STATE OF THE AIR CARGO UNION: HOW TODAY'S CARGO REVENUES AND FEES ARE SHAPING OUR AIRPORTS AND CITIES

FEBRUARY 2019

A REPORT BY:
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I) INTRODUCTION – AIR CARGO IS IMPORTANT!

For most commercial airports across North America, air cargo's fiscal contribution to the airport is a relatively small percentage of its "front line" passenger operations, but air cargo's influence on the region's economy is often substantial—something akin to an enormous industrial turbine behind the scenes pumping high-end commerce through the veins of our cities around the clock. There are several airports from coast to coast that emphasize air cargo, let alone the traditional international business centers, and their cities quickly realize these benefits—with an increasing number of up-and-comers who want a taste of that economic pie.

All political rhetoric aside, it is more than fair to say that trade is good for the world overall. The worldwide supply chain creates long-term prosperity and widespread jobs, leading to new development and incremental opportunities. Air cargo is the tiny giant of speed and reliability that sits atop the supply chain: Boeing and other aviation sources report that although air cargo is only about 1% of worldwide volume, that 1% represents about 35% of the value of goods flowing through our economies. Air cargo is undoubtedly our most pressing and lucrative commerce, putting big air cargo ports on par by value with our largest land and sea ports which process exponentially more tonnage.

With the global recession (production slump) from a decade ago long behind us now and the generally strong air cargo volumes seen across the globe today, including the boost from e-commerce, the Air Cargo Committee of Airports Council International-North America (ACI-NA) believes it is a good time to take a fresh look at the state of our air cargo union for its members. At the heart of our air cargo economic machine, we want to know how revenues and fees from cargo activity are contributing to the success not only of our airports but also the cities we serve.

No doubt, air cargo priorities and strategies vary from airport to airport based on multiple variables. ACI-NA directly surveyed in detail over 30 airports of all sizes and niches across the United States and Canada to get a comprehensive picture of their efforts and opinions on cargo, centered around their financial policies. Combined with recent insight from reputable industry sources as well as firsthand input from experts on ACI-NA's Air Cargo Committee, here is a rundown of macro trends and data that—if you are an airport or supporting stakeholder—can hopefully guide your air cargo decisions in the right direction.

II) CARGO AIRPORT TIERS – WE COME IN ALL SIZES

Industry experts have categorized the size of cargo airports by various nomenclatures over the years, generally settling along the same basic lines. For this report, we are going to refer broadly to "major" and "minor" cargo airports. The "major cargo airports" come in two basic tiers: (1) top business cities which serve as primary

international passenger and cargo gateways ("international gateways") and (2) other cities which have attracted specialized cargo activity ("freighter hubs"). All major cargo airports can also be divided into "large", "medium", and "small" sizes, while all "minor cargo airports" only come in two broad tiers: (1) large passenger (belly cargo) hubs with minimal freighter activity ("passenger hubs") and (2) all other "small markets". Here are specific airport examples for each tier:

Cargo Airport Tier		Example Airport (IATA Code)
International Gateways	Large (>one million tonnes per year)	• Los Angeles (LAX)
	Medium	• Atlanta (ATL)
	Small	• Seattle/Tacoma (SEA)
Freighter Hubs	Large (>one million tonnes per year)	• Memphis (MEM)
	Medium	• Ontario (ONT)
	Small	• Columbus (LCK)
Passenger Hubs (mostly belly cargo)		• Phoenix (PHX)
Small Markets		• Sacramento (SMF)

III) AIR CARGO'S RETURN ON INVESTMENT – IT'S ALL ABOUT THE ECONOMY

Although fully cognizant that cargo revenues and returns do not compare to their passenger hubs, the vast majority of international gateways absolutely affirm that air cargo makes their city and economy stronger. Some, like Atlanta (ATL), tout its unheralded contribution to stable and growing regional jobs even more than its passenger megahub. Others, like Chicago (ORD), point out its dramatic effect on gross regional product. There is also a common chorus that belly cargo can often tip the viability of an international route in the right direction—as also confirmed by several passenger hubs like Vancouver (YVR) and Washington (IAD)—and that the revenues generated by an initial freighter flight can serve as an ideal stepping stone to new international passenger service.

The freighter hubs really see the pure advantages of their air cargo operation and do not take their good fortune for granted. Integrator giants such as Indianapolis (IND) and Louisville (SDF) see over half of their landing fees from FedEx and UPS, respectively, fueling aerotropolis-like development with leading employment numbers for their cities. In Anchorage (ANC), an optimal stopover for Asian freighters, air cargo

is responsible for two-thirds of airport revenue and boosts airport employment to 10% of area jobs. At Cincinnati (CVG), a freighter hub superstar thanks to both DHL and Amazon Air, there is prudent reflection to assure workforce development can keep up with this important investment and growth.

Although a handful of minor cargo airports are resigned that cargo is just too small a fraction of their overall operational and revenue scenario, with some passenger hubs even conceding they have an uphill struggle against the established international gateways, many minor cargo airports still express zeal for what freight they have and for what opportunities might come next. Phoenix (PHX) has data showing that even at this predominant American Airlines passenger hub, (belly) cargo still fuels 10% of the airport's impact on the local economy, producing thousands of related jobs. Similarly, Edmonton (YEG) clearly sees how its cargo activity is driving its economy at a greater pace than its passenger activity, while New Orleans (MSY) is proud of its perishable capabilities as a cargo selling point. Even some aspiring small markets such as Huntsville (HSV) actively treat air cargo as an economic advantage to their city on equal ground with passenger service (small markets must also foster transportation and commercial infrastructure outside their airport boundary for long-term cargo success).

IV) REAL ESTATE AND DEVELOPMENT APPROACH – CARGO'S AIRPORT FACE

With major cargo airports and most minor cargo airports acknowledging the vitality of air freight to their economies, how do they make room for cargo facilities and what do today's cargo rents and fees look like to keep that space occupied? For starters, airports generally treat their passenger and cargo tenants equitably, both in landing fees and in rents, even when passenger airlines dominate operationally and financially. That means that, in most cases, any special signatory rates and privileges offered at most airports also apply to cargo airlines. It is also worth noting that landing fees (by aircraft weight) on freighters deliver more tonnage than passenger flights, up to 75% more for a B747-8F vs. a B747-8I for example.

Another key real estate policy among nearly all airports is their active support for first come, first serve space for cargo tenants: If a cargo airline (or handler) needs or wants to operate at that airport, the airport is accommodating, typically with direct leases on older existing buildings as available. Consequently, occupancies stay relatively stable in these buildings, almost tight at several airports. Existing cargo buildings have direct lease terms that almost universally fall between 3-5 years, the sweet spot for flexibility—and just about every airport has no problem furthering that flexibility by permitting subleases or assignments when necessary. Moreover, airports are usually happy to customize a lease term when the cargo tenant offers a significant capital investment in an existing building.

The question becomes what to do at both major and minor cargo airports when they approach existing capacity or need to plan for future growth—hopefully with an on-airport land solution in sight. Enter the common era over the past couple of decades of the private-sector developer and the large cargo ground lease, which frequently encompass multiple new tenants in one swoop. Whether building airside or landside, these developers are reducing airport risk while enhancing construction resources to attain desired new cargo infrastructure for the airport, as seen at major cargo airports like Aeroterm's new facilities in Chicago (ORD) and Miami (MIA).

The term public-private partnership (P3) can take on various degrees of scope or involvement, so we will not dwell on P3 definitions for this report but rather just stick to the basic idea of a private developer per se on-airport via a ground lease—usually selected via an RFP process due to airports' public transparency guidelines. A private developer typically needs decades to amortize a return on its investment, so cargo ground lease terms at airports coast-to-coast are falling right between 30-40 years nowadays. Similarly, it is common for airports to grant long-term ground leases directly to its large flagship hub tenants, such as United Airlines Cargo in Denver (DEN) or UPS in Louisville (SDF).

So what do today's rents look like in these cargo leases? Let's start with the direct leases on existing cargo buildings (triple net rates in USD): The international gateways cover the full range of $10-$20 PSF—although the very largest cities (high end real estate markets) can exceed $25 PSF. For the freighter hubs and minor cargo airports, the average is more like $10-$15 PSF, with several minor cargo airports below $10 PSF but a few expensive coastal cities hovering just above $20 PSF. As you would expect, there is usually a premium on airside space over landside space and on the office portion of a cargo building. In addition, airports often take in other rents and fees for cargo activity besides monthly rents on buildings, such as on fuel flowage, ramp parking, and revenue percentages.

On to the cargo ground leases (in USD), the rates at which airports would set or negotiate with developers: There are two basic schools here, one for the large international gateways in the most expensive markets and the other for everyone else. Large international gateways are seeing ground rents above $2.00 PSF (even pushing the $3.00 PSF envelope in rare instances) while all other airports are seeing average ground rents of $0.50-$1.00 PSF. Factor out several East and West Coast airports with ground rents in the range of $1.00-$1.75 PSF and that average falls to $0.50-$0.75 PSF.

V) INCENTIVES FOR NEW SERVICE – GETTING A LEG UP ON THE COMPETITION

Many airports, often backed by civic stakeholders, may be open to an air service incentive program for cargo (just as on the passenger side), but they are often limited or prohibited by rules and regulations that govern the airport. Most of the large

international gateways like Chicago (ORD) and Los Angeles (LAX) do not have them—but also do not really need them thanks to their natural critical mass. Miami (MIA) is a key exception here, and several of the medium and small international gateways like Seattle/Tacoma (SEA), along with a handful of the freighter hubs like Indianapolis (IND), have them too. The passenger hubs and small markets are not really focused on cargo incentives overall, although a few small markets that have seen cargo growth like Greenville/Spartanburg (GSP) and Huntsville (HSV) are prepared to consider incentives for more cargo service. The central offer on the table for any airport with a cargo air service incentive program is a 50% or 100% waiver on landing (and often ramp) fees for one year—sometimes even two years—if you bring in a sustainable new cargo route to a new international destination. Some airports, like Miami (MIA) and Seattle/Tacoma (SEA), offer additional funding to specifically market the new cargo service as well. No matter what the incentive, American airports are subject to FAA guidelines and monitoring, such as assuring equal opportunity and stipulating termination dates.

VI) THE CHANGING FACE OF THE CARGO TENANT – GETTING A HANDLE(R) ON IT

Over the past decade or so, major cargo airports and some minor cargo airports have seen a seismic change in their cargo lease profile, with more and more cargo handlers like Swissport or AGI replacing airlines as the primary tenant. That is, whereas the traditional model was the handler coming to serve the airline, now multiple airlines flock around a central handler. A large majority of airports believe this scenario generally allows for more airline operational efficiency and financial flexibility (and can more easily attract new service), but some airports worry about too much power and even too much apathy conflicting with greater airport needs when the handler becomes more prominent. For now, especially at international gateways, airlines are still the majority of primary cargo tenants on the airfield. Further, most airports have already established specific operating standards and controls on their handlers whether tenants or not, requiring a special permit and often charging an annual fee, usually around 10% of revenues (although a small minority charge a base fee). A handful of airports, like Denver (DEN) and Miami (MIA), even mandate that handlers have a commitment from an airline to operate. As market forces on cargo leases continue to evolve across the continent, airports may very well continuously reevaluate the optimum balance between the handler's business interests and the airport's service interests.

VII) PROTECTING YOUR CARGO REAL ESTATE – THROUGH-THE-FENCE ACCESS?

No discussion about cargo revenues and fees would be complete without addressing "through-the-fence" (TTF) access. In a nutshell, TTF in the air cargo world refers to primary cargo tenants (airlines and handlers, not forwarders or truckers) whose

central processing space is located off-airport but who regularly access the airfield—at a cost (infrastructure and operational) to the airport. This scenario is mostly significant at major cargo airports (minor cargo airports expressed minimal concern) where the tenant maybe cannot find sufficient on-airport real estate or perhaps can find lower off-airport rents. Needless to say, most airports would prefer that their primary cargo tenants occupy the airport's real estate and pay into its fiscal pot—and that is where a TTF access fee attempts to level the playing field. Furthermore, FAA guidelines have generally supported that U.S. airports have no special obligation to accommodate tenants who choose to locate off-airport but who need to operate on-airport.

Several major airports, especially in large cities, have already instituted TTF fees for certain commercial passenger vehicles—and some have even set up equipment, such as transponder systems or electronic gates (which could also apply to cargo trucks), to manage this traffic and their access fees. However, although there has been some industry discussion, actually carrying TTF over to off-airport cargo tenants and their trucks, has so far been elusive in the United States and Canada. The devil might be in the details, as airports need to contemplate practical definitions, available real estate, reasonable notices, billing criteria, enforcement mechanisms, political concerns, public relations, and possibly negative repercussions if instituting a cargo access fee. In the end, a very slim number of major cargo airports across the continent have even addressed the TTF issue at all, with only a couple of airports mentioning interest in examining it further. Chicago (ORD) actually authorized a cargo access fee a few years ago, but implementation was only recent with new on-airport capacity now open—and most of its cargo tenants are already on-airport today anyway thanks to that new capacity.

VIII) CONCLUSION – WHERE DO WE GO FROM HERE?

Airports, from large international gateways to several small markets, are by and large saying that air cargo is a highly substantive component of their operation—if not front and center on direct revenues, then emphatically on the front burner in turbocharging their local economies. Even when passenger activity dominates, cargo airlines and cargo real estate are treated on equal footing as needed, and private developers are helping lead the way when cargo reaches capacity or requires a prudent growth plan. Several airports, if they can, offer serious cargo incentives for new service, showing they mean business—or want a bigger slice of the business. As cargo leases continue to see more handlers as primary tenants, most airports believe this change is good for efficiency and flexibility but caution temperance in assuring airport interests continue to come first. Lastly, there is just not that much concern today among airports on needing TTF access fees to protect their cargo real estate. With a relatively healthy international economy powering record-shattering cargo numbers at many airports across North America, the current state of our air cargo financial picture appears bullish—and let's hope it stays that way for many years to come.

IX) OUR REFERENCES AND SOURCES – THANK YOU, ACI-NA MEMBERS

In addition to surveys from airport managers, the editors also reviewed recent forecasts and analyses related to air cargo from reputable aviation, trade, and real estate sources—specifically, the Boeing Company, CNBC, the International Air Transport Association (IATA), Jones Lang LaSalle Inc., the Journal of Commerce, and the Transportation Research Board (TRB). The ACI-NA Cargo Committee warmly thanks every airport across the entire air cargo spectrum that provided a detailed survey to the editors (with IATA codes of the airports studied):

- Alaska Department of Transportation and Public Facilities (ANC)
- Atlanta Department of Aviation (ATL)
- Austin Aviation Department (AUS)
- Calgary Airport Authority (YYC)
- Chicago Department of Aviation (ORD)
- Cincinnati/Northern Kentucky International Airport (CVG)
- City of Charlotte Aviation Department (CLT)
- Columbus Regional Airport Authority (LCK)
- Dallas Fort Worth Airport Board of Directors (DFW)
- Denver Department of Aviation (DEN)
- Edmonton Regional Airports Authority (YEG)
- Greater Toronto Airports Authority (YYZ)
- Greenville-Spartanburg Airport District (GSP)
- Hawaii Department of Transportation (HNL)
- Houston Airport System (IAH)
- Huntsville Madison County Airport Authority (HSV)
- Indianapolis Airport Authority (IND)
- Lee County Port Authority (RSW)
- Los Angeles World Airports (LAX)
- Louisville Regional Airport Authority (SDF)
- Metropolitan Washington Airports Authority (IAD)
- Miami-Dade Aviation Department (MIA)
- Minneapolis St. Paul Metropolitan Airports Commission (MSP)
- Mobile Airport Authority (MOB)
- New Orleans Aviation Board (MSY)
- Phoenix Aviation Department (PHX)
- Port Authority of New York and New Jersey (JFK)
- Port of Oakland (OAK)
- Port of Seattle (SEA)
- Sacramento County Airport System (SMF)
- San Antonio Aviation Department (SAT)
- Vancouver International Airport Authority (YVR)