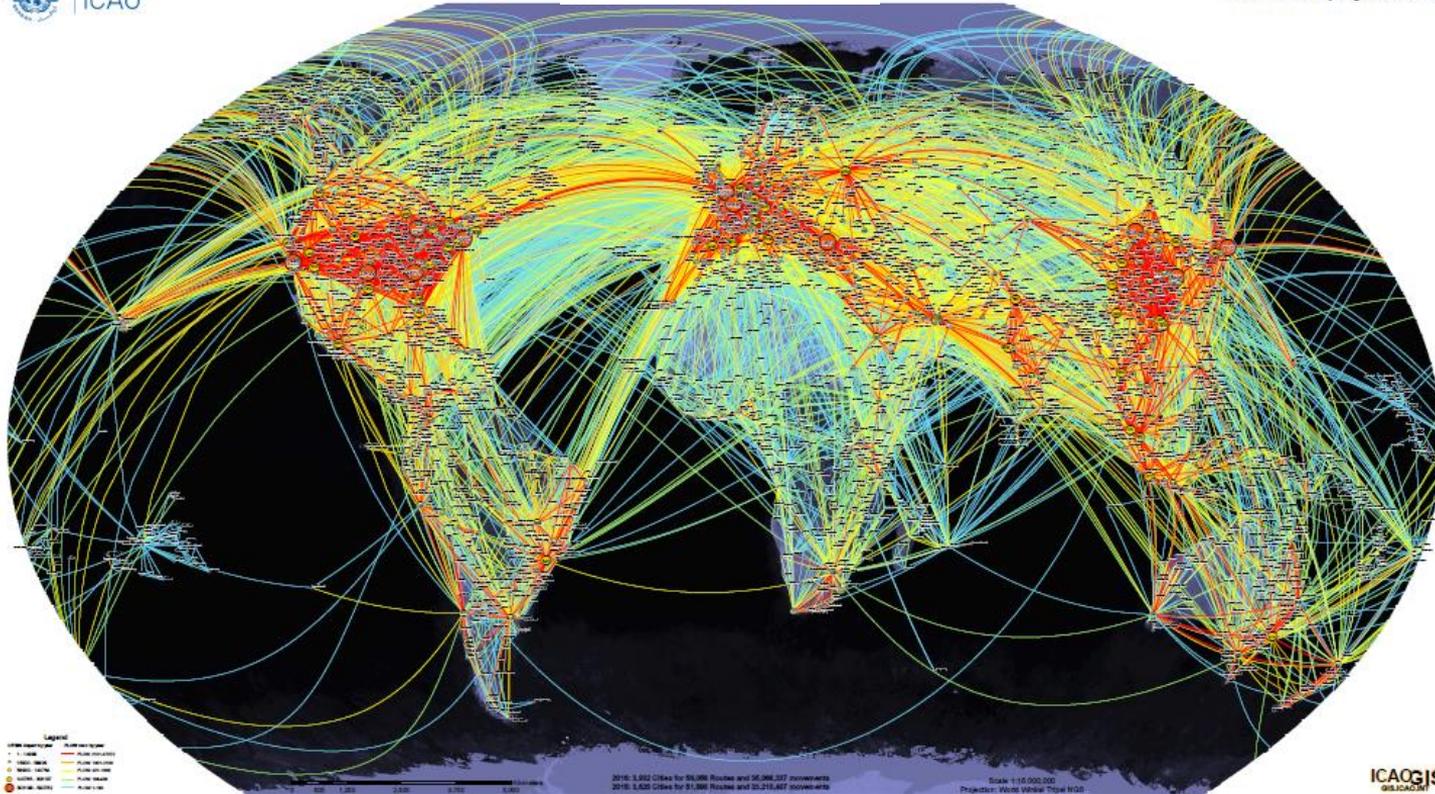
STATE OF THE INDUSTRY



- **4.1 billion passengers**
- **37 million aircraft departures**
- **56 million freight tonnes carried**
- **Over 1 400 scheduled airlines**
- **More than 26 000 aircraft**
- **More than 3 900 airports**
- **173 air navigation centres**
- **290,000 pilots* and 82,000 air traffic controllers**

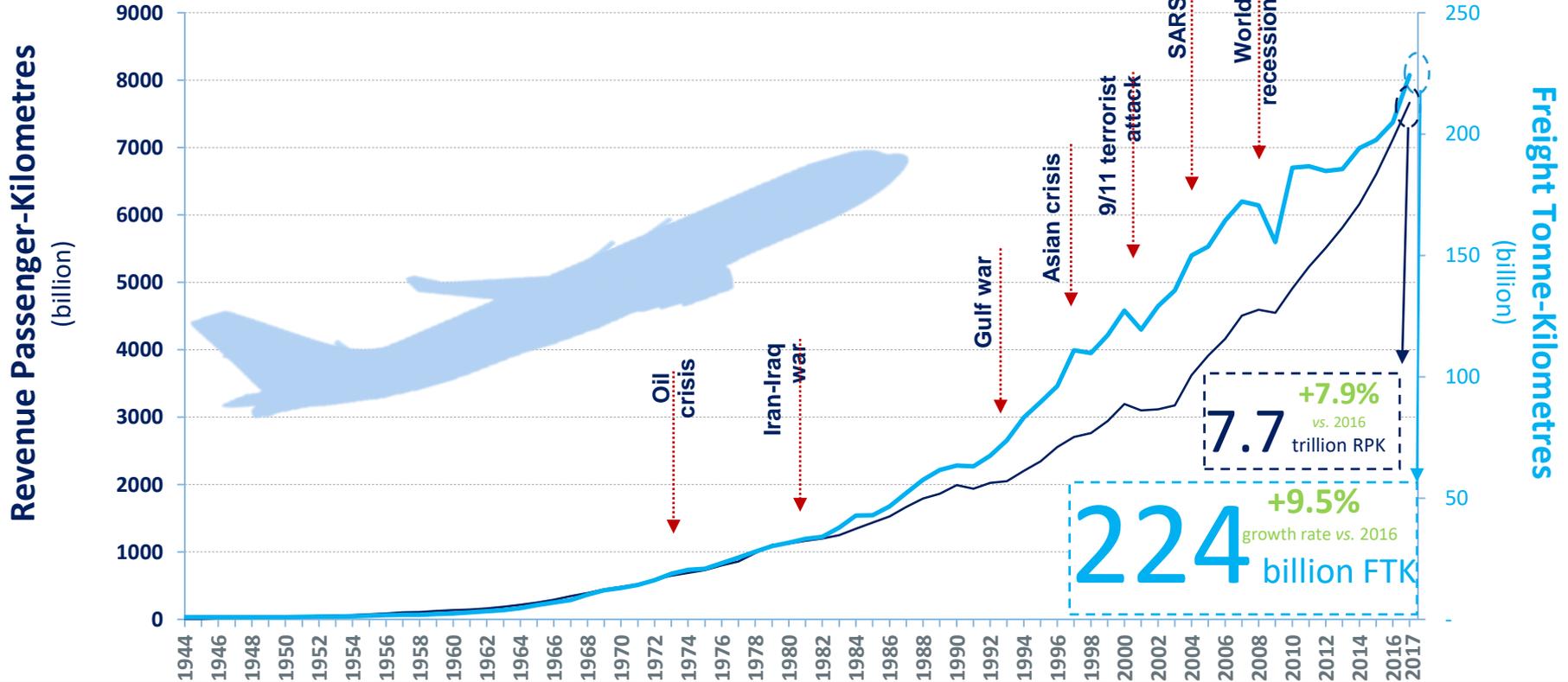


More Info: <http://gis.icao.int>



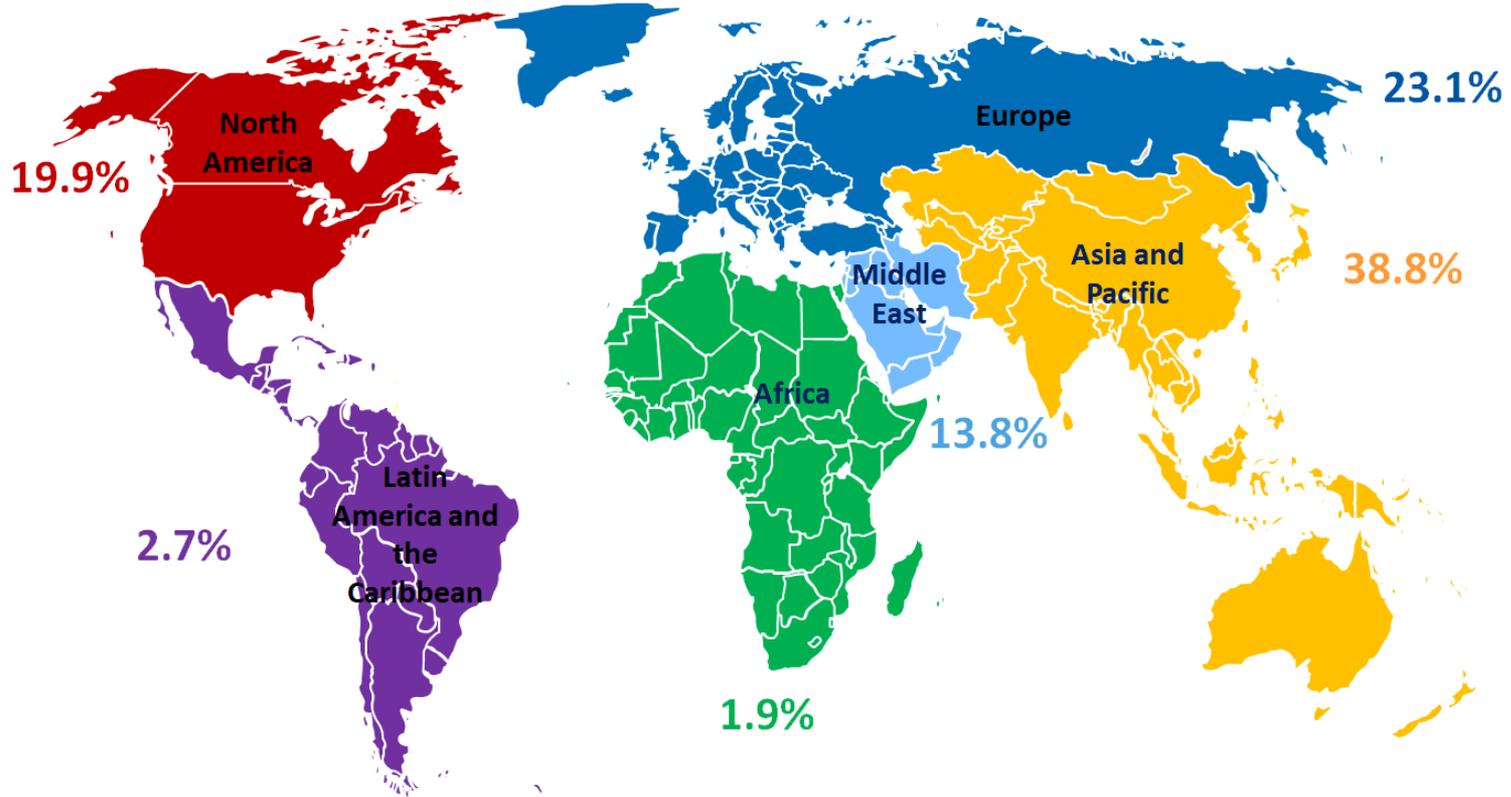


Growth of air transport in 2017



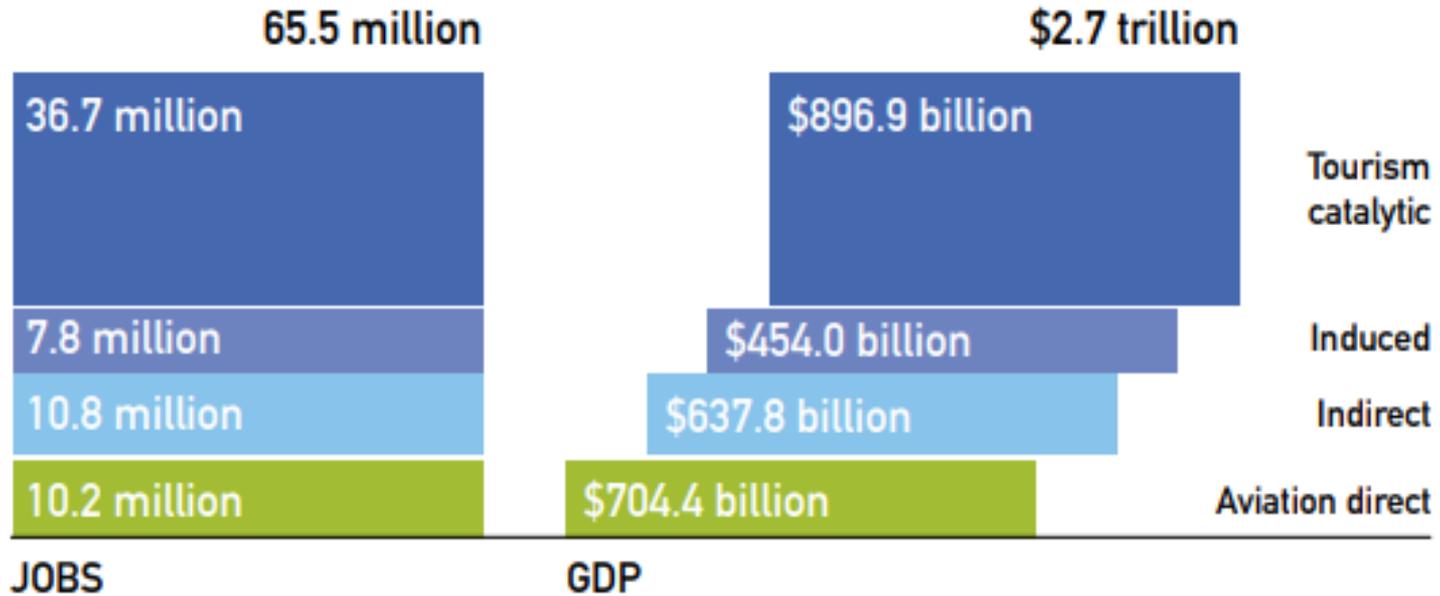


Share of Total Freight Tonne-Kilometres by region in 2017





Aviation's global employment and GDP impact, 2016



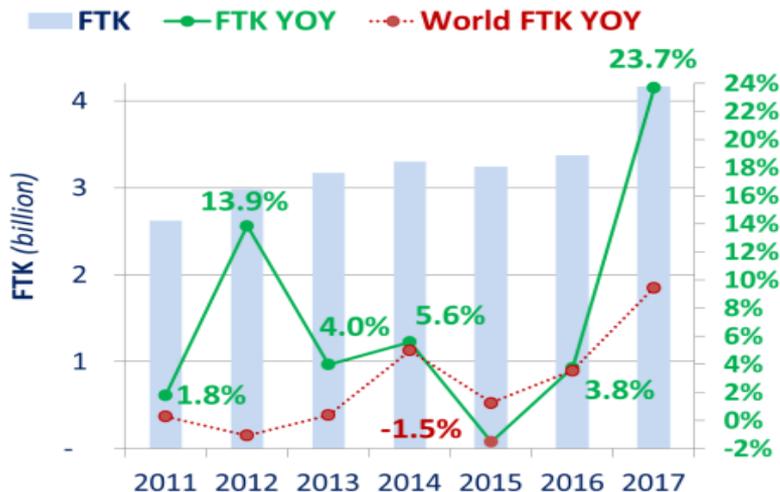


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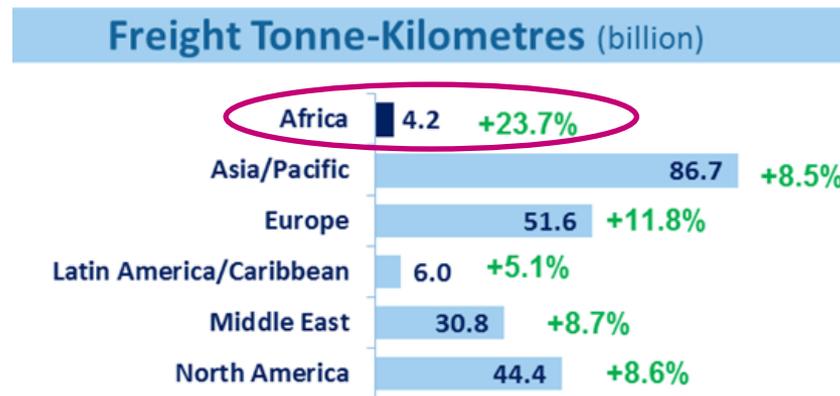
ECONOMIC DEVELOPMENT

FOCUS ON AFRICA

Cargo traffic growth of Africa vs. World 2011-2017



Cargo traffic growth of Africa vs. World in 2017



African carriers achieved the strongest freight traffic growth among all regions

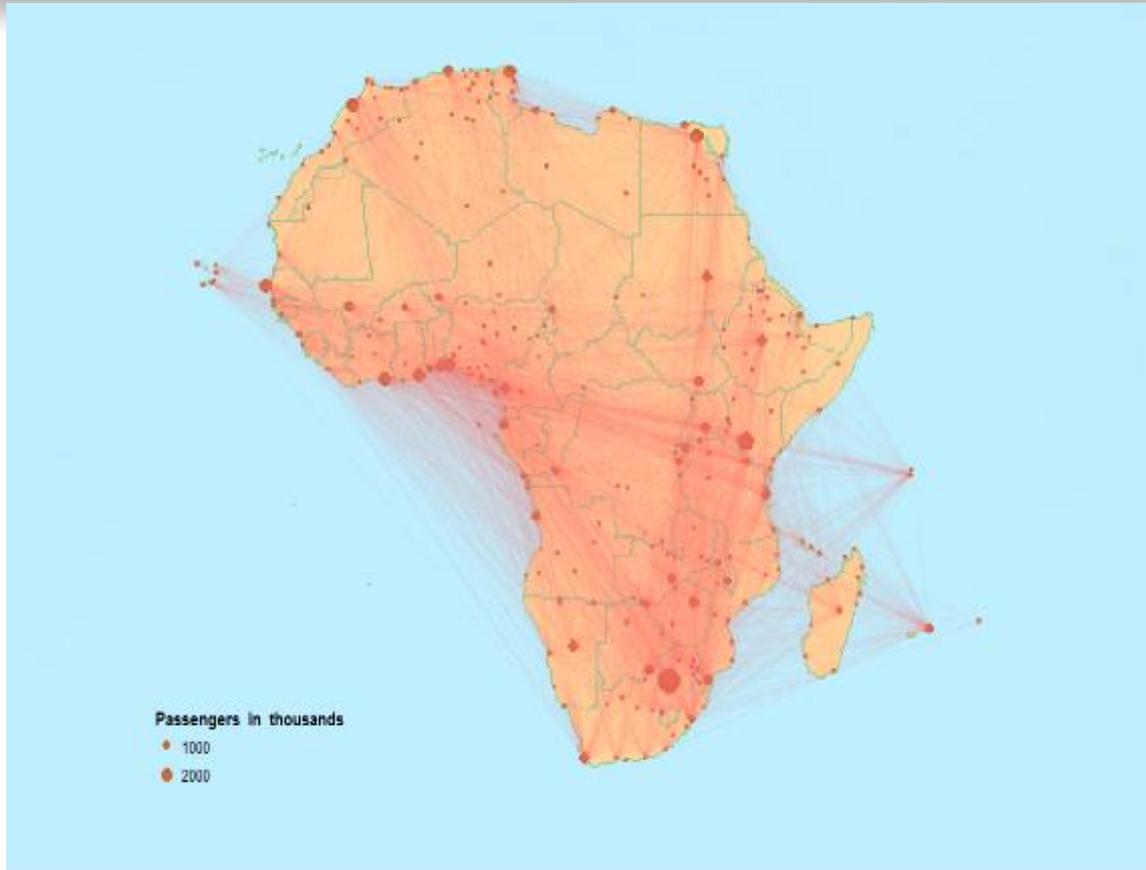


4.2 billion
+23.7%
2017 vs. 2016
freight tonne-km performed

Carriers from Ethiopia, South Africa and Egypt, together accounting for **80.2%** of freight traffic performed by African carriers

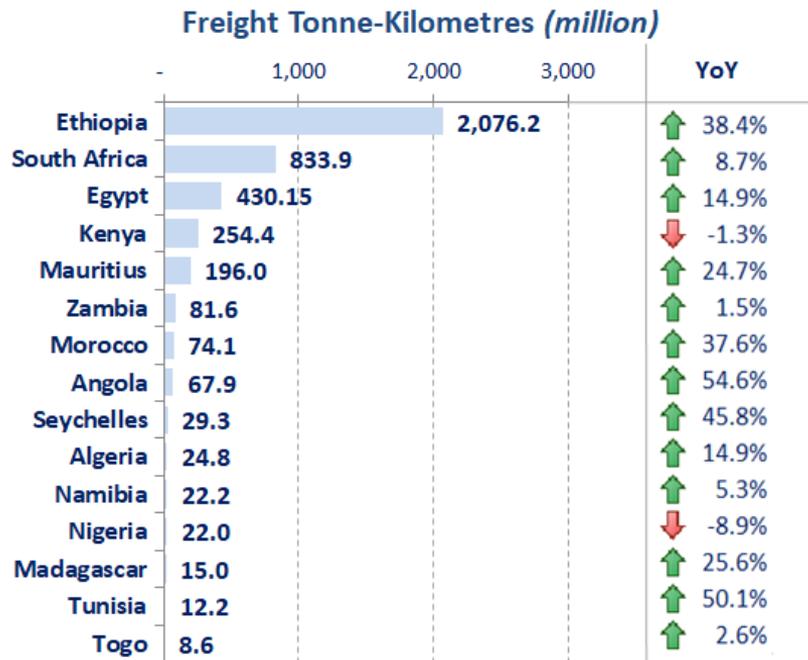
0.9 million
+15.8%
2017 vs. 2016
freight tonnes carried

Note: scheduled services, States of AOC holders

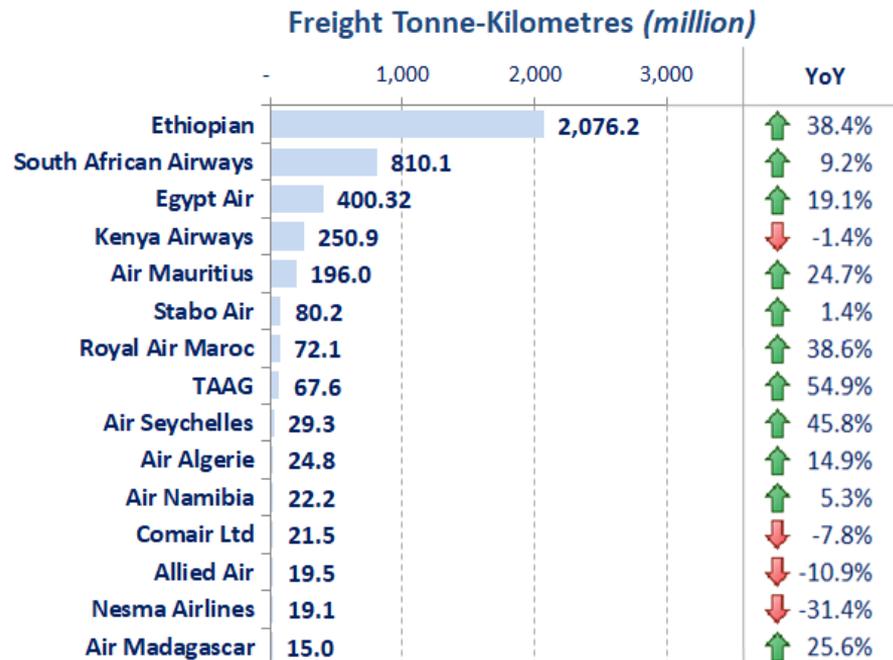


Top 15 States and carriers in Africa ranked by cargo traffic in 2017

Top 15 States in Africa by Cargo Traffic in 2017

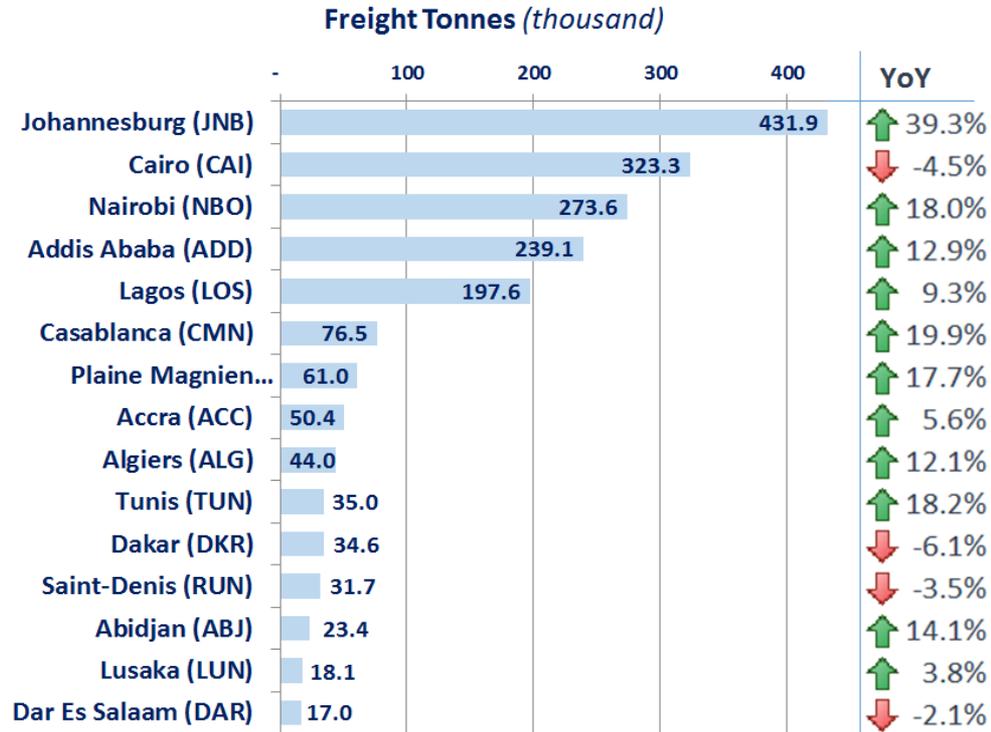


Top 15 Carriers in Africa by Cargo Traffic in 2017



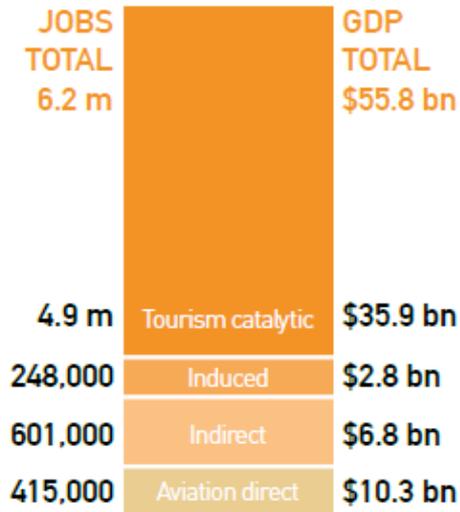


Top 15 Airports in Africa ranked by cargo traffic in 2017

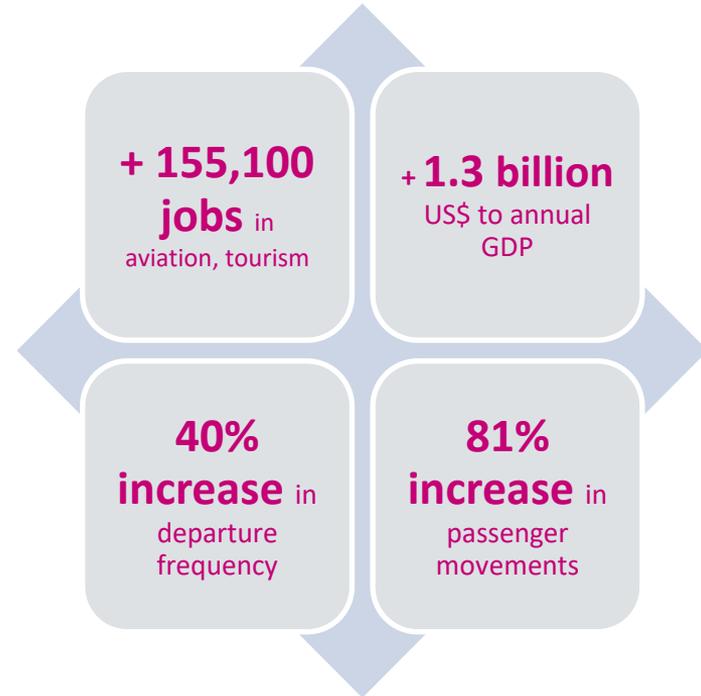


Estimated economic impact of aviation in Africa

Total jobs and GDP supported by aviation in Africa, 2016



InterVISTAS study analyzed liberalization of 12 States



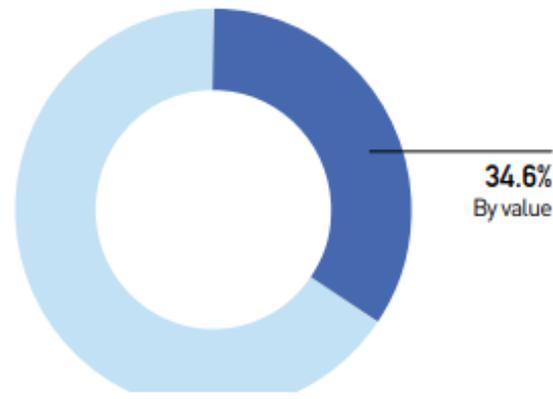
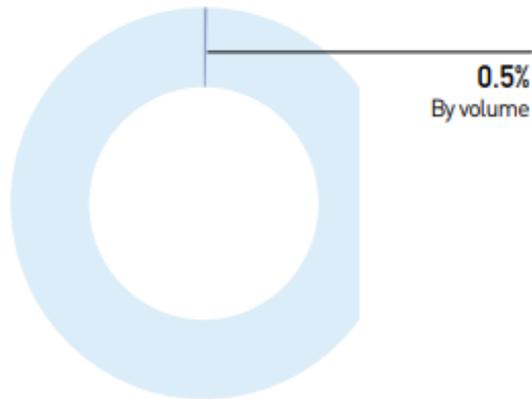


FEATURES AND BENEFITS OF AIR CARGO



- Ability to bring businesses and customers together to expand markets.
 - Especially for perishable products, a product segment which impacts the livelihoods of many millions of people today
 - Critical for landlocked, island developing countries and States exporting high-value goods or perishables
- **Speed: just in time**
 - **Quality: less en-route damage**
 - **Cost: minimize in-transit inventory expenses and avoid unplanned shortages of components**

Air freight, as a proportion of global trade, by volume and by value, 2017

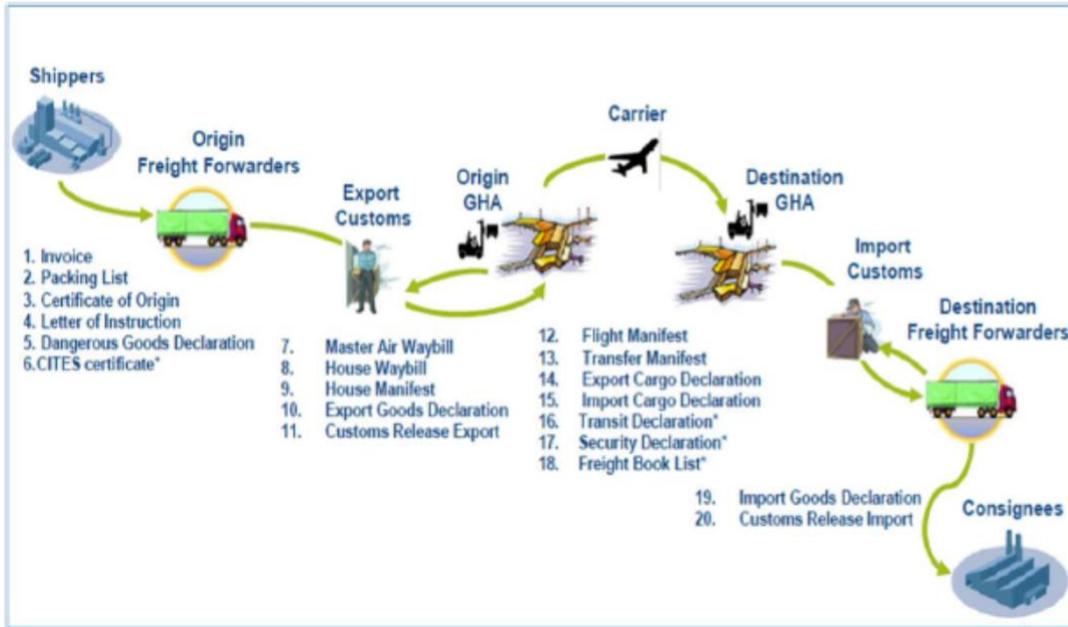


35%

Air transport carries around 35% of world trade by value and less than 1% by volume²⁵

\$6 trillion worth of goods was transported internationally by air in 2017

A Cargo supply chain





- Increasing professionalism and specialization of shipping community
- Expansion of courier and express/small package business (e-commerce)
- Expanded choice including cheap belly capacity and tightly-managed services of integrators
- Most lucrative segments captured by specialists and integrated carriers



Growth in passenger aircraft—widebody, in particular—will continue to significantly increase cargo capacity on existing passenger routes through combination services:

- Cargo load factor (in terms of combination of belly and freighter capacity) reached 51.1% in 2017 after 3 years at 47%
- 61% of the FTK are carried in the belly of passenger aircraft in 2017
- Belly hold of a 777-300ER passenger aircraft carries more cargo than traditional freighters

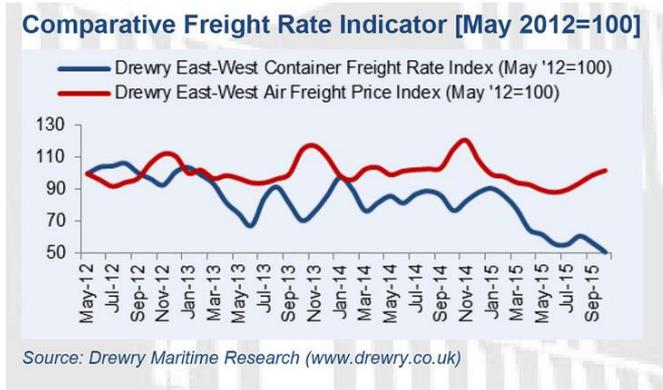


Air cargo operators face many constraints

- A bilateral regimes focusing on passenger and combination services
- Operational restrictions such as:
 - night curfews
 - limited ground-handling rights
 - burdensome customs requirements
 - national ownership and control requirements and access to capital
- More constraining security measures

**Operational requirements different from passenger service needs
more flexibility in operational and commercial freedoms**

Intermodal competition



Competitions from Other Modes of Transportation

- Air cargo carriers and liner shipping carriers transport similar commodities and the price gap between sea freight and air freight makes shippers switch from air to ocean
- Railway transportation is gaining more market share. Rail freight makes a 17-day rail journey from China to Europe, at a lower fare than air freight



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E-COMMERCE DEVELOPMENT



Cross-border e-Commerce is characterized as follows

- online ordering, sale, communication and, if applicable, payment
- Cross-border transactions/shipments
- Physical (tangible) goods
- Destined to consumer/buyer (commercial and non-commercial)

(World Customs Organization, WCO)

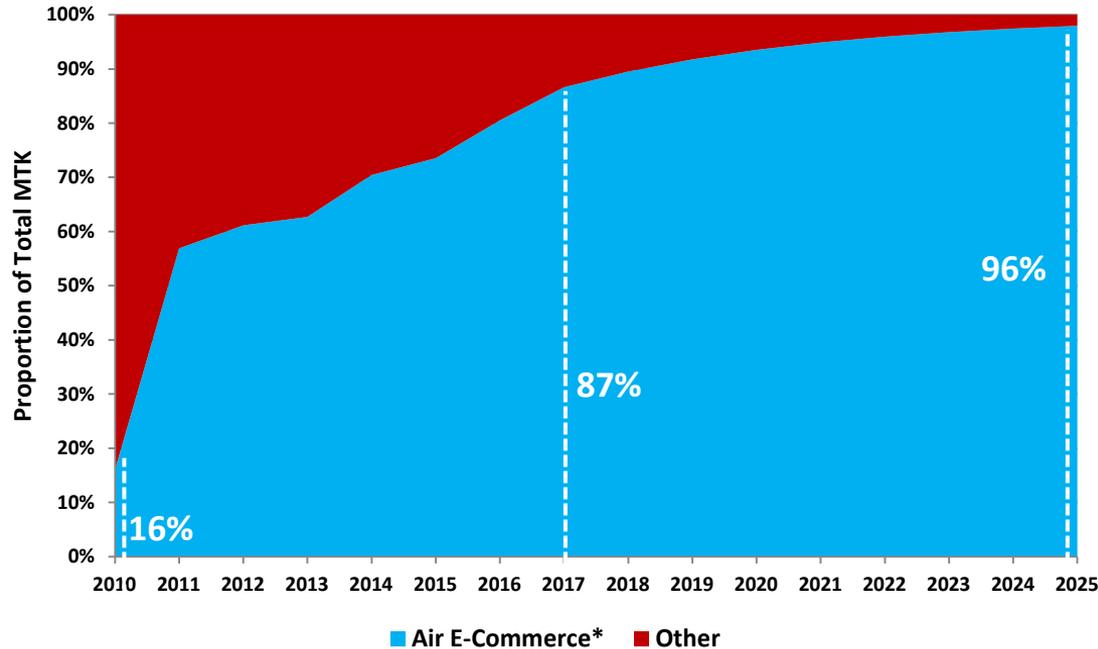
Electronic commerce (e-commerce) refers to “the production, advertising, sale and distribution of products via telecommunications networks” (World Trade Organization, WTO)

Electronic shopping (e-shopping) refers to “the advertising, sales, payment and delivery of products and services via the Internet, covering the whole supply chain from the seller to the buyer” (Universal Postal Union, UPU)

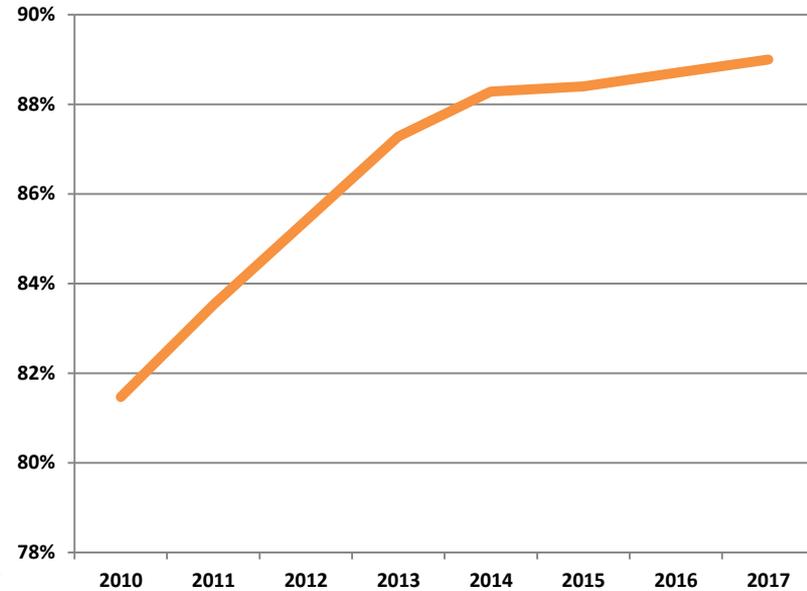


E-commerce development continued in 2017

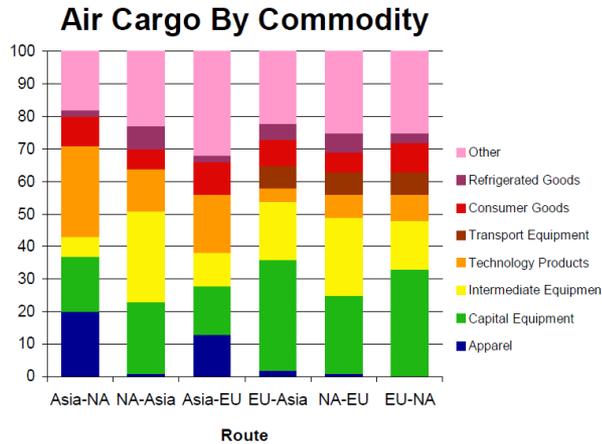
International Mail Tonnes Kilometres (MTK) breakdown



Percentage of E-Commerce Parcels by Air (Two Ways, Percentage Carried by Air)



- E-commerce share of MTKs grew from 16% to 87% between 2010 and 2017 and is estimated to grow to 96% by 2025



Source: World Bank

Aggregated Tonnage of Postal Shipments (in million)

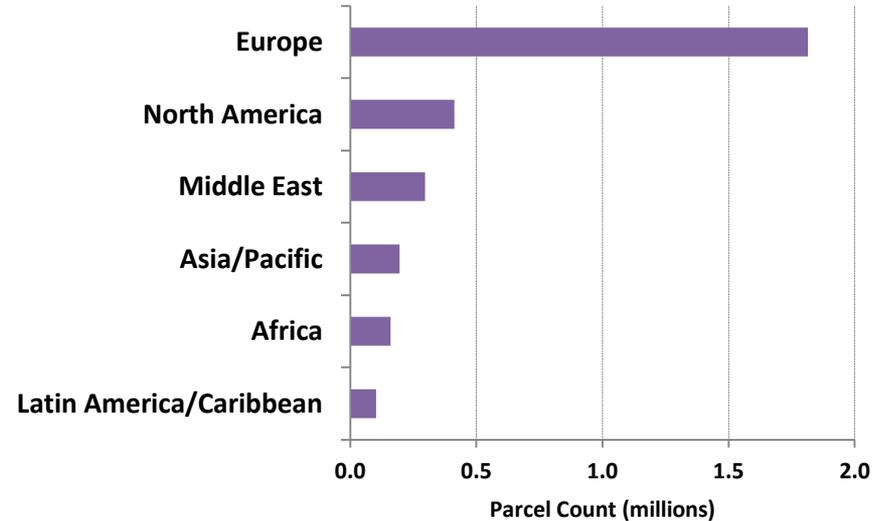
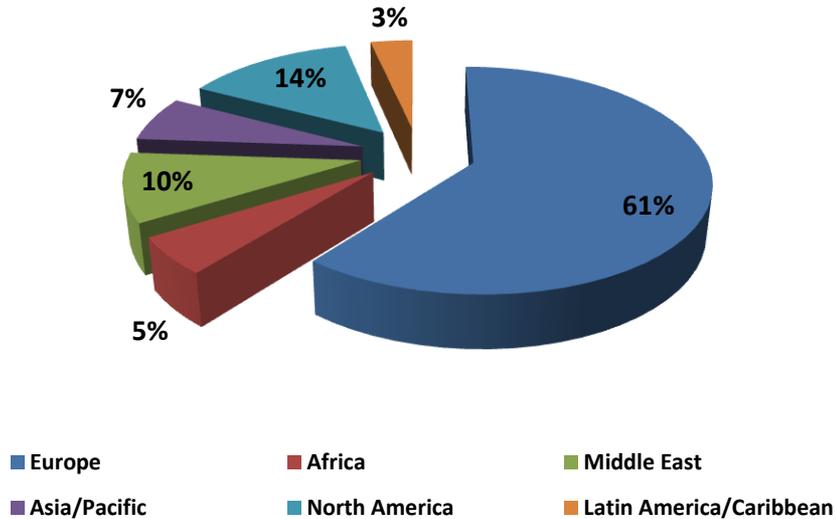
	total	letter-post	parcel-post	EMS
2013	458	163	168	126
2014	567	214	189	164
2015	656	218	220	218
2015/14	15.8%	2.2%	16.6%	32.8%
2014/13	23.8%	31.0%	12.1%	30.3%

Source: UPU Data on Postal Shipments

ICAO is cooperating with UPU and UNCTAD to share big data and research reports on e-commerce

- 2/3 of international postal transportation is by air
- Global B2C e-commerce sales hit \$1.5 trillion in 2015
- Double-digit annual growth in the e-commerce market
- High frequencies of E-commerce transactions may improve the load factors of air cargo carriers

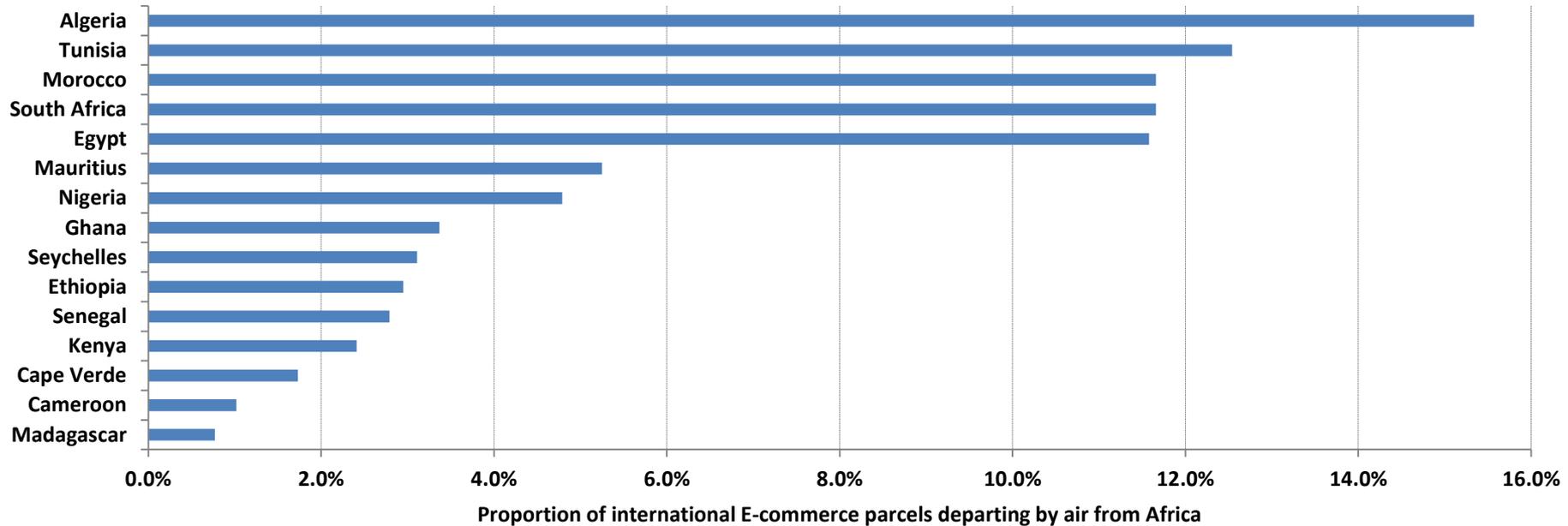
B2C E-Commerce Parcels Departing from Africa by Destination Regions (One Way, 2016, Carried by Air)



- Total B2C E-Commerce Parcels Departing from Africa by Air : 3 millions

Top 15 origin countries of e-com parcels by air from Africa

Share of International E-Commerce Parcels Departing by Air from Africa (One Way, 2016, Top15 Countries)





REGULATORY FRAMEWORK



- **Safety**
 - Annex 18 (Safe Transport of Dangerous Goods by Air)
- **Security and facilitation**
 - Annex 17 (Aviation Security)
 - Annex 9 (Facilitation)
- **Economic policy and regulation**
 - Policy and Guidance Material on Economic Regulation (Doc 9587)
 - Manual on Regulation of International Air Transport (Doc 9626)
- **International Convention**
 - Montreal Convention of 1999
 - Cape Town Convention and Protocol
- **E-commerce**
 - WCO Luxor Resolution on Cross-Border E-Commerce (2017)
 - WCO Cross-Border E-Commerce Framework of Standards (2018)



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Security and facilitation



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SECURITY & FACILITATION



WORLD CUSTOMS ORGANIZATION

Moving Air Cargo Globally

Air Cargo and Mail Secure Supply Chain
and Facilitation Guidelines



Second Edition

Introduction

Aviation security measures are necessary to safeguard international civil aviation against acts of unlawful interference. Previous attacks on civil aviation committed or attempted by concealing improvised explosive or incendiary devices in consignments demonstrate that it is essential to remain vigilant and apply measures that secure air cargo and mail.

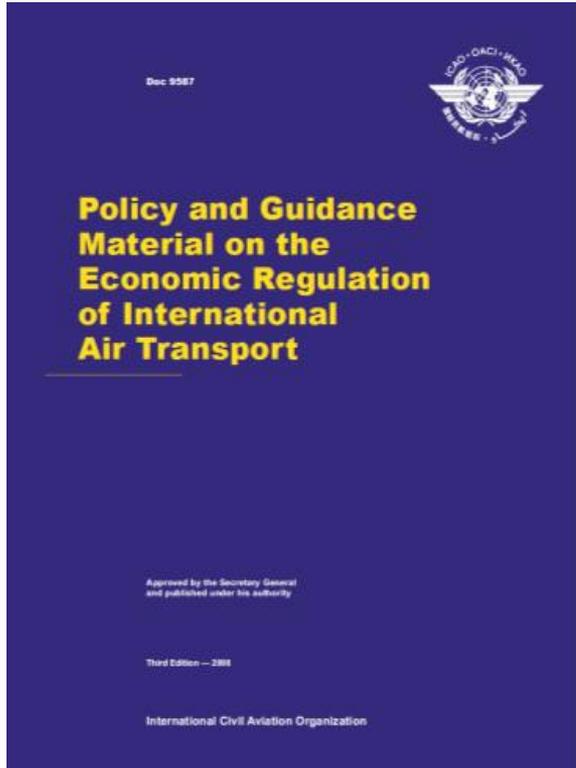
Vulnerabilities in cargo and mail security can provide terrorists and criminals with a route of attack. There are two main threats: placement and/or concealment of an improvised explosive or incendiary device in consignments to be loaded on an aircraft, and seizure of a commercial aircraft which is then used as a weapon of mass destruction.

The highly complex nature of the air cargo and mail operating environment, involving a multiplicity of entities, adds to the difficulties of countering threats. This publication identifies the roles and responsibilities of these various entities and highlights how they can work together effectively to secure air cargo and mail within the regulatory framework.

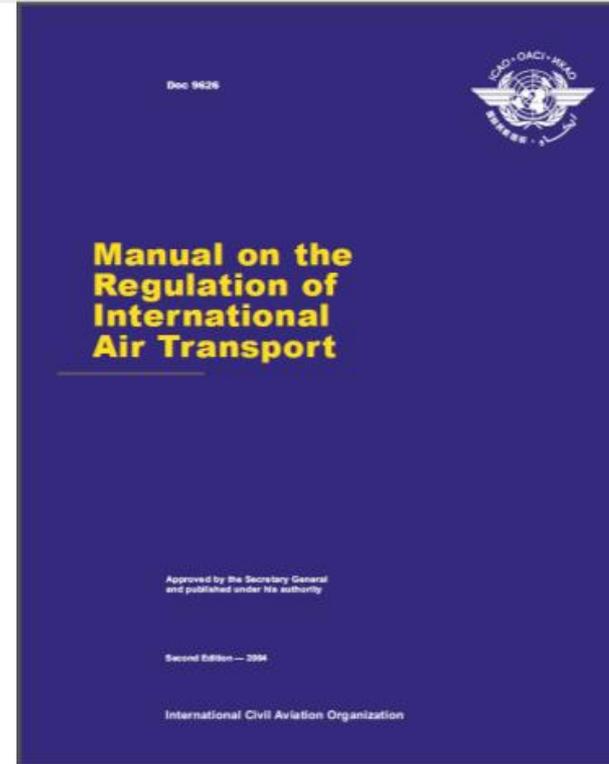
Moving Air Cargo Globally is destined for a broad audience and for information only. It is neither a legally binding document, nor does it constitute a manual, standards or guidelines.

For the purposes of this publication, the term "air cargo" is understood to include mail.

<https://www.icao.int/Security/aircargo/Moving%20Air%20Cargo%20Globally/Forms/AllItems.aspx>

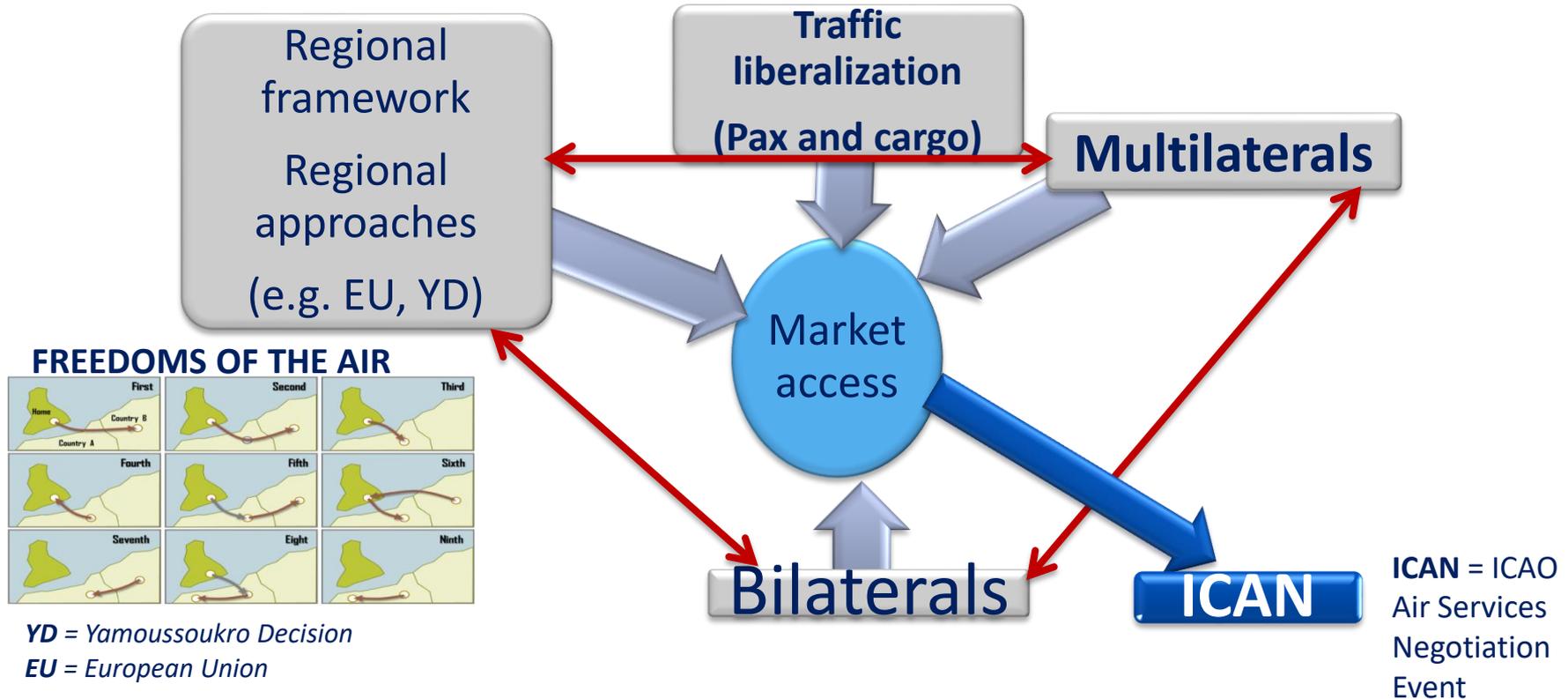


Doc 9587



Doc 9626

Market Access: Supporting regulatory framework





Assembly Resolution A39-15 requests the Council to:

Develop a specific international agreement to facilitate the further liberalization of air cargo services



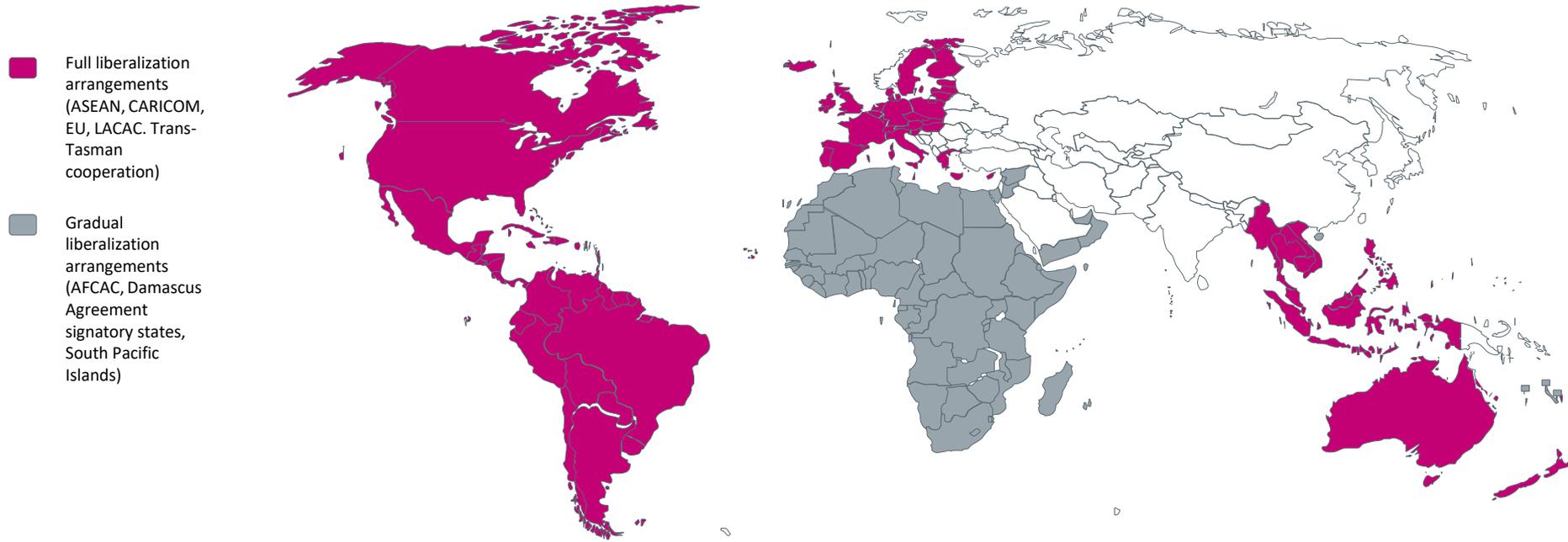
ICAO Long-term Vision for Liberalization

(Assembly Resolution A39-15)

“We, the Member States of the International Civil Aviation Organization, resolve to actively pursue the continuous liberalization of international air transport to the benefit of all stakeholders and the economy at large.

We will be guided by the need to ensure respect for the highest levels of safety and security and the principle of fair and equal opportunity for all States and their stakeholders”.

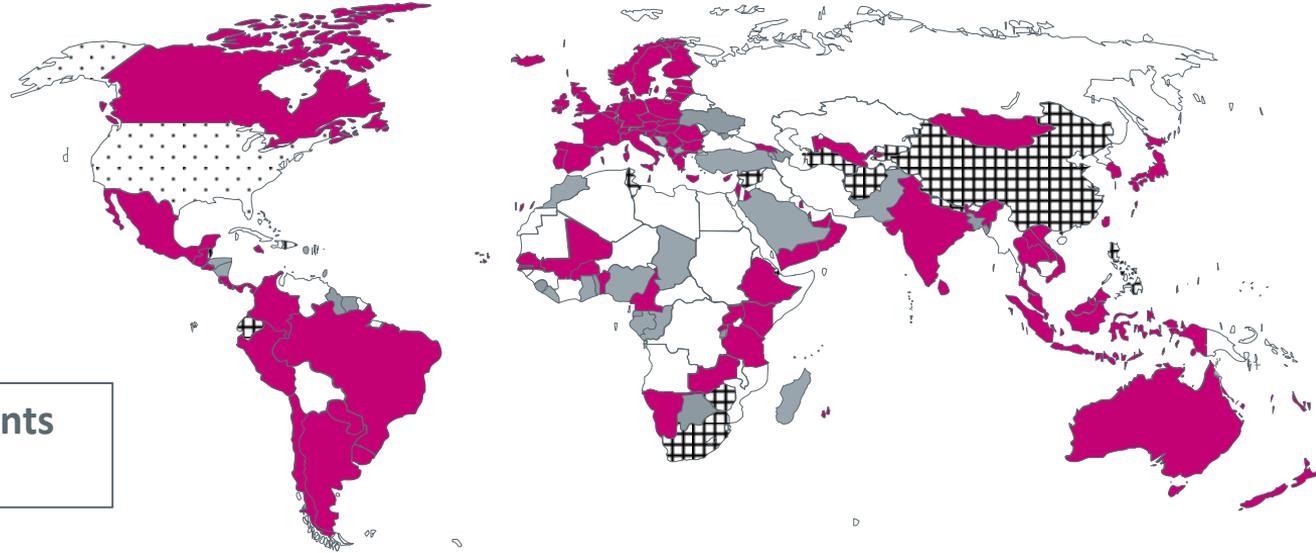
Regional Liberalization: Most world regions have liberalization programs



Bilateral Open Skies (as of June 2018)

-  States which signed open skies agreements with both the US and third countries*
-  States which signed open skies agreements with the US only
-  States which signed open skies agreements with the third countries only

**~300+ Open Skies Agreements
involving 163 States**



*open skies agreement for *all-cargo only* for Argentina, Mongolia, Vietnam



- Montreal Convention of 1999
 - Provide the legal basis for the use of electronic transport documents, allowing to replace paper documents of carriage, such as Air Waybills, with electronic versions
- Protocol to the Convention on International Interests in Mobile Equipment (Cape Town Convention) on Matters Specific to Aircraft Equipment
 - Standardize transactions to facilitate the financing of the acquisition and leasing of aircraft, promoting the granting of credit for the acquisition of more modern, fuel-efficient aircraft



ICAO assistance for implementing State/Regional Action Plans, derived from:

Lomé, Togo

5 to 7 August 2014

**Declaration and
Action Plan on the
Development of Air
Cargo in Africa**

Addis Ababa, Ethiopia

27 to 29 June 2017

**Roadmap for the Implementation
of the Lomé Declaration and
Action Plan on the Development
of Air Cargo in Africa**



New Kenya-US route expected to boost trade by 25pc

Saturday October 27 2018 East African

- The direct flights are expected to help grow trade ties and volumes between Kenya and the US thereby augmenting efforts by government to reduce the existing trade imbalance in favour of the US.
- According to trade statistics from the US Census Bureau, aggregate trade between US and Kenya in 2017 amounted to Ksh102.2 billion (\$1 billion), with US exports to Kenya totalling Ksh57.2 billion (\$572 million) while Kenya's exports to the US amounted to Ksh45 billion (\$450 million).
- With the Nairobi-New York direct flights, the flow of goods and services between the two countries is expected to increase by nearly 25 per cent per year.
- More importantly, Kenya has the opportunity to increase access of its goods to the American market and reap the benefits of African Growth Opportunity Act, which accords duty-free exports for selected products.
- As trade grows, there will be more foreign exchange earnings and technological transfer that will create jobs.



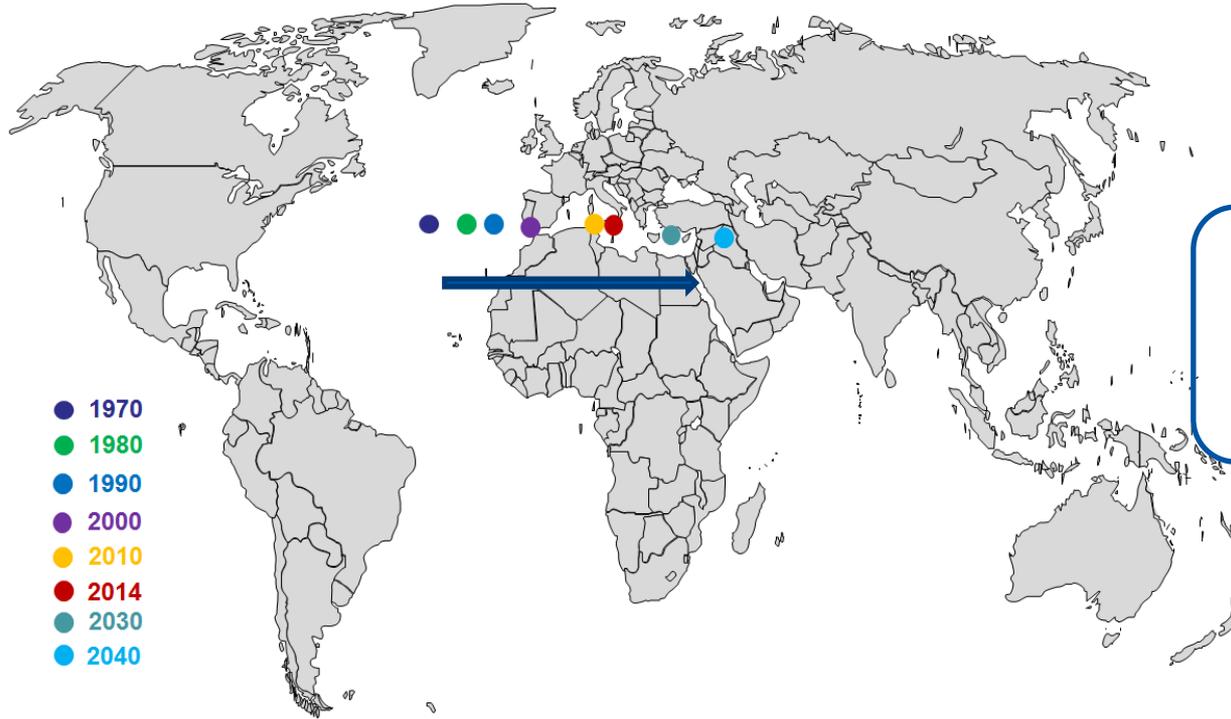
FUTURE OF AIR CARGO



Projected* Annual Growth of Cargo Traffic (in FTK)

LTF Region	2015-2035 CAGR
Africa	3.8%
Asia and Pacific	4.3%
Europe	2.7%
Latin America and Caribbean	1.6%
Middle East	5.7%
North America	2.8%

2015-2035 CAGR
Global Passenger traffic (RPK): +4.3 %
Global Cargo traffic (FTK): +3.9%



The centre of gravity has been steadily moving from the middle of North Atlantic to the middle of the Mediterranean sea in the last four decades. It is expected to move further east by 2040.

Geographical centre of gravity of departing/arriving passengers

Future of air cargo Big Online Retailers? Drones ?



Amazon:

E-commerce giant Amazon has signed up to lease 40 freighters, 20 from Atlas Air Worldwide Holdings and another 20 from ATSG. Amazon also registered a company in the U.S. as a non-vessel operating common carrier (NVOCC), which turned Amazon into a freight forwarder.

Alibaba:

Alibaba's logistics arm, Cainiao Logistics, helped Alibaba rake in a staggering US\$14.3 billion in a 24-hour period on 2015 "Singles Day"!



- **Amazon** announced its drone delivery program "Amazon Prime Air" since December 2013. Amazon has developed drones weighs less than 55 pounds and can carry up to a 5-pound payload.
- UAV (Unmanned Aerial Vehicle) manufacturer **Matternet**, announced its partnership with Swiss WorldCargo and Swiss Post on a project to test its drone aircraft as an automated cargo delivery system for small express packages.
- China's **S.F. Express** has revealed it already has a fleet of aircraft flying 500 parcels a day to remote areas, and it is now looking to double the capacity..
- Chinese online retailer **JD.com** has also tested drone deliveries to the remote countryside.



WAY FORWARD



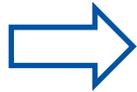
Focus Areas for Economic Development of Air Transport

Lower impediments to air transport operations

Increased use of aviation as a development tool

Improved data, analysis and forecasting

**Lower impediments
to air transport
operations**



Aspirational Goal 1

Access to air transport for all people, to move at minimum time, with maximum satisfaction and minimum costs

Enablers:

- Globally harmonized air transport regulatory framework in line with the ICAO Long-Term Vision for International Air Transport Liberalization
- Good regulatory practices and governance, i.e. the institutional, regulatory, and policy frameworks in which air transport is designed, implemented and managed



Increased use of
aviation as a
development tool



Aspirational Goal 2

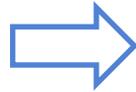
No constraints of infrastructure, capacity,
technology and financial resources for aviation
development

Enablers:

- National and/or regional economic development programmes and plans incorporating the development and modernization of quality aviation infrastructure
- Pragmatic measures to build a transparent, stable and predictable investment climate



Improved data,
analysis and
forecasting



Aspirational Goal 3

Full transparency in air transport with the
availability of necessary information for data-
driven decision- and policy-making

Enablers:

- Framework to enhance regulatory transparency and openness
- Data science to extract knowledge and insights from big data (an umbrella term for the explosion in the quantity and diversity of high frequency digital data)

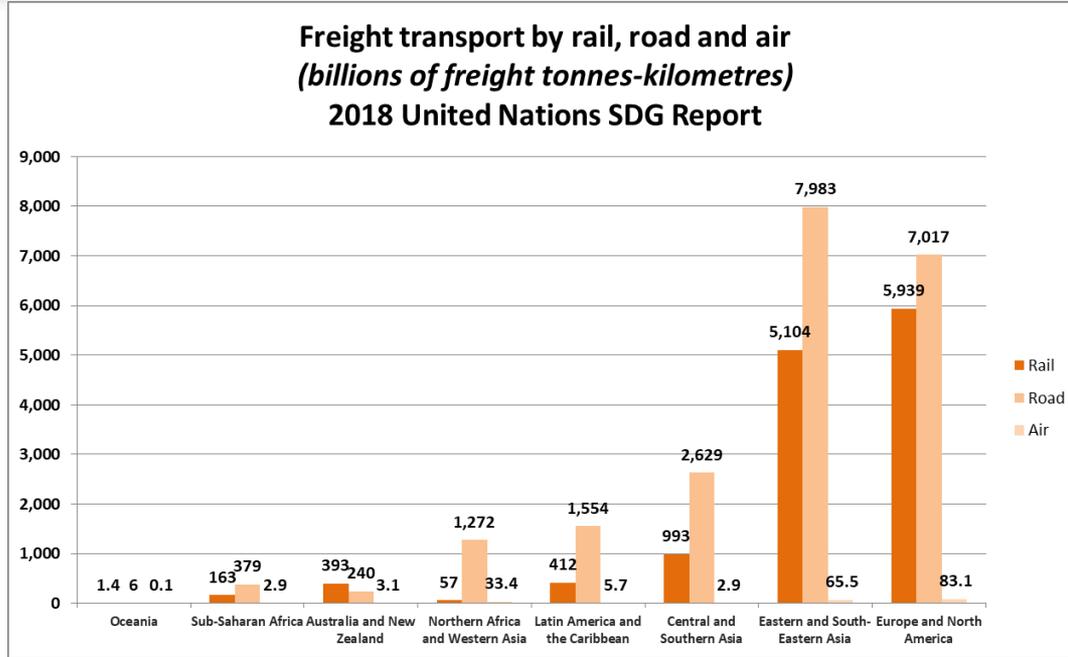


- Enhance efficiency and modernization of air cargo for world trade exchanges
- Promote facilitation of trade and movement of goods by air
- Safeguard reliability of air transport mode by offering a high level of security within the supply chain
- Ensure skilled/ trained professionals adequate to the growth of capabilities of the technology

International cooperation: key for successful implementation



Sustainable Development Goals (SDGs)



ICAO is working within the UN SDGs framework on improving inter-modality of freight operations and enhancing efficiencies through development of cross-border infrastructure



ICAO is a **custodial agency** responsible for the global indicator (passenger and freight volumes by mode of transport) of the **SDG target 9.1** – *Develop quality, reliable, sustainable and resilient infrastructure with a focus on affordable and equitable access for all.*



谢谢 Xie Xie
Thank You
شكرا, Shukran
Merci
Gracias
Спасибо, Spasiba