# REVENUES

No longer reliant on airline fees to generate their revenue, airports are increasingly looking to non-aeronautical revenue streams to boost their income. From traditional retailing, to car park facilities, to business development opportunities and of course route enhancements, airports still have many opportunities to enhance their returns.

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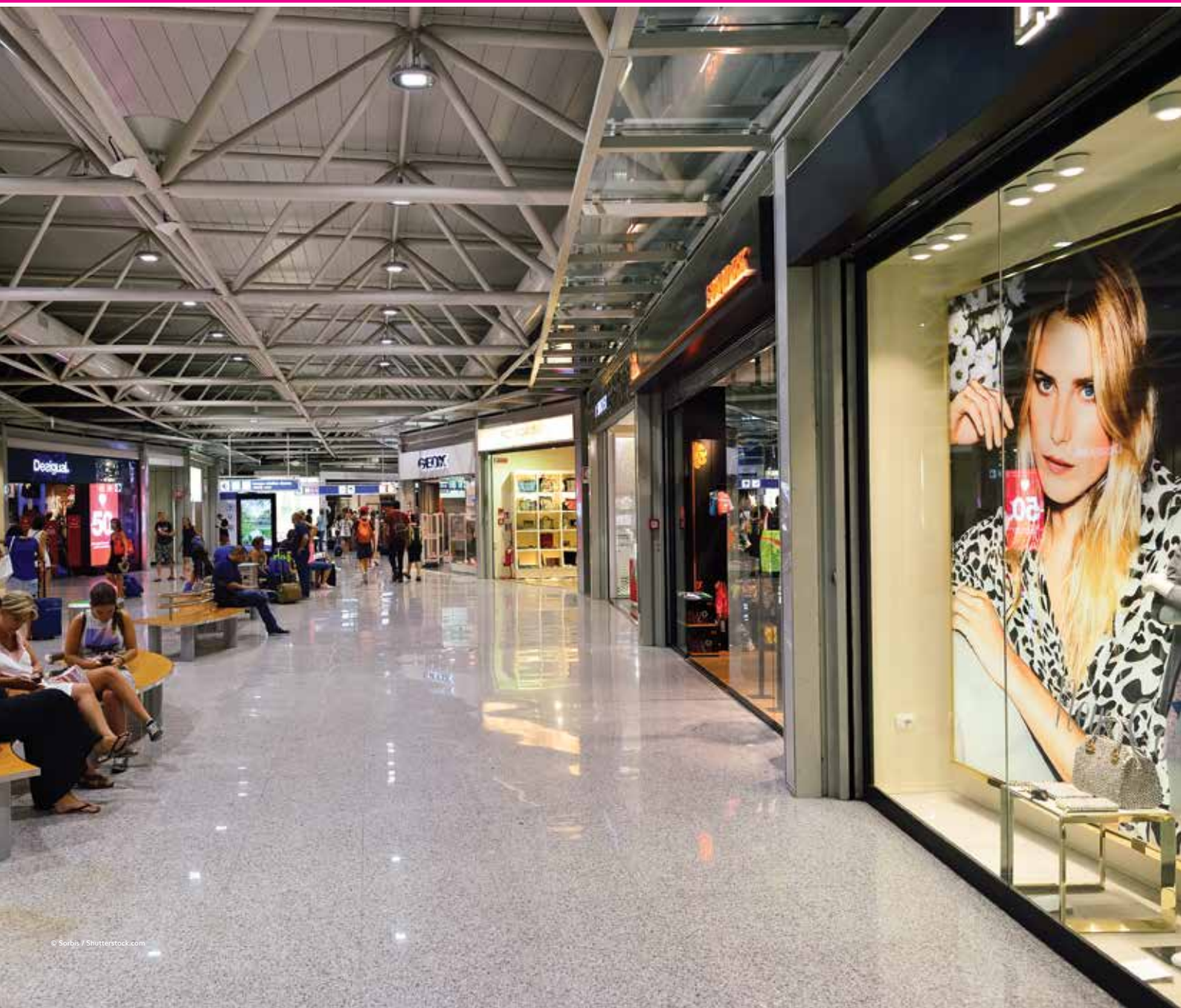
Exploring the
self-connectivity market

With the North American, Asia-Pacific and European Economic Area regions accounting for 46.5% of global air traffic connections there is evidence to suggest that airports can create an invaluable new revenue stream by capitalising on the self-connectivity market. Course Director of the MSc Airport Planning and Management at Cranfield University, *Dr Pere Suau-Sanchez*, outlines key research into this lucrative opportunity.

THE self-connectivity business – where air travellers use a combination of tickets to arrange their own cheapest routes – has been tentative thus far. Both airports and airlines, particularly low-cost carriers, have dipped their toe into the water by introducing transfer fees and developing self-connection platforms.

However, the potential for creating revenue streams via self-connections is bigger than these cautious and limited offerings suggest. What's needed is the hard evidence. Through joint research with the University of Edinburgh Business School and Linköping University, we discovered that 4% of passenger bookings in global air transport markets could currently involve a self-connection. Looking at a modest development scenario using

self-connectivity platforms, this would increase the potential share of self-connections to 7%; and in another development scenario making self-connections fully visible in traditional booking platforms it would double the potential share of self-connections to 15%. At these kinds of levels, there is an opportunity for the most effective pioneers and innovators in self-connectivity to have a real impact on the future of the air travel industry. We've also been able to create top 10s for airports with the most potential for self-connections (broken down into regions) and for those airlines best placed to take advantage.

So far, low-cost carriers (LCCs) have led the way, partly in response to increased competition and low margins. In Europe, Vueling and Air Berlin were

among the first LCCs to start offering flight transfers at their hub at Barcelona and Palma de Mallorca, respectively. Another example is Norwegian, which charges a connecting fee primarily to cover the costs of transferring passenger baggage between its own flights. Globally, Air Arabia (UAE) and Citilink (Indonesia) are known for offering flight connections at their main bases. The provision of these services shows that LCCs are interested in generating new sources of revenue by catering to the needs of self-connecting passengers, who design their own flight itineraries outside the boundaries of traditional airline connectivity with the objective of saving money. These passengers travel on a combination of multiple tickets and take care of their own baggage transfers since the airline/s involved do not handle the transfer themselves. This definition includes both inline LCC transfers as well as other types of interline connections. In some LCC airport bases it is common to see price-sensitive passengers sleeping in the terminal to self-transfer between late-evening and early-morning flights. Some well-known cases are London-Stansted, Bergamo and Bordeaux airports.

A few other European airports have also shown interest in tapping into this segment of demand. For example, London Gatwick and Milano Malpensa have implemented new platforms to facilitate self-connections and improve travel experience. In exchange for a fee paid during the reservation process (available from online booking platforms that participate in the scheme), self-connecting passengers at Gatwick are offered, as a minimum, a baggage transfer service as well as an insurance against the risk of missing their onward flight in the event of delays.

The benefits for the airlines are a growth in market share and economies of traffic density. From the airport's perspective, a direct advantage is linked to increased non-aeronautical revenues generated by the extra connecting passengers. They can also benefit in terms of route development, particularly if self-connections help to improve the way in which short-haul low-cost frequencies feed passengers to long-haul flights, thus making international routes more sustainable in the long term and potentially developing the airports' position as an international gateway. The CEO of Gatwick Airport, for example, has argued that the airport's "diverse short- and long-haul airline mix" improves its suitability to host a self-connection platform. Another argument in support of that idea is the development of low-cost long-haul services that effectively expands the scope of LCC self-connectivity to long-haul markets as new opportunities arise for passengers to find cheap fares in these longer routes. The negotiations between Ryanair and Norwegian (which operates

long-haul frequencies) with regard to possible collaboration clearly indicate that airlines are keen to develop those travel opportunities.

The fact that self-connectivity is primarily a passenger strategy to save on air fares indicates that price-sensitive leisure travellers would remain the key target for this type of self-connection platform – fitting nicely with the kind of passengers and destinations that LCCs all over the world typically focus on: short- to medium-haul holiday markets. So it's not surprising that many short- to medium-haul Mediterranean destinations are among the self-connecting routes promoted by Gatwick and Milano airports, even in markets that are well served by direct frequencies or traditional flight connections.

A more sophisticated understanding of the potential for airports is needed, based on an airport's geographic location and airline mix as a means of identifying different patterns of specialisation in self-connecting routes. During this research we focused on global air transport markets, as represented by the passenger itineraries included in a MIDT dataset for the first week of June 2014. In total, the dataset contains 1.4 million different travel itineraries in 462,599 origin-destination markets, involving slightly over 54 million passengers, 23% of whom (12.3 million) travel indirectly (with at least an intermediate stop) to their destinations.

The largest market by far for connections is the North American one, followed by Asia-Pacific and the European Economic Area (EEA). These three ▶

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intra-regional markets account for 46.5% of global connections. With regard to intercontinental markets, the busiest ones connect the three aforementioned regions as well as North America with Latin America and the Caribbean.

Our research centred on predicting the amount of potential traffic that could be captured by self-connecting travel alternatives based on typical passengers extracted from our bookings data by means of a Poisson regression. Variables such as air fares; number of weekly frequencies; travel times; number of intermediate connections, or travel detours were considered in our model. The headline findings are that most of the self-connectivity potential is in intra-regional markets (but there is potential in long-haul markets as well); that LCC and second-tier airports have the highest potential to benefit from self-connectivity (but there are also opportunities for full service network carriers). Ultimately, to unleash the full potential, self-connection options need to be fully visible and integrated into the booking process.

The baseline model estimated that approximately 4% of passenger bookings in global air transport markets could potentially involve at least one self-connection. This share increases to 7% in the development one scenario (where self-connecting travel options achieve similar quality to traditional connectivity by means of self-connecting platforms developed by airports) and it doubles to 15% in the development two scenario (in addition to the above, self-connections become fully visible in booking

platforms). This growth comes at the expense of both non-stop traffic and traditional connectivity. Overall, the share of indirect air travel increases from 22.93% to 28.77%.

Table 1 indicates that self-connections can potentially be concentrated in airports located in Europe, North America, and Asia-Pacific. From the perspective of the origin and destination markets, intra-regional self-connectivity represents approximately two-thirds of global self-connections. This is consistent with the frequency distribution of self-connectivity according to market length (great circle distance from origin to destination). While these connections are observed in all kinds of routes, the highest frequency appears in markets around 2,000km. There is a clear divide between short/medium-haul and long-haul self-connectivity. This result seems to relax the requirement of having a diverse mix of short- and long-haul destinations in order to capture self-connecting passengers and suggests that there may be opportunities for specialisation by focusing on either of the two primary demand segments for these services. Some airports may want to focus on short-haul touristic markets, while for others the airline and destination mix will create long-haul self-connection opportunities. Thus, having a well-developed long-haul destination network does not seem to be a requisite for strong self-connectivity.

Further data shows that the top airports in each region according to predicted numbers of weekly self-connections fall under the three scenarios.

> *This shows evidence for potential new opportunities across the industry – new niche markets, new airport profiles and new revenue streams.*

TABLE 1 Airports with the largest number of potential connections

AIRPORT	CODE	TOTAL FLIGHT COMBINATIONS: 1- AND 2-STOP	1-STOP	2-STOP	SELF-CONNECTING POTENTIAL: FLIGHT COMBINATIONS
Chicago O'Hare	ORD	2,347,620	1,416,252	931,368	1,329,946
Atlanta	ATL	2,133,629	1,433,229	700,400	919,061
Frankfurt	FRA	1,526,101	451,983	1,074,118	537,119
Denver	DEN	1,227,234	611,557	615,677	712,287
Dallas/Fort Worth	DFW	973,254	571,342	401,912	310,151
London Heathrow	LHR	951,825	364,539	577,286	498,307
Amsterdam	AMS	910,721	288,204	622,517	313,617
Los Angeles	LAX	896,524	482,658	413,866	727,895
Houston Intercontinental	IAH	824,178	426,255	397,923	206,992
Minneapolis/St. Paul	MSP	797,839	344,292	453,547	263,320

LEFT: Connecting passengers drive traffic in hub airports

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At first sight, results indicate that the largest levels of self-connectivity are currently experienced by the airports that also have the highest levels of traditional connectivity. This includes major European hubs such as Heathrow or Frankfurt; Atlanta and Chicago in the U.S.; as well as Hong Kong and Dubai. In the European case, however, the major airports are not the ones that would benefit the most from the introduction of self-connection services. Second-tier airports with substantial LCC presence such as Barcelona, Gatwick, or Manchester experience the highest increases in connecting traffic in the development scenarios. In fact, most airports experience increases in connecting traffic with few exceptions, such as Frankfurt. Upon inspection of the raw data, this surprising result reveals a vulnerability of the primary German hub in intra-European markets, with passengers leaking from Frankfurt to alternative hubs such as Rome and Vienna.

From the airline perspective, there is a clear divide between LCC-dominated and other airports as the first translates into a higher share of inline self-connectivity. This would allow for an initial implementation of these services that is not fully dependent on interline negotiations. This, again, points at Gatwick as an ideal location to promote self-connectivity, and similar conditions are present in Las Vegas or Ft. Lauderdale airports.

We have also analysed information on the top airlines according to self-connecting traffic potential in the three scenarios. As in the airport case, the airlines are grouped in geographical regions as per their home countries. Results indicate that LCCs like Ryanair, easyJet, Southwest, and Varig have the highest baseline levels of self-connectivity in each region as well as the highest potential for growth in the development scenarios. In spite of that, we also find traditional network carriers such as Delta and British Airways ranked highly. Since self-connectivity occurs between a feeding airline (that operates the first flight) and an onward airline, it is worth considering the potential onward partners for each major carrier. The first conclusion is that Southwest has the easiest implementation due to the largest proportion of inline self-connectivity (33.29%). Among the other LCCs we can mention, in descending order, Ryanair (23.78%), easyJet (19.18%), and JetBlue (16.89%). These results also reveal the existence of a high degree of reciprocity between some airlines, for example, Delta and Southwest would be one another's top onward partner. In Europe there is also good reciprocity between easyJet and Air France.

This shows evidence for potential new opportunities across the industry – new niche markets, new airport profiles and new revenue streams. However, strong self-connectivity offerings require a new and active approach to route development, greater airport-airline collaboration and investment into baggage systems. This kind of significant integration of self-connections in the booking process also has the potential to challenge the current hub status quo by adding additional pressures, raising major questions for the full service network carriers on whether they want to join the game. ✈

BIOGRAPHY

DR PERE SUAU-SANCHEZ is Lecturer in Air Transport Management and Course Director of the MSc Airport Planning and Management at Cranfield University. He has participated in several R&D and consultancy projects and published many academic papers. His recent paper on self-connectivity, co-written with Dr Augusto Voltes-Dorta (University of Edinburgh Business School) and Mr Hector Rodriguez-Deniz (Linköping University) has recently been published in the Journal of Transport Geography. He also regularly contributes to the Spanish newspaper La Vanguardia.

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Maximising potential to boost growth

Southampton International is a shining example of how a regional airport can maximise its revenue streams to boost its growth. As well as generating commercial income from aeronautical charges, the airport also has important income streams from its retail, car parking and property business divisions. The airport's Head of Commercial, *Angus McIntyre*, reveals how the airport has developed over the past century.

FROM its first flight in 1910 to present day, Southampton Airport has come a long way over the past 100 years and with it new challenges and opportunities have arisen for commercial development. The very first aircraft to take off from Southampton was the Moonbeam 2 which was owned and flown by local man, Edwin Rowland Moon. Today the airport welcomes many different aircraft from the Trislander through to the Q-400, the Fokker 70 right up to the Boeing 757. The airport has grown to welcome nearly two million passengers a year and offers flights to over 40 destinations with many different airlines and tour operators. Current airlines that fly from Southampton include KLM, Flybe, bmi regional, Volotea, Aurigny, Aer Lingus, and Eastern Airways.

Route development

'Potential' is an often over used word, however within the Airline Business Development Team at Southampton Airport they simply can't use it enough. As airport capacity in the South East of England becomes more and more constrained the role of smaller regional airports such as Southampton Airport is all the more pivotal.

Something of a hidden gem on England's south coast, Southampton Airport has its own direct train station (just 99 steps from the terminal) which affords it the same convenient links to the Capital that many of the other self-proclaimed outer London airports have – just 66 minutes from SOU to London Waterloo. It is also blessed with having the M27 and M3 motorways right on its doorstep as well as fantastic bus links to the city of Southampton. This in itself makes it one of the top airports in the world when comparing airports and proximity to the city they claim to be in.

Easy access to the capital is of course a trump card for the airport, as is the 'potential' of the airport's immediate catchment area which is the topic of many an interesting discussion between the Southampton Airline Business Development Team and airlines about future services.

ABOVE: Easy access to London means Southampton International Airport is ideally positioned

> *It is very important to get the 'science' behind route development correct, an accurate picture of demand, and indeed the competitive landscape is needed to ensure the correct route is added.*

Airports are often derided by airlines for unrealistic statements on the scale of their catchment, however Southampton has always adopted a pragmatic approach and the catchment area is defined in two ways. Southampton refers to the 'inner' catchment which is within 30 minutes' drive of the terminal and has a population on 1.4 million, and the 'outer' catchment which is within 60 minutes' drive and has a population of 3.5 million. This of course helps reduce overlap in an area of the country which has several airports but also gives an accurate estimation of where traffic can be pulled from, and stimulated from within the local area.

Not all routes or airlines would work from Southampton Airport, firstly because of the airport's shorter runway which restricts the type of aircraft that can be accommodated without pay load restrictions. Secondly the demographics of the catchment are key differentiators for the airport; Southampton offers the largest catchment area south of London. It is quite discerning with higher disposable income than the UK average and people within the area tending to take four or five breaks per year. It is very important to get the 'science' behind route development correct, an accurate picture of demand, and indeed the competitive landscape is needed to ensure the correct route is added.

The team at Southampton use a variety of tools to help build a view on the size of the prize for an airline. In these current days of 'big data' there are many ways in which a profile of demand can be established, be it the use of social media to speak with the airport's catchment and understand their route wishes, to networking on LinkedIn to gain an understanding of corporate travel demands. Of course Marketing Information Data Transfer (MIDT) and the Civil Aviation Authority (CAA) style data are still priceless in an airport such as Southampton given the nature of the route network and as it will show a pattern of demand and most importantly leakage to other airports.

Slowly, the secret about Southampton and its 'potential' is getting out there. In 2016 the airport handled almost two million passengers, buoyed by the introduction of new international carriers such as KLM, bmi regional and Volotea with its first ever UK operation. The future certainly looks bright as the airport continues to evolve and its primary carrier Flybe continues to grow its footprint.

Retail and the experiential side of things

As well as generating commercial income from aeronautical charges, the airport also has important income streams from its retail, car parking and property business divisions. Southampton's core proposition is one of speed and simplicity, allowing passengers to 'breeze' through the airport. As such, the airport's retail and car parking products need to reflect this and enable passengers to move seamlessly and easily through the airport.

The layout of the airport's stores and size of the facilities reflects its current traffic profile and passenger mix. Menus in restaurants look to reflect the changing tastes of passengers as well as ensuring that the food can be served in an appropriate time frame given the breeze through philosophy. There are wonderful views of the runway and airfield from the departures lounge and an important part of the retail proposition at Southampton is creating a sense of excitement for passengers to see the aircraft and the activity that those within the industry may take for granted. Aviation is a fascinating industry and allowing passengers to see it up close is an important part of the regional airport experience. The fact you can do that whilst enjoying a glass of something indulgent all adds to the experience.

Car parking is an important part of the customer journey and product offering. When booked in advance, the rates at Southampton are very competitive. The short stay car park is immediately adjacent to the main terminal making it very convenient for passengers. The long stay car park is a five minute bus ride away and all our car parks are Park Mark® accredited giving customers that extra assurance. When booking the car park, passengers can also book Priority Security and Priority Lounge products. Again this is an important customer proposition for those passengers looking for a little ▶

ABOVE: In such a competitive market it's vital that airports remain focused on the passenger

As airport capacity in the South East of England becomes more and more constrained the role of smaller regional airports such as Southampton Airport is all the more pivotal.

more exclusivity and relaxation before they fly.

Southampton's property portfolio generates income from traditional rental agreements through to working with business partners such as its fuel provider to grow the on airport fuelling business where airlines look to uplift fuel at Southampton. Key to all these decisions is making sure that the airport offers value for money and an excellent customer proposition. In such a competitive market, its focus is on the passengers and ensuring that it keeps products relevant and its service delivery the best it can be every time.

Helping the little guy

Southampton Airport is also very supportive of general aviation (GA) and recognises that the numerous smaller airfields in the local area and the beautiful scenery is attractive to many recreational flyers. The airport offers basic handling alongside the commercial traffic and can receive quite high numbers of requests, especially on weekends in the summer. During events such as The Boat Show, Isle of Wight Festival and the numerous Goodwood events the demand for flying through Southampton increases significantly. Its business partners include Signature Flight Support who have a fixed base operation at the airport and can accommodate larger GA aircraft including Dassault Falcon 900, Bombardier Global 5000 and Raytheon Hawker 800XP. Landing and parking fees are competitive and include the huge advantage of being immediately next to road and train connections for onward travel across the South East of England.

Southampton Airport also offers Instrument Flight Rules training (IFR) and because there are quieter periods in the commercial flying schedule and a variety of navigational aids used at the airport, it is a popular location for trainees to practice their skills.

The airport is also the nominated diversion airfield for a number of airlines flying into London airports and should bad weather impact London airspace then Southampton can accommodate most Code C and below sized aircraft at short notice.

Commercial training with the Airport Fire Service

Within Southampton Airport's Fire Service (AFS) there is a highly professional team committed to developing the skills of others. The AFS actively train others in areas such as first aid, fire warden training, hands on use of extinguishers and manual handling. The AFS use a duel-fuelled aircraft training rig which provides realistic firefighting in terms of aviation fuel fires to train their own staff. Other airports, such as Heathrow and Brighton City have also used the facility. The scenarios it provides are internal and external engine fires, undercarriage fires, fuel rail scenarios and realistic fuel spill scenarios.

One of its most popular courses is a three part Fire Safety, Health and Safety and Airside Safety session which is attended by most business partners at the airport. The session ensures that all tenants plus companies utilising the airport are trained effectively and also means that as the landlord to these businesses, it is satisfied that property is occupied by fully trained staff.

At Southampton the AFS also delivers a marine-based course, Standard Training Certificate and Watching (STCW), which in partnership with a local marine training company, provides firefighting training for people who are actively seeking jobs in the marine industry. The course, approved by the Maritime Coastguard Agency (MCA), takes place over 2.5 days and gives candidates the certificate needed to work on ships over 24ft (7.3 meters). The types of students on these courses range from Deck Hand to Officers, dancers in the entertainment department to chefs!

Southampton Airport is very proud of how it has developed over the last century and is looking forward to hitting the two million passengers a year mark later in 2017. ✈

BIOGRAPHY

ANGUS MCINTYRE has worked in the aviation industry since 2008 when he joined London Gatwick, spending three years in the Airline Business Development team looking after the Asia and the Middle East markets. Since then he has also worked at Heathrow Express as Head of Business Development creating agile B2B solutions and most recently joined Southampton International Airport in 2016 as Head of Commercial, responsible for retail, property, car parking, advertising, marketing and e-Commerce.
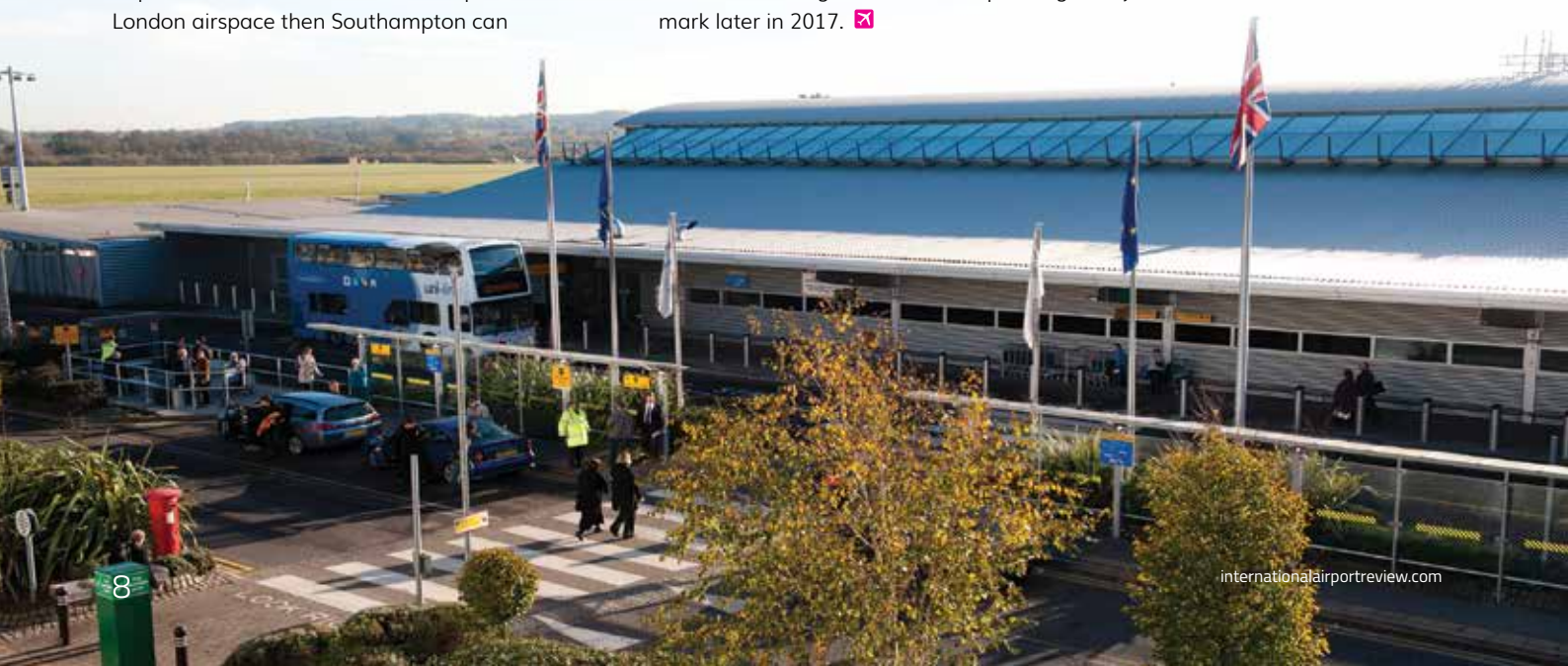
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