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Aeronautical Charging Policy Incentive Schemes for Airlines at European Airports

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Abstract

This paper introduces the concept of incentive schemes that may accompany airports' aeronautical charging policies and develops a taxonomy of such schemes based on an analysis of data for 46 European Airports held in the RDC Aviation database.¹ This taxonomy details the different types of incentive schemes that in are operation. It is clear their use is widespread and that the magnitude of the incentive is often significant. A financial benchmarking analysis is undertaken for four selected airports to illustrate the extent of the variations between airports both in terms of the basic characteristics of the incentive schemes and in the periods over which the discounts are available.

1. Introduction

The deregulation and liberalisation of the European aviation industry during the 1990's (Barrett, 2000) has caused European airports to evolve from being merely infrastructure providers into fully fledged businesses in their own right (International Air Transport Association, hereafter IATA, 2012). In 2009, 80% of European airports operated as commercial entities, with nearly half of European air passengers travelling through fully or partially privatised airports (IATA, 2012). The shift towards whole or partial privatisation and commercialisation has resulted in airports using revenues to cover costs and, ideally, making a return on their investments. The revenue generated within a privatised airport is typically derived from two distinct revenue streams: aeronautical and non-aeronautical charges.

Charges that are levied on aircraft operators for the use of airport facilities and services are known as "aeronautical charges". The revenue generated through aeronautical charges belongs to the aeronautical revenue stream. Landing charges (usually based on aircraft weight), passenger (PAX) charges and aircraft parking charges are the usual aeronautical charges charged by airports. This is in contrast to non-aeronautical charges that are derived from commercial activities conducted within the airport grounds (e.g. car parking fees and rents from retail concessions) (Fichert & Klophaus, 2011). According to IATA, 47% of European airport revenues during 2009 were derived from non-aeronautical sources and 53% from aeronautical sources (IATA, 2012).

Due to the increasingly competitive nature of the airline and airport industry, a number of airports offer discounts and / or financial or other incentives (known as "Incentive Schemes") to entice airlines into offering new or expanding existing services. The targets of these schemes are airlines seeking to achieve cost reductions (Barrett, 2000). This paper aims to discover how widespread the use of incentive schemes is within a sample of European airports and the types of incentives that are offered. A taxonomy of incentive schemes used by 46 European airports is developed and a benchmarking exercise, to determine the financial implications of a select number of incentive schemes, is conducted.

¹ www.rdcaviation.com

2. Aeronautical Charges and Incentive Schemes

Fichert and Klopphaus (2011) provide a usual overview of the main types of incentive scheme that an airport may offer (see Figure 1).

Figure 1 near here

They highlight an important difference between an incentive that sits within an established system and a policy that offers separate incentives.

The incentives listed on the right hand side of Figure 1 are known within the industry as being separate incentive schemes for which a clearly defined target / objective must be met for the reward to be delivered. The objectives of extant incentive schemes can vary considerably, from general criteria such as increasing annual Maximum Take-Off Mass² (MTOM) to specific growth criteria for a particular route. Due to the wide scope and combination possibilities of incentive schemes, it is up to the management teams within individual airports (or groups of airports) to devise appropriate incentive schemes that encourage airline operators to deliver the objectives that the airport desires. This creative freedom is responsible for producing the vast array of incentive schemes that are in use today. For example, Malta International Airport has chosen to waive all landing fees for the 2011/2 winter period (Times of Malta, 2011) while Avinor AS-operated airports offer weekly discount cards to certain types of operation.

In an area of depressed margins and intense competition, the availability of these incentive schemes is becoming increasingly important for airlines. Approximately 3.5 - 5% of an airlines' total cost is directly related to airport charges (Barrett, 2000; Airports Council International, 2007; Airports Council International-E(a), 2010) and so any way of reducing this cost burden is often enthusiastically embraced. However, no research has examined the content of these incentive schemes or provided a taxonomy of their defining features. This paper addresses this gap and analyses the possible financial implications of selected incentive schemes to airlines.

3. A Taxonomy of European Airports

All commercial airports within Europe are classified by Airports Council International (ACI) into four groups according to how many passengers they handle a year. The four groups are:

- Group 1 (I): Airports with more than 25 million PAX per annum. Within this group one can typically find such airports as London Heathrow (LHR) and Frankfurt (FRA),
- Group 2 (II): Airports with between 10 and 25 million PAX per annum, including airports such as London Stansted (STN) and Zürich (ZRH),
- Group 3 (III): Airports with between 5 and 10 million PAX per annum, with airports such as Birmingham (BHX) and Lyon (LYS) included within this group, and
- Group 4 (IV): Airports with less than 5 million PAX per annum, including airports such as Bournemouth International (BOH) and Frankfurt-Hahn (HHN). (ACI-E, 2011).

These groups are dynamic, and airports can move between groups as passenger traffic grows or declines. The groups are published³ on a monthly basis, with a typical "lag time" of up to one month. At the beginning of each new calendar year an annual summary statement of the previous calendar year is published, along with the data for the calendar month of December. Data for the full calendar year of 2010 (the most recent available) was used for this research.

² Maximum Take-Off Weight (MTOW) is more commonly used than MTOM within the industry. It is up to the airport to decide whether to use MTOW or MTOM.

³ ACI-E's monthly "Airport Traffic Research" which is published online for member airports.

Rather than focus on the charging schemes that are offered by the busiest passenger airports in Europe (which may not need to offer such extensive incentive schemes because of their historical and contemporary importance as major international hubs), this research will focus on the incentive schemes that are offered by the smallest airports in Group IV that are very keen to develop the network of routes served from their facility and increase passenger throughput.

The 27 airports that are within ACI-E's group IV are:

Table 1 near here

The annual PAX figures for this group range from 5,026,976 per annum (IBZ) to 296,726 (LGG) and are located within a range of different European countries. However, while the group IV is useful for identifying airports handling similar passenger numbers, the ACI-E classification does not take into account the traffic mix and relative status (i.e. major hub, primary/secondary gateway) of the airports concerned. This is a potentially serious omission and consequently, it was necessary to add other comparable airports to the original list. The additions were informed by the findings of internal benchmarking exercises that were performed by one of the airports in Group 4 to identify not only their major competitors but also the airports to which they aspired⁴. The full list of 46 airports whose incentive schemes were examined for this research is provided in Table 2.

Table 2 near here

The PAX traffic throughput noted within these airports now range from 53,009,221 (FRA) to 296,726 (LGG).

Data on the existence and content of the aeronautical charging and separate incentive schemes for the 46 airports was derived from RDC Aviation's Airport Charges database. RDC Aviation is a commercial Nottingham (U.K.) based company who specialise in aviation consultancy, data gathering and aviation software systems. Their Airport Charges database contains over 2,000 documents relating to aeronautical charging policies of airports worldwide (RDC Aviation, 2012). These documents contain data on all airport aeronautical policies including (but not limited to), landing fees, noise and emissions charges, infrastructure levies, charges for aircraft parking and the use of airbridges, terminal and en route navigation charges, passenger and PRM (persons with restricted mobility) charges, security charges, government and other state taxes, and fuel prices (RDC Aviation, 2012).

All 46 airports in our sample published an aeronautical charging policy. For each airport, the aeronautical charging policy was accessed and saved. An analysis of the content/focus of each scheme was then performed to enable both generic and specific information about each one to be captured. A minimum of nine pieces of information about each scheme was recorded, the details of which appear in Table 3. Of the 46 airports in the sample, 40 operated a separate incentive scheme and 33 of these schemes were unique.

⁴ For reasons of commercial confidentiality, we have not identified the airport.

Table 3 near here

4. Key findings

Interestingly, while numerous different schemes are used by the 46 airports, the following airports operated exactly the same incentives:

- BRI, BDS (“Aeroporti Di Puglia” controlled airports), NAP
- HAU, BGO, AES, BOO, TRD, TOS, SVG, KRS (“Avinor AS” controlled airports)
- IBZ, SVQ, VLC, AGP, LPA, ALC, PMI, FUE, BIO, TFN, GRO (“Aena” controlled airports)

The analysis showed that incentive schemes primarily vary by the duration of their operation (Table 4) and by their primary focus (Table 5).

Table 4 and 5 near here

Noteworthy incentive schemes include

- AMS, whose scheme stated it offers a “reward” if criteria are met, but the nature of the “reward” was not specified.
- HAJ allows individual airline operators to decide which charge they would like to be discounted.
- PRG offers free use of the airports airbridges if certain growth criteria are met.
- TRN charges different levies depending if the destination and whether the flight serves an “EU” or “extra EU” airport.
- MMX and BMA discount certain fees, but do not give details as to which ones.
- MUC imposes a surcharge for polluting aircraft, using the ERLIG formula⁵:

Other special conditions included exemptions for:

- Operations exclusively made for the transportation of state or government heads and ministers, and reciprocity agreements, confirmed by the national Foreign Office (or equivalent).
- Operations by military aircraft or others, performing official military missions.
- Operations for search and rescue, medical emergencies, internal security, civil protection and humanitarian missions.
- Aircraft returning back to the airport due to a technical breakdown, weather conditions or other cases of force majeure.

Clearly, the use of incentive schemes is extensive, and their scope wide ranging. In order to determine the possible financial implications for airlines of these different schemes, a financial benchmarking exercise of four carefully selected incentive schemes, Malta (MLA), Birmingham UK (BHX), Brussels (BRU), and Nice (NCE), was conducted.

5. Financial Benchmarking

All four airports operate an Incentive Scheme which is not built into the standard aeronautical charging policy. To ensure comparability, the aircraft type, operating period (summer / winter), flight type

⁵ ERLIG stands for “Emissions Related Landing charges Investigation Group”. A group founded by the 2001 European Civil Aviation Conference (ECAC) to develop a charging model (Federal Office of Civil Aviation, 2001)

(domestic / intra-Europe / International), turn-around time and extras (such as airbridges) will be constant and consistently applied to all four schemes.

The total aeronautical costs involved with operating a particular aircraft type into each airport is calculated and then reduced in line with each airport's incentive scheme.

The RDC Aviation Hub web-page features an inbuilt tool that can be used for benchmarking purposes. This tool is effectively a calculator that enables the computing of written aeronautical charging policies into numerical data. However, incentive scheme data is not computed automatically. To operate the tool, the user must first select the airport of interest, and then state the characteristics of the flight that will use the airport. If the use of an Incentive Scheme is also to be included then the user must manually insert this data into the tool by selecting which item is to be discounted and by how much (in percent). Once the input of this data is complete a page detailing the costs likely to be incurred by the airline are shown.

The analysis of the incentive schemes operated by the four airports posed various intriguing lines of enquiry relating to the benefits that could be accrued over time and whether the schemes favoured particular aircraft types (it could be hypothesised, for example, that airports targeting B737NG operators, for example, were hoping to attract a particular major low cost airline). Three different aircraft types were selected, the Boeing 737-800 (B738) with a theoretical maximum seating capacity of 189 passengers, the Airbus A330-300 (A333) with 221 seats and the Airbus A340-300 (A343) with 247 seats. The seating capacities were based on the configurations flown by Ryanair (for the B738) and Lufthansa (for the A333 and A343), currently two of the biggest scheduled airlines in Europe (Lufthansa, 2012, Ryanair, 2012,).

As the Incentive Schemes are influenced by PAX Seat Load Factor (SLF), an industry standard⁶ SLF of 70% was selected. This had the result that, when applied to the three aircraft types:

- Ryanair's B738 with a MTOW of 66.99 tonnes now carries 132 PAX instead of 189,
- Lufthansa's A333 with a MTOW of 233 tonnes, carries 155 PAX instead of 221, and
- Lufthansa's A343 with a MTOW of 271 tonnes, carries 173 PAX instead of 247.

With the airframe and the aircraft configurations chosen, the flight characteristics were selected. The B738 is predominantly used for intra-EU flights by Ryanair so the B738 flights in this exercise will all be assumed to operate EU services. As some airports operate a different incentive policy for the winter and summer periods (such as MLA), both seasons will be assessed. The summer period will be described as the "generic" incentive package and the winter period the "strategic" scheme. This is due to the strategic importance of smoothing the "seasonality effect" within airport PAX figures. Additional extras, such as airbridges will be added to Lufthansa's (A333 and A343) aircraft operations but not to Ryanair's B738 ones, as per normal operating procedures for the airlines. Government taxation will not be included in the analysis as this does not go to the airport.

The raw computations for the benchmarking exercise are provided in Tables 6-11 in the sequence of summer and winter operations for the A343, A333, and B738. Figures 2 to 7 display this raw information in a graphical format. The bar charts are colour coded to represent each individual airport (blue represents MLA, red represents NCE, et cetera), the first bar for each airport represents a "zero year". This is included so a comparison can be made between the normal full aeronautical charge (i.e. without any discount applied), and the cost when the incentive scheme is applied. The subsequent bars represent each subsequent year, so the second bar represents the first year of operation under the

⁶ Known through work performed whilst at Malta International Airport plc

incentive scheme. When the bar returns back to the same level noticed in the “zero year” it indicates that the operational timeframe of the incentive scheme has finished. If the bar does not return to the “zero year”, as is with the case of BHX, the incentive scheme is in place for a period of four or more years.

Tables 6-11 near here

Figures 2-7 near here

As one would expect, the larger the airframe, the higher the aeronautical charge that is levied by all the airports. The airport that charged the highest “year zero” rate for both the Airbus airframes was BHX, charging €6,389.00 (an average of €6.93 per departing PAX) for the LH A340-300 and €5,579.00 (€35.99 average per PAX) for the LH A330-300. BRU charged the highest “year zero” rate for the FR B737-800, charging €3,995.00 (an average of €30.27 per PAX). The airport that charged the lowest “year zero” aeronautical charge was MLA, charging an average of €3,632.00 or €23.50 per PAX.

The highest discount (in monetary terms) was given by BHX, who offered a discount of €4,359.00 (68.23%) on the first year of the strategic incentive when operating a LH A340-300. When the four years of operating a single flight within the BHX strategic incentive programme is compared with the “zero year” it is evident that significant cost reductions are possible. If an airline operated a Lufthansa-configured A340-300 once a year from BHX under the normal aeronautical charging policy, the total charge would be €25,556.00. However, if the same operation was charged under the strategic incentive policy, then the total charge would be reduced by €1,070.00 (total cost €14,486.00).

The lowest discount in terms of total amount saved is offered by NCE under the generic incentive scheme. This scheme lasts for only two years and would reduce aeronautical charges for a FR B737-800 operation by only €1,101.00 (from €5,794.00 to €4,693.00).

The Incentive Schemes from MLA, NCE and BHX display a clear pattern of annual reductions in the incentive discount that is offered. The graphs show that in subsequent years the amount charged by the airport to the airline gradually increases until the standard charge is realised, normally after three or four years. The Incentive Scheme at BRU differs from this pattern. If an airline were to operate under the strategic Incentive Scheme at BRU, it can expect to be charged an average discount of approximately 31% for a three year period.

All of the Incentive Schemes included within the benchmark reduced their standard passenger charge. The discount varied depending if the strategic or generic scheme was in use by the airline. The discount offered also varied depending on the structure of the standard aeronautical charging policy. The airports with a higher emphasis on charging for aircraft related levies⁷ (NCE and BHX) offered a lower discount on PAX⁸ related levies. However, these airports also offered discounts on aircraft related levies, whereas the airports with the main emphasis on charging for PAX related services (MLA and BRU) did not.

⁷ Includes levies for: Landing, Environment, Terminal Navigation, Infrastructure, Airbridge and Aircraft Parking charges.

⁸ Includes levies for: PAX, Security and Infrastructure charges.

Birmingham International Airport's strategic Incentive Scheme policy seems to encourage the operation of an airframe in the FR B737-800 configuration. Although this was not the highest incentive given by BHX the incentive is very noticeable when compared with the other airports included within the benchmarking exercise. This is especially evident when reviewing the strategic incentive policies. The percentage discount offered during the first year of operation amounts to 79.1%, saving the aircraft operator €2,016.00 per aircraft movement. This reduces the "per PAX" amount from €1.24 (the median average for this "year zero" benchmark being €1.60), to an outstandingly low amount of €0.97. The generic Incentive Scheme also seems to favour this type of aircraft operation which is achieved by offering very attractive discounts on levies, and implementing a non-standard pattern of annual reductions. This setup, in essence, aims to encourage the aircraft operator to continue services for at least three years.

6. Conclusion

The aim of this paper was to identify the different types of incentive scheme that are used by a sample of European airports and then, with the aid of a benchmarking exercise, analyse the financial implications of a select number of these schemes.

While the majority of airports surveyed offered a discount on their standard aeronautical charging policy, the nature of the discounts varied. Once the differences for domestic and international flights were excluded, reductions in passenger and runway/landing fees were the most popular items to discount. However, only 33 schemes were unique, with two airport authorities ("Avinor AS" and "Aena") applying the same aeronautical charging policies at a number of their airports. A number of interesting incentive schemes were identified, including the "select your own discount" offered by Hanover. As well as recognising some of the commonalities in incentive schemes that were identified by Graham (2008) and Fichert & Klophaus (2011) a number of previously unknown traits were also discovered. This particularly related to aircraft operations that are exempt from the aeronautical charging policy, for example at "Aena" and "Avinor AS" controlled airports.

Regarding the financial benchmarking exercise, the precise nature of the financial discounts on offer to selected operators of particular aircraft types were computed. This is the first known research into the financial implications of these incentive schemes. It was discovered that the financial rates offered by incentives varied between the four airports (MLA, BRU, NCE & BHX). The variations were found to differ between strategic and generic aircraft operations, with each airport offering an increased incentive to perform flights to specific locations and / or during the winter period. Each airport also gave a discount for all new aircraft operations (generic incentive), which was found to be lower than that of the strategic incentive scheme. Similarities were also found to exist within the time frame and discounts offered by the incentive schemes, with the percentage discount on offer reducing annually.

The incentive scheme with the longest operational lifetime was Birmingham International Airport's, which lasted four years. This airport also offered the highest recorded financial incentive at €1,359.00 (for LH A340-300 operations), and offered a 79.1% discount on aeronautical fees for FR B737-800 operations within the first year of the strategic incentive scheme. The lowest discount in terms of total amount saved is offered by NCE under the generic incentive scheme. This scheme last for only two years and would reduce aeronautical charges for a single annual FR B737- 800 operation by only €1,101.00, from €5,794.00 to €4,693.00. The importance of such schemes to airlines is likely to grow and, as increasing numbers of airports compete for airline custom, it is not unreasonable to suggest that they might become ever-more important marketing devices for airports and bargaining tools for airlines who are seeking to reduce their operating costs to remain competitive.

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Table 1: Airports included within ACI-E 2010 group IV.

Airport	IATA	Airport	IATA	Airport	IATA
Aalesund	AES	Girona	GRO	Porto	OPO
Aberdeen	ABZ	Gothenburg	GOT	Riga	RIX
Bergen	BGO	Hahn	HHN	Sevilla	SVQ
Bilbao	BIO	Haugesund	HAU	Stavanger	SVG
Bodo	BOO	Ibiza	IBZ	Stockholm	BMA
Bordeaux	BOD	Kristiansand	KRS	Tenerife	TFN
Brindisi	BDS	Liege	LGG	Tromsoe	TOS
Dubrovnik	DBV	Malmo	MMX	Trondheim	TRD
Fuerteventura	FUE	Malta	MLA	Turin	TRN

Source: ACI-E, 2011

Table 2: Airports included within ACI-E group IV with the additional benchmarked airports.

Airport	IAT	Airport	IAT	Airport	IAT	Airport	IATA
Aalesund	AES	Frankfurt	FRA	Malmo	MM	Tromso	TOS
Aberdeen	ABZ	Fuerteventura	FUE	Malta	MLA	Trondhei	TRD
Alicante	ALC	Girona	GRO	Manchester	MAN	Turin	TRN
Amsterdam	AMS	Gothenburg	GOT	Munich	MUC	Valencia	VLC
Athens	ATH	Gran Canaria	LPA	Naples	NAP		
Bari	BRI	Hahn	HHN	Nice	NCE		
Bergen	BGO	Hanover	HAJ	Palma, Mallorca	PMI		
Bilbao	BIO	Haugesund	HAU	Porto	OPO		
Birmingham	BHX	Ibiza	IBZ	Prague	PRG		
Bodo	BOO	Kristiansand	KRS	Riga	RIX		
Bordeaux	BOD	Liege	LGG	Sevilla	SVQ		
Brindisi	BDS	Lisbon	LIS	Stavanger	SVG		
Brussels	BRU	London	LGW	Stockholm	BMA		
Dubrovnik	DBV	Malaga	AGP	Tenerife	TFN		

Source of airport data: ACI-E (2011).

Table 3: Details of the 46 airport incentive schemes

	New Destinations	Specific Target	Increased Freq.	Off Peak	On Peak	Item Discounted	Duration	Min. Requirements	Special Offer
GRO Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is International or Domestic	Constant	Depending if international or domestic	N/A
GOT Summer Winter Off Peak	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	new routes to destinations that have not been served during the last 12 months	NA
BDS Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is International or Domestic	Constant	Depending if international or domestic	N/A
OPO Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is Schengen or EU non-Schengen or International	Constant	Rate is discounted depending on destination "band"	Reduction for test and training flights of 50%
IBZ Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A
RIX Summer Winter Off Peak	N N N	N N N	N N N	N N N	N N N	N/A	N/A	N/A	Training flights use coefficient of 0.75
SVQ Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A
DBV Summer Winter Off Peak	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	By Request	? ? ?	?	?
MLA Summer Winter Off Peak	Y Y Y	Y Y Y	N N N	Y Y Y	Y Y Y	Passenger Service Charge Passenger Service Charge Passenger Service Charge	3 years staggered 3 years staggered 3 years staggered	new routes -destinations not been served in the last 12 months, if same airline 24 months, 150km away from served airports, 90% scheduled flights operated, 3 freq summer 2 freq winter per week	separate incentive for transfer traffic
FUE Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A
TRN Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is "EU" or "Extra EU"	Constant	Different fees if destination is "EU" or "Extra EU"	NA
BOD Summer Winter Off Peak	Y Y Y	N N N	Y Y Y	Y Y Y	Y Y Y	Landing Charge Landing Charge Landing Charge	12 to 36 month staggered 12 to 36 month staggered 12 to 36 month staggered	50km away from already served market, 40mins car drive away from already served market, Direct flights, one weekly, two months operation	NA
AES Summer Winter Off Peak	NA NA NA	NA NA NA	NA NA NA	NA NA NA	NA NA NA	Weekly season card	NA NA NA	Non commercial, aircraft weight between 1501 - 2000kg	

Continued...

BIO									
Summer	N	Y	N	Y	Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A
Winter	N	Y	N	Y	Y				
Off Peak	Y	Y	N	Y	Y				
HAU									
Summer	NA	NA	NA	NA	NA	Weekly season card	NA	Non commercial, aircraft weight between 1501 - 2000kg	NA
Winter	NA	NA	NA	NA	NA				
Off Peak	NA	NA	NA	NA	NA				
BGO									
Summer	NA	NA	NA	NA	NA	Weekly season card	NA	Non commercial, aircraft weight between 1501 - 2000kg	NA
Winter	NA	NA	NA	NA	NA				
Off Peak	NA	NA	NA	NA	NA				
MMX									
Summer	Y	Y	N	?	?	Certain fees - must ask for details	?	New destinations that have not been served during the last 12 months	?
Winter	Y	Y	N	?	?				
Off Peak	?	Y	N	?	?				
BOO									
Summer	NA	NA	NA	NA	NA	Weekly season card	NA	Non commercial, aircraft weight between 1501 - 2000kg	NA
Winter	NA	NA	NA	NA	NA				
Off Peak	NA	NA	NA	NA	NA				
TRD									
Summer	NA	NA	NA	NA	NA	Weekly season card	NA	Non commercial, aircraft weight between 1501 - 2000kg	NA
Winter	NA	NA	NA	NA	NA				
Off Peak	NA	NA	NA	NA	NA				
TOS									
Summer	NA	NA	NA	NA	NA	Weekly season card	NA	Non commercial, aircraft weight between 1501 - 2000kg	NA
Winter	NA	NA	NA	NA	NA				
Off Peak	NA	NA	NA	NA	NA				
SVG									
Summer	NA	NA	NA	NA	NA	Weekly season card	NA	Non commercial, aircraft weight between 1501 - 2000kg	NA
Winter	NA	NA	NA	NA	NA				
Off Peak	NA	NA	NA	NA	NA				
TFN									
Summer	N	Y	N	Y	Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A
Winter	N	Y	N	Y	Y				
Off Peak	Y	Y	N	Y	Y				
KRS									
Summer	NA	NA	NA	NA	NA	Weekly season card	NA	Non commercial, aircraft weight between 1501 - 2000kg	NA
Winter	NA	NA	NA	NA	NA				
Off Peak	NA	NA	NA	NA	NA				
ABZ									
Summer	Apply	Y	Apply	Y	Y	Weight & Pax charge depending	Constant	Flights within Scotland 65% weight discount, flights <250 statute miles weight 26% discount, Fixed wing & destination is within 100 statute miles 50% PAX charge rebate Flight originating in UK landing to pickup PAX/ cargo 50% weight discount	Training flights 70% off total charge calculated.
Winter	Apply	Y	Apply	Y	Y				
Off Peak	Apply	Y	Apply	Y	Y				
HHN									
Summer	NA	NA	NA	NA	NA	None Stated	NA	NA	NA
Winter	NA	NA	NA	NA	NA				
Off Peak	NA	NA	NA	NA	NA				
LGG									
Summer	NA	NA	NA	NA	NA	None Stated	NA	NA	NA
Winter	NA	NA	NA	NA	NA				
Off Peak	NA	NA	NA	NA	NA				

Continued...

	New Destinations	Specific Target	Increased Freq.	Off Peak	On Peak	Item Discounted	Duration	Min. Requirements	Special Offer
AMS Summer Winter Off Peak	Y Y Y	N N N	Y*1 Y*1 Y	Y Y Y	Y Y N	Reward per departing PAX	3 years staggered 3 years staggered 1 year	3x weekly, 20 weeks 1 weekly*1 Increase number of flights, must operate min 80% of flights, 1 weekly 20 weeks	Seat capacity increase eligible*1 Start up airline bonus*1
ATH Summer Winter Off Peak	N N N	N N N	N N N	Y Y Y	N N N	Parking Parking Parking	on-going on-going on-going	Parking between 24:00 & 05:00	N/A
BHX Summer Winter Off Peak	Y Y Y	N N N	N N N	Y Y Y	Y Y Y	Runway / Domestic / international PLS*2 charge rebate Runway / Domestic / international PLS*2 charge rebate Runway / Domestic / international PLS*2 charge rebate	4 years staggered 4 years staggered 4 years staggered	Scheduled airline, Growth*3 in subsequent years, ICAO chap. 3 aircraft	Alternative scheme for four operators
BMA Summer Winter Off Peak	Y Y ?	Y Y Y	N N N	? ? ?	? ? ?	Certain fees - must ask for details	?	New destinations that have not been served during the last 12 months	?
BRU Summer Winter Off Peak	Y Y Y	N N N	Y*1 Y*1 Y*1	Y Y Y	Y Y Y	Passenger service charge Passenger service charge Passenger service charge	3 years staggered 3 years staggered 3 years staggered	None stated	Alternative scheme for cargo
FRA Summer Winter Off Peak	N N N	N N N	N N N	Y Y Y	Y Y Y	Passenger Fee Cap Passenger Fee Cap Passenger Fee Cap	on-going on-going on-going	SLF >83.0% & 89.9%, 90.0% & 96.9%, >97.0%, min 150 take-offs with PAX on board	N/A
GOT Summer Winter Off Peak	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	new routes to destinations that have not been served during the last 12 months	
LIS Summer Winter Off Peak	NA NA NA	NA NA NA	NA NA NA	NA NA NA	NA NA NA	None Stated	NA	NA	NA
LGW Summer Winter Off Peak	NA NA NA	NA NA NA	NA NA NA	NA NA NA	NA NA NA	None Stated	NA	NA	NA
MAN Summer Winter Off Peak	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	? ? ?	MA Aviation Development Team on 0161 489 3401 or 0161 489 8779 or by email to: routedevlopment@manairport.co.uk	
MUC Summer Winter Off Peak	NA NA NA	NA NA NA	NA NA NA	NA NA NA	NA NA NA	No discount, but surcharge for polluting aircraft	NA	NA	
NCE Summer Winter Off Peak	Y Y Y	N N N	Y Y Y	Y Y Y	Y Y Y	Landing, Passenger bonus if growth over 4.7% Landing, Passenger bonus if growth over 3% Landing, Passenger	2 years staggered 2 years staggered 2 years staggered	new routes -destinations not been served in the last 12 months, 24 freq summer 16 freq winter	Extra bonus discount for new long haul traffic for 3 years
PRG Summer Winter Off Peak	Y Y N	Y Y N	N N N	Y Y Y	Y Y N	Landing fees Landing fees 50% off parking fees	3 years staggered 3 years staggered on-going	IATA geographic area TC2 and named, 1 weekly 07:30 - 09:30 and 12:35 - 14:35 local	increase capacity on routes served for >12 months, MTOW >100t, use of air bridge

Continued...

BRI Summer Winter Off Peak	N N N	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is International or Domestic	Constant	Depending if international or domestic	N/A
NAP Summer Winter Off Peak	N N N	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is International or Domestic	Constant	Depending if international or domestic	N/A
VLC Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A
AGP Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A
LPA Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A
ALC Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A
PMI Summer Winter Off Peak	N N Y	Y Y Y	N N N	Y Y Y	Y Y Y	Different fees if destination is within EU, Domestic or Inter-Islands	Constant	Rate is discounted depending on destination "band"	N/A

1 long haul, 2 PLS = PAX load Supplement, 3 growth on tonnage and PAX, Y Feature present, N Feature absent, and ? Not known

Table 4: Duration of incentive schemes

Aena controlled airports, NAP, BDS, OPO, TRN, ABZ	No stated review period
ATH, FRA	Reviewed by airport management
BHX	4 years
AMS, MLA, PRG, BOD	3 years
HAJ	5 flight plan periods
NCE	2 years
AMS (off-peak) PRG (off-peak)	1 year
Avinor AS controlled airports	1 week
GOT, MAN, DBV, MMX, BMA	Unknown
RIX, HHN, LGG, MUC, LGW, LIS	N/A

Table 5: List of items that are discounted

Domestic flights	BHX, GRO, NAP, BRI, BDS, (Aena controlled airports)
International flights	BHX, GRO, NAP, BRI, BDS, (Aena controlled airports)
Inter-island services	(Aena controlled airports)
Parking fees	ATH, PRG
PAX fees	BHX, BRU, FRA, MLA, NCE
Runway / Landing fees	BHX, NCE, PRG, BOD
Weight charge	ABZ

Table 6: Calculations for Lufthansa A340-300 incentive scheme benchmarking exercise – standard operations

Airport Year	MLA					NCE					BRU					BHX					
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	
Runway Charges																					
Landing	1010.00	1010.00	1010.00	1010.00	1010.00	1734.35	433.59	867.18	1734.35	1734.35	773.50	773.50	773.50	773.50	773.50	3166.94	0.00	775.95	1551.91	2327.86	
Environment	0.00	0.00	0.00	0.00	0.00	-252.85	-57.74	-122.78	-252.85	-252.85	-116.02	-116.02	-116.02	-116.02	-116.02	0.00	0.00	0.00	0.00	0.00	
Terminal Nav.	0.00	0.00	0.00	0.00	0.00	903.20	903.20	903.20	903.20	903.20	548.76	548.76	548.76	548.76	548.76	848.00	831.09	831.09	831.09	831.09	
Terminal Charges																					
Infrastructure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00	
Airbridge	0.00	0.00	0.00	0.00	0.00	39.74	39.74	39.74	39.74	39.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Aircraft Parking	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Airport Charges	1010.00	1010.00	1010.00	1010.00	1010.00	2424.00	1319.00	1687.00	2424.00	2424.00	1212.00	1212.00	1212.00	1212.00	1212.00	4015.00	831.00	1607.00	2383.00	3159.00	
Average Per Pax	5.84	5.84	5.84	5.84	5.84	14.01	7.62	9.75	14.01	14.01	7.01	7.01	7.01	7.01	7.01	23.21	4.80	9.29	13.77	18.26	
Pax Charges																					
Passenger	2899.48	2029.29	2319.93	2608.84	2899.48	1335.56	667.78	934.20	1335.56	1335.56	3525.74	1762.87	2645.17	2645.17	3525.74	2300.90	1127.96	1420.33	1691.94	1982.58	
Transfer Pax	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Security	378.87	378.87	378.87	378.87	378.87	1818.23	1818.23	1818.23	1818.23	1818.23	1105.47	1105.47	1105.47	1105.47	1105.47	51.90	50.17	50.17	50.17	50.17	
Transfer Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Infrastructure	24.22	24.22	24.22	24.22	24.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.76	20.76	20.76	20.76	20.76	
Govt. Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Pax Charge	3303.00	2432.00	2723.00	3012.00	3303.00	3154.00	2486.00	2752.00	3154.00	3154.00	4631.00	2868.00	3751.00	3751.00	4631.00	2374.00	1199.00	1491.00	1763.00	2054.00	
Average Pax Charge	19.09	14.06	15.74	17.41	19.09	18.23	14.37	15.91	18.23	18.23	26.77	16.58	21.68	21.68	26.77	13.72	6.93	8.62	10.19	11.87	
Total Charges	4313.00	3442.00	3733.00	4022.00	4313.00	5578.00	3805.00	4440.00	5578.00	5578.00	5843.00	4080.00	4963.00	4963.00	5843.00	6389.00	2030.00	3098.00	4146.00	5212.00	
Average Per Pax	24.93	19.90	21.58	23.25	24.93	32.24	21.99	25.66	32.24	32.24	33.78	23.59	28.69	28.69	33.78	36.93	11.73	17.91	23.96	30.13	

Assumptions	Currency: EUR 1.00 EUR=0.83GBP	
Airline: Lufthansa	MTOW: 271 tonnes	Capacity: 247
Aircraft: A340-300	MLW: 190 tonnes	Load Factor: 70 %
Route: Intra EU		Passengers: 173

Table 7: Calculations for Lufthansa A340-300 incentive scheme benchmarking exercise – strategic operations

Airport Year	MLA					NCE					BRU					BHX				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Runway Charges																				
Landing	1010.00	1010.00	1010.00	1010.00	1010.00	1734.35	433.59	867.18	1040.61	1734.35	773.50	773.50	773.50	773.50	773.50	3166.94	0.00	775.95	1551.91	2327.86
Environment	0.00	0.00	0.00	0.00	0.00	-252.85	-57.74	-122.78	-148.79	-252.85	-116.02	-116.02	-116.02	-116.02	-116.02	0.00	0.00	0.00	0.00	0.00
Terminal Nav.	0.00	0.00	0.00	0.00	0.00	903.20	903.20	903.20	903.20	903.20	548.76	548.76	548.76	548.76	548.76	848.00	831.09	831.09	831.09	831.09
Terminal Charges																				
Infrastructure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00
Airbridge	0.00	0.00	0.00	0.00	0.00	39.74	39.74	39.74	39.74	39.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aircraft Parking	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Airport Charges	1010.00	1010.00	1010.00	1010.00	1010.00	2424.00	1319.00	1687.00	1835.00	2424.00	1212.00	1212.00	1212.00	1212.00	1212.00	4015.00	831.00	1607.00	2383.00	3159.00
Average Per Pax	5.84	5.84	5.84	5.84	5.84	14.01	7.62	9.75	10.61	14.01	7.01	7.01	7.01	7.01	7.01	23.21	4.80	9.29	13.77	18.26
Pax Charges																				
Passenger	2899.48	1740.38	2029.29	2319.93	2899.48	1335.56	667.78	934.20	1069.14	1335.56	3525.74	1762.87	1762.87	1762.87	3525.74	2300.90	1127.96	1420.33	1691.94	1982.58
Transfer Pax	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Security	378.87	378.87	378.87	378.87	378.87	1818.23	1818.23	1818.23	1818.23	1818.23	1105.47	1105.47	1105.47	1105.47	1105.47	51.90	50.17	50.17	50.17	50.17
Transfer Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Infrastructure	24.22	24.22	24.22	24.22	24.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.76	20.76	20.76	20.76	20.76
Govt. Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Pax Charge	3303.00	2143.00	2432.00	2723.00	3303.00	3154.00	2486.00	2752.00	2887.00	3154.00	4631.00	2868.00	2868.00	2868.00	4631.00	2374.00	1199.00	1491.00	1763.00	2054.00
Average Pax Charge	19.09	12.39	14.06	15.74	19.09	18.23	14.37	15.91	16.69	18.23	26.77	16.58	16.58	16.58	26.77	13.72	6.93	8.62	10.19	11.87
Total Charges	4313.00	3153.00	3442.00	3733.00	4313.00	5578.00	3805.00	4440.00	4722.00	5578.00	5843.00	4080.00	4080.00	4080.00	5843.00	6389.00	2030.00	3098.00	4146.00	5212.00
Average Per Pax	24.93	18.23	19.90	21.58	24.93	32.24	21.99	25.66	27.30	32.24	33.78	23.59	23.59	23.59	33.78	36.93	11.73	17.91	23.96	30.13

Assumptions	Currency: EUR 1.00EUR=0.83GBP	
Airline: Lufthansa	MTOW: 271 tonnes	Capacity: 247
Aircraft: A340-300	MLW: 190 tonnes	Load Factor: 70 %
Route: Intra EU		Passengers: 173

Table 8: Calculations for Lufthansa A330-300 incentive scheme benchmarking exercise – standard operations

Airport	MLA					NCE					BRU					BHX				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Valid From																				
Runway Charges																				
Landing	866.36	866.36	866.36	866.36	866.36	1457.33	364.33	728.67	1457.33	1457.33	773.50	773.50	773.50	773.50	773.50	2722.87	0.00	667.15	1334.30	2001.44
Environment	0.00	0.00	0.00	0.00	0.00	-211.50	-47.55	-102.20	-211.50	-211.50	-38.68	-38.68	-38.68	-38.68	-38.68	0.00	0.00	0.00	0.00	0.00
Terminal Nav.	0.00	0.00	0.00	0.00	0.00	788.37	788.37	788.37	788.37	788.37	535.34	535.34	535.34	535.34	535.34	729.09	714.56	714.56	714.56	714.56
Terminal Charges																				
Infrastructure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00
Airbridge	0.00	0.00	0.00	0.00	0.00	39.74	39.74	39.74	39.74	39.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aircraft Parking	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Airport Charges	866.00	866.00	866.00	866.00	866.00	2074.00	1145.00	1455.00	2074.00	2074.00	1276.00	1276.00	1276.00	1276.00	1276.00	3452.00	715.00	1382.00	2049.00	2716.00
Average Per Pax	5.59	5.59	5.59	5.59	5.59	13.38	7.39	9.38	13.38	13.38	8.23	8.23	8.23	8.23	8.23	22.27	4.61	8.91	13.22	17.52
Pax Charges																				
Passenger	2597.80	1818.15	2078.55	2337.40	2597.80	1196.60	598.30	837.00	1196.60	1196.60	3158.90	1579.45	2369.95	2369.95	3158.90	2061.50	1010.60	1272.55	1515.90	1776.30
Transfer Pax	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Security	339.45	339.45	339.45	339.45	339.45	1629.05	1629.05	1629.05	1629.05	1629.05	990.45	990.45	990.45	990.45	990.45	46.50	44.95	44.95	44.95	44.95
Transfer Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Infrastructure	21.70	21.70	21.70	21.70	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.60	18.60	18.60	18.60	18.60
Govt. Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Pax Charge	2959.00	2179.00	2440.00	2699.00	2959.00	2826.00	2227.00	2466.00	2826.00	2826.00	4149.00	2570.00	3360.00	3360.00	4149.00	2127.00	1074.00	1336.00	1579.00	1840.00
Average Pax Charge	19.09	14.06	15.74	17.41	19.09	18.23	14.37	15.91	18.23	18.23	26.77	16.58	21.68	21.68	26.77	13.72	6.93	8.62	10.19	11.87
Total Charges	3825.00	3046.00	3306.00	3565.00	3825.00	4900.00	3372.00	3921.00	4900.00	4900.00	5425.00	3846.00	4636.00	4636.00	5425.00	5579.00	1789.00	2718.00	3628.00	4556.00
Average Per Pax	24.68	19.65	21.33	23.00	24.68	31.61	21.76	25.29	31.61	31.61	35.00	24.81	29.91	29.91	35.00	35.99	11.54	17.53	23.41	29.39

Assumptions		
Currency: EUR 1 EUR=0.83GBP		
Airline: Lufthansa	MTOW: 233 tonnes	Capacity: 221
Aircraft: A330-300	MLW: 180 tonnes	Load Factor: 70 %
Route: Intra EU		Passengers: 155

Table 9: Calculations for Lufthansa A330-300 incentive scheme benchmarking exercise – strategic operations

Airport Year	MLA					NCE					BRU					BHX				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Runway Charges																				
Landing	866.36	866.36	866.36	866.36	866.36	1457.33	364.33	728.67	874.40	1457.33	773.50	773.50	773.50	773.50	2001.44	2722.87	0.00	667.15	1334.30	2001.44
Environment	0.00	0.00	0.00	0.00	0.00	-211.50	-47.55	-102.20	-124.06	-211.50	-38.68	-38.68	-38.68	-38.68	0.00	0.00	0.00	0.00	0.00	0.00
Terminal Nav.	0.00	0.00	0.00	0.00	0.00	788.37	788.37	788.37	788.37	788.37	535.34	535.34	535.34	535.34	714.56	729.09	714.56	714.56	714.56	714.56
Terminal Charges																				
Infrastructure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00	0.00
Airbridge	0.00	0.00	0.00	0.00	0.00	39.74	39.74	39.74	39.74	39.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aircraft Parking	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Airport Charges	866.00	866.00	866.00	866.00	866.00	2074.00	1145.00	1455.00	1578.00	2074.00	1276.00	1276.00	1276.00	1276.00	2716.00	3452.00	715.00	1382.00	2049.00	2716.00
Average Per Pax	5.59	5.59	5.59	5.59	5.59	13.38	7.39	9.38	10.18	13.38	8.23	8.23	8.23	8.23	17.52	22.27	4.61	8.91	13.22	17.52
Pax Charges																				
Passenger	2597.80	1559.30	1818.15	2078.55	2597.80	1196.60	598.30	837.00	957.90	1196.60	3158.90	1579.45	1579.45	1579.45	1776.30	2061.50	1010.60	1272.55	1515.90	1776.30
Transfer Pax	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Security	339.45	339.45	339.45	339.45	339.45	1629.05	1629.05	1629.05	1629.05	1629.05	990.45	990.45	990.45	990.45	44.95	46.50	44.95	44.95	44.95	44.95
Transfer Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Infrastructure	21.70	21.70	21.70	21.70	21.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.60	18.60	18.60	18.60	18.60	18.60
Govt. Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Pax Charge	2959.00	1920.00	2179.00	2440.00	2959.00	2826.00	2227.00	2466.00	2587.00	2826.00	4149.00	2570.00	2570.00	2570.00	1840.00	2127.00	1074.00	1336.00	1579.00	1840.00
Average Pax Charge	19.09	12.39	14.06	15.74	19.09	18.23	14.37	15.91	16.69	18.23	26.77	16.58	16.58	16.58	11.87	13.72	6.93	8.62	10.19	11.87
Total Charges	3825.00	2787.00	3046.00	3306.00	3825.00	4900.00	3372.00	3921.00	4165.00	4900.00	5425.00	3846.00	3846.00	3846.00	4556.00	5579.00	1789.00	2718.00	3628.00	4556.00
Average Per Pax	24.68	17.98	19.65	21.33	24.68	31.61	21.76	25.29	26.87	31.61	35.00	24.81	24.81	24.81	29.39	35.99	11.54	17.53	23.41	29.39

Assumptions	Currency: EUR 1 EUR=0.83GBP
Airline: Lufthansa	MTOW: 233 tonnes
Aircraft: A330-300	Capacity: 221
Route: Intra EU	MLW: 180 tonnes
	Load Factor: 70 %
	Passengers: 155

Table 10: Calculations for Ryanair B737-800 incentive scheme benchmarking exercise – standard operations

Airport Year	MLA					NCE					BRU					BHX				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Runway Charges																				
Landing	238.88	238.88	238.88	238.88	238.88	268.93	67.23	134.47	161.36	268.93	296.14	296.14	296.14	296.14	296.14	782.97	0.00	191.84	383.69	575.52
Environment	0.00	0.00	0.00	0.00	0.00	-34.86	-4.61	-14.69	-18.73	-34.86	-14.81	-14.81	-14.81	-14.81	-14.81	0.00	0.00	0.00	0.00	0.00
Terminal Nav.	0.00	0.00	0.00	0.00	0.00	256.79	256.79	256.79	256.79	256.79	174.37	174.37	174.37	174.37	174.37	209.65	205.47	205.47	205.47	205.47
Terminal Charges																				
Infrastructure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00
Airbridge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aircraft Parking	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Airport Charges	239.00	239.00	239.00	239.00	239.00	491.00	319.00	377.00	399.00	491.00	461.00	461.00	461.00	461.00	461.00	993.00	205.00	397.00	589.00	781.00
Average Per Pax	1.81	1.81	1.81	1.81	1.81	3.72	2.42	2.85	3.03	3.72	3.50	3.50	3.50	3.50	3.50	7.52	1.56	3.01	4.46	5.92
Pax Charges																				
Passenger	2212.32	1327.92	1548.36	1770.12	2212.32	1019.04	509.52	712.80	815.76	1019.04	2690.16	1345.08	1345.08	1345.08	2690.16	1755.60	528.00	665.28	792.00	929.28
Transfer Pax	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Security	289.08	289.08	289.08	289.08	289.08	1387.32	1387.32	1387.32	1387.32	1387.32	843.48	843.48	843.48	843.48	843.48	39.60	38.28	38.28	38.28	38.28
Transfer Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Infrastructure	18.48	18.48	18.48	18.48	18.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.60	15.84	15.84	15.84	15.84	15.84
Govt. Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Pax Charge	2520.00	1635.00	1856.00	2078.00	2520.00	2406.00	1897.00	2100.00	2203.00	2406.00	3534.00	2189.00	2189.00	2189.00	3534.00	1811.00	582.00	719.00	846.00	983.00
Average Pax Charge	19.09	12.39	14.06	15.74	19.09	18.23	14.37	15.91	16.69	18.23	26.77	16.58	16.58	16.58	26.77	13.72	4.41	5.45	6.41	7.45
Total Charges	2759.00	1874.00	2095.00	2317.00	2759.00	2897.00	2216.00	2477.00	2603.00	2897.00	3995.00	2650.00	2650.00	2650.00	3995.00	2804.00	788.00	1117.00	1435.00	1764.00
Average Per Pax	20.90	14.20	15.87	17.55	20.90	21.95	16.79	18.76	19.72	21.95	30.27	20.08	20.08	20.08	30.27	21.24	5.97	8.46	10.87	13.37

Assumptions		Currency: EUR 1.00EUR=0.83GBP	
Airline: Ryanair	MTOW: 66.99 tonnes	Capacity: 189	
Aircraft: B373-800	MLW: 66.3 tonnes	Load Factor: 70 %	
Route: Intra EU		Passengers: 132	

Table 11: Calculations for Ryanair B737-800 incentive scheme benchmarking exercise – strategic operations

Airport Year	MLA					NCE					BRU					BHX				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Runway Charges																				
Landing	238.88	238.88	238.88	238.88	238.88	268.93	67.23	134.47	161.36	268.93	296.14	296.14	296.14	296.14	296.14	782.97	0.00	191.84	383.69	575.52
Environment	0.00	0.00	0.00	0.00	0.00	-34.86	-4.61	-14.69	-18.73	-34.86	-14.81	-14.81	-14.81	-14.81	-14.81	0.00	0.00	0.00	0.00	0.00
Terminal Nav.	0.00	0.00	0.00	0.00	0.00	256.79	256.79	256.79	256.79	256.79	174.37	174.37	174.37	174.37	174.37	209.65	205.47	205.47	205.47	205.47
Terminal Charges																				
Infrastructure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66	5.66	5.66	5.66	5.66	0.00	0.00	0.00	0.00	0.00
Airbridge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aircraft Parking	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Airport Charges	239.00	239.00	239.00	239.00	239.00	491.00	319.00	377.00	399.00	491.00	461.00	461.00	461.00	461.00	461.00	993.00	205.00	397.00	589.00	781.00
Average Per Pax	1.81	1.81	1.81	1.81	1.81	3.72	2.42	2.85	3.03	3.72	3.50	3.50	3.50	3.50	3.50	7.52	1.56	3.01	4.46	5.92
Pax Charges																				
Passenger	2212.32	1327.92	1548.36	1770.12	2212.32	1019.04	509.52	712.80	815.76	1019.04	2690.16	1345.08	1345.08	1345.08	2690.16	1755.60	528.00	665.28	792.00	929.28
Transfer Pax	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Security	289.08	289.08	289.08	289.08	289.08	1387.32	1387.32	1387.32	1387.32	1387.32	843.48	843.48	843.48	843.48	843.48	39.60	38.28	38.28	38.28	38.28
Transfer Security	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Infrastructure	18.48	18.48	18.48	18.48	18.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.60	15.84	15.84	15.84	15.84	15.84
Govt. Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Pax Charge	2520.00	1635.00	1856.00	2078.00	2520.00	2406.00	1897.00	2100.00	2203.00	2406.00	3534.00	2189.00	2189.00	2189.00	3534.00	1811.00	582.00	719.00	846.00	983.00
Average Pax Charge	19.09	12.39	14.06	15.74	19.09	18.23	14.37	15.91	16.69	18.23	26.77	16.58	16.58	16.58	26.77	13.72	4.41	5.45	6.41	7.45
Total Charges	2759.00	1874.00	2095.00	2317.00	2759.00	2897.00	2216.00	2477.00	2603.00	2897.00	3995.00	2650.00	2650.00	2650.00	3995.00	2804.00	788.00	1117.00	1435.00	1764.00
Average Per Pax	20.90	14.20	15.87	17.55	20.90	21.95	16.79	18.76	19.72	21.95	30.27	20.08	20.08	20.08	30.27	21.24	5.97	8.46	10.87	13.37

Assumptions		Currency: EUR 1.00EUR=0.83GBP	
Airline: Ryanair	MTOW: 66.99 tonnes	Capacity: 189	
Aircraft: B373-800	MLW: 66.3 tonnes	Load Factor: 70 %	
Route: Intra EU		Passengers: 132	

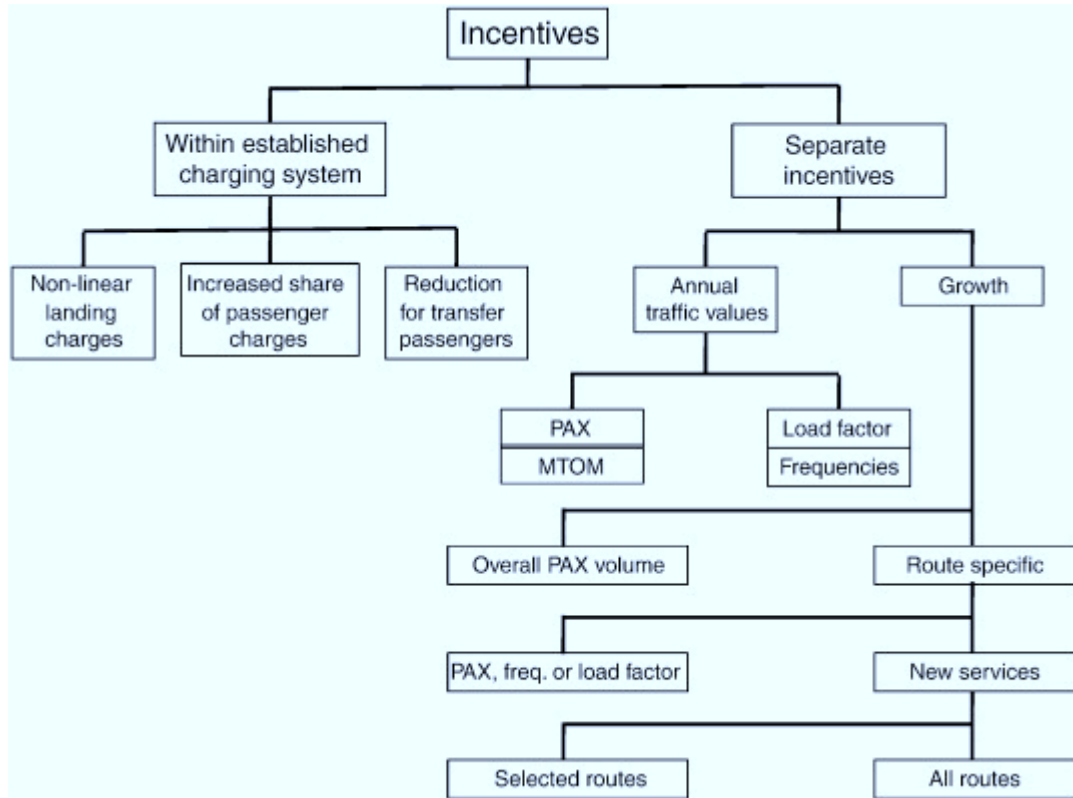


Figure 1. Overview of Incentive Schemes within airport charging systems

Source: Fichert and Klophaus (2011).

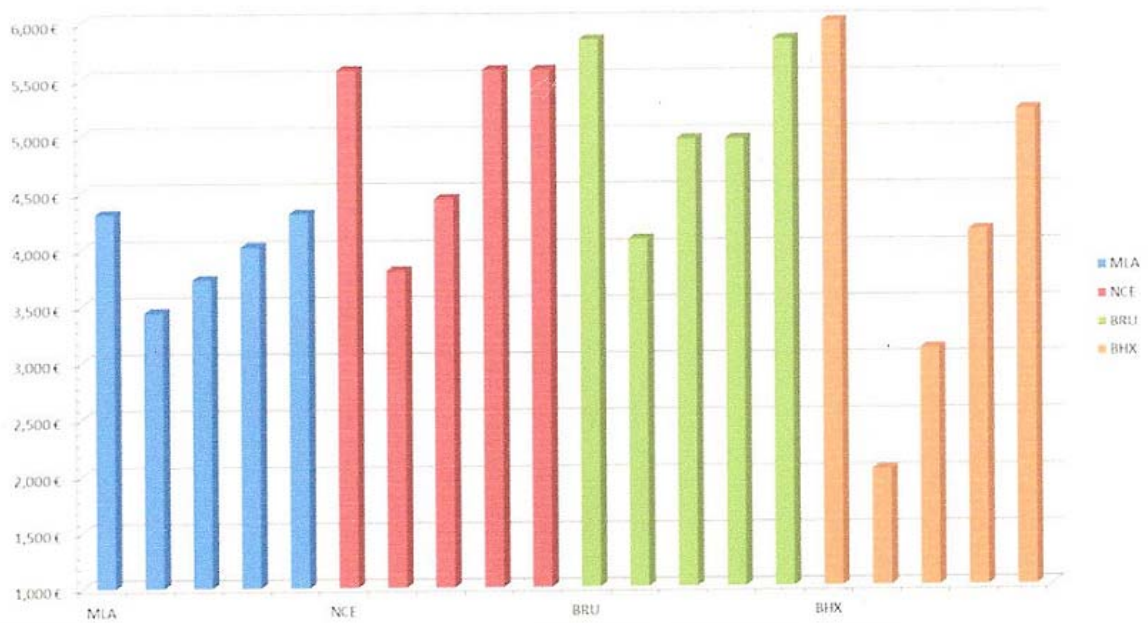


Figure 2: Total Charges for a LH A340- 300 operating with a “generic” incentive scheme, over a 4 year period, including a standard benchmark

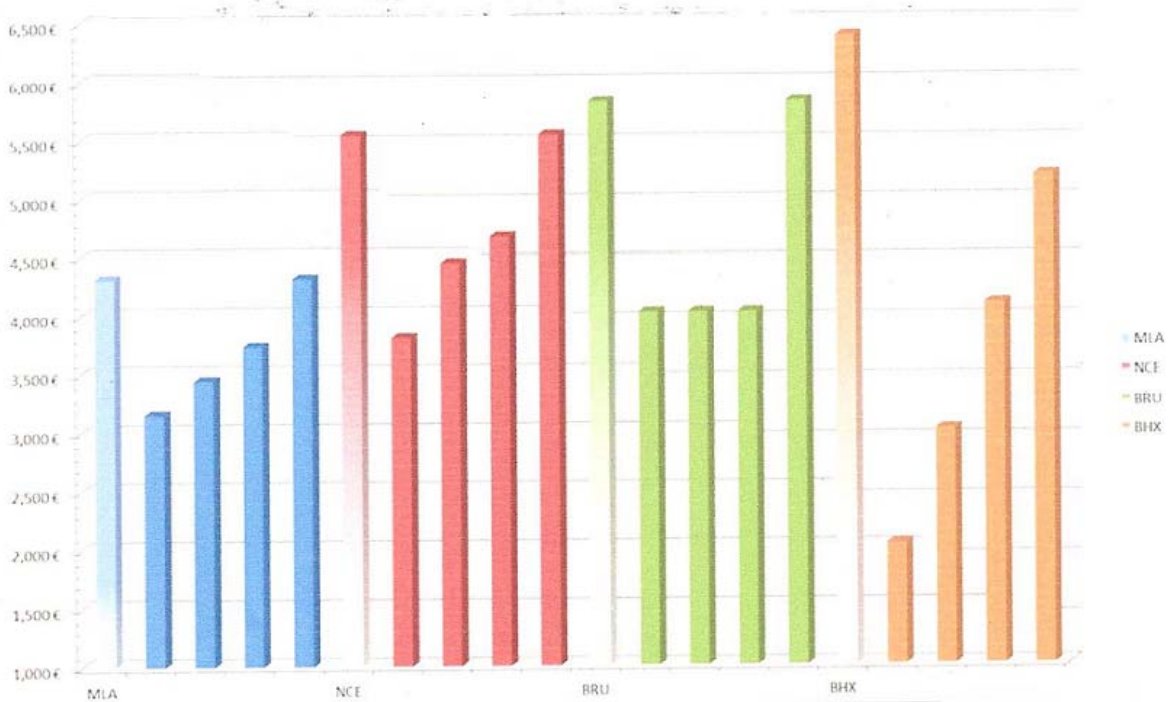


Figure 3: Total Charges for a LH A340- 300 operating with a “strategic” incentive scheme, over a 4 year period, including a standard benchmark

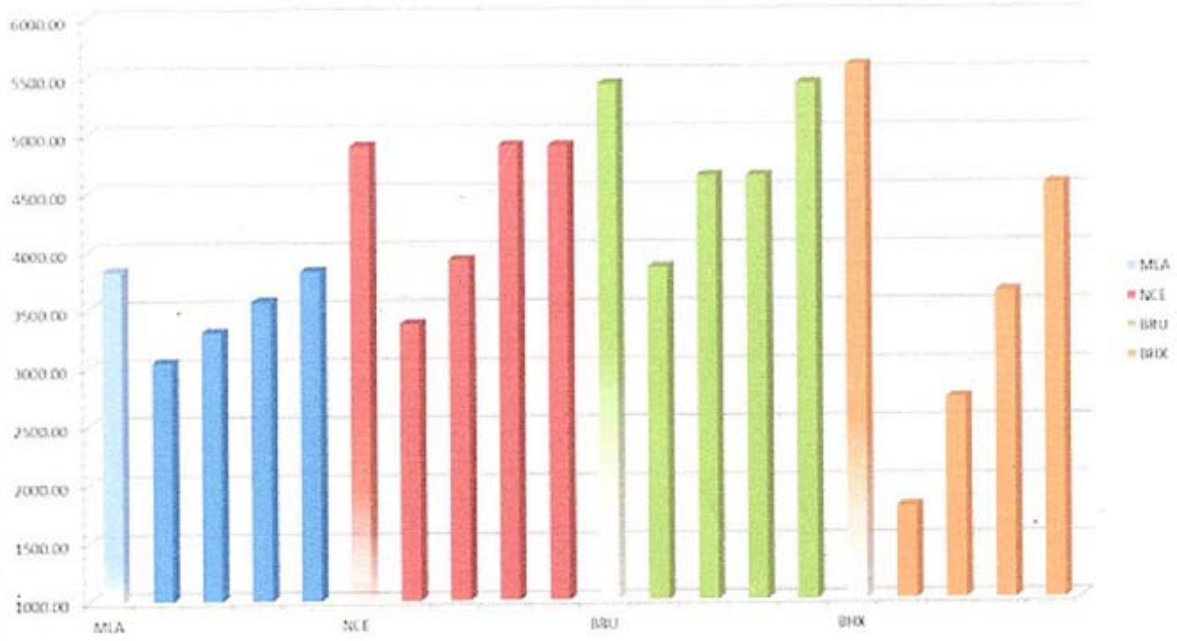


Figure 4: Total Charges for a LH A330- 300 operating with a “generic” incentive scheme, over a 4 year period, including a standard benchmark

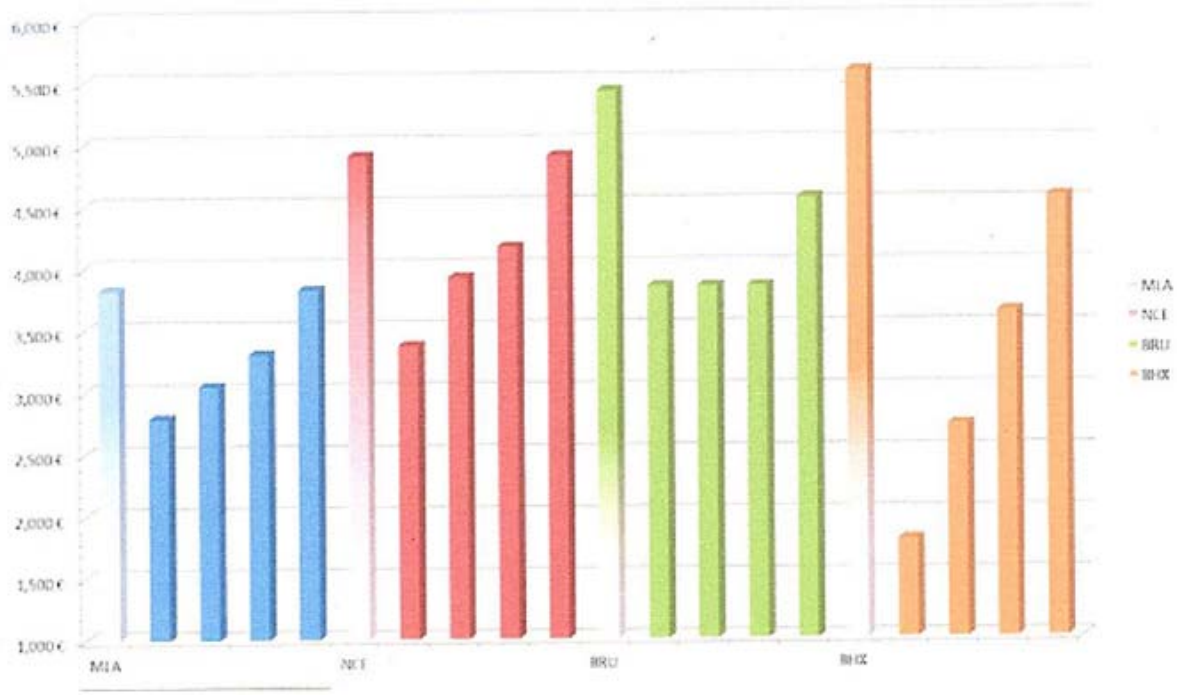


Figure 5: Total Charges for a LH A330- 300 operating with a “strategic” incentive scheme, over a 4 year period, including a standard benchmark

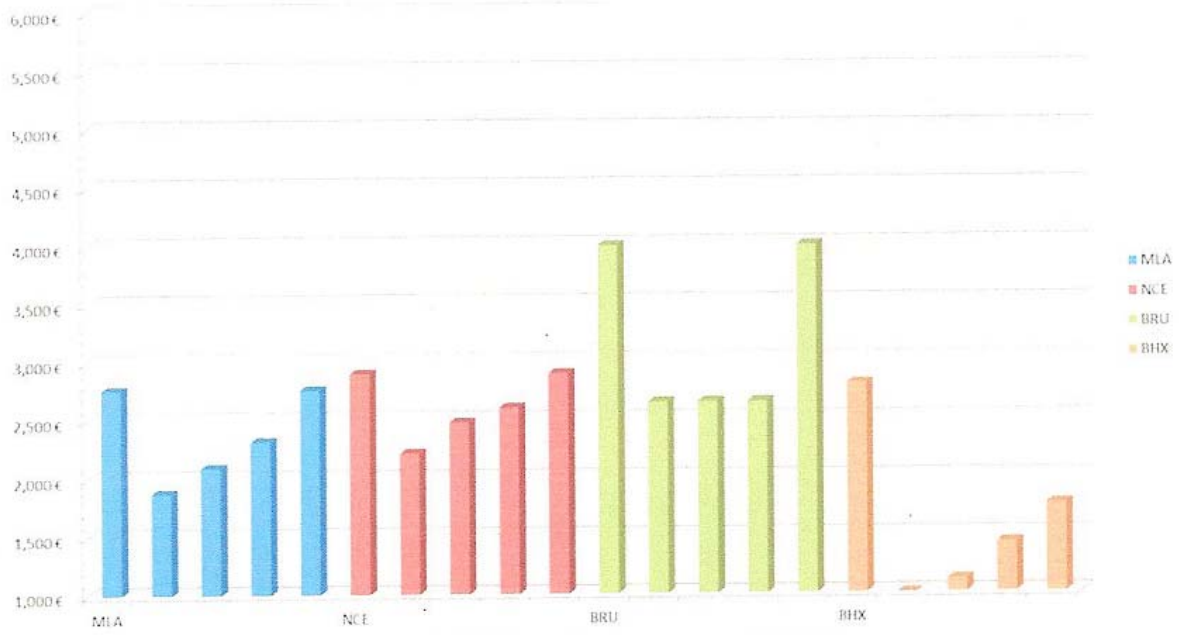


Figure 6: Total Charges for a FR B737-800 operating with a “generic” incentive scheme, over a 4 year period, including a standard benchmark

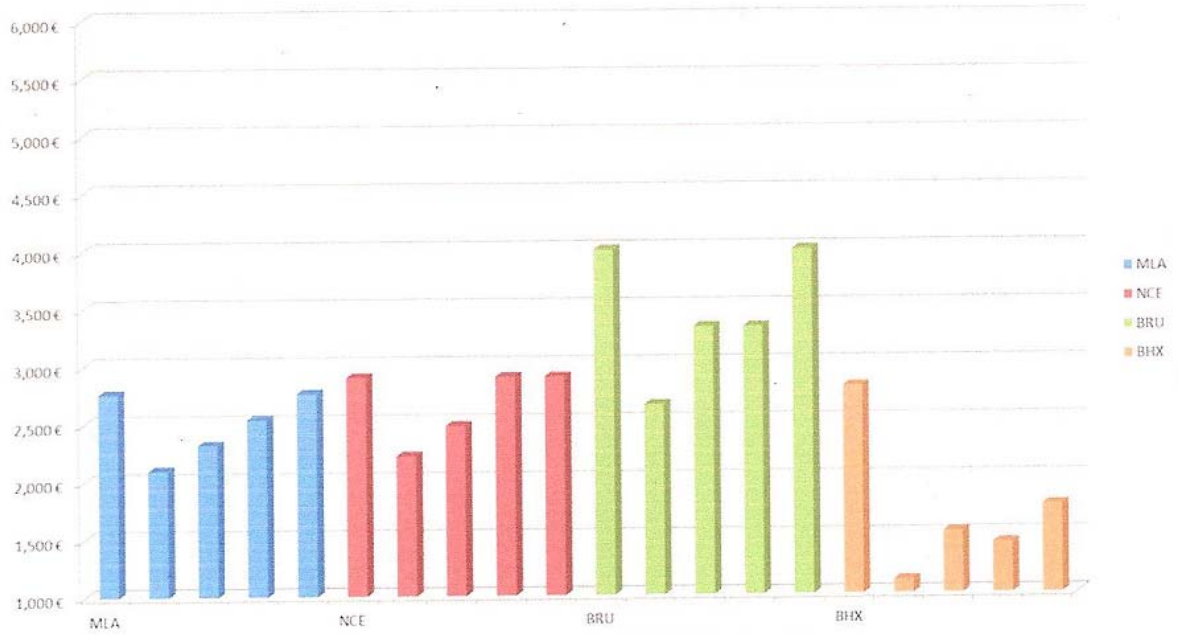


Figure 7: Total Charges for a FR B737-800 operating with a “strategic” incentive scheme, over a 4 year period, including a standard benchmark