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AFTER COVID: NEW CARGO REVENUE AND DEVELOPMENT OPPORTUNITIES FOR AIRPORTS

ACI-NA Air Cargo Committee
Industry Issues Working Group
20 May 2021

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Chicago Department of Aviation
Air Cargo Committee Chair



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Air Cargo Facilities Manager
Seattle-Tacoma International Airport / Port of Seattle
Air Cargo Committee - Industry Working Group Chair

OUR MODERATOR



Eli Gregory

Head of Airport Investment & Development
Aviation Facilities Company

Moderator

Mr. Eli Gregory is responsible for leading Aviation Facilities Company's (AFCO) on-airport investment and development efforts. With over 15 years of experience in the real asset private equity space and eight years focused on transportation-oriented infrastructure. He has led investments in North America and Europe and been involved in numerous developments and financings of on-airport infrastructure.

DISCUSSION INITIATION AND INTRODUCTION

- Airports across the continent were hit hard during the pandemic
 - Passenger volumes plummeted (along with their belly cargo)
 - Air Cargo's importance to our economic continuity was highlighted
- Airports of all sizes and kinds took notice
 - Arising opportunities from this silver lining in airport activity
- Opportunities are diverse
 - More ramp space for freighter operations
 - Specialized cargo facilities development more space (e.g., cool storage, e-commerce processing)
 - Attracting increased cargo airline service and facility development (airport plans to raise their cargo profile moving forward).
- Key for all airports is to balance the strategic implications that work best for them and their cities during this challenging time.

TODAY'S PANELISTS



Karlen Beitman

Mountain States National
Manager
CBRE



Katrin Gist

National Lead, Airport
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Ken Ryan

Director of Cargo
Chicago Rockford International
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THE PANEL'S WORLD FINANCIAL REPRESENTATIVE



Philippe Villard

Senior Director, Policies and Economics
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Mr. Villard is the Senior Director for Policy & Economics for Airports Council International (ACI) World. Promoting Policy & regulation, Industry affairs and Advocacy & Government Relations for ACI worldwide. ACI is the only global trade representative of the world's airports. Established in 1991, ACI represents airports interests with Governments and international organizations such as ICAO, develops standards, policies and recommended practices for airports and provides information and training opportunities to raise standards around the world.



The
voice of the
world's **airports**

Air cargo: Revenues and development opportunities

Philippe Villard

Senior Director, Policies and Economics, ACI World





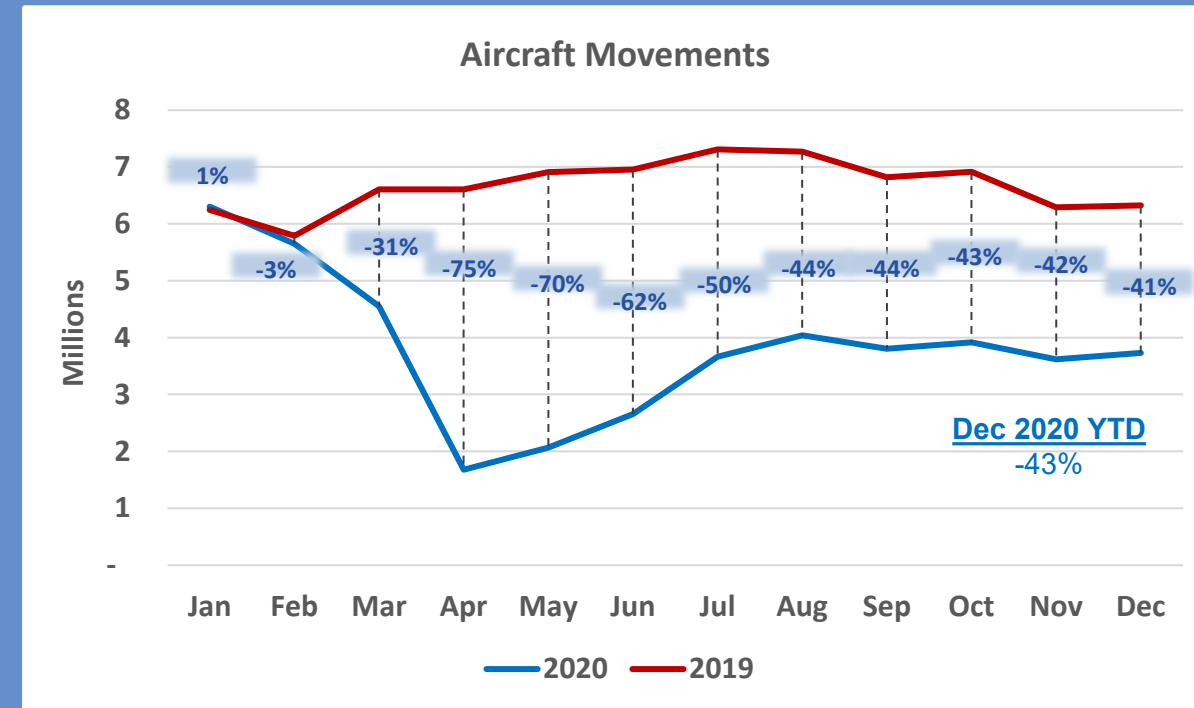
1. Traffic

Air Cargo - Multiple opposing forces

Front page stories vs Reality



Front page stories



Reality

Multiple opposing forces

A Mathematical View of Air Cargo Demand

Personal protective
equipment (PPE)



+

Online retail



+

=



“Normal” cargo volume

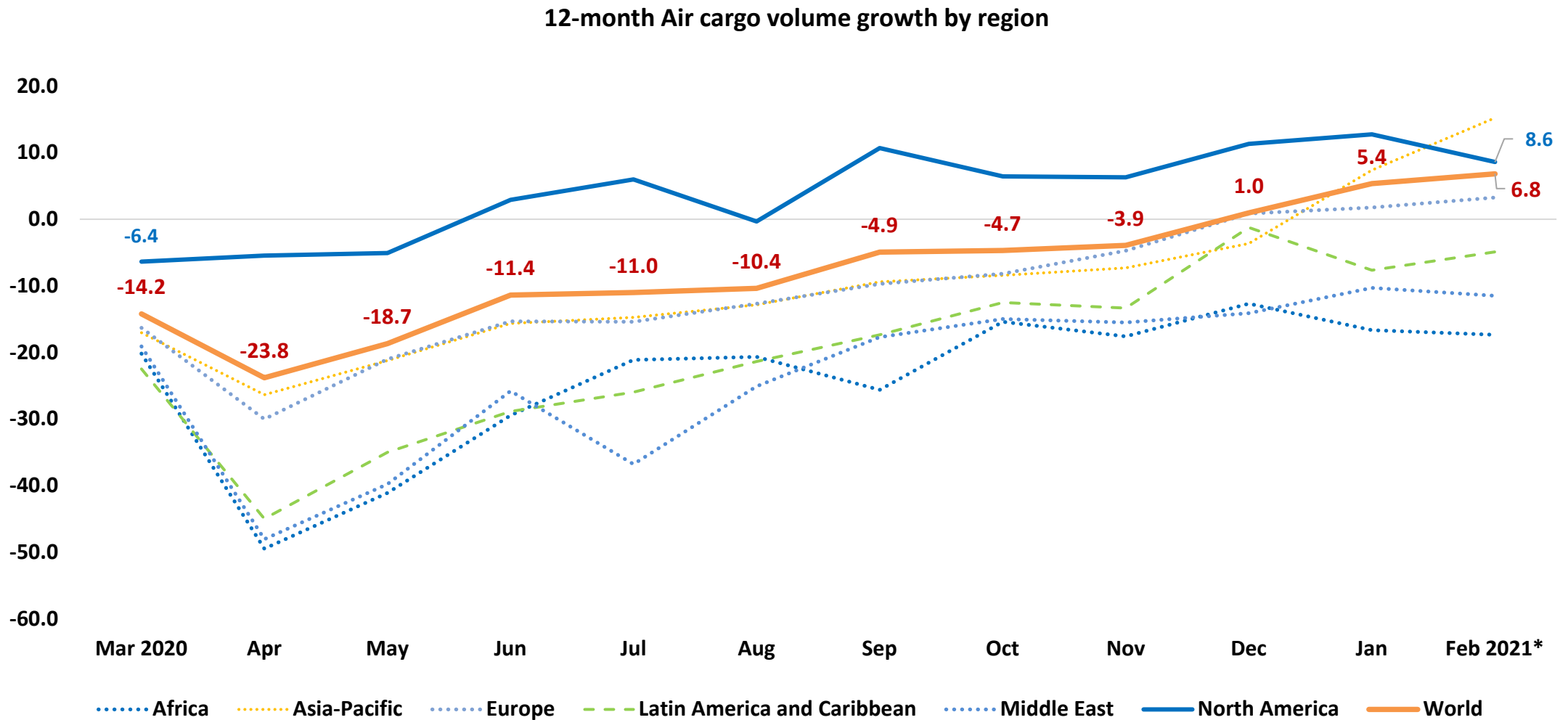
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Belly cargo capacity

2020 Air Cargo Volume

The real story

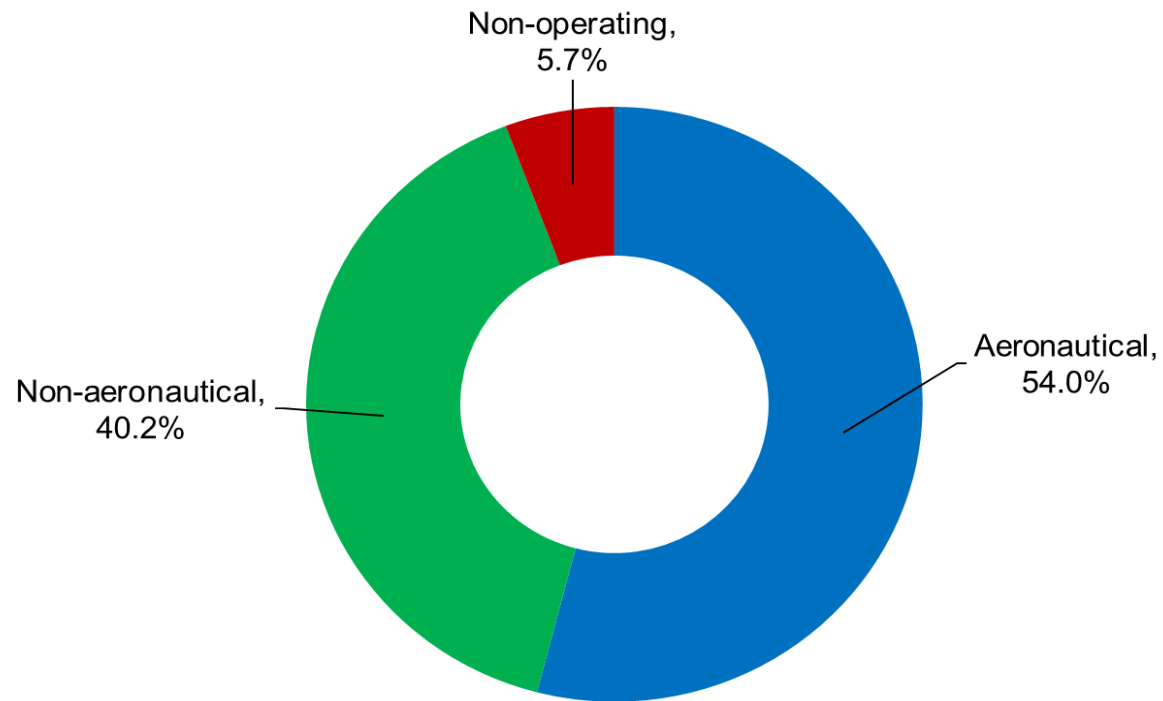


2. Revenues



Airport revenues

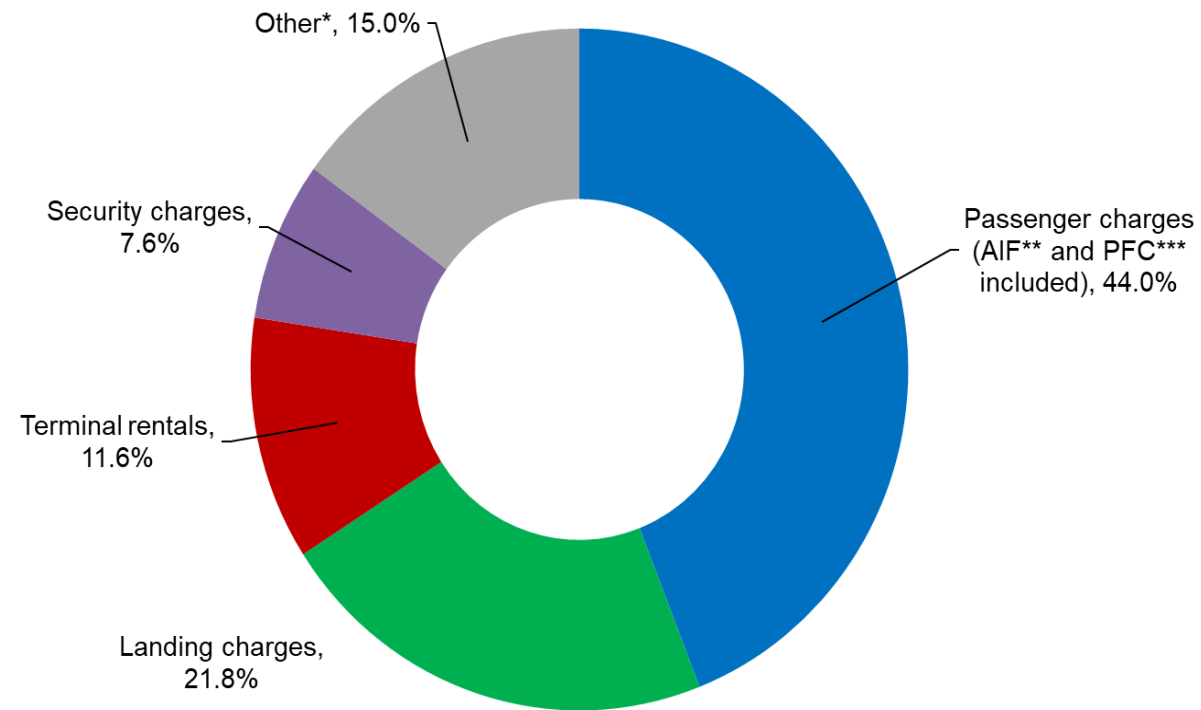
Distribution of airport revenues by key source (2019)



Source: ACI 2021 Airport Key Performance Indicators

Airport revenues

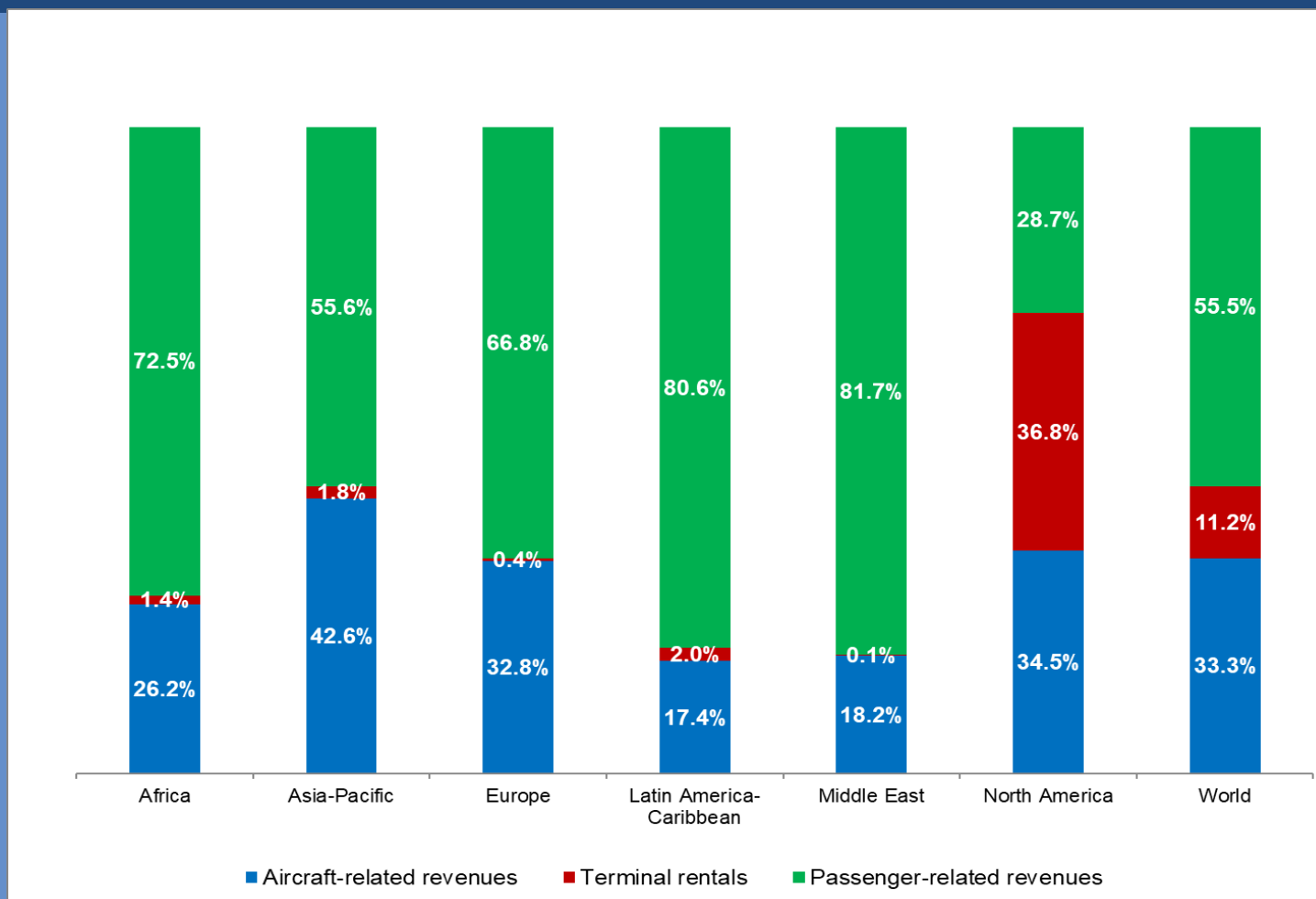
Distribution of aeronautical revenue sources (2019)



Source: ACI 2021 Airport Key Performance Indicators

Airport revenues

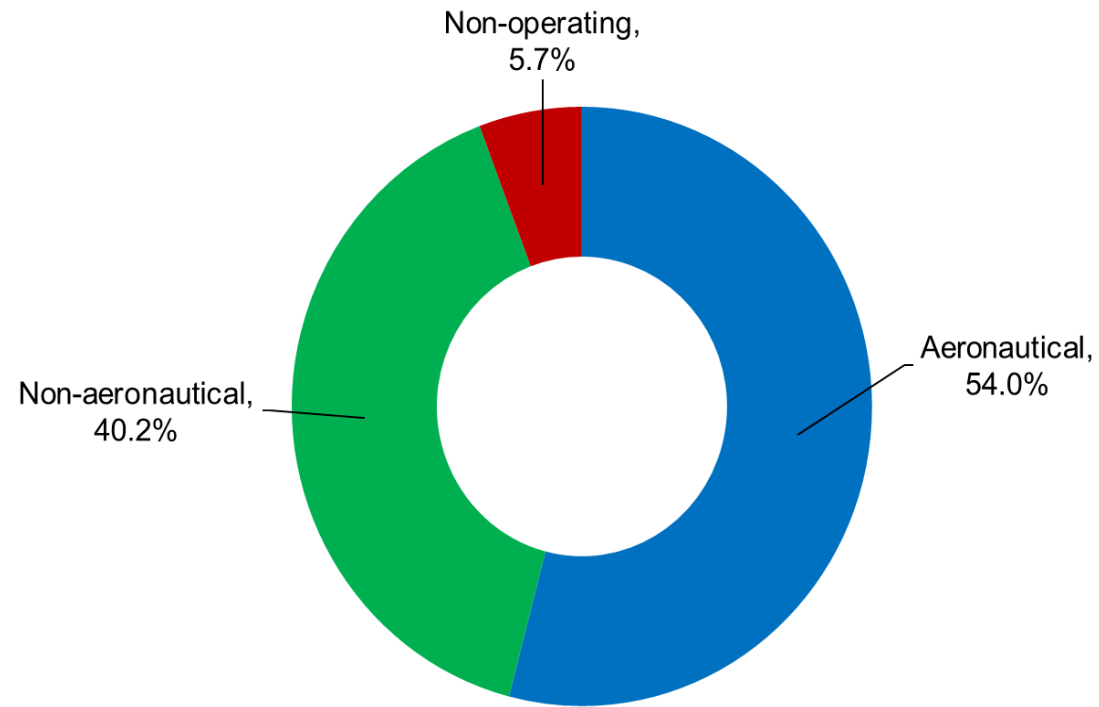
Ratio of aircraft-related to passenger-related revenues by region (2019)



Source: ACI 2021 Airport Key Performance Indicators

Airport revenues

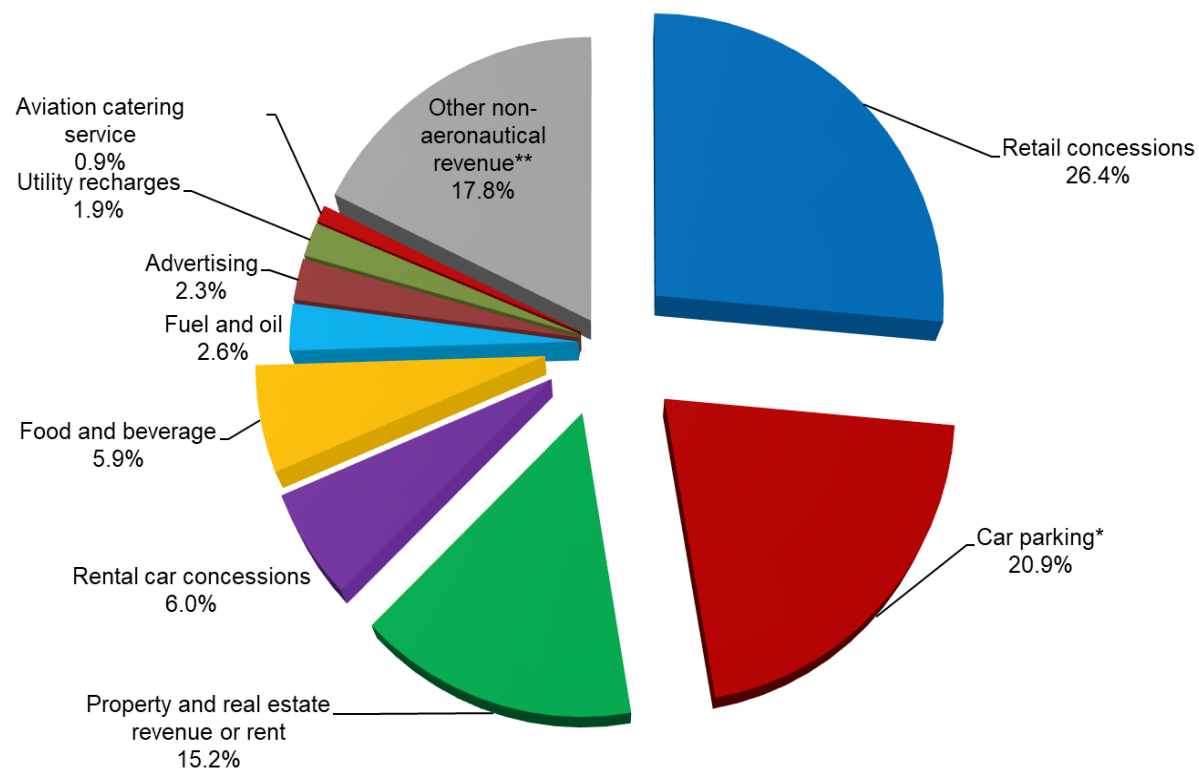
Distribution of airport revenues by key source (2019)



Source: ACI 2021 Airport Key Performance Indicators

Airport revenues

Distribution of non-aeronautical revenue by source (2019)



Source: ACI 2021 Airport Key Performance Indicators

Where are airport cargo revenues?



- In most cases: **rates and charges offered to signatory carriers apply equally** to passenger airlines and cargo airlines.
- **Cargo activities generate revenues from landing charges** from both full-freighter airlines and passenger airlines
- **Cargo airlines and/or handlers can sign direct leases** for cargo facilities and building.
- For off airport processing of cargo, airports may charge **“through the fence” charges** (e.g., for vehicles going in-and-out the airport)
- **Indirect aircraft-related and passenger revenues from all passenger airline operations that would not be profitable without belly cargo.**



ORGANISATION DE L'AVIATION
CIVILE INTERNATIONALE

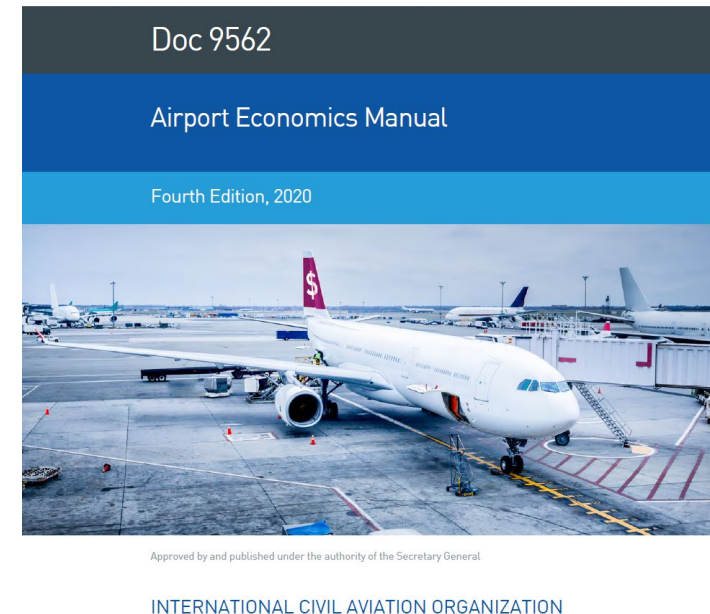
INTERNATIONAL CIVIL
AVIATION ORGANIZATION

3. Policies

ICAO's Airport Economics Manual

Doc 9562

- Definition:
 - Following the definition of landing charges, parking charges, passenger service charges, etc.:
 - Cargo charges: Cargo charges and any other charges or fees collected in respect of cargo for the use of the airport's freight-processing facilities and areas.
- Cost basis for airport charges:
 - Cargo charges:
 - Costs of cargo terminal facilities,
 - costs of security services attributable to cargo terminals (unless security services are charged for separately), and
 - costs of ground access facilities and services attributable to cargo terminal access.



ICAO's Airport Economics Manual

Doc 9562

- Individual charges:
 - Cargo charges are not levied at many airports, but they would be determined in the same manner as passenger service charges — namely, by dividing the estimated cost basis for cargo charges by the total estimated tonnage of cargo loaded and unloaded at the airport.
 - Separate international and domestic cargo charges could be levied if separate cost bases for each are developed, and if the difference in costs in relation to the volumes of international as opposed to domestic cargo justifies such separation



Doc 9562

Airport Economics Manual

Fourth Edition, 2020

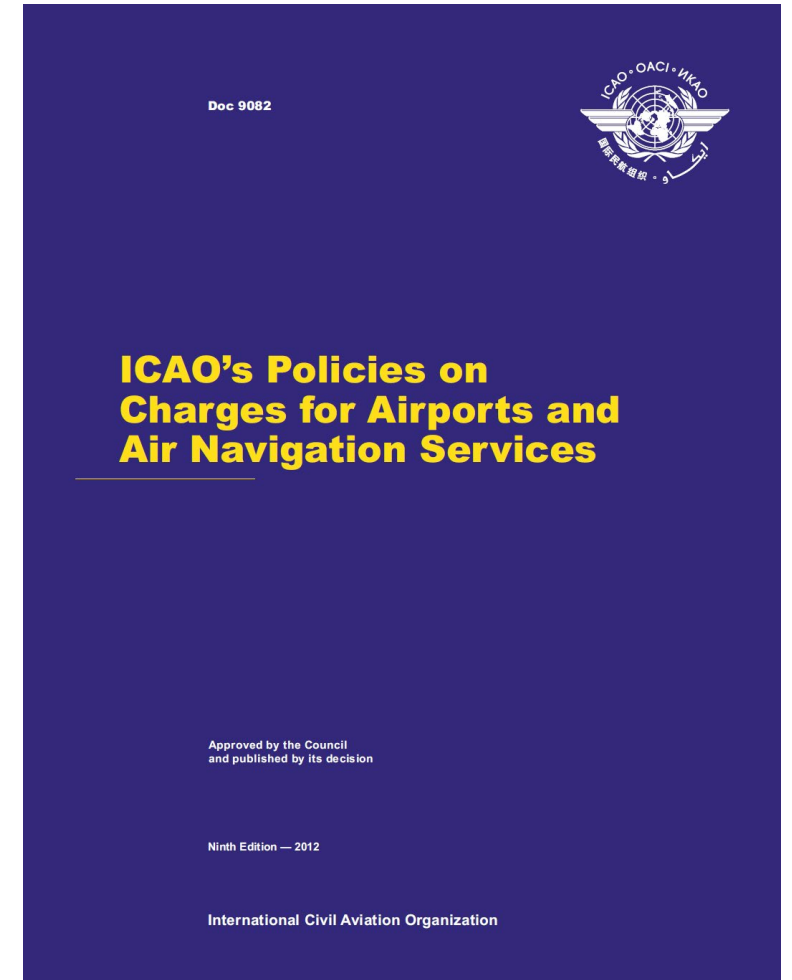
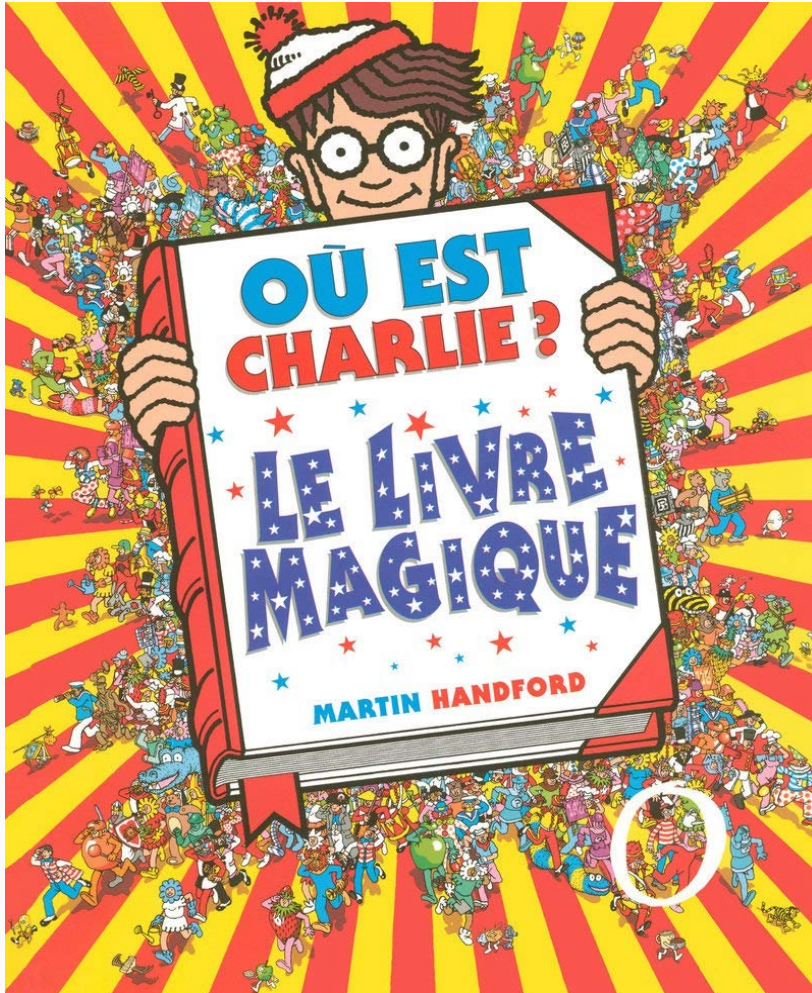


Approved by and published under the authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATION

ICAO's Policies on Airport Charges

Doc 9082





4. Conclusions

The way forward

New Revenue and Development Opportunities for Airports

1. Airport cargo revenue generation:
 1. A lifeline in the crisis
 2. But not a life savior.
2. Airport operators do generate cargo revenues
 1. Revenue is often hidden in more generic charges (e.g. landing charges, leases)
 2. Cargo revenue generation dependent on the competitive position, capacity and infrastructure, and policy development
3. Airport charges and pricing approaches to cargo:
 1. ICAO's material is limited and its policies are non-existent
 2. We need more knowledge-sharing and airport exchanges to learn from global best practices

THE PANEL'S REAL ESTATE REPRESENTATIVES



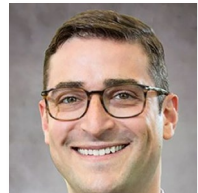
John Suerth
Senior Vice President
CBRE

Mr. Suerth is a Senior Vice President in the Advisory & Transaction Services at CBRE. John has more than 32 years' brokerage experience concentrating in the O'Hare and Southwest suburban areas of Chicago with specialization in air freight, transportation and logistics.



Katrin Gist
National Lead, Airport Properties
CBRE

Ms. Gist has developed a national airport real estate practice at CBRE, focused on representing clients in their purchase, sale and leasing of airport properties, and is the Chairwoman of CBRE's Airport Properties Group.



Karlen Beitman
Mountain States National Manager
CBRE

Mr. Beitman is the Regional Manager for the Mountain States at CBRE. As a National Expert for non-aviation commercial real estate development. His expertise includes ground leases and portfolio strategies.

THE **VOICE** OF AIRPORTS®



INTRODUCTION TO CBRE'S AIRPORT PROPERTIES GROUP

John Suerth, Senior Vice President

- General Industrial Overview

Katrin Gist, CBRE Airport Properties National Lead


- Overview of Air Cargo Trends


Karlen Beitman, Mountain States National Manager (PIES)


- Generating Non-Aeronautical Revenue From Airport-Owned Land


Q1 2021 I&L FIGURES – EXECUTIVE SUMMARY

HIGH DEMAND FOR INDUSTRIAL SPACE CONTINUES IN Q1

 Availability Rate
7.0%

 Vacancy Rate
4.4%

 Net Asking Rent
\$8.44 PSF

 Net Absorption
99.3 MSF

 Completions
58.2 MSF

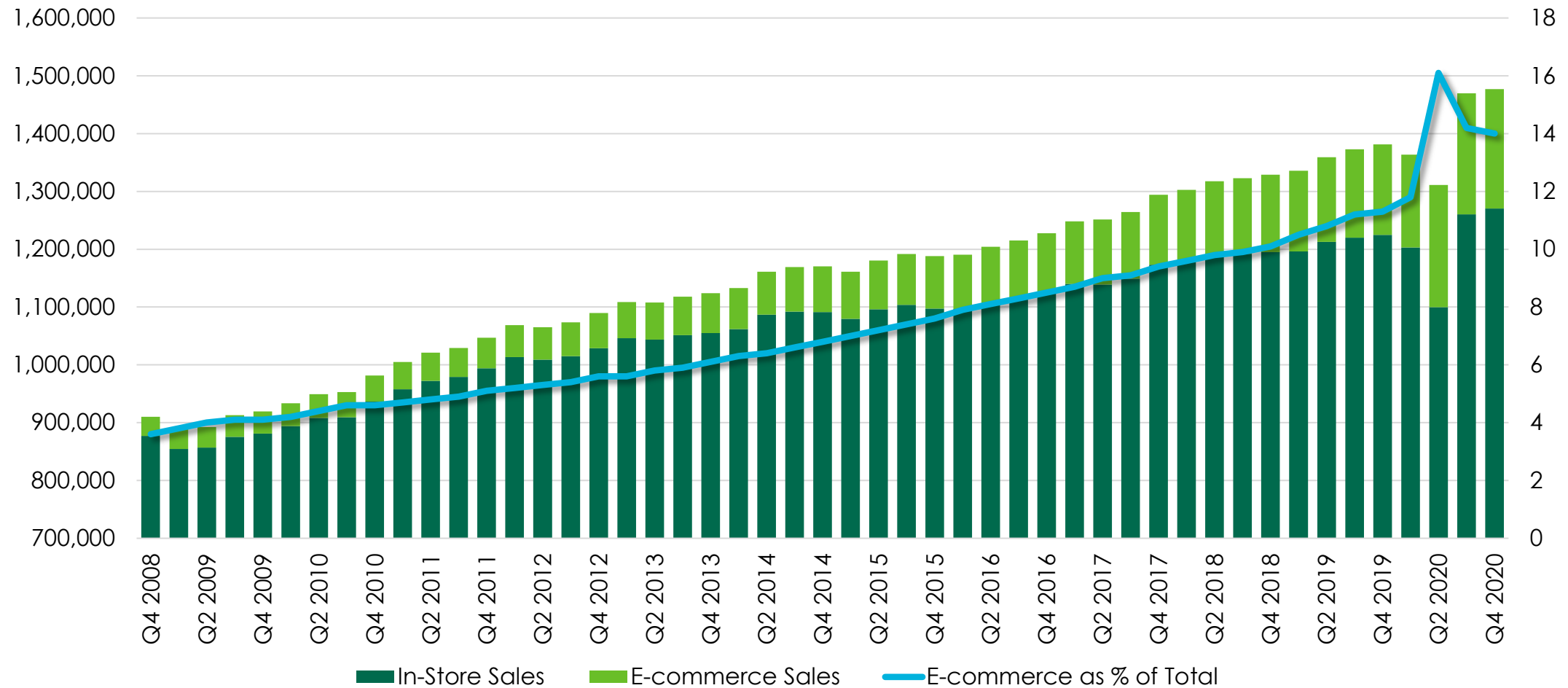
Arrows indicate change from previous quarter.

- The U.S. industrial market shows no signs of slowing down with record high asking rents, record high development, a low overall vacancy rate and 44 consecutive quarters of positive net absorption
- Companies are occupying space at record levels to handle the large increase in e-commerce sales in 2020.
- Nearly 100 million sq. ft. was absorbed in Q1, the third highest mark on record. This was on the heels of the record 116 million sq. ft. of net absorption in the previous quarter.
- Despite strong demand, construction completions dropped in Q1 to 58.2 million square feet, the lowest since Q2 2019. However, a record 376 million sq. ft. is under construction, 47% of which is preleased.
- Asking rents increased again in Q1 to a record \$8.44 per sq. ft. a year, 2.2% higher than in Q4 and up 7.1% from a year ago.
- Industrial real estate enters 2021 with momentum. E-commerce and the need for safety stock to counter potential supply chain disruptions is fueling strong demand.
- This will further push up asking rents and keep vacancy rates near record lows despite a large amount of new development coming online.

COVID-19 CAUSES SPIKE IN E-COMMERCE

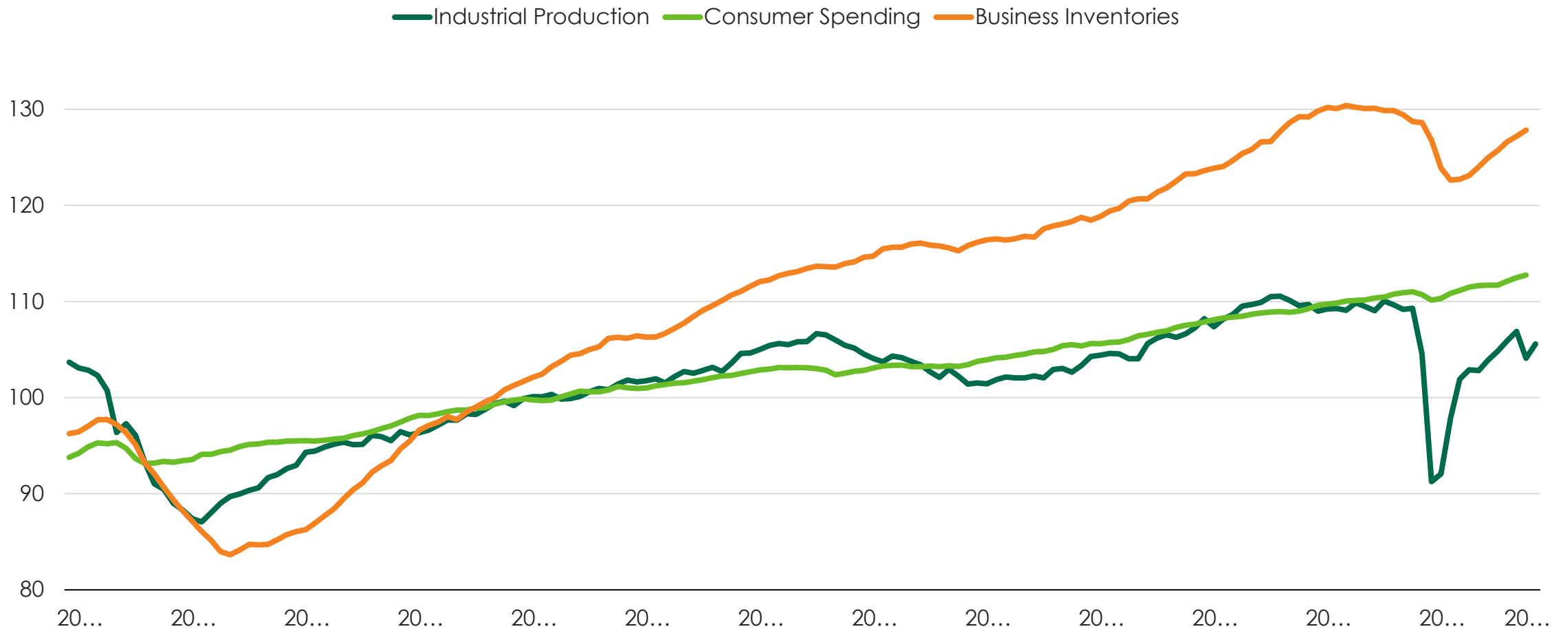
U.S. QUARTERLY RETAIL SALES, IN-STORE VS E-COMMERCE

Millions US\$



Source: U.S. Census Bureau, CBRE Research, Q4 2020.

U.S. SUPPLY CHAIN INDICATORS



- U.S. industrial production has remained on par the past five months despite difficulties in obtaining raw materials.
- Although still below pre-COVID levels, business inventories have increased for eight consecutive months. This trend is expected to remain a primary demand driver for industrial space.

Note: Consumer spending and business inventories through February, industrial production through March.

Source: Federal Reserve Bank of St. Louis, Q1 2021.

Q1 2021 I&L FIGURES – EXECUTIVE SUMMARY

AIRPORT SUBMARKET RENT PREMIUMS

Market	Airport Submarket	Airport Submarket as Percent of Total Market	Overall Market First-Year Taking NNN Rent (psf/yr)	Airport Submarket First-Year Taking NNN Rent (psf/yr)*	Airport Submarket Rent Premium
Chicago	O'Hare	8.5%	\$4.69	\$6.90	47.1%
Oakland	Oakland	21.1%	\$10.36	\$13.68	32.0%
DFW	DFW Airport	9.9%	\$4.38	\$5.35	22.1%
Los Angeles County	South Bay	23.1%	\$10.39	\$11.73	12.9%
Inland Empire	Ontario	19.0%	\$6.70	\$7.52	12.2%
Atlanta	Airport/South Atlanta	28.6%	\$4.00	\$4.28	7.0%
Louisville	Southside	37.5%	\$4.13	\$4.26	3.1%
Miami	Airport/Doral	26.1%	\$9.18	\$9.44	2.8%
Cincinnati	Northern Kentucky	25.2%	\$4.31	\$4.43	2.8%
Indianapolis	Southwest	23.6%	\$4.05	\$4.13	2.0%
Memphis	Southeast	38.7%	\$3.42	\$3.43	0.3%

*First-Year Taking Rents include new leases and renewals 75,000 sq. ft. and above from 1/1/2020 to 2/28/2021



2021 OUTLOOK

E-COMMERCE

The pandemic introduced a new consumer base to online sales which led to record transaction activity in 2020 and even stronger demand to start 2021. Online shoppers are here to stay. Demand from online sales and online returns (reverse logistics) will be robust for the foreseeable future.

Pandemic has rapidly accelerated growth in E-Commerce. More products/supplies being shifted to air cargo to overcome shipping delays.

SUPPLY CHAIN DIVERSIFICATION

Onshoring of distribution will be a demand driver with many foreign e-commerce and 3PL companies expanding in the U.S.

SAFETY STOCK

Will be a primary driver of demand in 2021. Many occupiers will hold significantly more stock on-hand. Warehouse stock will be held by wholesalers and 3PLs driving demand from those occupier subtypes.

INVENTORY/RENTAL RATES

Rates will continue to increase as inventory depletes and construction costs continue to rise. Average asking rates have increased nationally by 23-33%.

AIR CARGO FACILITY OBSERVATIONS

Increased demand at and around international airports as the pandemic has increased demand for time sensitive freight. Cargo Handlers and Freight Forwarders are leasing off airport locations to keep up with demands.

Increase in demand for refrigerated space at/near airports (box in a box).

In older infill locations, we will see an increase of “tear down redevelopment” and may start seeing multi-story designs.



AIR CARGO MARKET TRENDS AND OPPORTUNITIES

Seeing increased demand for air cargo facilities from users and investors

- Trends in capital markets – demand, cap rates

Funding air cargo developments

- Airports, users, investors/developers

Promoting the opportunities

- Exposure in market
- Land availability/airport location

THE PANEL'S MEDIUM SIZED AIRPORT REPRESENTATIVE



Ken Ryan

Director of Cargo
Chicago Rockford International Airport (RFD)

Mr. Ryan supports the Chicago Rockford International Airport and Chicagoland Air Cargo industry as the Director of Cargo supporting the land opportunities and economic development for Chicagoland's Cargo Airport west of O'Hare.



Ken Ryan
Director of Cargo

POST COVID NEW REVENUE & DEVELOPMENT OPPORTUNITIES

INFRASTRUCTURE IS THE KEY AT RFD

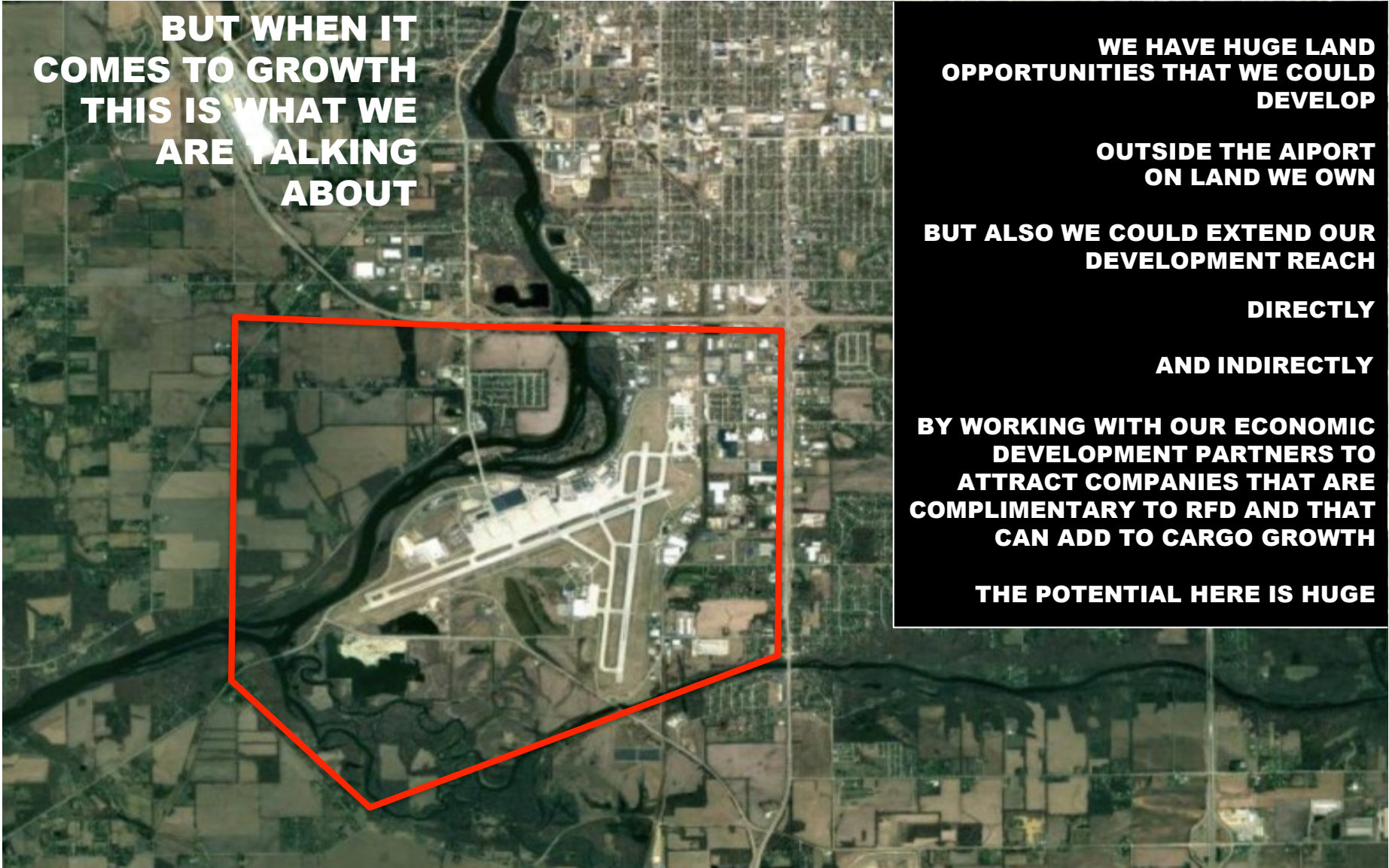
THINK ABOUT THIS FOR A MINUTE

Developing 10 acres of RFD land at \$20,000 per acre per annum in land lease fees delivers the equivalent revenues as 20,000 passengers on a three times weekly international route.

**THE DEVELOPMENT OF OUR LAND WITH
INFRASTRUCTURE DEVELOPMENTS INSIDE THE
AIRPORT FENCE FOR OUR CLIENTS IS A KEY
REVENUE DRIVER FOR RFD**

**WE HAVE SPENT OVER \$200 MILLION IN RECENT
YEARS
INSIDE THE AIRPORT FENCE**



An aerial photograph of a rural landscape. A dark river flows through the center. A red-outlined polygon highlights a specific area in the lower-middle part of the image, which appears to contain some industrial or airport-related structures. The surrounding area is a mix of fields and some buildings.

**BUT WHEN IT
COMES TO GROWTH
THIS IS WHAT WE
ARE TALKING
ABOUT**

**WE HAVE HUGE LAND
OPPORTUNITIES THAT WE COULD
DEVELOP**

**OUTSIDE THE AIRPORT
ON LAND WE OWN**

**BUT ALSO WE COULD EXTEND OUR
DEVELOPMENT REACH**

DIRECTLY

AND INDIRECTLY

**BY WORKING WITH OUR ECONOMIC
DEVELOPMENT PARTNERS TO
ATTRACT COMPANIES THAT ARE
COMPLIMENTARY TO RFD AND THAT
CAN ADD TO CARGO GROWTH**

THE POTENTIAL HERE IS HUGE

**WE SEE OUR FUTURE GROWTH DIRECTLY ALIGNED TO THE POWER WE HAVE
TO DEVELOP LARGE SCALE INFRASTRUCTURE FOR AIR CARGO**



THINK ABOUT IT & THANK YOU

IT is clear that in order for airports to survive as businesses, diversification is required and the quest to generate revenues from non-aviation related sources becomes more important than ever.

For example, based in a three times weekly scheduled service from RFD to say Guadalajara in Mexico, where an airline operating a typical narrow body aircraft such as an Airbus A320 or Boeing 737, the number of departing passengers would be something in the region of 20,000 passengers per annum.

**Such business would generate circa; 44,000 in landing fees
50,000 in RFD passenger fee charges 90,000 in FAA PFC charges**

In total such a service would generate gross revenues of \$184,000 per annum.

Contrast that to real estate development whereby RFD and land lease rates are charged at \$20,000 per acre per annum / \$20,000 per 4,000 sqm)

A typical 200, 000 sqft logistics warehouse will require a land lease plot of between 8 to 10 acres of land minimum

In short developing 10 acres of RFD land at \$20,000 per acre per annum in land lease fees delivers the equivalent revenues as 20,000 passengers on a three times weekly international route.

THE PANEL'S LARGE SIZED AIRPORT REPRESENTATIVE



Jim Szczesniak

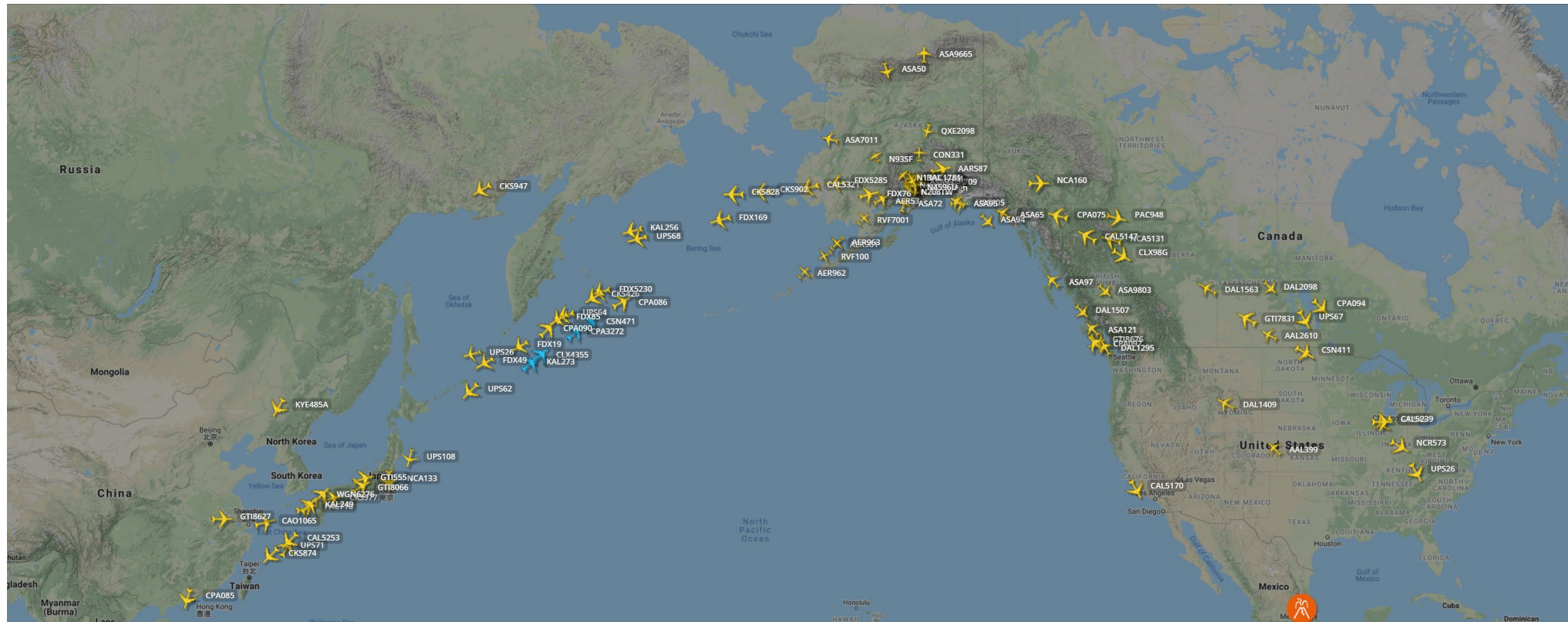
Airport Director

Ted Stevens Anchorage International Airport (ANC)

Mr. Szczesniak is the executive in charge of day-to-day operations of the sixth busiest air cargo airport in the world. The Anchorage Airport was recently rated the best air cargo airport in North America. ANC processes 3.4 million tons of cargo per year, is the strategic link between Asia and the Americas, and a base of operations for all three of the major integrators, UPS, FedEx and DHL. ANC is also a key economic engine to Alaska providing \$1.8 billion in annual economic impacts and is responsible for 1 in 10 jobs in the Anchorage area.

Fast Facts & Figures

- Air Cargo
 - 3.4 million tons annually
 - #2 in USA
 - #4 in the world
- 1 in 10 jobs in the Anchorage area
 - 22,080
 - 15,558 on-airport
- \$1.84 billion dollars annual economic impact to the state
- Diversified airline base
 - UPS hub
 - FedEx hub
- FedEx MRO and Alaska Airlines MRO
- 72% of airline revenue is from cargo operations

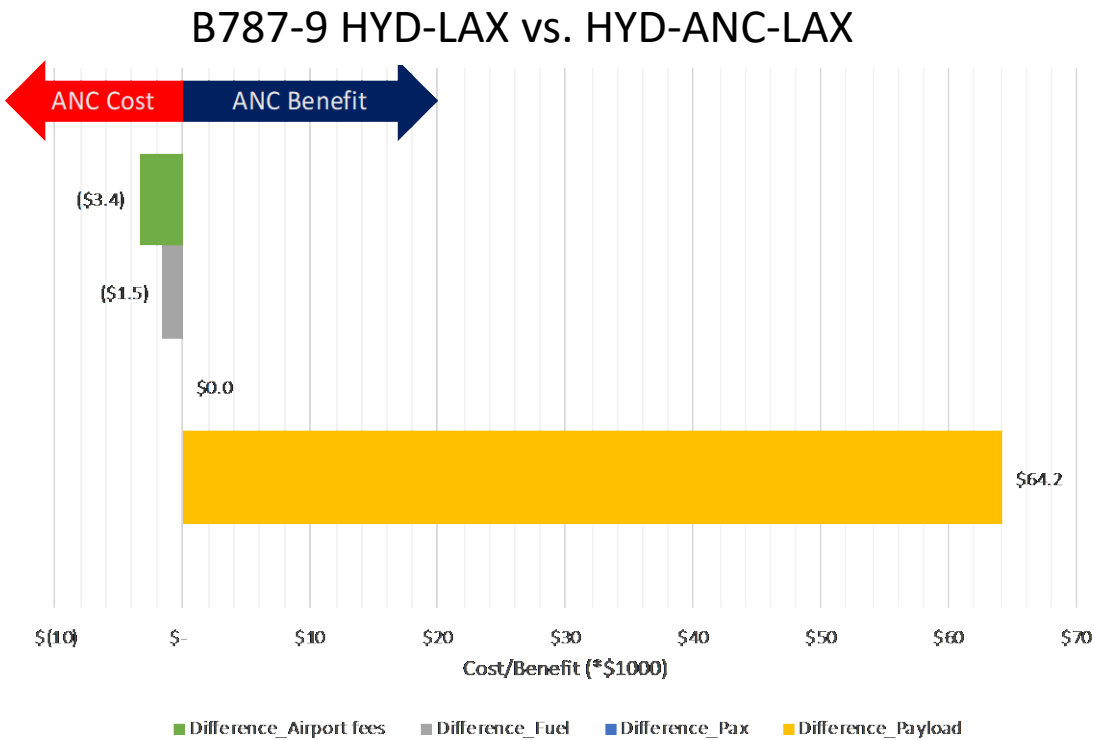


Example cargo advantage

- **Passenger service supported by belly cargo**
- **Value \$228 per seat**

Route B787-9	Cargo Containers	Cargo Revenue Potential (per flight, one way)
HYD-LAX	0	\$0
HYD-ANC-LAX	24	\$64,200

80% passenger load factor assumed-280 seat aircraft
Conservative pre-COVID \$ per kilo rate used for revenue estimate



Market value cargo for approximation purposes only

**More than a \$billion in private development proposed
750-1500 full-time direct jobs**

- FedEx
 - Ramp work
- UPS
 - B747-8F
 - Ramp project for next year
- Alaska Cargo & Cold Storage
 - Perishables
 - Pharmaceuticals
- 6A
 - Cargo transfer warehouse
- IC Alaska
 - New project
 - Cargo transfer warehouse and MRO/hangar
- Signature Flight Support
 - New facility



QUESTIONS & ANSWERS



➔ Please enter your questions into the Q&A box found on the control bar

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