

# Accommodating Low Cost Airlines at Main Airports

Richard de Neufville  
Professor of Engineering Systems and of  
Civil and Environmental Engineering  
M.I. T.  
Cambridge, MA 02139 (U.S.A.)

[ardent@mit.edu](mailto:ardent@mit.edu)

## Abstract

The actual or impending dominance of low cost carriers is creating problems for a number of main airports. The established primary airports have taken on long-term obligations and created high-quality facilities to serve the traditional airlines. However, many of these legacy carriers have been collapsing and have poor long-term prospects. The prospective replacement clients are the low-cost airlines. Yet these are both averse to paying for high-end facilities and often able to serve their traffic using the secondary airports prevalent in major metropolitan areas. Main airports may thus be faced with a range of unattractive choices. In general, many major airports will have to rethink their business model and pass through a challenging transition period. A likely outcome is that main airports will, contrary to past practice, increasingly have to offer a range of differentiated products, most obviously in terms of their passenger buildings.

**Richard de Neufville** is professor of engineering systems and of civil and environmental engineering at the Massachusetts Institute of Technology in Cambridge, Massachusetts. His latest text is *Airport Systems Planning, Design, and Management* (McGraw-Hill, 2003, with Amedeo Odoni). In addition to teaching and doing research on airports, he has consulted on airport projects worldwide, notably for Amsterdam, Athens, Atlanta, Bangkok, Boston, Brisbane, Chicago, Denver, Kuala Lumpur, London, Los Angeles, Manila, Mexico City, New York, San Francisco, Sydney, Toronto and Washington.

## Accommodating Low Cost Airlines at Main Airports

Richard de Neufville  
Massachusetts Institute of Technology

This paper examines the issues of accommodating low-cost carriers at the main airports, which have typically been organized around the needs of the legacy carriers. It first emphasizes the existing or impending dominance of low-cost carriers. It then considers how the low-cost carriers are fundamentally different from the legacy carriers in the way they use airport passenger buildings. This background poses the central question: how do airports, which have developed around the needs of the legacy carriers, deal with the different demands of the low-cost carriers? Put in terms of practical decisions, the question is whether airports should build low-cost passenger buildings and otherwise differentiate their offerings of services to airlines.

This issue of whether “low-cost terminals are good for airports” is certainly controversial in the air transport industry. From an organizational standpoint, the airports and airlines have diametrically opposite views on the matter. Speaking on behalf of the Airports Council International, its director general Robert Aaronson said:

“LCCs [low-cost carriers] simply do not want the same services as legacy carriers (which form the bulk of IATA membership) and airport operators must be nimble enough to deliver ‘no frills’ facilities at lower cost to all carriers that want them”

In counterpoint, speaking for the traditional airlines, the director general of the International Air Transport Association (IATA), Giovanni Bisignani, stated:

“Quite frankly, I do not believe that the current spate of low-cost terminals is taking us in the right direction.”

Of course, individual airports and airlines will differ from their collective institutional representatives, but the above comments clearly display the nature of the tension within the industry (quotes from Airport World, 2005).

From the perspective of the airports, dealing with the low-cost carriers may be hard. These new clients are interested in inexpensive facilities – often quite different from those already in place. To date, they have also frequently drawn traffic away from the primary to the secondary airports in the metropolitan region. In general, their presence poses questions for the long-term business plans of the main airports, and many airports are accordingly likely to be forced to reorganize their business and design objectives. On the physical side, we may see main airports increasingly slide away from their historic ideal of providing a consistent level-of-service across all their passenger buildings, towards offering a range of differentiated processes for handling passengers and aircraft.

## Surge of Low Cost Carriers

Low-cost carriers are now driving the future of air travel in the United States. This fact may surprise casual observers. Most of us can remember that the low cost airlines are newcomers compared to long-established (“legacy”) carriers that have proudly commemorated their 75<sup>th</sup> anniversaries. We can perhaps visualize the air transportation network studded with “fortress hubs” associated with the legacy carriers (such as American at Dallas/Fort Worth, Continental at Houston/Bush, Delta at Atlanta, Northwest at Minneapolis/St. Paul, and United at Denver and Chicago). From our visits to major airports we can remember the glittering terminal buildings associated with these traditional carriers, such as those of Northwest in Detroit and United in San Francisco/International. Many memories can combine to imprint us with the continuing importance of the legacy carriers. Nonetheless, the low-cost carriers now carry a major share of domestic passengers in US. Admittedly, it is difficult to count these figures exactly, since airlines sometimes use different labels (for example, in 2005 US Airways announced it “had joined together with America West to create the world’s largest low-fare airline”, US Airways, 2005). Nevertheless, the statistics of the International Air Transport Association show, on the basis of self-reported airline data, that low-cost carriers served 45% of the US domestic traffic in 2004 (IATA, 2005)

Similar stories are emerging elsewhere. In Canada, the low cost Westjet has been humming along while one of the two traditional legacy carriers went bankrupt (Canadian), then merged with the other legacy carrier (Air Canada) which company also went bankrupt. In Europe, Ryanair and easyjet have grown rapidly and rank, in economic terms, among the strongest passenger airlines in the world. In total, the various low cost European airlines and charter carriers already account for around 1/3 of all passenger traffic in the European Union. Likewise in Brazil, Gol is taking over rapidly as the national flag carrier, Varig, meanders through a slough of financial difficulties. In Asia finally, AirAsia, Lion Air, and NOK – unheard of at the turn of the century – by 2004 were already reported to have carried 6% of the traffic in that region (IATA, 2005).

The recession of the legacy carriers is accentuated by the rise of the integrated freight airlines such as UPS, Fedex, and DHL. Contrary to possible appearances that these are trucking companies, Fedex for example has more major jet aircraft than Lufthansa, British Airways or Air France, and UPS is in the same league (IATA, 2005). These carriers have basically seized the lion’s share of the market for profitable air cargo away from the legacy carriers. Most importantly, from the perspective of metropolitan main airports, these innovative carriers often use secondary airports in metropolitan areas. Thus beyond their main hubs in Memphis and Louisville, Fedex and UPS serve such airports as Chicago/Rockport, Los Angeles/Ontario; San Francisco/Oakland,

and Toronto/Hamilton. They are developing their own networks of services independent of those of the legacy carriers and the traditional main airports.

The rise of innovative, non-legacy carriers is underscored by their dominant market capitalizations compared to those of the legacy carriers. The “market cap” is the investors’ valuation of a company. It is simply the quotient of the number of shares in the company times the market price per share. It measures the financial power of a company, taking into account both its current situation and future prospects. Table 1 illustrates the comparative situation of the innovative and low-cost airlines compared to the legacy carriers. In brief, the low-cost carriers have the financial clout, and the legacy carriers are far behind. As of November 2005, Southwest was by far the most valuable passenger airline in the world, with a market cap about equal to those of British Airways, Air France and Lufthansa put together. The range of low cost carriers dominates the pack, and most of the US legacy carriers are bankrupt and essentially worthless.

**Table 1: Market Capitalizations of Leading Airlines (Billions of US \$) in November 2005.**

<b>Airline</b>	<b>Market Cap US\$, Billions</b>	<b>Airline Type</b>	<b>Bankruptcy History</b>
UPS	82	Integrated Cargo	
Fedex	28	Integrated Cargo	
Southwest	13	Low-Cost	
Singapore	9		
Ryanair	7	Low Cost	
British	5.5		
Lufthansa	5.0		
Air France	4.3		
Gol	3.9	Low Cost	
American	2.3		
easyjet	2.1	Low Cost	
jetBlue	1.9	Low Cost	
Virgin Blue	1.3	Low Cost	
Air Tran	1.3	Low Cost	
Japan Airlines	1.0		
Alaska	0.9		
Continental	0.9		Yes, pre 2000
Westjet	0.4	Low Cost	
Delta	~ 0		Yes, now
Northwest	~ 0		Yes, now
Air Canada	~ 0		Yes, now
United	~ 0		Yes, now

Source: finance.yahoo.com and industry estimates

Any intelligent approach to the air transport business should recognize the reality that the North American legacy carriers are financially impotent, and many others are vulnerable. The companies to pay attention to in thinking about airport projects are those that have the resources. Conversely, it is not a good idea to take on long-term obligations based on clients that have

neither money now nor good prospects for the future. While this is elementary good business practice, the desirability of paying attention to the now and future leaders needs to be emphasized. Transportation planning for airports all too easily assumes that past players represent the future. Thus, in Boston contracts were arranged that enabled Delta to build a \$400 million passenger building to its specifications – and the airline went bankrupt shortly after the opening of this facility. As Delta now shrinks its network and services, somebody may soon have to wrestle with the issue of how to lease this space – quite possibly to growing low-cost carriers that use space differently from the legacy carriers. Good airport planning and development needs to recognize that the best clients for future airport projects may be the low-cost carriers and their passengers.

## Relevant Characteristics of Low-Cost Carriers

Low-cost carriers operate differently from the legacy carriers. (See, for example, Barrett, 2004) They are not simply cheap versions of the bankrupt traditional carriers -- such as Delta, Northwest, US Airways, and United -- that can offer lower prices because they employ younger, non-union staff and are not paying pensions for retired workers. Beyond those advantages, the low-cost carriers operate differently.

Low-cost carriers have a business model that needs to be carefully understood. It largely determines how they will deliver air transport services to metropolitan regions, and consequently what kind of airport facilities they desire, and how much they are willing to pay for them. Key common features of their strategic plans are their aim to avoid:

- Congestion, and
- Expensive capital charges.

All else being equal, low cost carriers prefer to avoid congested airports because this strategy permits them to achieve extraordinarily high productivity from their aircraft, compared to the legacy carriers. (Warnock-Smith, 2005) They aim to fly their aircraft as much as possible by minimizing unproductive time either on the ground or in the air. They achieve this by avoiding congestion that will keep the aircraft on the ground, either because they are waiting for air traffic control clearance, have to queue up for a open gate, or have round-about taxi distances. This is a central aspect of their service, in the same vein as the more easily observable fact that they cut the turn-around time on the ground to a minimum (about 25 minutes in the case of Southwest, and between 30 and 45 minutes in the case of jetBlue, depending on its two current types of aircraft, in contrast to the more typical hour or more used by the traditional carriers). Low cost carriers thus commonly avoid congested airports and fly instead to secondary airports in metropolitan regions, notably Boston/Providence and Boston/Manchester, Dallas/Love, Los

Angeles/Long Beach and Los Angeles/Ontario, Miami/Fort Lauderdale, and San Francisco/Oakland and San Francisco/San Jose in the United States, and Brussels/Charleroi, Frankfurt/Hahn, London/Luton and London/Stansted, Oslo/Torp, Rome/Ciampino, and Stockholm/Skvasta in Europe.

Note that the preference of low-cost carriers for uncongested airports in no way means that they will not serve busy, congested main airports. They certainly will and do when they judge that the market opportunities outweigh the disadvantages of a congested facility. Thus jetBlue operates out of New York/Kennedy and Boston/Logan; Southwest is in Los Angeles/International and Philadelphia, and Westjet in Toronto/Pearson. Moreover, to the extent that legacy carriers continue to shrink, we may expect that low-cost carriers will increasingly replace the services of legacy carriers and operate out of main airports.

Low-cost carriers also reduce costs by avoiding expensive rentals for ground facilities. This practice is frankly new in the airline industry. Traditionally, airlines could and did generally neglect the cost of ground facilities – these were barely noticeable in their cost structure. A \$20 per passenger airport fee (which has been around the range for many big airports, for example Denver International) is not salient in a \$500 fare. However, it would definitely be a large expense for an airline charging \$100 or less for a flight. Low-cost airlines achieve low rental costs both by using older, less expensive facilities on airports, and by using their space more intensely, and thus requiring comparatively less of it, and specifically fewer gates.

One of the main ways that low-cost airlines reduce their need for expensive facilities is by putting more flights, and thus more passengers, through each gate. They do this by exploiting their capability to turn-around their aircraft quickly. The results can be remarkable. Thus jetBlue apparently manages to process between 600,000 and 700,000 passengers annually through its gates at New York/Kennedy – in contrast to the approximately 250,000 passengers that American Airlines achieves through its own gates (private communication). In this way, the low-cost carriers need far fewer gates. Put another way, they can process many more passengers through a building than the legacy carriers, and thus reduce their costs per passenger substantially. At Los Angeles/International for example, Southwest apparently manages 10 daily turns per gate whereas the other airlines only get about 4 on average (Los Angeles 2005, private communication). Of course, the efficient use of gates does not necessarily correspondingly lessen the requirements for other facilities, such as for passenger security screening, seating areas and washrooms, or baggage handling. The needed level per gate for these other facilities typically increases as part of the changes in requirements for passenger buildings that the low-cost carriers cause.

Low-cost airlines achieve particularly advantageous costs for ground facilities when they combine their high throughput per gate with their predilection for using older, cheaper facilities. In Boston, for example, jetBlue pays about \$1.5 million per gate as an annual lease for older renovated space, whereas its bankrupt competitor Delta is responsible for about \$2.1 million per gate per year in a brand-new building (private communication from Massport). JetBlue's apparent 40% advantage in this respect is magnified when one considers the high throughput it can achieve per gate. While jetBlue's traffic is growing rapidly and numbers are not firm, its annual lease cost per passenger is likely to be around \$5 or less – compared to maybe \$10 per person for Delta.

Moreover, low-cost airlines want to avoid expensive facilities both for themselves (which has to be reflected in their fares) and their passengers (who would pay in parking and other airport fees such as passenger facilities charges). Southwest indeed sells its flights from Boston, Dallas, Miami, and San Francisco through both its cheaper fares and the cheaper costs of secondary airports in these metropolitan regions (Providence, RI and Manchester NH; Dallas/Love, Fort Lauderdale and Oakland respectively in those metropolitan areas).

## **Dispersal of Airport Traffic**

The twin objectives of using uncongested airports and inexpensive facilities have combined to encourage many low-cost airlines to provide their services at secondary airports across metropolitan regions. Table 2 illustrates the phenomenon.

Note the definition of a secondary airport embedded in Table 2. A secondary airport for a metropolitan area refers to any airport that effectively serves and competes for passenger traffic from that larger conurbation. It does not have to be in the city proper; it does not even have to be in the relevant metropolitan statistical area. Indeed, secondary airports can be in different states or even countries. Thus Southwest serves passengers in the greater Boston area via service at Providence, Rhode Island, and Manchester, New Hampshire. These cities are 70 and 50 miles away from Boston, but are the closer airports for a significant fraction of travelers into or from the Boston area. Similarly, Malmo, Sweden is effectively a secondary airport for Copenhagen, Denmark, as a bridge connects the two cities.

The rise of the low-cost carriers has to date been accompanied by a remarkable redistribution of airport traffic across major metropolitan areas. Traffic at primary airports, such as Boston/Logan, Miami/International, San Francisco/International and London/Heathrow has grown slowly or even dropped while traffic at the secondary airports of Boston/Providence and Boston/Manchester; Miami/Fort Lauderdale; San Francisco/Oakland and San Francisco/San Jose; and

**Table 2: Low-cost Carriers Often Serve Secondary Airports in a Metropolitan Region.**

Metropolitan Region	Secondary Airport	Low-cost Airline
Boston	Providence	Southwest
Boston	Manchester, NH	Southwest
Brussels	Charleroi	Ryanair
Copenhagen	Malmo, Sweden	Ryanair
Dallas/Fort Worth	Love	Southwest
Frankfurt	Hahn	Ryanair
Glasgow	Prestwick	Ryanair
Hamburg	Lübeck	Ryanair
Houston/Galveston	Hobby	Southwest
London	Stansted	Ryanair
London	Luton	easyjet
Los Angeles	Long Beach	jetBlue
Manchester (UK)	Liverpool	easyjet
Melbourne (Australia)	Avalon	Jetstar
Miami	Fort Lauderdale	Southwest
Milan	Orio al Serio	Ryanair
New York	Islip	Southwest
Oslo	Torp	Ryanair
Paris	Beauvais	Ryanair
Rome	Ciampino	easyjet, Ryanair
San Francisco	Oakland	Southwest
Stockholm	Skvasta	Ryanair
Vancouver	Abbotsford	Westjet

Source: de Neufville Multi-Airport Systems database drawn from various reports.

**Table 3: Example Drops in Market Share of Passengers for Primary Airports Correlated with Rise of Low-Cost Carriers**

Metropolitan Region	Primary Airport	Market Share (%) in	
		1994	2004
Boston	Logan	90	72
Miami	International	69	56
San Francisco	International	68	58
London (UK)	Heathrow	65	53

Source: de Neufville Multi-Airport Systems database drawn from various reports

London/Stansted and London/Luton has soared. Major metropolitan airports have thus been losing much of their former pre-eminence along with the rise of the low-cost carriers, as Table 3 documents. How long this trend will persist is unclear. It might easily reverse if the legacy airlines continue to falter and the low-cost carriers aggressively expand their current beachheads at the main airports.

In general, almost all the major airports are vulnerable to this kind of redistribution of traffic. Essentially all the major generators of air passengers in the world have multiple airports. In the United States, this is true of Boston, Chicago, Dallas/Fort Worth, Houston, Los Angeles, Miami, New York, Orlando and Washington. Worldwide, this list includes Brussels, Frankfurt, London, Milan, Moscow, Osaka, Paris, Rome, Tokyo and many others. Furthermore, Table 3 only presents the situation for passenger traffic. Additionally, the integrated freight carriers such as Fedex and UPS are concurrently sending much of their traffic to secondary airports, as noted above.

## **Meanwhile, at the Main Airports**

As of 2005, the low-cost carriers have created a situation at the main airports that is not encouraging. Many factors cumulate to put a number of them in a bind. In general, the main airports in varying degrees face some combination of the following issues:

- declining market shares;
- the enfeeblement of their traditional primary clients
- a legacy of excellent, yet possibly inappropriate facilities;
- an entrenched mindset.

Table 3 illustrates the phenomenon of declining market shares for main airports. This development, along with other factors that decreased traffic since 2001, has put a number of airports far behind the long-term projections on which they committed to various developments over the past. San Francisco/International, for example, has been struggling to cover its investments in its new huge International terminal, automated people-mover, and the extension of the BART rail line. Simply put, the decline in market shares associated with the rise in the low-cost airlines has economically stressed some main airports.

The bankruptcy or otherwise financial enfeeblement of the legacy carriers, which have been the principal clients at the main airports, has also been financially bad news for the airports. At best, the bankrupt airlines will pay the anticipated rentals with some possible legal proceedings and other delays. More generally, the weakened legacy carriers will continue to cut flights, staff, and their needs for space and facilities, and will thus be seeking to cut their annual payments substantially, as well as causing decreases in concessionaire and other commercial revenues. The main airports will need new clients to fill in the space and facilities vacated by the shrinking legacy carriers. The main airports thus need to attract the low-cost carriers, because they provide the alternative.

However, the main airports often do not have the kinds of facilities best suited to the business models and needs of the low-cost airlines. In fact, many of the assets of the main airports may be poorly suited to the needs of the low-cost carriers. Following the lead and business models of their erstwhile powerful clients, that is the legacy carriers, the main airports have built excellent, attractive facilities that can provide high levels of service. While these facilities made sense financially for airlines charging high fares, and for whom ground costs were largely insignificant, they do not make the same sense for low-cost carriers striving to minimize costs. Thus, the low-cost carriers may choose to use either only a fraction, or the oldest (and less expensive) facilities on the main airports. For example, low-cost international carriers have been observed to use only 1 check-in counter in the new San Francisco/International passenger building, making passengers wait in long lines and experience a low level-of-service, even though they were surrounded by dozens of empty check-in counters. These low-cost airlines prefer to cut costs and skimp on facilities. Likewise, jetBlue in New York/Kennedy has preferred to use one of the oldest and most cramped passenger buildings on the site (Terminal 6). Similarly, Ryanair has declined to use the first-class, 2 level mid-field buildings served by people-movers at London/Stansted, and opted instead to require its passengers to walk out to their aircraft through a rudimentary single story structure.

In short, the elegant buildings built for the traditional carriers may not fit with the business plans of the low-cost airlines. This was clearly demonstrated at Baltimore/Washington Airport when US Airways, under pressure from Southwest, moved to the bulk of its flights to Philadelphia. The passenger buildings to accommodate the different needs of Southwest as it grew. (Little, 1998; de Neufville and Odoni, 2003) To the extent that the low-cost airlines represent the future, the current elegant buildings may be on the verge of becoming obsolete in the sense that they serve the past and not the coming requirements of the clients. In short, some of the current assets of the main airports may be out-of-step with the commercial needs of the prospective new customers, the low-cost airlines.

Finally, some managers of the main airports seem to reflect a mindset stuck in the past. A recurrent mantra has been that

“We have a good base of local traffic, and it doesn’t matter if our current airlines go away, some other airline will appear to serve our passengers and use our facilities.”

This reasoning was valid for a long time, particularly during the decades when air transport was closely regulated. However, this logic is now doubly flawed:

- In the first instance, the “local traffic” from a metropolitan area can now increasingly be served by alternative airports. This is what is happening around San Francisco for example, as Table 3 shows. “Local” passengers often do not have to use the main

airport, when they can use the alternative secondary airports such as San Francisco/Oakland and San Francisco/San Jose, or Dallas/Love instead of Dallas/Fort.Worth.

- Secondly, the low-cost airlines that are likely to replace the shrinking legacy carriers, are unlikely to accept the same financial obligations that the traditional airlines had accepted. Moreover, they may request and get – because they have alternative airports to serve and will be courted by the main airports – advantageous financial arrangements.

A number of airport managers will have to recognize that their traditional mindsets about creating, leasing and running their airport buildings need to be brought up-to-date with the reality of the world of low-cost airlines.

Airport managers are not the only ones who will have to readjust their expectations. The architectural community that has been responsible for creating the grandiose passenger buildings of the past decades has yet to come to grips with the new market. Rightfully, leading architects have taken pride in the remarkable structures they have created – Norman Foster at Hong Kong/Chep Lap Kok; Helmut Jahn at Chicago/O’Hare and Bangkok/Suvarnabhumi; Richard Rogers at Madrid/Barajas and London/Heathrow; and Safdie and Skidmore, Owings and Merrill at Tel Aviv and Toronto/Pearson. Conversely, they despise the cheap facilities the low-cost carriers are now building (See Russell, 2005b, for example). The question, however, is whether the architectural masterpieces are fully appropriate to the clientele that they may now have to serve. Will Bangkok’s magnificent new airport actually attract the range and type of passengers it was designed for, at a time when the low-cost Asian airlines will be happy to use the older, cheaper Bangkok/Don Muang? Will the US \$ 8 billion new Terminal 5 at London/Heathrow be competitive against the low-cost facilities used by Ryanair and easyjet at London/Stansted, London/Luton and elsewhere?

The effect of low-cost carriers on main ports is a real threat, as the experience at Zürich indicates. In that case, the airport found itself saddled with:

- a bankrupt and now defunct airline, Swissair;
- the debts accumulated from a \$2.8 billion building program;
- an elegant mid-field passenger building whose capacity was not needed.

As a result, the airport management raised per passenger charges by 50% in order to cover its financial obligations and, in the process, drove the low-cost carrier easyjet to move its operations to the competitive airport of Basel/Mulhouse. (Vines 2005) If airport managers do not cater to the low-cost airlines, they may drive this important clientele away.

## What are main airports doing?

At present, managers of main airports have not formed a consensus about how to deal with the rise of the low-cost carriers. At one extreme, some airports have taken the line that they offer first-class service and will not ruin their brand or image by providing the cheap facilities desired by low-cost carriers. Famously, this was the case for Hamburg airport, which refused to cater to the desires of Ryanair, which subsequently based itself at Lübeck, some 30 miles away, and is rapidly building up traffic at the expense of Hamburg. In general, the pattern is more mixed.

A number of main airports are in the process of bringing on brand-new, generously designed new terminals. For example:

- Dallas/Fort Worth has inaugurated a new terminal for American Airlines, at a cost of \$1.2 billion for around 25 gates, or about \$50 million per gate (Russell, 2005a);
- Seattle/Tacoma opened its South Terminal Expansion project, that cost \$587 for 14 gates, or somewhat more than \$40 million per gate (Russell, 2005a); and
- Toronto/Pearson inaugurated its new terminal complex, with an estimated cost, including access highways and parking, of around US\$3 billion (CBC 2004, Putzger 2005).

These facilities were designed in the mid 1990s, before the traditional clients for the main airports suffered from the epidemic of bankruptcies, and before the on-going surge of low-cost airlines. To a degree, a number of main airports have inherited a legacy of the past and must live with it as best they can.

On the other hand, some airports have recognized the need to provide cost-effective airport passenger buildings consistent with the needs of the business model for low-cost carriers. Thus in North America:

- Detroit Metro is replacing 26 gates at a proposed cost of \$443 million or around \$ 17 million per gate (Russell, 2005a);
- American Airlines has opened its new terminal for 34 gates (as actually built as of 2005, which is only a portion of the widely-reported level of 54, as in the master plan), brought on at a cost of about \$1.1 billion or about \$30 million per gate -- thanks to a 25% cost reduction in recognition of the need to be competitive (DMJM Aviation, 2005); and
- The Delta passenger building in Boston cost \$400 for 22 new gates, at a cost of about \$19 million per gate.

To put these costs into the context of low-cost carriers, consider the case of jetBlue at New York/Kennedy. It is developing 26 new gates for a cost of around \$650 million or \$25 million per gate (Russell, 2005a, as modified to take out the separate costs of the 1500 space parking

garage, and the preservation of the historic TWA building). But the cost per gate is not the most appropriate basis of comparison, when dealing with low cost airlines that use gates so much more efficiently, and correspondingly have to increase the relative importance of security and other facilities per gate. The better basis of comparison might be the investment cost per annual passenger through a gate. On this basis, the jetBlue building at New York/Kennedy will come in at about \$40 per annual passenger served, in contrast to about \$130 for the American Airlines passenger building across the way.

In line with developing less expensive facilities in general, a number of airports worldwide have recognized the economic necessity of catering to the low-cost airlines. Thus, among others:

- Berlin/Schönefeld has dedicated a charter flight building to the use of easyjet (Citrinot, 2004b);
- Geneva has created a low-cost passenger building (Vines, 2005; Geneva, 2005);
- Kuala Lumpur/Subang is developing a low-cost passenger building near its cargo facilities;
- Paris/de Gaulle has been using Terminal 9 as a low-cost and charter facility;
- Singapore/Changi should be opening a low-cost passenger building in 2006 (Citrinot, 2004a);
- Warsaw has reactivated an old building specially for low-cost airlines (Citrinot, 2005)

It is clear that a range of capital city or main airports have and are recognizing a business need to create special facilities to serve the low-cost airlines and their clients.

That said, the track record reflects the airport managers' ambivalence about dealing with low-cost carriers. Typically, the low-cost airlines are tucked away at some remote spot that is hard to reach. For example, both at Paris/de Gaulle and at Kuala Lumpur, the low-cost carriers are far away from the rail service that serves the airport – which is ironic since the price-conscious travelers on low-cost carriers are precisely the ones most likely to use public transport. So far, airport managers have demonstrated a general reluctance to incorporate low-cost facilities into the range of the main offerings.

## **What should main airports be doing?**

Managers of main airports need to recognize the reality that low-cost carriers are becoming dominant in the United States, and appear on their way to significant importance elsewhere in the world. Yet while it is obvious that we should deal with reality, this may not be easy to do. Dealing with this reality will, for many, require profound attitudinal changes. And some professionals may simply be in denial.

Acknowledging the reality that the low-cost business model will be a driving force in air transportation may require a deep shift in attitudes and expectations. Most obviously, this recognition imposes a discipline of economy, of simplicity that is counter to traditional practices of airport development. Airport passenger buildings have typically been conceived on a grandiose scale. Depending on the context, they have been seen either as important marketing statements for the sponsoring airline (a traditional practice in the United States, where airlines have dominated design choices), or as gateways to the region. Either way, they have usually featured impressive multi-story entrance ways, signature roofs of impressive and difficult construction (as at Denver/International, London/Heathrow Terminal 5, Osaka/Kansai, Madrid/Barajas, etc., etc.), beautiful marble-like floors and walls, and so on. Airport passenger buildings have been among the largest, most impressive, and most beautiful modern structures in many metropolitan areas. They have also been among the most expensive. Abandoning this tradition will not be easy.

A corollary reality is that airports may have to offer differentiated products, most obviously between full-service and low-cost airlines. This possibility will also require an attitudinal mental shift. Although many main airports have offered some small instances of differentiated products (such as bussed connections to charter aircraft) these have generally been hidden from view and kept in the closet as it were. Bringing differentiated products out of the closet and making them a centerpiece of the business plan will not come easy to many airport managers.

By extension, this differentiation may well extend from the physical nature of passenger buildings to various airport services such as security, passport control and baggage handling. Here again, there is bureaucratic and other resistance to such developments. Fast track lanes for first-class passengers or "trusted" travelers exist at minuscule levels. There has been deep-seated reluctance to allow airport managers or airlines to pay for more rapid service (which implies more agents, not less thorough or less secure operations). Depending on the local circumstances, such developments may well take hold however.

In any case, product differentiation is the hallmark of a modern consumer economy. We are long past the various notions of consumer regimentation, either as a production rationale (as attributed to Henry Ford that car buyers "can have any color they want, as long as it's black"), or as a Maoist political philosophy. Transition to explicit product differentiation in the design and operation of airport passenger buildings is likely to arrive sometime soon at airports. The surge of low-cost airlines seems to make this inevitable.

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