

## **CASE STUDY 2 – UK-US RIGHTS FOR A EUROPEAN AIRLINE**

### **A Prague-Glasgow-Los Angeles service by CSA**

1 This study considers the possible way in which a European airline might use transatlantic fifth-freedom rights to serve the US West Coast from a Scottish airport. A Prague-Glasgow-Los Angeles route has been assumed for the purpose of this study. Los Angeles was selected as the potential US point to be served as this is currently the most popular destination for passengers travelling between Glasgow and the US West Coast.

2 The type of airline which might want to serve Los Angeles via an intermediate point is likely to be one of the smaller European airlines with a long-haul capability but with a limited home market which, in the absence of fifth freedom rights, would have difficulty operating direct services. The Czech airline CSA (and therefore Prague) was consequently selected as an airline that could potentially serve such a route.

3 CSA has three A310-300 aircraft (according to JP Fleets), which it already uses for direct long-haul services between Prague and New York and Prague and Toronto. The CSA A310 is configured with 21 Business Class seats and 188 Economy Class seats.

The hypothetical CSA operation would directly affect the markets between:

- Prague and Los Angeles;
- Glasgow and Prague;
- Glasgow and Los Angeles.

## The Prague-US Market

4 Currently the only point in the US served directly from Prague is New York. CSA operates a daily flight under a code-share agreement with Delta. Of the seven flights a week to New York, five are to JFK and the other two to Newark. Table 1 compares the relative sizes of the Los Angeles and New York markets by analogy with the traffic which travels from Heathrow and Gatwick to these points. It suggests that the market to Los Angeles may be only a third or so the size of that to New York.

**Table 1 – London-New York and London-Los Angeles passengers (year to August 2004)**

	<i>Passengers</i>
Newark	972,798
JFK	2,764,644
<i>Total</i>	<i>3,737,442</i>
Los Angeles	1,235,837

*Source: CAA Airport Passenger-Related data (reduced by 6% to account for non-revenue passengers)*

5 Los Angeles is served directly from relatively few European hubs compared with New York and generally, where Los Angeles is served, the frequency to New York is considerably higher. For example, in November 2004 there were four daily third/fourth freedom services between Frankfurt and JFK, one between Frankfurt and Newark and one between Frankfurt and Los Angeles. Given that Prague-New York is a daily service, this suggests that CSA might only fly through to Los Angeles on two or three days a week.

6 Table 2 shows the number of passengers travelling from Prague to Los Angeles over London. BA was the most popular airline chosen by passengers for both legs of the journey.

**Table 2 – Passengers flying from Prague to Los Angeles (and vice versa) via London**

<i>Passengers travelling from London to Los Angeles</i>	<i>Passengers travelling from London to Prague</i>						<i>Overall Total</i>
	<i>BA Business</i>	<i>Leisure</i>	<i>Total</i>	<i>CSA Business</i>	<i>Leisure</i>	<i>Total</i>	
American	106	0	106	0	0	0	106
BA	158	3,055	3,213	0	0	0	3,213
Air New Zealand	0	0	0	150	0	150	150
Virgin	0	561	561	0	0	0	561
<i>Total</i>	<i>264</i>	<i>3,616</i>	<i>3,880</i>	<i>150</i>	<i>0</i>	<i>150</i>	<i>4,030</i>

*Source: CAA O & D Survey, 2003*

## **Effect on UK airlines**

The Prague-Los Angeles market generates for UK airlines:

- 264 Business passengers on London-Prague
- 158 Business passengers on London-Los Angeles

- 3,616 Leisure passengers on London-Prague
- 3,616 Leisure passengers on London-Los Angeles

7 IPS data for 2003 indicates the average one-way yields for UK gateway-to-gateway passengers shown in Table 3.

**Table 3 – Average yields in 2003**

	<i>Business</i>	<i>Leisure</i>
Heathrow-Prague	£152	£75
Heathrow-Los Angeles	£640	£246

8 If UK airlines' revenue from a through passenger is equal to the sum of the sector fares, then these passengers may generate £1.3m revenue for UK airlines.

9 Using the same diversion/replacement assumptions as in Study 1, UK airlines might lose 1,900 sector passengers on their London routes with a net revenue loss of £0.34m for a daily CSA service, and it is further assumed that the impact will be proportionately less for a less frequent service.

### **CSA's use of capacity**

10 Currently CSA flies a 737-500 to both Edinburgh and Glasgow. The Edinburgh service has 13 round trips a week in summer and six in winter providing 113,000 seats a year assuming 108 seats in CSA's 737-500 aircraft. In November 2004 the CSA schedule on Glasgow-Prague was a daily 737-500.

11 Given the analysis of the Prague-Los Angeles market above, for the purpose of this study, it is assumed that CSA will operate a three-times weekly A310 Prague-Glasgow-Los Angeles service and that on its days of operation the A310 will be used to replace the current 737-500, rather than to supplement the existing service. So, CSA will operate a daily service between Prague and Glasgow, on three days with an A310 (flying on to the US) and on the other four days a terminating 737-500.

12 It is further assumed that CSA will dedicate 108 seats on each A310 flight to traffic between the Czech Republic and Glasgow. This would be equivalent to 33,700 seats a year for this market and to replace precisely the capacity provided by the current 737-500 services three days a week. This capacity is also available for the traffic between Glasgow and Los Angeles with the remainder, 31,500 seats, being available to traffic between Prague and Los Angeles.

## The Glasgow-Prague market

### Table 4 – Current Schedules

Glasgow – Prague	A) Fly Globespan – Two flights per week operated by Cougar B) CSA – Operates a daily service Depart Prague 1230 - Arrive Glasgow 1355 Depart Glasgow 1440 - Arrive Prague 1800
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Source: OAG, November 2004

13 CSA began serving Edinburgh from Prague in 2003 and Table 5 shows CSA's carryings since then.

### Table 5 – CSA's Edinburgh-Prague scheduled service

Year	Point to Point	Flights	Terminal Passengers	Transit Passengers	Total Passengers	Seats	Seat Factor
2003	29,099	368	29,099	0	29,099	38,992	75%
Yr to Aug04	62,849	867	62,849	0	92,849	90,744	69%

Source: CAA Airport Statistics (Reduced by 6% to account for non-revenue passengers)

14 Table 5 offers an insight into the type of seat factor likely to be achievable by CSA flying to Prague from Glasgow. Glasgow and Edinburgh are similar in size as airports and a Prague service from Glasgow seems likely to be able to secure a similarly relatively attractive seat factor as the Edinburgh service. Indeed, although Glasgow-Prague only began in 2004 and the available statistics cover just 88 flights by CSA, on these flights it carried an estimated 11,000 revenue passengers at a seat factor of 84%. As stated earlier, since late 2003, CSA has increased its number of flights a week from Edinburgh to Prague in summer to 13 a week.

15 Under the assumption made about CSA's possible operation, Glasgow-Prague passengers will experience no change in either the frequency of the service or the capacity that is available to them. Accordingly, there will be no effect on the consumer benefits of UK passengers between Glasgow and Prague. But Glasgow airport would gain revenue on the Glasgow-Prague sector as a result of CSA operating a larger aircraft on three days a week.

## The Glasgow-Los Angeles Market

16 There are currently no direct services to Los Angeles from any UK airport apart from Heathrow. Passengers originating in Scotland therefore have three main choices available to them:

- a) Travel by surface to Heathrow in order to catch a direct flight to Los Angeles;
- b) Travel by surface to Heathrow in order to catch an indirect flight to Los Angeles;
- c) Fly from a local airport to Los Angeles, via an intermediate airport (whether it be a UK or a foreign intermediate airport). For example, Continental offers an indirect service to Los Angeles from Glasgow via its Newark hub.

Table 6 shows the sector data for the Heathrow-Los Angeles route.

**Table 6 - London-Los Angeles scheduled services in the year to August 2004**

	<i>Point to point</i>		<i>Terminal</i>	<i>Transit</i>	<i>Total</i>		<i>Seat</i>
	<i>passengers</i>	<i>Flights</i>	<i>Passengers</i>	<i>Passengers</i>	<i>Passengers</i>	<i>Seats</i>	<i>Factor</i>
Air New Zealand	51,262	703	218,918	0	218,918	275,576	79%
American	197,677	1,024	197,677	0	197,677	298,898	66%
BA	465,649	1,537	465,649	0	465,649	539,487	86%
United	185,747	843	184,497	0	184,497	232,596	79%
Virgin	335,502	1,214	335,502	0	335,502	420,946	80%
<i>Total</i>	<i>1,235,837</i>	<i>5,321</i>	<i>1,402,243</i>	<i>0</i>	<i>1,402,243</i>	<i>1,767,503</i>	<i>79%</i>

Source: CAA Airport Statistics, ye ending Aug 2004 (Reduced by 6% to account for non-revenue passengers)

17 BA and Virgin (code-sharing with Continental) operate double daily flights to Los Angeles, while American is also double daily in summer but daily in winter. United and Air New Zealand operate a daily service year-round. Air New Zealand operates flights routed Heathrow-Los Angeles-Auckland, explaining the discrepancy between the number of point-to-point passengers carried by the airline (from Heathrow to Los Angeles) and the number of terminal passengers recorded.

## **The Scotland-US West Coast OD market**

18 For the purpose of this study, the major airports in California (Los Angeles and San Francisco) together with San Diego have been used to estimate the number of passengers potentially wishing to travel to Los Angeles as a gateway to the West Coast. The assumption is that many UK leisure passengers may view the three airports as fairly interchangeable in terms of obtaining access to the state of California, so that in general terms, a direct service from Scotland to Los Angeles is likely to be viewed equally by passengers as a Scotland – West Coast service. Therefore, in the remainder of this section, the “US West Coast” will refer to the combined Los Angeles, San Francisco and San Diego markets.

19 Tables 7 and 8 provide a breakdown of the number of Scotland originating passengers flying to the West Coast via the UK and via a foreign point, respectively.<sup>1</sup>

<sup>1</sup> There is no survey data for Scottish airports after 2001 and there are likely to have been changes in traffic patterns but since UK-US traffic in 2003 was slightly less than in 2001 it is not unreasonable to use the 2001 data as a proxy for 2003 figures.

**Table 7 - Passengers travelling by air from Scotland to London to catch a direct flight to the US West Coast**

	<i>Via Heathrow</i>	<i>Share</i>
Aberdeen	2,198	3%
Edinburgh	30,928	41%
Glasgow	42,251	56%
<i>Total</i>	<i>75,377</i>	<i>100%</i>

Source: CAA O & D Survey, 2003

20 More than half of the passengers (56%) flying from Scotland to the West Coast, via Heathrow, originate from Glasgow airport. This is closely followed by Edinburgh (41%), with less than 5% of passengers beginning their journey in Aberdeen.

21 Table 8 shows the number of passengers and the intermediate points of travellers who flew from Scottish airports via a foreign point, on their way to the West Coast of America.

**Table 8 - Passengers travelling by air from Scotland to an airport outside of the UK to catch a direct flight to the US West Coast**

<i>Origin</i>	<i>Via</i>	<i>Total</i>
Aberdeen	Amsterdam	4,452
<i>Total</i>		<i>4,452</i>
Edinburgh	Amsterdam	1,102
	Dublin	8,488
	Frankfurt	717
<i>Total</i>		<i>10,307</i>
Glasgow	Amsterdam	2,383
	Dublin	4,359
	Newark	6,394
	Chicago	3,545
	Toronto	2,700
<i>Total</i>		<i>19,381</i>
<i>Overall Total</i>		<i>34,140</i>

Source: CAA O & D Survey, 2001

22 Across all the Scottish airports, flying via Amsterdam and Dublin were the most popular choices for passengers catching connecting flights at airports outside the UK.

Table 9 shows the originating regions of these passengers.

**Table 9 – Surface origins of passengers at Scottish airports flying to the US West Coast via a foreign airport**

Aberdeen	City Of Aberdeen	2,581	58%
	Gordon	737	17%
	Other	1,135	25%
	Total	4,452	100%
Edinburgh	City Of Dundee	3,120	30%
	Kirkaldy	2,597	25%
	City Of Edinburgh	2,587	25%
	Other	2,004	19%
	Total	10,307	100%
Glasgow	City Of Glasgow	2,887	15%
	Lisburn	1,404	7%
	Eastwood	1,326	7%
	Other	13,764	71%
	Total	19,381	100%
<i>Overall Total</i>		<i>34,140</i>	

Source: CAA O & D Survey, 2001

23 Again, Table 9 shows little overlap between originating areas for the different Scottish airports, demonstrating a preference for the nearest airport for passengers travelling indirectly from Scotland to the West Coast. A direct service, however, is likely to change this presumption and possibly alter passenger choice.

24 Analysis of surface origin at a less disaggregated level also provides a pattern regarding the usage of Glasgow airport, this time, in comparison with Edinburgh airport. Tables 10, 11 and 12 show the areas where passengers originated for three destinations - Amsterdam, Heathrow and Toronto - that are served from both Edinburgh and Glasgow.

**Table 10 – Scottish regional passengers travelling to Amsterdam**

<i>County</i>	<i>EDI</i>	<i>GLA</i>	<i>Total</i>	<i>% EDI</i>	<i>%GLA</i>
Strathclyde	24,439	233,893	258,331	9%	91%
Dumfries and Galloway	965	7,934	8,899	11%	89%
Highland and Islands	9,811	9,392	19,202	51%	49%
Central	23,940	8,280	32,220	74%	26%
Grampian	9,340	2,981	12,321	76%	24%
Tayside	36,802	5,794	42,596	86%	14%
Borders	8,350	525	8,874	94%	6%
Fife	37,073	2,299	39,371	94%	6%
Lothian	261,809	6,665	268,474	98%	2%
<i>Grand Total</i>	<i>412,528</i>	<i>277,761</i>	<i>690,289</i>	<i>60%</i>	<i>40%</i>

Source: CAA O & D Survey, 2001



**Table 11 - Scottish regional passengers travelling to Heathrow**

<i>County</i>	<i>EDI</i>	<i>GLA</i>	<i>Total</i>	<i>% EDI</i>	<i>%GLA</i>
Strathclyde	36,350	1,189,227	1,225,577	3%	97%
Dumfries and Galloway	2,664	21,262	23,927	11%	89%
Highland and Islands	7,426	11,408	18,834	39%	61%
Central	84,921	38,810	123,731	69%	31%
Grampian	14,581	4,910	19,491	75%	25%
Tayside	122,369	32,576	154,945	79%	21%
Lothian	1,025,166	43,908	1,069,073	96%	4%
Fife	181,577	6,586	188,162	96%	4%
Borders	43,245	1,539	44,784	97%	3%
<i>Grand Total</i>	<i>1,518,299</i>	<i>1,350,225</i>	<i>2,868,524</i>	<i>53%</i>	<i>47%</i>

Source: CAA O & D Survey, 2001

**Table 12 - Scottish regional passengers travelling to Toronto**

<i>County</i>	<i>EDI</i>	<i>GLA</i>	<i>Total</i>	<i>% EDI</i>	<i>%GLA</i>
Central		8,336	8,336	0%	100%
Grampian		2,791	2,791	0%	100%
Highland and Islands		2,711	2,711	0%	100%
Dumfries and Galloway		2,399	2,399	0%	100%
Borders		1,569	1,569	0%	100%
Strathclyde	719	56,241	56,960	1%	99%
Fife	1,395	5,807	7,202	19%	81%
Tayside	1,237	3,392	4,628	27%	73%
Lothian	7,219	11,791	19,010	38%	62%
<i>Grand Total</i>	<i>10,569</i>	<i>95,037</i>	<i>105,606</i>	<i>10%</i>	<i>90%</i>

Source: CAA O & D Survey, 2001

25 Tables 10 and 11 show a similar picture. Heathrow and Amsterdam are well served from both Edinburgh and Glasgow so passengers appear to choose their most convenient airport. Strathclyde and Dumfries passengers strongly favour Glasgow; Highland and Islands is fairly evenly split; Central and Grampian generally favour Edinburgh; Tayside, Borders, Fife and Lothian strongly favour Edinburgh. Lothian and Strathclyde are the two largest generators of traffic and are of a similar size.

26 Table 12 is in principle the most relevant as it is the only long-haul route included in the analysis. However, the sample size is small and the Edinburgh service was clearly inferior to that provided at Glasgow. Table 12 suggests that in these circumstances passengers in the Edinburgh catchment area will use Glasgow. However, the much smaller size of Lothian compared with Strathclyde in Table 12 as compared with Tables 10 and 11 indicates that a substantial volume of potential Edinburgh traffic is suppressed by the lack of a good direct service or that much of the demand flies indirectly rather than travelling across Scotland to take the direct flight from Glasgow.

27 Table 14 provides an estimate of the size of the Scotland-West Coast USA market

**Table 14 - Scotland-West Coast USA OD Market Breakdown**

<i>Mode of Travel</i>	<i>Flying From</i>	<i>Via</i>	<i>Passengers</i>
By air	Scotland	Direct	---
	Scotland	UK, Directly	75,377
	Scotland	UK, Indirectly	4,523
By surface	Scotland	Other	34,140
	UK	Directly/Indirectly	1,257
<i>Total</i>			115,297

## The likely traffic mix on the CSA Glasgow-Los Angeles service

28 Table 15 shows the split by residence and journey purpose of passengers travelling on direct services from Manchester to the US.

**Table 15– Breakdown of passengers by residence and journey purpose**

	<i>UK Business</i>	<i>UK Leisure</i>	<i>Foreign Business</i>	<i>Foreign Leisure</i>	<i>Total</i>
Atlanta	14,326 10%	82,635 60%	15,753 11%	25,572 18%	138,286 100%
Newark	22,540 15%	95,396 64%	11,354 8%	19,507 13%	148,797 100%
Washington	9,930 17%	36,011 63%	5,826 10%	5,839 10%	57,606 100%
JFK	7,677 6%	92,776 73%	5,298 4%	18,234 17%	127,098 100%
Orlando	1,194 1%	145,005 99%	597 0%	--- ---	146,796 100%
Chicago	41,575 16%	144,358 54%	29,324 11%	50,895 19%	266,152 100%
Philadelphia	16,365 11%	76,919 53%	17,304 12%	34,931 24%	145,517 100%
Sanford	--- ---	252,622 100%	--- ---	--- ---	252,622 100%
<i>Total</i>	<i>113,607</i> <i>9%</i>	<i>925,722</i> <i>72%</i>	<i>85,456</i> <i>7%</i>	<i>155,068</i> <i>12%</i>	<i>1,279,852</i> <i>100%</i>

Source: CAA O&D Survey, 2003

Note: Table covers all passengers including those connecting at the US gateway

29 UK leisure passengers make up at least half the traffic on each of the US points served from Manchester. Orlando and Sanford are clearly atypical but, even when they are excluded, UK leisure passengers still make up 60% of the total on Manchester's US routes.

30 Table 16 splits passengers travelling from Manchester to the US according to whether they travelled with either a UK or foreign carrier.

**Table 16 – Manchester-US passengers by airline nationality**

	<i>UK Business</i>	<i>UK Leisure</i>	<i>Foreign Business</i>	<i>Foreign Leisure</i>	<i>Total</i>
UK airline	45,813 8%	608,737 82%	22,821 4%	37,942 7%	715,313 100%
Foreign airline	67,794 10%	316,985 65%	62,634 9%	117,126 16%	564,539 100%
<i>Total</i>	<i>113,607</i> <i>9%</i>	<i>925,722</i> <i>72%</i>	<i>85,455</i> <i>7%</i>	<i>155,068</i> <i>12%</i>	<i>1,279,852</i> <i>100%</i>

Source: CAA O&D Survey, 2003

31 Table 16 shows that UK airlines carried a relatively greater proportion of UK passengers than their foreign counterparts. However, for both UK and foreign airlines, the majority of passengers carried are UK residents. 90% of all passengers carried by UK airlines and 75% of all passengers carried by foreign airlines flying from Manchester to the US were UK residents. This study assumes that a fifth-freedom carrier such as CSA will be relatively more attractive to leisure passengers than business passengers.

## The economic evaluation

32 Using the methodology described in the covering paper, Table 17 shows the results calculated for the potential effects of granting CSA fifth-freedom rights on the transatlantic leg of a Prague-Glasgow-Los Angeles routeing. Under the assumption (as stated earlier in the chapter) that CSA dedicates the same number of seats to Glasgow-Prague passengers as is currently the case, in spite of using bigger aircraft, there is no change in consumer benefits, airline profits/losses or tourism in this market. However, the use of bigger aircraft has a positive impact on airport-related revenue and expenditure, and therefore this is represented as a positive net effect on the UK.

**Table 17 – Economic impact of CSA's Prague-Manchester-Los Angeles service**

	<i>PRG- LAX</i>	<i>GLA- PRG</i>	<i>GLA- LAX</i>	<i>Total</i>
UK direct passenger benefits (£m)	---	---	1.06	1.06
UK indirect passenger benefits (£m)	---	---	0.44	0.44
UK airline revenues (£m)	-0.15	---	-0.87	-1.01
UK airline profits (£m)	-0.13	---	-0.85	-0.98
Aviation-related spend in the UK (£m)	---	0.82	2.44	3.26
Aviation-related profit (£m)	---	0.36	0.80	1.16
Tourism spend in the UK (£m)	---	---	0.75	0.75
Tourism profit (£m)	---	---	0.10	0.10
<i>Net effect on UK (£m)</i>	<i>-0.13</i>	<i>0.36</i>	<i>1.55</i>	<i>1.77</i>

33 The main impact is on the Glasgow-Los Angeles sector where CSA would face competition from routeings over London and other hubs. In particular the network from Scotland to the US has improved since 2001 so that the demand pattern captured in Table 14 may underplay the role of the US hubs. In 2001, when Scottish airports were last surveyed, there was a Continental services from Glasgow to Newark and a summer service from Glasgow to Chicago. Now a summer Glasgow-Philadelphia service has been added as well as a year-round Edinburgh-Newark service. These services serve major US hubs offering good onward connections and would seem likely to offer strong competition to a low frequency service operated by a fifth-freedom airline with little presence at either end of the route. Hence Table 14 may, on the one hand, overstate the market share of UK airlines and, on the other, perhaps present too optimistic a view of the likelihood of an airline like CSA entering this market.