EXPEDITED AIR SERVICE:

Innovative Logistics Solutions for High-Value, Most-Urgent Shipments





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Introduction

The good news for shippers, or so it would seem, is that the air cargo industry is experiencing what some have called "chronic overcapacity," meaning there should be plenty of space available to accommodate businesses in need of air service. Until there isn't.

While it is true that worldwide demand for air cargo services has yet to return to pre-recession levels, several variables are affecting the seamless availability of cargo services, especially in certain geographic sectors. In the critically important Asia-Pacific region for example, where demand for service is actually on the increase, inadequate airport infrastructure and increasing regulatory oversight and security requirements are resulting in chronic congestion and delays. And some air cargo carriers have <u>idled</u> parts of their fleets, thereby removing capacity from the system. While there is still availability, shippers may not be able to rely on service being available precisely when needed, or to meet a critical delivery deadline.

This is especially true when it comes to expedited air services. Expedited air is a premium-level service that tends to be reserved for time-critical shipments, highly perishable or valuable goods, or shipments that require special handling. Traditionally seen as the "Rolls Royce" of logistics services, expedited air's high levels of customer service and flawless execution ensure shipments arrive at their destination safely, undamaged and on-time.

In the world of critical expedited shipping, there is no margin for error.

Instead, a growing number of businesses are turning to options within the expedited category for greater certainty and confidence. Air charters, for example, can be a surprisingly efficient solution. A carefully-constructed air charter solution take advantage of regional airports that are typically less congested than major facilities, or through countries that typically have less onerous customs clearance processes, or have favorable free trade agreements in place with the United States.

While the tab for charter service will be higher than a traditional expedited air solution, many businesses find that by the time the benefits of the charter solution—faster delivery, hassle free border clearance, peace of mind are factored in—the costs are justified.



Another creative solution is a "hand carry" option, through which a designated courier accompanies a shipment every step of the way as it moves through its transit plan. An experienced logistics company will have onboard couriers available, at a moment's notice, and a qualified courier will have expertise with every airport affected by the shipment's itinerary, and with all customs procedures. The courier maintains complete control of the shipment and upon landing, oversees immediate delivery to a final destination.

For businesses with extremely time sensitive shipments, the hand carry option is a cost efficient solution for ensuring that a product will arrive as scheduled. Automotive supply chains, which utilize "just in time" inventory management processes often use couriers to transport critical parts which, if not in place at precisely the right time, could result in an entire assembly line grinding to a halt at a cost of millions of dollars.

The hand carry and air charter options are two examples of innovative solutions taking place within the "expedited service" category. But, a shipper needs to be aware that not every logistics provider offers this level of highly-synchronized, assetdependent service. A business needs to be very certain, before signing on the dotted line, that a logistics provider that claims to be able to transport highly sensitive shipments, can in fact perform as advertised.

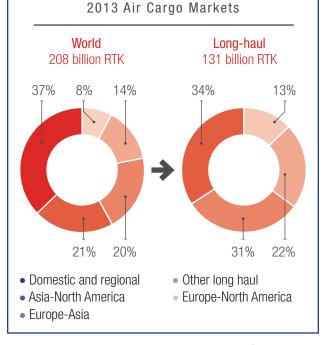
The following discussion includes information about how a qualified logistics partner can help a business ensure on-time and safe delivery of critically-urgent shipments. The discussion will also shed light on current trends within the expedited air category that are challenging traditional methods of expedited service, and causing businesses to seek out innovative solutions.



Challenges to Traditional Expedited Air Services

Air cargo traveling between North America and Asia accounts for 21 percent of worldwide demand, and together with cargo moving between Asia-Europe and Europe-North America, account for 80 percent of total air shipments.

ASIA-NORTH AMERICA, EUROP-ASIA, AND EUROPE-NORTH AMERICA ARE LEADING THE EAST-WEST AIR CARGO MARKETS



But despite the critical importance of this sector, China's airports were ranked dead last in a <u>Flightstats.com</u> ranking of international airports' on-time departures. Shanghai had a 28.72 percent on-time departure rate, while flights took off on-time from Beijing only 18.3 percent of the time. As a region, <u>Price Waterhouse</u> found Asian flights were on time only 57 percent of the time, compared with flights originating in North America and Europe, which were on time 79 percent and 73 percent of the time, respectively.

MAJOR INTERNATIONAL AIRPORT PERFORMANCE RATES-2013

| Rank | Airport | On-time Departures | Late Departures (15-29 mins.) | Excessively Late Departures (45+ mins.) |
|------|-------------|-----------------------|-------------------------------|--|
| 1 | Tokyo (HND) | 95.04% | 3.68% | 0.60% |
| 2 | Tokyo (NRT) | 86.38% | 7.39% | 3.41% |
| 3 | Amsterdam | 83.52% | 9.87% | 3.87% |
| 4 | Munich | 83.35% | 10.04% | 3.60% |
| 5 | Seattle | 82.77% | 7.59% | 5.99% |
| 15 | Charlotte | 74.54% | 7.83% | 13.07% |
| 25 | Atlanta | 68.94% | 10.50% | 14.70% |
| 33 | Istanbul | 38.02% | 40.91% | 5.92% |
| 34 | Shanghai | 28.72% | 23.55% | 34.22% |
| 35 | Beijing | 18.30% | 22.92% | 42.02% |

Source: Boeing

Source: FlightStats, Inc.



Poor airport infrastructure is often cited as a key reason for China's "last in the world" performance, along with demand that exceeds capacity, airspace that is tightly controlled by the <u>military</u>, and increasing regulatory and security protocols.

China is hardly alone. Market analysis by <u>Boeing</u> found that in addition to China, infrastructure investment is absolutely critical in Northeast and Southeast Asia, India, and Latin America, where airports currently operate at full, or near-to-full capacity. Necessary improvements include new or improved runways, terminal expansions, and even new airports.

Increased regulatory and security mandates are also adversely affecting on-time deliveries of air cargo, and driving up costs. Those mandates come in many forms. <u>Brian Clancy</u> of investment banking firm Logistics Capital & Strategy LLC cites increased record keeping protocols and stringent custodial control requirements as among the more onerous compliance burdens facing the industry. And Lufthansa Cargo's James LoBello <u>estimates</u> security-related costs are ten times higher today than in 2001.

Perhaps the most significant regulatory/security mandates facing the industry, are relatively new mandates for cargo screening, and the lack of uniformity for those standards among countries.

In the United States, for example, all cargo on passenger aircraft—both domestic and international—departing from U.S. airports undergoes <u>screening</u>. The U.S. also requires 100 percent screening of all cargo bound for the U.S. originating in international airports. But that 100 percent screening mandate is at odds with policies in place in other regions, which are risk based.

Lack of a harmonized system is seen by <u>many</u> as a destabilizing factor within the industry, with the potential to cause not only inordinate delays, but also higher incidences of shippers deciding to switch to less-onerous modes of transit.

This is especially true for expedited air shipments. Expedited air is attractive to shippers because on time, hassle free delivery is inherent in the service's higher price tag. But as regulatory mandates continue to pile up, assurances of "guaranteed on-time service" may prove more and more difficult to keep.

Unless an expeditor has a fool-proof way of ensuring that a U.S.-bound flight will take off on time in Asia, fully screened in accordance with Transportation Security Administration protocols, and will land in a North American airport, and immediately find a waiting gate, a shipper should be skeptical of guaranteed delivery guarantees.



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Better Alternatives within Expedited Air Sector

Like so many other aspects of supply chain management, the expedited sector has benefited in recent years from innovative thinking and technology-enabled solutions. As a result, many expedited carriers now offer options that either did not exist until recently, or were previously cost-prohibitive.

Air Charter Emerges as Cost Effective Alternative

For many businesses, the concept of chartering a plane to transport critical or "rush" shipments is not a serious consideration, since the option is generally dismissed as cost prohibitive. True, air charters do command a premium rate, but many business managers are surprised to learn (a) the tremendous benefits associated with charters can outweigh the cost; and (b) a resourceful provider can help mitigate charter cost through savings elsewhere. In addition, charter services ensure a high level of security, since a business' freight is the only cargo on board, and the nature of expedited service minimizes the number of touch points throughout the supply chain.

Charter services have traditionally appealed to industries with extremely time-sensitive or fragile supply chain needs pharmaceutical products, automobile and aerospace parts manufacturers, computer manufacturers, and products in need of "cold chain" handling including vaccines and food products.

"Shippers may pay more," one logistics manager noted in an <u>Inbound Logistics</u> article, "but the savings from the larger supply chain window exceeds the cost." As an example, the manager cited a situation in which a 250,000-pound part from a nuclear reactor in Portland, OR needed to be delivered to Charlotte, NC for servicing. The nuclear reactor incurred \$1 million per day in lost productivity waiting for the part to be repaired. By chartering a plane, the energy company was able to ensure a precision delivery schedule and shave days from an expedited ground solution. The cost of the charter was more than offset by having the reactor back in working condition days earlier than a non-charter solution would have made possible.

Air charter gained special status for businesses—especially retailers—during the late-2014 <u>labor dispute</u> between U.S. West Coast dockworkers and terminal operators. Faced with the unacceptable and financially devastating possibility of holiday merchandise stuck in the labor strife, many retailers turned to air charter services. During 2014 peak holiday inventory-replenishment season, air charters were operating at full capacity, with some providers scrambling to increase the number of planes available.

For many businesses, including fashion retailer Ann Taylor and video game supplier GameStop, air service was essential to salvaging the holiday season. Ann Taylor CEO Kay Krill noted that her company's performance was "negatively impacted by product shipment delays related to West Coast ports, which were mitigated by the use of air freight later in the (4th) quarter."

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Beyond the certainty of guaranteed delivery times, air charter offers several other benefits that are increasingly attractive to shippers:

Avoidance of Highly Congested Routes/Airports

A growing trend among expedited service providers is "out of the box" thinking that allows for more creative route planning. One such approach is the use of regional airports as a way to circumvent crowded hubs with notorious backlogs. Or, a savvy logistics provider may opt to bypass entirely a notoriously congested international route, and travel instead via less-busy countries.

Bypassing more congested airports has many benefits for time-critical shipments:

- Access to cargo facility. Poor airport infrastructure continues to be a leading detriment for cargo shipments in general, and expedited air shipments especially. Urgent shipments are often forced to waste valuable time waiting for an airport slot to open up before it can even land. 2013 <u>research</u> found that planes waiting to land in Mumbai or Delhi, can expect circling delays of up to one hour before a landing slot becomes available. And, traffic at Beijing and Shanghai airports has become so overcrowded, an additional 2-or-3 major airports will be necessary over the next two decades.
- Faster Ground Service. Another factor is the infrastructure that surrounds many global hub airports. Shipments arriving at New York's JFK or LaGuardia airports must endure a ground transportation network in need of major upgrading. Traffic is nearly always at a standstill, with precious time spent idling. A business that spends a significant amount on expedited air service could still miss a deadline as the result of a traffic jam on a highway near the airport.Instead, charter services allow carriers the flexibility to build a logistics solution that relies on less-hectic regional airports. Not only does this address the airport slot capacity issue, but also ground service generally avoids the heavy volume inherent to highways surrounding a major hub.
- Faster Customs Processing. Assuming that a charter shipment arrives at its destination with all paperwork pre-filed, all duties and taxes paid, and in full compliance with all security mandates, a business can expect a faster clearance process via a regional airport than at a congested metropolitan hub, where cargo shipments can spend several hours awaiting customs processing. However, a business must take care to ensure that its carrier has the expertise necessary to flawlessly navigate the customs process. This is especially true if a shipment must pass through multiple international checkpoints. An urgent shipment cannot be delayed



because its service provider does not have its documentation in order, or is not able to follow proper procedure for the clearance process. And, since incomplete documentation is the top reason shipments fail to clear customs, ensuring a logistics provider is up to the task is vitally important.

- Security. While many businesses turn to expedited services to ensure the safety and security of critical shipments, air charters offer unmatched levels of peace of mind. For one thing, because a shipper's freight is the only cargo loaded onto a chartered flight, there is virtually no chance that it will be tampered with, misplaced, or damaged. In addition, the freight will be subject to fewer touch points, which invariably means less opportunity for damage or theft.
- Scheduled Charter Service. In some instances, a business may prefer to take advantage of "scheduled" charter services, which can cost significantly less—by as much as <u>60 percent</u> than standard charter services. Scheduled charters rely on multiple shippers sharing a flight, which helps control costs, and can be an ideal solution for businesses with highly fragile shipments, or products traveling under tight deadline, but with enough flexibility to wait for scheduled service.

As with most logistics solutions, there are options within the air charter category. Not every air charter solution is the same. An experienced expedited service provider will have access to a range of capabilities to meet a business' unique needs without incurring more costs than necessary.

Hand-carry option offers highly efficient expedited air solution

Moving a shipment of several boxes from one continent to another, as fast as humanly possible, can be a challenge for even the most capable expedited services provider. Which is why businesses are increasingly turning to—the human touch.

Hand-carry services, also known as on-board couriers, rely on trained individuals to physically accompany a shipment on its entire journey—usually from point-of-pickup to end delivery. Although not a new concept, hand-carriers have gained attention in recent years as innovative expeditors have used courier services as solutions for urgent multiple-unit shipments, rather than for single carry-on packages.

While airline and airport regulations vary with regard to allowable cargo weight, size, content and value, a hand carry courier solution can be ideal for situations including:

- Highly valuable, small-sized shipments
- When all other options are simply too slow
- When experienced, on-site customs/border clearance expertise is warranted.

Robert Boetzer, head of charter services for Swiss-based Panalpina, <u>notes</u> that in the ten years his company has offered on-board courier services, most frequent uses have been



to ship automotive and computer parts between the United States and Europe and China. "As long as you have global players developing and producing parts on one continent and assembling them on another, and as long as you have either quality or production glitches or late design changes, there will always be a demand for on-board courier services," he said.

A qualified courier services provider will have a network of fully-trained professionals located across the globe, ready to initiate service at a moment's notice. "A lot of this is logistics—having people in the right places at the right time, contacts in different countries, people ready to leave at a moment's notice and having all the documentation together," explained Roberto Berrios of British-based air charter specialist Chapman Freeborn. "Everybody in the office needs to have a three-day packed suitcase," he added.

Among the advantage of a hand-carry courier solution:

• Air Travel Expertise. Hand-carry couriers are well-trained travel experts who are fully aware of each airline's policies with regard to permissible cargo. Couriers will also have familiarity with any airport on their shipment's itinerary, and be able to navigate all security and baggage claim issues. This familiarity will extend to local knowledge, and ability to converse in local languages. In addition, should a flight become delayed or cancelled, an on-board courier will have immediate "on the ground" insight and ability to rebook onto another flight.

- **Customs Expertise.** A qualified hand-carry courier will also ensure all paperwork is in order, all duties and fees paid, and full compliance with all security protocols so that a shipment will seamlessly clear customs. In addition, a global courier will hold multiple visas, and be able to easily enter the required countries.
- **Chain of Custody/Security.** Since a courier travels with the expedited shipment, there is minimal risk of loss, theft, or damage.
- **24/7 Availability.** Courier service should be accessible to or from anywhere in the world, at any time of day, on a moment's notice.
- Visibility/Tracking. Businesses can expect regular updates from their courier from the moment of booking until their critical shipment reaches its final destination.

While hand-carry situations are generally not planned, or "regular" parts of a business' supply chain, it is essential for a business to have a trusted logistics partner to turn to should the need arise. Not every logistics partner offers hand-carry services, and of those that do, not all have the capability to offer a seamless, worry-free experience.

Manufacturers and other businesses that could conceivably face an urgent need for logistics services should do the necessary homework, before the service is actually needed, to ensure that when the time comes, a hand-carry solution is only a quick phone call away.

Better Alternatives within Expedited Air Sector

Finding the Right Expedited Service Provider

In the world of urgent expedited logistics, there is very little margin for error, and no opportunity for on the job training. A shipper needs to have full confidence, that when a call is made for service, its logistics provider will have the solution to best meet its situation. Integral to that shipper/logistics provider relationship is a high degree of trust and reliability. A shipper needs to trust that its provider will have the expertise and capability to get the job done, and a carrier needs to have a proven track record that allows its customers to rely on its service promises.

But knowing if a service provider has the "right stuff" to be worthy of that trust can be a tricky business. Not every logistics provider can guarantee to have a shipment delivered to another part of the world within a matter of hours. And those that do, must be thoroughly vetted before the services are actually needed. In determining a logistics provider's expedited bona fides, especially with regard to time-critical services, following are a few considerations:

• **Customization and Collaboration.** It's essential to view your expedited logistics provider as a *partner*. You want to build a relationship so there is mutual understanding of your business objectives, priorities and needs. This information sharing can only happen through many, many direct conversations, and ongoing open lines of communication. A good logistics provider will use this information to create a customized solution to meet your specific needs.

- **Flexibility.** Most expedited shipments are timesensitive and unplanned. A capable provider will be able to offer a solution, on a moment's notice, that meets your unexpected, time-definite delivery needs, regardless of destination.
- **Personalization.** As you build your relationship, it's important that the same individuals service your account the whole way through. The same individuals who prepare your original logistics solution should be the same people who oversee the pickup, transit and final mile delivery of your expedited shipments.
- **Customer Service.** Equally important is a high level of customer service. Remember, you are paying for premium service, so it is not unreasonable to expect premium service! Services should include a dedicated customer service representative with whom you have a personal relationship and direct contact information. Your customer service representative should be fullyaware of your shipment needs, provide you with regular updates, and know about—and resolve- any snafus or changes before they become problematic.
- **Depth of Assets.** Integral to expedited service is the capacity to move a shipment, at a moment's notice, to anyplace in the world. Few providers have the deep network of assets necessary to accomplish this. Does the provider have access to

"Not every logistics provider can guarantee to have a shipment delivered to another part of the world within a matter of hours. And those that do, must be thoroughly vetted before the services are actually needed."



charter services, should that need arise? And if so, does the provider offer innovative approaches, such as bypassing congested routes in favor of regional airports, or via countries with less cumbersome customs protocols?

- **Experience.** When it comes to managing expedited logistics, there is no substitute for experience. An experienced provider will have an integral understanding of what's needed to guarantee a seamless and hassle free delivery. Unless a provider has been through the process, and knows firsthand what to expect, any claims of "guaranteed service" should be met with skepticism.
- Border Clearance/Customs Experience. If your shipment requires an international border crossing, it is essential to enlist the services of logistics provider with necessary customs expertise, or who has enlisted the services of a qualified customs broker. Many, many shipments have been waylaid at the border because of missing customs documentation, improperly completed paperwork, or failure to pay proper duties/fees. This is another area where experience is a major advantage.
- **Technology.** Tremendous advances in expedited logistics have been possible due to technological innovations. Logistics providers can provide high levels of visibility and shipment tracking, ensure constant communication between drivers/pilots and

a central office, and have unprecedented access to route optimization and capacity availability.

Each of these is an important consideration in determining if a logistics provider is up to the task. Choosing an expedited services provider is among the most critical decisions a business will make. This is because when it comes to expedited logistics, not all providers—or services—are equal.



Conclusion

During a 2014 roundtable <u>discussion</u> on trends within the air cargo industry, Brandon Fried, president of the Airforwarders Association was asked to describe a "worst case scenario for a shipper just getting started in air cargo." Fried responded that "the basic problem begins when a shipper selects a forwarder that has inadequate capitalization and the lack of essential knowledge," and he noted that "not understanding essential regulations and cargo handling procedures could lead to delays that will cost shippers money, and that will inevitably lead to a search for another forwarder."

Now imagine that lack of knowledge and regulatory unawareness occurs when a shipper has an urgent need for a machine part delivery—on the other side of the world.

Clearly a shipper needs to have full confidence that its expedited service provider can meet its most urgent logistics needs. And beyond meeting its needs, a good provider will be constantly improving its service offerings, and suggesting new options for even greater efficiency and value within the expedited category. This is especially true as worldwide conditions put pressure on top-hub airports, making it increasingly difficult for an expedited provider to make good on promises for guaranteed shipping. If flights leaving Beijing only leave on time 18 percent of the time, how can a manufacturer be assured a part will arrive in time to prevent an assembly line from shutting down?

Innovative logistics providers are finding ways to manage such external factors. Customized charter routes can avoid congested airports entirely, while hand-carry services ensure constant oversight of a shipment so that any last minute changes, including flight switches, can easily be made.

Urgent, or high value freight will always require extra handling and premium level service. But there are ways to better manage these shipments to ensure even greater efficiency, and higher levels of peace of mind. The key though, is to do the necessary research and service provider analysis before the services are actually needed.



Purolator. We deliver Canada.

Purolator is the best-kept secret among leading U.S. companies who need reliable, efficient, and cost-effective shipping to Canada. We deliver unsurpassed Canadian expertise because of our Canadian roots, U.S. reach, and exclusive focus on cross-border shipping.

Every day, Purolator delivers more than 1,000,000 packages. With the largest dedicated air fleet and ground network, including hybrid vehicles, and more guaranteed delivery points in Canada than anyone else, we are part of the fifth largest postal organization in the world.

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References

"Airline and Airport On-Time Performance Report," FlightStats, June 2013.

"Beijing to Get Third Airport to Reduce Congestion, Delays," ABC News, December 14, 2014.

Burnson, Patrick, "2014 Air Cargo Roundtable: Forwarders Aim to Please," Logistics Management, April 1, 2014.

Burnson, Patrick, "2014 State of Logistics: Air's Slight Improvement Despite Headwinds," Logistics Management, July 1, 2014.

Burnson, Patrick, "<u>When Time Means Money, Air Cargo Charters May Make</u> <u>Most Sense</u>," Supply Chain Management Review, January 30, 2012.

"Capacity Issues Among Challenges Facing the Freight Industry," Center for Transportation Studies, University of Minnesota, February 2014.

Clayton, Edward, "Airport Infrastructure In Asia: Coping With the Demand Surge," PriceWaterhouse Coopers, 2014.

Egan, Corianne, "<u>Retailers Turn to Air Cargo and Disclose Higher</u> <u>West Coast-Related Costs</u>," JOC.com, November 14, 2014.

Herdman, Andrew, Director General, Association of Asia Pacific Airlines, "Asia Pacific Aviation/Growth Dynamics & Competitive Challenges," AAPA Tokyo 2014 Conference.

"Infrastructure, Long-Term Market/Current Market Outlook," Boeing.

Knowler, Greg, "Excess Capacity Likely to Restrain Air Freight Pricing," Journal of Commerce, May 7, 2014.

Newton, Graham, "Cargo Infrastructure—No Longer the Poor Relation," Aviation Pros, September 17, 2007.

"On-Board Couriers: Fad or Invaluable Supply-Chain Tool?" Air Cargo World, December 14, 2011.

Partridge, Amy Roach, "Expedited Carriers: The Fast and the Furious," Inbound Logistics, November 2011.

Partridge, Amy Roach, "<u>Time-Critical Transport: Devising a Master Plan</u>," Inbound Logistics, November 2013.

Roebuck, Martin, "Lufthansa Eyes Future of Cargo Security," Aircargoworld.com, April 2, 2014.

"Talking Freight: 2014 Council of Supply Chain Management Professionals State of Logistics Report," Freight Planning, Federal Highway Administration, August 20, 2014.

Terry, Lisa, "<u>Air Cargo's Future: Ready for Anything</u>," Inbound Logistics, June 2012.

Terry, Lisa, "Expedited Transport: It's All in the Timing," Inbound Logistics, November 2012.

"The Emerging Air Infrastructure Gap," Airlnsight, August 20, 2013.

Wastler, Allen, "<u>West Coast Port Strife: The Retail Worry</u>," CNBC, November 22, 2014.

