SH&E International Air Transport Consultancy

REPORT:

A Comparison of Ground Handling Charges Between Europe and the United States

Prepared for

european express association

Prepared by

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September 2006

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1 EXECUTIVE SUMMARY

BACKGROUND

1.1 In July 2006 SH&E was commissioned by the European Express Association (EEA) to undertake a comparison of ground handling prices between the European Economic Area and the United States. The airports were selected to provide a cross section of airport types and to allow a legitimate comparison between the two zones.

METHODOLOGY

1.2 Three categories of airport were defined, namely:

- Express carrier hub or cargo dominated
- Large international airport with significant cargo
- Feeder / regional

1.3 Five airports from each zone selected within each of these categories. SH&E then requested standard pricing information for ramp handling, freight loading, and freight unloading. There were some difficulties in obtaining the data for a variety of reasons, including concerns over the commercial sensitivity of the data, and the absence of key personnel during the peak holiday season.

1.4 The data was then subject to comparative analysis and presented in graphical form.

KEY FINDINGS

1.5 It was found that pricing in the European Economic Area was significantly higher than in the United States. Prices per aircraft type were between 63% and 198% higher within Europe. The difference was greatest for the largest aircraft for which data was gathered, and tended to reduce as aircraft size reduced. It should be noted that despite these large average differences, some European airports had pricing which was broadly similar to US pricing.

1.6 It was found that price variability between airports within Europe is significantly higher than in the United States.

2 METHODOLOGY

OVERVIEW

2.1 The SH&E methodology, chosen to align with the EEA's original request for proposal, was to define several airports categories and then select airports from both the European and US zones to populate them. Care was taken to ensure good comparability between zones.

2.2 Ground handlers were then contacted at each of the airports and pricing information requested. The prices sought were the handlers' standard 'book' prices, not a negotiated rate. In practice very few customers pay these published prices, most arriving at a negotiated agreement involving a sizable discount. Determination of 'normal' discounts was outside of the scope of this study (SH&E consider it doubtful that handlers would divulge this commercially sensitive information).

2.3 Pricing information was requested for a variety of aircraft types, which had been agreed with the EEA as representative of an express carriers fleet.

2.4 In most cases the handlers were not told that the EEA has requested this study as it was feared that questions asked on behalf of an industry association would not elicit an adequate response. Instead, data was requested on behalf of 'a major airline'. DHL, FedEx, TNT, and UPS all certainly qualify in that respect.

AIRCRAFT TYPES

2.5 Five aircraft types were selected, giving a complete range of typical cargo aircraft sizes. These are tabulated below in Exhibit 1.

Exhibit 1 – Aircraft types selected

Aircraft Type	Typical MTOW (rounded)	Key operators
DC-10	263 000 kg	FedEx (also MD-11), UPS (MD-11 only)
A300	165 000 kg	FedEx, DHL, UPS, TNT
757	108 000 kg	DHL
737	62 000 kg	TNT
ATR 72	21 500 kg	FedEx, UPS (sub-contractor's aircraft)

Source: SH&E

AIRPORT TYPES

2.6 After discussion with members of the EEA, it was agreed that the airport types should reflected the typical operation of a large express carrier. Consequently the following three airport types were selected:

- Type I – Express carrier hub or cargo dominated
- Type II – Large international airport with significant cargo
- Type III – Feeder / regional

2.7 Criteria for airport selection included airport size, the current proportion of cargo traffic, and whether they are primarily a long-haul or a short-haul destination. The airport size criterion would embrace consideration of hub or spoke style operation. Exhibit 2 and Exhibit 3 show the airports selected and their key statistics.

Exhibit 2 – Airports selected in the European Economic Area

Type	Airport	Pax (2005)	Movements (2005)	Cargo (2005)	Pax/ Cargo
I	Brussels (BRU)	16,133,406	253,255	660,854	24.4
I	Cologne/Bonn (CGN)	9,452,185	154,594	643,605	14.7
I	East Midlands (EMA)	4,193,822	81,202	293,214	14.3
I	Liege (LGG)	235,609	42,672	325,712	0.7
I	Luxembourg (LUX)	1,573,825	89,657	742,766	2.1
II	Amsterdam (AMS)	44,163,098	420,736	1,495,919	29.5
II	Frankfurt (FRA)	52,219,412	490,147	1,962,927	26.6
II	London (LHR)	67,915,403	477,884	1,389,589	48.9
II	Milan (MXP)	18,554,874	218,048	384,753	48.2
II	Paris (CDG)	53,798,308	522,619	2,010,361	26.8
III	Athens (ATH)	14,267,465	180,936	115,028	124.0
III	Berlin (SXF)	5,075,172	62,089	13,124	386.7
III	Birmingham (BHX)	9,388,831	123,164	13,213	710.6
III	Goteborg (GOT)	4,119,289	66,657	60,635	67.9
III	Nice (NCE)	9,754,722	169,371	14,727	662.4

Source: SH&E

Exhibit 3 – Airports selected in the United States

Type	Airport	Pax (2005)	Movements (2005)	Cargo (2005)	Pax/ Cargo
I	Fort Wayne (FWA)	626,125	78,488	116,936	5.4
I	Huntsville (HSV)	1,265,153	66,568	53,142	23.8
I	Indianapolis (IND)	8,524,442	222,275	985,457	8.7
I	Los Angeles (LAX)	61,489,398	650,629	1,938,430	31.7
I	San Francisco (SFO)	32,802,363	352,871	590,557	55.5
II	Chicago O'Hare (ORD)	76,510,003	972,248	1,546,153	49.5
II	Dallas/Fort Worth (DFW)	59,176,265	711,878	741,805	79.8
II	Houston (IAH)	39,684,640	562,966	387,790	102.3
II	New York (JFK)	41,885,104	351,508	1,660,717	25.2
II	Washington Dulles (IAD)	26,842,922	509,468	303,012	88.6
III	Boise (BOI)	3,139,158	173,054	42,488	73.9
III	Burlington (BTV)	1,303,591	113,933	9,133	142.7
III	Portland (PDX)	13,879,701	263,253	261,473	53.1
III	San Jose (SJC)	10,755,978	193,975	94,928	113.3
III	Washington National (DCA)	17,843,772	276,056	3,969	4,495.8

Source: SH&E

2.8 It should be noted that there is a measure of redundancy in the selected airports. It was felt that responses from 3 airports per type in each zone would be adequate for this study.

HANDLING SERVICE TYPE

2.9 Prices for three handling services were requested for each of the aircraft types. These were:

- **Ramp handling** – A single 'bundled' cost was requested for all ramp services from parking to push-back. Fuelling was excluded as this is usually provided by a separate organisation.
- **Cargo Loading** – The price per unit weight was requested. The handler was also asked to differentiate between belly and main deck cargo for all aircraft except the ATR 72.
- **Cargo Unloading** – The price per unit weight was requested. The handler was also asked to differentiate between belly and main deck cargo for all aircraft except the ATR 72.

INFORMATION REQUESTS

2.10 Ground handlers were emailed with a detailed request and asked to return the form within 14 days. If no information had been received after 10-12 days, the handler was contacted by telephone. If necessary the deadline was extended.

2.11 As stated earlier, the handlers were not told the identity of our client (the EEA), in line with EEA guidance for this study.

2.12 The handlers were required to fill in a short form with the pricing information. An example of a completed form is attached as Appendix B:.

2.13 Given our serious concerns over collecting sufficient data within the required timescales, more than one handler at each airport were contacted to provide a measure of redundancy.

3 RESULTS

RESPONSES FROM EUROPE

3.1 In many cases, handlers did not respond in the required format. The primary reasons given were:

- A lack of time to produce a detailed response
- The existing tariff structure did not match our request
- There was not a 'standard' tariff, all pricing being negotiated on a customer-by-customer basis

3.2 Exhibit 4 shows the handlers contacted within Europe, and whether or not any data was provided.

Exhibit 4 – Responses from European Ground Handlers

Type	Airport	Handler	Response
I	Brussels (BRU)	Flightcare Belgium	None
		Aviapartner	None
		Swissport	Unwilling to assist
I	Cologne/Bonn (CGN)	Flughafen Köln-Bonn	Yes
		Aviapartner	Unwilling to assist
I	East Midlands (EMA)	DHL Aviation	Yes
		ServisAir	Yes
I	Liege (LGG)	Flightcare Belgium	None
		Aviapartner	None
I	Luxembourg (LUX)	Cargolux	None
		Swissport	Unwilling to assist
II	Amsterdam (AMS)	Aviapartner	None
		ServisAir	Cannot provide service
		Menzies	Yes
II	Frankfurt (FRA)	Fraport	Yes
		Swissport	Cannot provide service
II	London (LHR)	Menzies	Yes
		ServisAir	Yes
II	Milan (MXP)	Swissport	None
		Aviapartner	None
		ATA Handling	
II	Paris (CDG)	Swissport	Unwilling to assist
		ServisAir	None
III	Athens (ATH)	Swissport	Yes
		ServisAir/Goldair	Yes

III	Berlin (SXF)	Swissport Globeground Berlin	None Yes
III	Birmingham (BHX)	Menzies ServisAir Swissport	Cannot provide service Yes None
III	Goteborg (GOT)	Göteborg-Landvetter Air Spirit Air Cargo Godshantering Landvetter	Cannot provide service None Yes (ramp only)
III	Nice (NCE)	Aviapartner ServisAir	Yes None

Source: SH&E

3.3 It can be seen that results are available for 2 Type I airports, 3 Type II airports, and 5 Type III airports.

3.4 As stated above, not all respondents provided data with the level of detail requested. The quality of the data is summarised in Exhibit 5.

Exhibit 5 – Responses from European Ground Handlers

Type	Airport	Information
I	Cologne/Bonn (CGN)	Full information
I	East Midlands (EMA)	Single price including cargo handling
II	Amsterdam (AMS)	Single price including cargo handling
II	Frankfurt (FRA)	Full information
II	London (LHR)	Single price including cargo handling
III	Athens (ATH)	Full information, minimum cargo quantity per turnaround
III	Berlin (SXF)	Full information
III	Birmingham (BHX)	Single price including cargo handling
III	Goteborg (GOT)	Information for ramp handling only
III	Nice (NCE)	Full information

Source: SH&E

3.5 Information for LHR, BHX, and EMA was provided in British Pounds. It was converted to Euros at an exchange rate of 1 GBP = 1.477 EUR. This was the average interbank rate for August.

RESPONSES FROM THE UNITED STATES

3.6 Ground handlers in the United States were, on the whole, more reluctant to provide data than their European counterparts. By far the most commonly cited reason for this was concern over commercial confidentiality. This may be a result of a more 'cut-throat' business culture in a very competitive environment.

3.7 The second most commonly cited reason was that the handler did not have a standard tariff. Each contract was negotiated taking into consideration numerous factors including frequency, time of day, time on the ground, and volume of cargo. While some European handlers gave the same reason for not providing information, it was much more prevalent in the United States.

3.8 It was also noted that few handlers would consider responding without substantially more information than we were able to provide (a complete operational schedule was requested on more than one occasion). There appeared to be a position taken that providing rough estimates was not possible as it would most probably be incorrect with respect to any actual operation. This position persisted even when assurances were given that any pricing information provided would be completely non-binding.

3.9 The following handlers were asked to provide information for all the airports in the list that they served. Only three positive responses were received.

Exhibit 6 – Responses from US Ground Handlers

Handler	Response	Airports
Air Container Transport	Unwilling/unable to assist	
Air Transport International	Unwilling/unable to assist	
Ameriflight	Unwilling/unable to assist	
BAX Global	Unwilling/unable to assist	
Capital Cargo International Airlines	Unwilling/unable to assist	
Custom Global Logistics	Unwilling/unable to assist	
Evergreen Airlines	Unwilling/unable to assist	
Integrated Airline Services Inc. (IASAir)	**Yes**	Dallas/Fort Worth (DFW)
Kitty Hawk Air Cargo	Unwilling/unable to assist	
Menzies	**Yes**	Houston (IAH) Los Angeles (LAX) Portland (PDX) San Francisco (SFO) San Jose (SJC) Washington National (DCA) Washington Dulles (IAD)
Polar Air Cargo	Unwilling/unable to assist	
Quantem Aviation	Unwilling/unable to assist	
ServisAir	**Yes**	New York (JFK) Los Angeles (LAX) Chicago (ORD)
Towne Air Freight	Unwilling/unable to assist	

Source: SH&E

3.10 It can be seen that results are available for 2 Type I airports, 5 Type II airports, and 3 Type III airports.

3.11 In all cases the information provided was a single rate for ramp and cargo handling. No handler would provide a cost per unit weight, even after a follow-up request.

3.12 IASAir provided information for the DC-10, 757, and DC-9. For the purposes of this study it was assumed that the A300 price would be similar to the quoted 757 price (this was the case with many of the handlers), and that the 737 would be handled for a similar price to the quoted DC-9 price. No pricing was assumed for ATR-72 operations.

3.13 Menzies provided a single price assuming operations at all airports. On further questioning they stated that single airport operations would be similarly priced, and that the supplied figure was a calculated average. They did, however, admit that prices on the East or West coast of the United States would be 10-20% more expensive than for an airport in the country's interior... However this difference is not significant to this study, which relies on overall averages (which Menzies supplied).

3.14 Pricing information was provided in US Dollars. It was converted to Euros at an exchange rate of 1 USD = 0.781 EUR. This was the average interbank rate for August.

TARIFFS FOR CARGO LOADING/UNLOADING

3.15 In all cases where the data was provided, no distinction was made between loading and unloading cargo.

3.16 The pricing for loading/unloading in Europe was extremely variable. This charge varied between 3 and 14 cents per kg. This did not seem to be driven by local labour costs (Frankfurt was one of the cheapest providers of this service, yet has comparatively high labour rates).

3.17 It is likely that each handler was taking a view on the likely payload of the arriving and departing aircraft, and basing the cost per kg charge on the level of risk they were prepared to accept. For example, a low charge meant that most of the risk was held by the cargo operator as the ramp handing charge is paid regardless of payload.

3.18 As all of the US handlers, and almost half of the European handlers did not provide this data, then a comparative analysis is not possible. Additionally, the previous two paragraphs cast significant doubt on whether there would be a meaningful comparison even if the data were available.

3.19 It was therefore decided to assume a mean payload for each aircraft type and calculate a single handling price for each type at each airport. This would allow meaningful comparisons with the US data to be drawn.

3.20 The mean payloads were assumed to be 50% of the maximum payload, as defined by the manufacturer. This is felt to be a conservative assumption, and so the pricing for European ground handling will be *underestimated*. Values used in this calculation are in Appendix A:

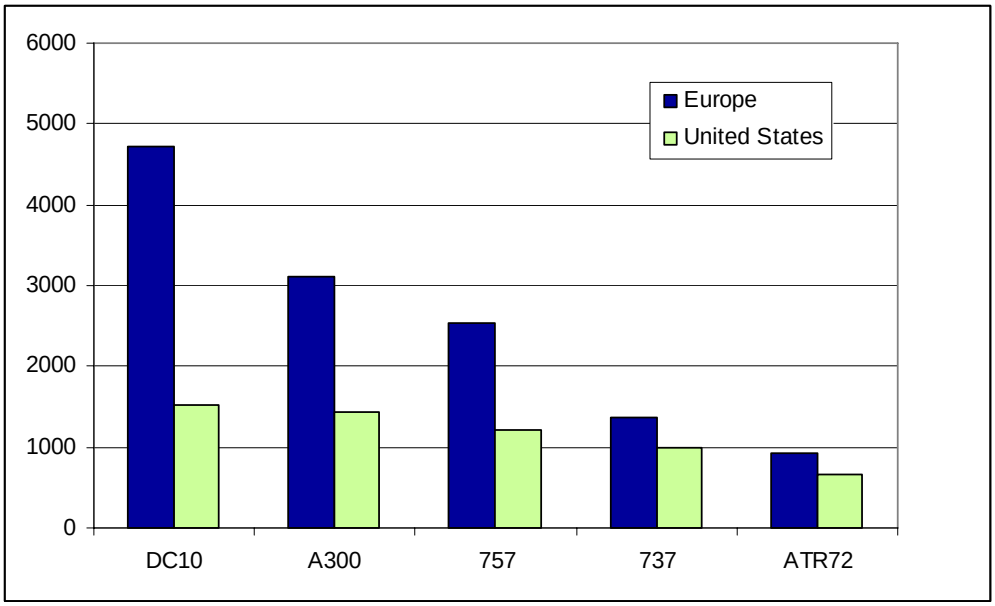
ANALYSIS

Type I Airports (express carrier hub or cargo dominated)

3.21 Responses were received from 2 Type I airports in Europe (Cologne/Bonn, East Midlands) and 2 Type I airports in the United States (Los Angeles, San Francisco).

3.22 The pricing comparison for Individual aircraft types is shown in Exhibit 7.

Exhibit 7 – Average prices for Type I airports



Source: SH&E

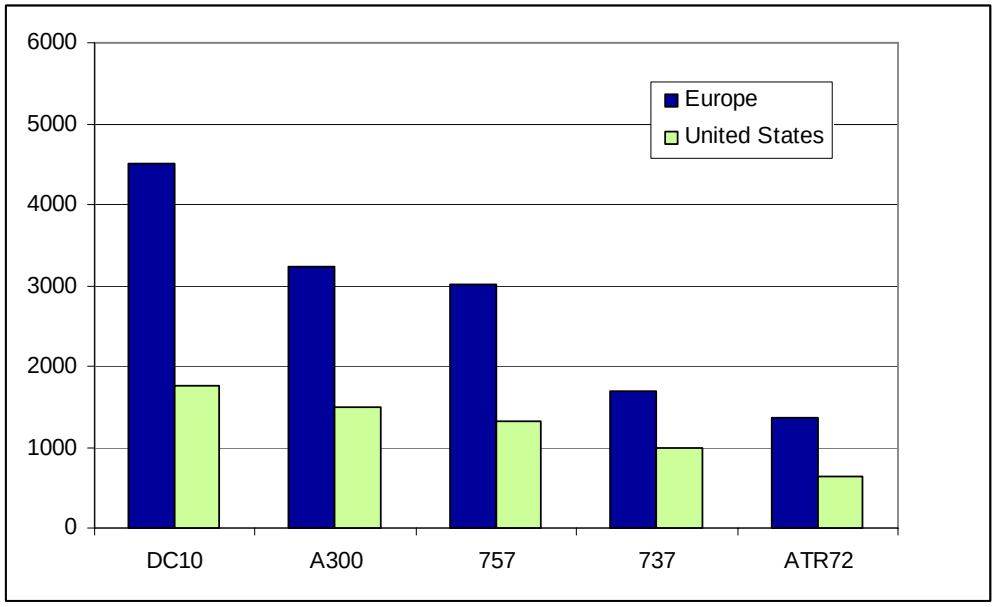
3.23 It can be seen that European handlers are more expensive for every aircraft type.

Type II Airports (large international airport with significant cargo)

3.24 Responses were received from 3 Type II airports in Europe (Amsterdam, Frankfurt, London Heathrow) and 5 Type II airports in the United States (Dallas/Fort Worth, Washington Dulles, Houston, New York JFK, Chicago O'Hare).

3.25 The pricing comparison for Individual aircraft types is shown in Exhibit 8.

Exhibit 8 – Average prices for Type II airports



Source: SH&E

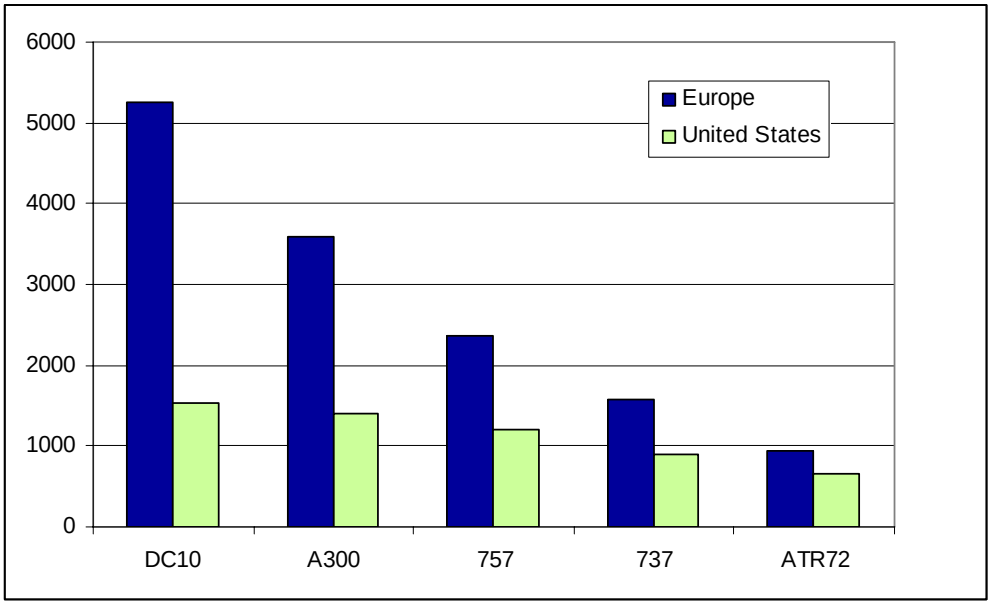
3.26 It can be seen that European handlers are significantly more expensive for every aircraft type.

Type III Airports (feeder / regional)

3.27 Responses were received from 5 Type III airports in Europe (Athens, Birmingham, Gothenburg, Nice, Berlin Schoenefeld) and 3 Type III airports in the United States (Washington National, Portland, San Jose). Gothenburg was excluded from the analysis as their quotation did not include cargo handling.

3.28 The pricing comparison for Individual aircraft types is shown in Exhibit 9.

Exhibit 9 – Average prices for Type III airports



Source: SH&E

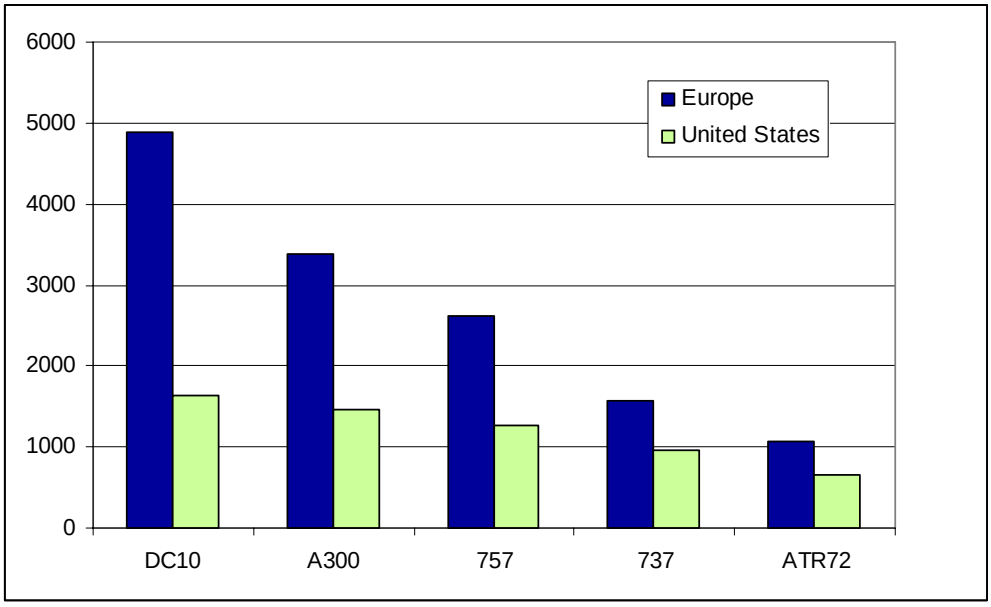
3.29 It can be seen that European handlers are significantly more expensive for every aircraft type.

All Airport Types

3.30 Responses were received from 10 airports in Europe and 10 airports in the United States.

3.31 The pricing comparison for Individual aircraft types is shown in Exhibit 10.

Exhibit 10 – Average prices for all airport types



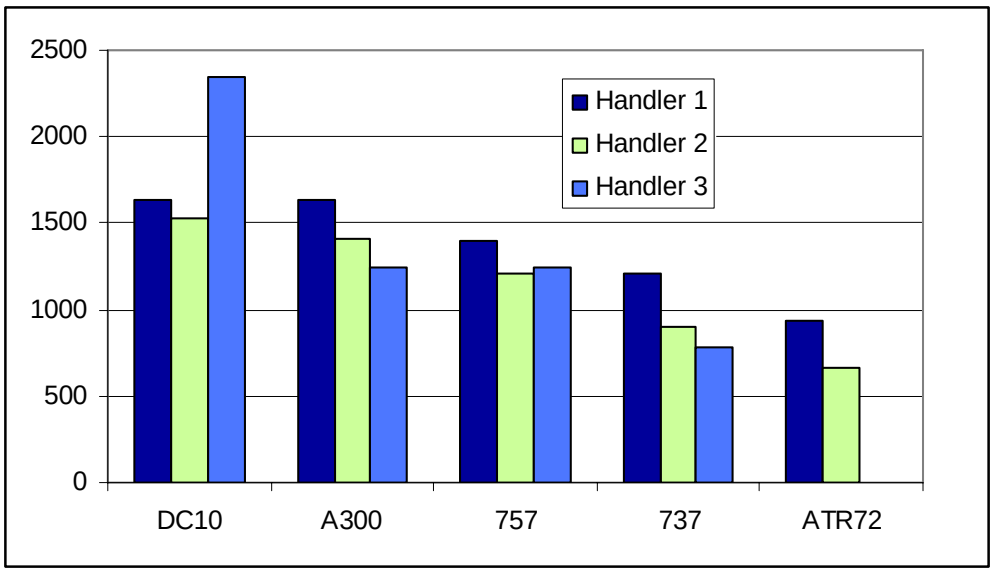
Source: SH&E

3.32 It can be seen that European handlers are significantly more expensive for every aircraft type.

OBSERVATIONS ON THE DATA

3.33 Pricing from the three US handlers who supplied data appears to be very consistent, with the exception of pricing of the DC-10. See Exhibit 11.

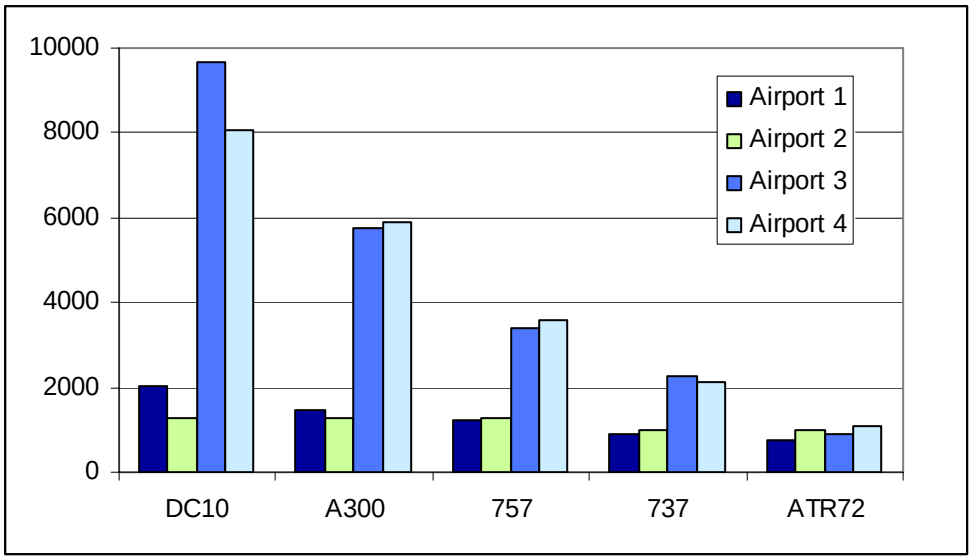
Exhibit 11 – Variation in US data



Source: SH&E

3.34 Conversely, pricing within Europe varied by a huge amount. As an example, Exhibit 12 shows the variation in pricing of the Type III airports within Europe (excluding Gothenburg).

Exhibit 12 – Variation in Type III airport pricing in Europe



Source: SH&E

3.35 In most cases, European handlers responded per airport. Within the US, however, two out of three of the responses given for several airports simultaneously. Despite assurances that single airport pricing was similar to that provided, it is suspected that the prospect of future business for multiple airports may have lowered the supplied prices. However it should also be noted that the US prices were similar to some European prices (which were given for a single airport), and that any reduction that was made would not account for the very large differentials seen.

3.36 Responses were obtained from only 2 Type I airports in each zone, which is lower than the 3 originally thought to be necessary for a meaningful comparison. However, the comparison is consistent with comparisons made for the other two airport types, and so the analysis is thought to be valid. The data is obviously valid for use in the 'All Types' analysis.

Appendix A:
ASSUMED PAYLOADS

Weights used to calculate single handling price

Aircraft	Max payload (kg)	Factored by 50% (kg)	Data Source
DC-10-30F	79 380	39 690	Boeing website
A300-B4 conversion	43 000	21 500	Airbus website
757-200 conversion	27 216	13 608	Boeing website
737-400 conversion	17780	8 890	Boeing website
ATR-72 Freighter	8 067	4 033	ATR website

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Appendix B:
EXAMPLE REQUEST FOR INFORMATION FORM

Request for Information on Aircraft and Cargo Handling Prices

Ground handling company: _____

Name of contact: _____

Direct contact email and telephone: _____

Currency used: ___Euro €_____

Units for cargo handling: KG / ~~TONNE~~ (please delete as applicable)

PLEASE PROVIDE STANDARD RATES FOR **NIGHT OPERATION**, ASSUMING **1 AIRCRAFT PER NIGHT (5 DAYS PER WEEK)**

Service	DC10	A300	757	737	ATR 72	Comments
Cargo loading (belly)	€ 0.05	€ 0.05	€ 0.05	€ 0.05	€ 0.05	
Cargo loading (main deck)						
Cargo unloading (belly)						
Cargo unloading (main deck)						
Ramp handling *	€ 2690	€ 1330	€ 1330	€ 820	€ 370	

* Ramp handling = a single cost for all turn-around activities from parking to push-back. No fuelling.

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