

An Economic Overview of the Case for a New Devon Airport at Plymouth

A response to the consultation document:

The Future Development of Air Transport in the United Kingdom: South West

A report prepared by

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EXECUTIVE SUMMARY

- There is a strong case for a detailed appraisal of the possible establishment of a new Devon airport at Plymouth, within the context of the development of a strategy for air transport in the South West.
- The case for the serious consideration of a new airport is based upon a number of factors. These include - the problems associated with the sites of existing airports, the relative weakness of the far South West economy, the inadequacies in the current transport infrastructure, the strategic importance of air transport and the economic impact on the sub-regional economy.
- *Problems of the current sites.* The current Plymouth site is characterised by problems associated with a short runway, congested road access, adjacent residential development and limited room for expansion. There is a serious danger of loss of services and even closure. Exeter faces substantial competition from Bristol and may be too close to the South East to develop services to the capital. Newquay suffers from a peripheral location, small catchment area and is unlikely to be viable for scheduled services.
- *The weakness of the far South West economy:* The far South West is characterised by low GDP per head, low earnings, pockets of high unemployment and other problems associated with a peripheral location. A variety of planning documents have highlighted the strategic importance to the local economy of a vibrant Plymouth, the largest urban area in the sub-region, and it would be the logical location for a new airport.
- *Transport Infrastructure:* Much of Devon and Cornwall suffers from long journey times to other parts of the UK. There is a significant possibility that road congestion may worsen and there may be increased disruption of the rail network. There is little prospect of significant investment in road or rail given other national priorities, the scale of the investment needed and the small and dispersed population.
- *Strategic Importance of air transport:* Airports may play an important strategic role in encouraging regeneration, tourism, investment and improving regional competitiveness. In a peripheral region such as the far South West, airports may also be of significance in signalling that a region is accessible and "open for business".
- *Economic Impact:* The present Plymouth airport is estimated to generate £10m of income and 375 jobs for the local economy. In addition, the naval FOST operations, which depend heavily on the airport, may directly or indirectly generate a further 480 jobs and £16.5m for the local economy.

The existence of airport facilities may also be an important factor in the attraction and sustaining of inward investment into the region. If the present airport closed, this would have a serious impact on the local economy.

- *Future Impact:* Forecasting the future demand for air transport, particularly over the long term is problematic. This report examines the impact of two scenarios based on information provided to us by Sutton Harbour Holdings. The first of these involves the opening of a new Plymouth airport in 2007 together with the closure of the existing Plymouth and Exeter airports. On the assumption that a new Plymouth airport generates 3.2m passengers per annum by 2030, it is estimated that this could generate 11,100 jobs and £396m of GDP for the South West economy. Most of these jobs are generated by an increase in inbound tourism. An alternative scenario involving the closure of Plymouth and expansion of Exeter would result in the generation of 5,900 jobs and £246m of GDP. Other scenarios may, of course, generate widely different impacts.

1. INTRODUCTION

The recent regional consultation document (RCD) *The Future Development of Air Transport in the United Kingdom: South West (DfT, 2002)* provides an overview of a variety of issues that will impact upon the future development of aviation in the South West. One crucial issue on which the RCD invites comments is the question of providing new capacity at South West regional airports. This report considers an important aspect of this issue that receives little attention in the document - the possibility of developing a new Devon airport at Plymouth and possible rationalisation with Exeter.

The report is structured as follows. Section 2 provides an overview of the future scenarios considered in the document and highlights the limited discussion of issues relating to new site development. Section 3 provides the context for discussing the case for a new airport by examining the current state of the far South West economy and the pivotal position of Plymouth in the development of this sub-region. Section 4 looks at the present and potential importance of Plymouth airport and the problems associated with running the facility. It also considers the possibility of loss of some or all of the services currently provided. Section 5 assesses the impact of the current site on the local economy and the implications of closure. Section 6 considers the potential costs and benefits of a new airport to replace the existing facility and the subsidiary issue of whether there should be rationalisation of services

with Exeter. The final section concludes by summarising the case for the serious consideration of the development of a new Devon airport at Plymouth.

2. OVERVIEW OF THE CONSULTATION DOCUMENT

The consultation document presents forecasts of the potential future growth of air travel from existing South West regional airports within the context of different policy scenarios. Four main scenarios are considered:

- RASCO Reference Case (RRC). This assumes that current policies are continued and that significant new runway capacity is provided over the next 30 years at London Airports.
- South East Constrained (SEC) case. This assumes that capacity at London airports is restricted to around 150 million passenger movements per annum (MMPA) and that capacity at regional airports is allowed to grow in line with demand.
- UK-wide Constrained (UKC) case. This only allows development already accounted for in the planning system.

- Facilitating Growth (FG) case. This assumes that all UK airports are allowed to grow in line with demand and that demand is encouraged.

The RCD considers the implications of these scenarios for the major South West airports of Bristol, Bournemouth, Plymouth, Exeter and Newquay. The forecasts for future airport demand for the three far South West airports are outlined in Table 1.

Table 1: Forecasts for Airport demand at 2030 (MMPA)

	2000 Actual	RRC	SEC	UKC	FG
Exeter	0.3	2.0	4.5	1.1	1.1
Newquay	0.1	0.4	0.3	0.4	0.3
Plymouth	0.1	0.5	1.3	1.5	1.3

Source: DfT(2002)

The forecasts imply relatively modest growth for Exeter apart from in the case of the SEC scenario. Constraints on growth arise from factors such as competition from Bristol, relatively short journey times to the South East by other modes of transport and the access times for potential passengers in the far West of the region. Newquay is expected to remain a relatively small airport under all scenarios. This reflects the peripheral location and small catchment area of the airport. Under all four scenarios growth is predicted at Plymouth, although the forecasts vary widely from 0.5m to 1.5m passengers per annum by 2030. It is acknowledged that a runway extension would be required to accommodate larger aircraft. Moreover, the RCD considers the higher growth forecast in the UKC scenario as unlikely due to the physical

constraints of the current Plymouth site. These conclusions immediately highlight the significant limitations of the present site whatever the future growth of demand.

In addition to the four main scenarios, two “spatial scenarios” are briefly outlined. These are

- a “Fly Local Scenario” in which traffic would be encouraged at airports throughout the South West so that all airports would share more of the benefits (and costs) of growth; and
- a “Concentrated Growth” scenario in which traffic would be concentrated at one regional hub airport, most likely Bristol. The benefits of this approach would be a wider range and frequency of services, although this could also increase travelling times to the airport for some passengers.

No forecasts are developed for the two spatial scenarios and this makes a detailed assessment of these options somewhat difficult. However, it is clear that the limitations of the present sites would still be relevant under these alternative scenarios.

The RCD recognises that the far South West faces significant economic problems arising from peripherality, localised deprivation and structural

decline. Moreover, the important role of aviation in economic development is also acknowledged. However, whilst the RCD provides a detailed analysis of problems of present and future operations at far South West airports, there is little detailed consideration of the potential for new site development. Indeed this subject merits just a handful of pages in the report, most of which examine the case for a new airport north of Bristol. The possibility of a new site to replace the current airports at Plymouth and Exeter merits only brief consideration. The RCD states that the case has "been examined" (although no further details are given in the main document) and concludes that "... *because both airports have relatively small catchment areas, the cost of developing a new facility would be very high in terms of cost per unit of capacity. Even if both existing sites could be successfully marketed (for example for residential development), it is unlikely that the development of a new site would be financially viable even under the highest forecast demand scenarios. Furthermore, given the geography and topography of this part of the region the need for good road and rail links and the potentially significant environmental impacts of developing a new airport in that area, no obvious sites suggest themselves.* "

Whilst this comment outlines some of the major issues of concern involved in developing a new site, the extent to which the case has "been examined" is not clear. Moreover, the document gives no indication as to which possible site options have been considered or the extent to which the wider strategic significance of a new site to the far South West economy has been considered. Given the thorough analysis of the problems facing the development of

aviation in the far South West and the acknowledgment of the problems of this sub-region, the quick dismissal of the prospects for a new site is surprising.

Rather than examining the case for a new airport in detail, the RCD concentrates upon a discussion as to whether the three far south west airports should compete or attempt to develop in a complementary fashion. The latter scenario envisages Exeter concentrating on “*mainly leisure traffic on Charter services*”, Plymouth concentrating on “*mainly business traffic on full scheduled services*” and Newquay on “*no frills services*” and being an “*intermediate stop on Plymouth scheduled services*”. Interestingly, this is similar to the status quo and it not clear how this scenario offers anything “new” that will alleviate the problems of the existing structure.

The implications of closing Plymouth are briefly addressed in the RCD which states that:

“If Plymouth were to close (because, for example, a commercial or economic case could not be made to extend the existing runway to allow the use of a wide range of regional jets or larger turboprops), an option might be to consolidate traffic at Exeter and improve surface access to that airport rather than developing a new site. Newquay might be able to sustain sufficient traffic for an independent lower frequency Gatwick service (it already provides over half the passengers in the current Gatwick services and many of the higher yield fares), but the route would undoubtedly be less attractive

as a result of lost frequency. This ultimately could mean travellers from the far South West who require onward interline connections would have to commence their journey at Bristol and possibly on off-line connections to 'no frills' carriers at Stansted via the Ryanair service. But the latter would only be viable if the service becomes double-daily."

Much of this paragraph is at odds with analysis elsewhere in the report which suggests that Exeter is too close to London to offer scheduled services and that Newquay would not be viable for scheduled services in its own right. Moreover, the suggestion that passengers requiring onward interline connections could reasonably go to Bristol, essentially means that they would have to get them via Dublin, Amsterdam or Paris. Finally, the suggestion that a "no frills" "double-daily" service from Newquay to Stansted could in part compensate as alternative interlining is very arguable. At present there is no double-daily service and it is interesting to speculate as to how long the present once a day service will continue. Given these factors, it seems unlikely that Plymouth services could easily be replaced. Moreover, closure would have a serious impact upon the relatively weak far South West economy.

The above discussion suggests that the case for a new Devon airport at Plymouth deserves serious consideration. The rest of this report considers a range of issues involved in assessing the viability and desirability of such a development.

3. THE “FAR” SOUTH WEST ECONOMY

The development of aviation in the South West cannot be considered in isolation from an understanding of the issues and problems facing the far South West economy. This section provides a brief overview of a number of important issues.

The South West, as a whole, comprising the seven counties of the (former) Avon, Cornwall, Devon, Dorset, Gloucestershire, Somerset and Wiltshire, is one of the most prosperous parts of the UK. Indeed, Table 2 shows that the region ranks in the first three UK regions across a range of economic indicators.

Table 2: Economic Indicators for the UK and South West

	<i>SW</i>	<i>UK</i>	<i>SW Ranking in UK regions</i>
<i>% population growth 1991-2000</i>	5.5	3.4	4
<i>Net migration¹, 1999 (000s)</i>	39	182	3
<i>Average weekly household income, 1997-2000 (£)</i>	427	455	6
<i>Male average weekly earnings, 2001 (£)</i>	451.8	490.5 ²	5 ²
<i>Female average weekly earnings, 2001 (£)</i>	333.5	366.8 ²	7 ²
<i>Average weekly household expenditure, 1997-2000 (£)</i>	332.2	348.	7
<i>Average weekly expenditure, 1997-2000 (£ per head)</i>	144.6	148.3	4
<i>% of households with use of a car, 1999</i>	77	72	=2
<i>% change in housing stock, 1991-2000</i>	8.1	7.1	5
<i>Average house price, 4th quarter 2001</i>	115,175	96,076	3
<i>% change in labour force, Spring 1996-2000</i>	5.3	2.4	1
<i>% change in employees in employment, 2000-01</i>	1.6	-4.8	1

<i>% managerial and professional employees, Spring 2000</i>	<i>29.5</i>	<i>31.1</i>	<i>5</i>
<i>Male economic activity rate, Winter 2001/02</i>	<i>85.7</i>	<i>84.0²</i>	<i>3²</i>
<i>Female economic activity rate, Winter 2001/02</i>	<i>77.2</i>	<i>72.6²</i>	<i>1²</i>
<i>Unemployment rate, April 2002</i>	<i>2.1</i>	<i>3.3</i>	<i>2</i>
<i>% long term unemployed, April 2002</i>	<i>12.6</i>	<i>16.6</i>	<i>2</i>
<i>% of population of working age with HE qualifications (inc. degrees), Spring 2001</i>	<i>24.7</i>	<i>23.5</i>	<i>4</i>
<i>Stoppages of work, 2000 (days lost per 1000 emps)</i>	<i>1</i>	<i>20</i>	<i>1</i>
<i>GDP per head, 1999 (Index UK=100)</i>	<i>90.8</i>	<i>100</i>	<i>7</i>
<i>% growth of GDP, 1995-99</i>	<i>22.7</i>	<i>23.9</i>	<i>5</i>
<i>Gross value added per employee in manufacturing, 1998</i>	<i>34,300</i>	<i>36,500</i>	<i>9</i>
<i>R & D activity as a % of GDP, 1999</i>	<i>1.9</i>	<i>1.8</i>	<i>4</i>

1 Internal and international

2 GB

Source: South West Economy Trends and Prospects, 2002.

The relatively healthy overall performance of the South West region disguises considerable differences amongst various sub-regions, of which at least three can be sensibly delineated. These are the Bristol-Bath-Gloucester-Cheltenham-Swindon sub-region, the Bournemouth-Christchurch-Poole sub-region and the two counties of Devon and Cornwall. In general, the latter sub-region is much less buoyant than the first two. Some of the disparities amongst these three areas can be seen in Table 3, which presents data on three social and economic indicators for Devon and Cornwall and areas within the other two sub-regions. It can be seen that the far South West is generally characterised by a relatively high level of income support beneficiaries, a relatively low level of median incomes and a relatively low level of household income per head.

Table 3: Economic and social indicators (South West = 100)

Region	Income Support Beneficiaries (%Population, Feb 2000)	Median Incomes (1999-2000) (£, per head)	Unemployment rate (March, 2002)
Bath and NE Somerset	75	114	62
Bristol UA	138	111	114
S Gloucestershire	63	95	57
Swindon UA	88	116	86
Bournemouth UA	125	83	119
Poole UA	88	99	62
Dorset CC	75	106	62
Cornwall	125	88	162
Plymouth UA	163	93	162
Torbay UA	138	82	219
Devon CC	100	94	105

Source: South West Economy: Trends and Prospects (2002)

The overall pattern is clouded by the fact that the east of Devon, based upon Exeter, exhibits economic characteristics more typical of the sub-regions to the north and east. Indeed, Exeter's travel to work area unemployment is currently just 1.8 %, the lowest among the 50 TTWAS in the region. The extent of disparities within Devon and Cornwall is demonstrated by the latest unemployment rates, although it should be noted that these disparities have narrowed during recent years of rational economic prosperity (Table 4). Unemployment rates are of particular concern in western parts of Cornwall, where the rate for Falmouth is amongst the worst in England, and, in the Torquay/Paignton areas of Devon.

Table 4: Unemployment rates in Devon and Cornwall August 2002 (% of workforce)

TTWA	%	TTWA	%
Bideford	3.2	Newquay	3.0
Bude	3.5	Newton Abbott	1.7
Camelford	2.7	Okehampton	1.8
Dartmouth	1.3	Paignton and Totnes	3.5
Exeter	1.8	Penwith	3.9
Falmouth	4.6	Plymouth	2.9
Helston	3.4	Redruth/Camborne	3.4
Holsworthy	2.0	South Molton	2.4
Ilfracombe	3.6	St Austell	2.1
Kingsbridge	1.5	Tiverton	2.0
Launceston	2.7	Torquay	3.8
Liskeard	2.5	Truro	2.1
		Wadebridge/Bodmin	1.7
UK	3.2		

Perhaps the starkest indication of the poor economic situation in parts of Devon and Cornwall is provided by data on GDP per head (Table 5). Cornwall's GDP per head was 65% of the UK average in 1998, the latest year for which reliable figures are available. This poor level of performance was sufficient to enable the county to be designated as an Objective One European region. Devon's figure was (just) too high to pass the 75% (of the EU) threshold for such status, but much of the county is considered poor enough to qualify for Objective Two. The Objective Two part of Devon encompasses all of the Plymouth Unitary Authority area. Plymouth's GDP per head is 91%

of the EU average, a very low figure by the standards of urban areas in the South West and for the south of England as a whole. Indeed, Plymouth has many of the characteristics of third tier urban areas in the north of England.

Table 5: Index of GDP per head (current prices, UK = 100)

	1993	1998
South West	95	91
City of Bristol	120	123
Cornwall and Scilly	73	65
Devon	88	79
Plymouth UA	112	91

Source: ONS

Of particular concern is the fact that the performance of the far South West appears to be deteriorating. Indeed, over the period 1993 to 1998, GDP per head in Cornwall deteriorated by 8 percentage points relative to the national average, that of Devon by 9 points and that of Plymouth by a massive 21 points. One key reason for the decline in the latter has been the run-down of the military sector, which has historically been the main factor in developing and sustaining Plymouth as a large city in a peripheral location. A study of the sector in 1991 indicated that defence generated around half a billion pounds worth of income for the local economy (Bishop, 1991). During the 1990s, although Plymouth's privatised dockyard has benefited from the contract to refit the UK's nuclear submarines, the reduction in surface ship work has involved a major loss of output and jobs. Moreover, the last twenty

years has seen the closure or run-down of a number of smaller military bases in Plymouth and its surrounding region. The net impact of all of these developments has been a substantial loss of income to the local area (Bishop, 1999). There has also been a considerable loss of well paid jobs in the utility sector, with some sub-regional offices having been closed and a large number of managerial jobs stripped out or moved elsewhere.

Of course, the dangers of over reliance on the defence sector as the major source of local employment has long been recognised and a diversification strategy based on the attraction of inward investment has operated since the Second World War. This strategy has been reasonably successful with some 32 foreign companies being attracted into the local area including Toshiba, Murata, Becton Dickinson, Gleason, Siebe, Wrigley's and Barden Corporation employing over 20,000 people. Important UK owned inward investors include British Aerospace Dynamics. Recently, Plymouth has also been successful in attracting Call Centres. These currently employ around 4,000 workers and include Royal Bank of Scotland, Royal and Sun Alliance, Orange, London Electricity and SSI. A feature of both foreign and domestically owned manufacturing operations in Plymouth is production for national, European and international markets. Indeed, some 33 companies in Plymouth export to 49 markets worldwide (ERM, 2002). Clearly, these are the very type of companies likely to see major benefits from high quality airport services.

It is important to recognise the importance of a vibrant Plymouth to the wider sub-regional economy. This has been consistently recognised in regional strategic planning documents. For example, as early as 1967, it was argued that:

“Special measures will be needed to establish and maintain the economic viability of the Southern and Western sub-regions. While agriculture and the holiday trades must continue to be staple parts of the economy of the south and west of the Region, they are not a sufficient base for future growth. A balance of industry is necessary to bring about stability.

Improved communications alone will not do more than mitigate the economic problems of the south and west. We consider a major effort is called for to stimulate economic growth in places where a momentum of growth could be sustained such as would serve the needs of a wide surrounding area.

We consider that such effort must start from Plymouth, the one town large enough to stand comparison with urban centres elsewhere which serve as foci for the economic and social life of the communities around them, with inherent potentialities for sound economic growth, and already an attractive location for industry despite its remoteness. We recommend that a primary aim of regional planning policies in the south and west should be to diversify the employment structure in Plymouth and some of the nearby small towns. There should be a clear programme for phasing in

new and expanding industries with a phasing out of Plymouth's present dependence on Devonport Dockyard.

All the far south west stands to benefit from a development of Plymouth as envisaged by the Council. Consideration should therefore be given to how best the local authorities concerned can co-operate to this end." (South West Economic Planning Council, 1967)

Although the above document is over thirty years old, the arguments still have relevance today. Indeed, the most recent planning guidance issued in September 2001 argues that:

"Plymouth has inherent potential for sound economic growth and, aided by its designation as an assisted area, has proved an attractive location for manufacturing and other industry. RPG considers that Plymouth's role, as the major urban centre in the area and the focus for the economic and social life of the communities within and around it, should be strengthened. This would benefit the wider area and improve the economic well-being of eastern Cornwall and south west Devon. It also supports Cornwall's Objective One aims by offering a strategic location for regionally significant economic investment. Measures are needed to promote and support investment in the city and nearby towns and improve transport linkages, as is a clear programme to phase in new and expanding industries and to reduce dependence on the Dockyard. Policies will need to ensure a balanced level of development with a

housing provision that is consistent with meeting economic, social and environmental objectives.” (GOSW, 2001).

The importance of Plymouth to the far South West economy is thus well established and it has also been recognised that an airport is vital for the sub-region. The 1967 planning document noted the crucial need to “....*provide adequate air communications for Plymouth*” and raised the issue of developing a new airport to serve Exeter and Plymouth. Certainly the RCD recognises that “*Air services have a vital role in reducing travel times, increasing accessibility and therefore improving economic efficiency and productivity. They serve an important role in encouraging inward investment, particularly from overseas and they stimulate and sustain the growth of local businesses...*”. If this is the case, and, it is accepted that Plymouth is central to the economic development of the far South West, then the case for the serious consideration of the development of a new airport is clear.

4. Plymouth Airport: profile and problems.

Details of the volume and type of passenger traffic at the South West regional airports are presented in the RCD. The data indicate that Plymouth is the second smallest of the main five regional airports with total passenger traffic of 0.113m in 2000 compared to 0.078m in Newquay, 0.272m in Bournemouth, 0.318m in Exeter and 2.126m in Bristol. In terms of growth in total passenger traffic, Plymouth has grown at only 3.2% per annum over the period 1991-

2000 in contrast to overall growth in South West airports of 10.8%. More generally, growth has occurred much faster in the north and east of the region (Bristol and Bournemouth) than in the far South West. These contrasts are reflected in the extremely low propensity to travel per head of population in Plymouth and Devon (Route Development Company, 2001). This pattern, at least in part, reflects the limited range of services available in the sub-region and suggests that there may be an untapped demand for air travel in the area.

Within the far South West, the profile of passengers differs markedly between Exeter and the two other airports. Table 6 (which does not include the recent “no-frills” Ryan Air service from Stansted to Newquay) shows that Exeter is primarily geared to leisure trips, whilst Plymouth and Newquay are dominated by business trips. Exeter relies very heavily on holiday Charter flights, though having daily British European (flybe) flights to the Channel Island and Dublin.

Table 6: Profile of passenger movements at Devon and Cornwall airports (% of total 2000)

	Domestic	Foreign	Business	Leisure
Exeter	96	4	14	86
Newquay	95	5	70	30
Plymouth	95	5	60	40

Source: DfT (2002)

Plymouth and Newquay rely on scheduled services on small Dash 8 planes. The main operator at Plymouth (and Newquay) is British Airways

CitiExpress which operates four daily flights to London-Gatwick and a daily flight to Bristol. Services to Cork and Dublin have been recently taken over by Air Wales, a small Welsh company, which currently uses 19-seater aircraft flying six times a week to these destinations.

In addition to civilian passengers, the military makes substantial use of Plymouth Airport for Royal Navy (RN) Sea Training (FOST) activities, RN Air-Sea Rescue helicopter services and RN Britannia pilot training. Other users of Plymouth airport include the Devon and Cornwall Air Ambulance, a civilian Flying School and private charters. There is virtually no freight traffic from Plymouth or the other two sub-regional airports, with the exception of some mail traffic from Exeter.

The relatively small size of Plymouth airport and the profile of its passenger movements is clearly related to the problems associated with the current site of the airport. These problems are examined in detail in both the RCD and the ERM (2002) report.

The RCD points out that the runway at Plymouth is too short to “... *allow even medium sized aircraft to operate with a commercial payload.*” The problem has recently been exacerbated by the CAA which has required the airport to increase the Runway End Safety Area (RESA). This has forced the local council to consider re-routing the nearby A386 to provide the additional

safety area without reducing the runway length. A further problem is a "pinch point" related to business and residential development either side of the runway. The constraints imposed by the runway imply the use of small planes and small payloads resulting in high costs and prices thereby dampening potential demand. These issues were one important factor in the loss of landing slots at Heathrow in 1997 and the transfer of flights to Gatwick.

Other disadvantages of the current site include congested road access, adjacent residential development with residents concerned about the environmental impact of the airport and lack of room for expansion. In addition, "*...both terminal and car parking facilities are considered to be at capacity during peak periods in the busy summer months*". (DfT, 2000).

Though the current Gatwick flights are profitable, BA is progressively reducing its use of Gatwick and there is a possibility that the flights could cease at some stage. Some disturbing omens have been the reduction of Plymouth-Bristol services to one per day, the loss of BA Plymouth-Cork, Dublin and Paris services and the transfer of the maintenance of the former Brymon operations to Bristol. There is a clear concern that BA could pull out of the airport altogether, a development which would also imply the end of the Newquay service. Indeed, a pull out from Plymouth may be even more likely if Ryan Air offers more services to Newquay, thereby affecting the

popularity and profitability of the Plymouth-Newquay-Gatwick triangular route. This would have serious consequences if, as acknowledged in the RCD, the route is “vital” to the local economy. A recent study estimates that the losses to passengers in terms of increased cost of travel by alternative options if the Newquay/Plymouth service to Gatwick was cancelled would be £8.4m (DTLR, 2001).

Thus, the lack of capacity and high prices associated with the problems of the present site are likely to have adversely affected the development of air services at Plymouth. There is a clear danger that a failure to address these problems could result in the eventual loss of some services and the ultimate closure of the airport. This would have serious consequences for the sub-regional economy.

5. Importance of Plymouth airport to the Local Economy

Airports provide a wide range of economic benefits to a local economy. The most obvious of these is the direct income and employment generated either at the airport itself or in businesses directly associated with the airport. Additional benefits arise from the local expenditure of households receiving direct income from the activities of the airport, the expenditure of the airport on local goods and services and the spending on local goods and services by these airport suppliers. Local income may also be generated by the

expenditure of individuals who fly into the region for business or leisure reasons, although this has to be balanced against the outflow of spending from local residents who fly outside the region. All of these types of expenditure also have “knock-on” or multiplier effects on other sectors throughout the local economy. This section provides an analysis of these measurable economic benefits arising from the operations of the current Plymouth airport. For comparative purposes we also include estimates of the current impact of Exeter airport. This discussion is followed by an analysis of the wider strategic impact of a new airport. This impact is difficult to assess in quantitative terms, but may be significant in terms of generating inward investment and improving competitiveness.

The economic impact of Plymouth airport

The impact of an airport upon a local economy can be examined through a variety of modelling techniques. This report utilises an input-output methodology based upon a model of the South West economy developed by the South West Economy Centre at the University of Plymouth. This model provides a detailed description of the transactions which take place between the various sectors within the South West economy based upon a combination of national, regional and survey-based information. If the initial direct impact of an organisation or sector is known, the model can be utilised to calculate the indirect multiplier impacts throughout the local economy.

The accuracy of the estimates of an input-output model rely heavily upon the quality of the information obtained on the size of the initial direct impact. Data on direct employment at South West airfields are presented in the RCD. These estimates encompass people employed by the airport operator, airline staff, concessions operated at the airport, aircraft maintenance facilities and other businesses located at the airport. The data indicate a relatively high level of employment at both Exeter (960) and Plymouth (400). In Exeter's case, the document attributes this to the large maintenance facility and location of British European's headquarters. For Plymouth, the RCD mentions the importance of the (then) Brymon Airway maintenance facility. However, these figures are for 1998 and there have been some important changes since that time including the closure of the Brymon airways maintenance facility at Plymouth.

Whilst more recent data for Plymouth and Exeter airports can be obtained from the annual reports of the two airports, this information only refers to those employed by the airport operators. Thus, an estimate of the direct jobs associated with the airports was derived from the Annual Business Inquiry (ABI) database for 2000. The data encompassed all employees in SIC 62 (air transport) and SIC 63.23 (air support) for the postcode locations of the two airports. The estimated direct employment was 546 for Exeter and 268 for Plymouth. These are probably conservative estimates as some employment

directly associated with the airports may be allocated to other SIC codes that are not obviously associated with airport activity.

In addition to direct employment, an estimate of the initial income injection to the local economy is required. The turnover of the two airport operators was available from the company accounts. Turnover per employee of the operators was calculated as an average of around £40,000 per employee. In order to estimate the turnover of the air transport and support sectors as a whole, this average was applied to all direct employees in the sectors. The implicit assumption is that all employees generate the same average turnover as that of the employees of the airport operators. This turnover data was used as the initial starting point for the estimate of the impact of the airport on the local economy.

An additional Inflow of income could arise for the region as a consequence of expenditure by those individuals residing outside the region and flying to the South West for business or leisure purposes. However, as has already been noted, this is counterbalanced by the expenditure of local residents flying outside the region and spending income elsewhere. The BHC (1999) report suggests that 50% of passengers using Plymouth airport originate from the South West. This suggests that the current net impact of this “tourist” expenditure is unlikely to be significant and it is ignored in the present

calculations. However, as noted in the next section, such spending may be of some significance in evaluating the case for a new airport.

The structure of the air transport sector within the input-output model is based on data covering the South West as a whole. However, an examination of the accounts data for the airports revealed differences between the two airports and the sector as a whole. The structure of the sector within the model was hence amended to take into account the specific information available concerning the two airports. The main changes reflected the company account data on average wages, overall purchasing and turnover per employee. Interestingly, the turnover data indicated a much lower turnover per employee in Plymouth and Exeter than in the South West air transport sector as a whole. This may arise from the relatively small size of the airports which makes it difficult to realise economies of scale.

On the basis of the above information, the input-output model was utilised to estimate the total impact of the two airports on GDP and employment within the South West economy. The estimates are presented in tables 7 and 8. It should be noted that the indirect impact refers to both the impact of local purchasing and local spending by households employed within the air transport sector. The latter of these effects is sometimes referred to as the “induced” effect.

Table 7: Impact of Plymouth and Exeter, 2000, (FTE's).

Plymouth	Direct	268
	Indirect	107
	<i>Total</i>	<i>375</i>
Exeter	Direct	546
	Indirect	218
	<i>Total</i>	<i>764</i>
Total		1139

Table 8: Impact of Plymouth and Exeter, 2000, GDP (£m).

Plymouth	Direct	6.6
	Indirect	3.4
	<i>Total</i>	<i>10.0</i>
Exeter	Direct	13.4
	Indirect	6.9
	<i>Total</i>	<i>23.3</i>
Total		33.3

The estimates indicate that the total impact of Plymouth airport comprises 375 full time equivalent jobs and £10m of contribution to GDP. The impact of Exeter is approximately double that of Plymouth, reflecting the difference in the size of the two airports. The estimates imply an employment multiplier of 1.4 and an income multiplier of 1.5 which are reasonable within the context of the South West as a whole. Of course, much of the indirect impact is likely to be centred upon the Plymouth and Exeter areas.

The above estimates for Plymouth do not take into account the important naval FOST operations, which make substantial use of the airport. Clearly, the absence of a local airport would imply that FOST would have to relocate to another area with comparable facilities. Thus, it could be argued that the

value of the FOST activities to the local economy constitutes an additional impact associated with the airport. It is known that some 300 personnel (including shore support) are associated with the FOST operations and these individuals will clearly spend money in the local economy. FOST process around 100 RN and NATO vessels per annum for intensive training sessions and some expenditure by the crew of these visiting ships is also likely to enter the local economy. The impact of FOST could hence be substantial. For example, given plausible assumptions concerning the wage rates and local spending arising from FOST, it might generate around 480 jobs and £16.5m of income to the local economy. These figures should only be regarded as illustrative and a thorough evaluation of the FOST impact would require a separate detailed study.

The strategic importance of Plymouth airport

In addition to the economic benefits already examined, airports may have "catalytic" impacts on a local economy through a range of factors including generating inward investment, encouraging regeneration activities and promoting business clustering. They may also contribute towards improving the competitiveness of businesses located in the region and may change the industrial structure by encouraging industries that require good air services

to move into an area. For these reasons, policy makers often regard airports as "strategic assets" (Hakfoort, Poot and Rietvald, 2001). In a peripheral region, such as the far South West, airports may be of particular strategic significance in signalling that the region is accessible and "open for business". Unfortunately, these catalytic and strategic benefits are difficult to measure because, as the RCD notes "*... there is little hard evidence and the presence of an airport may not be the only factor in investment decisions.*" (RCD, 2002).

One catalytic impact that may be of particular relevance to the Plymouth case is the role of an airport in the attraction of Inward Investment. Indeed, the RCD notes that aviation is a "*... key factor in attracting overseas inward investment to the region*". There is considerable evidence from other airport studies to support this view. For example, a report by York Consulting (1998) on Manchester International Airport, which reviewed surveys on key factors affecting FDI decisions, suggested that half of US executives consider access to a major airport as very important. Another report, by Ernst and Young (see ERM, 2002), concluded that the air transport network was the third most important factor in location decisions after proximity to markets and labour quality. A recent research report (ESRC, 2001) supports the view that access to international airports is a strong reason for innovative firms to locate in or near to large urban centres, allowing such firms to connect with international suppliers and customers and facilitating the transfer of knowledge through the movement of people.

Whilst air services may be of some importance in attracting inward investment, such services are one factor amongst many influences (HBC, 1999). Isolating the impact of air services on inward investment is hence a difficult task. This issue has been examined by the ERM report (2002) which concludes that: *“a number of inward investment projects have helped the City’s economy to begin the process of recovery, and the London air service is seen as crucial to sustaining this revival, both in terms of attracting future projects and retaining existing employment”*. ERM base this conclusion on a survey of three groups comprising recent inward investors and major new employers, large manufacturing companies and other foreign owned companies. They conclude that a conservative estimate would suggest that 1500 jobs could be lost over a period of 3 years if the London services from Plymouth and Newquay were to cease. However, it should be noted that the report is based upon a small number of responses with only a handful of firms stating that specific numbers of jobs would be lost if the London air services ceased. A precise estimate of the number of inward investment jobs dependent on the airport is hence problematic. Nevertheless, the withdrawal of the service would clearly further disadvantage the attractiveness of the Plymouth economy for inward investment.

In addition to generating inward investment, the current airport may be of some importance in reducing the costs of businesses in accessing suppliers

and clients. Whilst such costs are normally only a small proportion of business costs, they may be of particular significance to businesses that rely upon personal contact for closing contracts and generating ideas. These contacts may be of particular importance to modern knowledge-based industries, which are now seen as crucial to economic development (BHC, 1999). The weakness of alternative modes of transport from the far South West, further emphasises the potential importance of air services to this type of business.

It is clear from the above analysis that Plymouth airport has a significant impact on the economy of the far South West. Whilst the narrow economic benefit arising from the operation of the airport is substantial, this is likely to be magnified considerably by factors such as the FOST operations and inward investment activity. Moreover, other non-measurable benefits related to the strategic role of an airport in a peripheral region are also likely to be of major significance.

6. A New Airport ?

This section considers a number of factors that might influence the viability of a new Devon airport at Plymouth. These include the size of the local catchment area, the extent of business demand, the potential market for inbound passengers and the price and availability of flights. This is followed

by an analysis of the potential economic impact of a new airport based upon forecasts of passenger numbers supplied by Sutton Harbour Holdings. An alternative scenario involving the closure of Plymouth and expansion of Exeter is also examined. The wider strategic and social benefits of a new Plymouth airport are then discussed. It should be noted that no detailed cost-benefit analysis of the new airport is presented. This would require a complex study that is beyond the remit of the current report.

The viability of a new airport

A crucial factor influencing the viability of an airport is the catchment area from which it can normally expect to draw its passengers. Clearly, a passenger's decision to use an airport will be affected by a range of factors including surface journey time, the range and frequency of services, cost differentials (e.g. flight supplements and car parking charges), airport infrastructure, quality of service and proximity of competitor airports. The RCD contains catchment areas based on typical isochrones (or time bands) for surface travel for different types of service. These are one hour drive time for domestic and core short haul European flights; 1½ hour drive time for no frills carriers and short haul charter services; 2 hour drive time for more remote European capitals, scheduled long haul to hubs in the USA, Canada and Middle East and secondary short and mid haul charter, and, 3 hour drive time for specialist long haul schedule and charter services. Given the structure of

services currently on offer from the South West, the RCD argues that the key isochrones are one hour for most of the South West's airports and 2 hours from Bristol and Exeter. For Plymouth, the two hour isochrone extends to most of Devon, Cornwall and Somerset.

Table 9 presents details of the size of the catchment areas for the three far South West airports. These areas are small compared with the average for regional airports in the UK as a whole. For example, the average 1 hour road catchment area for all regional airports is 2 million compared to just over half a million for Plymouth. However, the RCD acknowledges, *".....where there are no alternatives, passengers appear prepared to travel longer to access a service than the isochrones would normally suggest"*. For example, many people from Cornwall and West Devon use Bristol, although they live outside the standard catchment area.

Table 9: Catchment Population of Devon and Cornwall Airports

	1 hour road	2 hour road	1 hour rail	2 hour rail
Exeter	654,000	3,483,000	127,000	407,000
Newquay	352,000	1,258,000	92,000	92,000
Plymouth	547,000	1,786,000	256,000	338,000

Source: DfT (2000)

The RCD explains the small catchment areas as being related to geography, poor surface access and the peripheral nature of the far South West. Indeed, as the ERM (2002) report points out, Plymouth is one of the most isolated

cities in England being located 241 miles from London and having a relatively sparsely populated hinterland.

Clearly, the extent of the potential catchment area for a new Plymouth airport is limited and this is likely to severely constrain the demand for services. This problem is exacerbated by the current low propensity of the local population to fly, although, as has already been noted, this may simply reflect a lack of accessible services. One factor that may increase the propensity to fly may be the problems that exist with alternative modes of transport to and from the far South West. The rail journey time to London is extremely poor. Indeed, Newcastle, which is 285 miles from London has a faster total rail journey time to the capital. The main problem for the South West is the tight bends on the rail track around the South Devon coast and regular difficulties caused by the need to shore up the section which runs along the sea wall between Dawlish and Teignmouth. Whilst substantial investment could clearly address these issues, this seems unlikely in the near future. Moreover, road travel also suffers from the lack of a motorway beyond Exeter and regular congestion during holiday peak times. If congestion and a lack of investment in alternative modes of transport persist, then the demand for air services may turn out to be higher than might otherwise be expected on the basis of the size of the local catchment area.

Business demand is an important current source of business for the present Plymouth airport. This no doubt reflects the relative importance of multinational manufacturing operations in the local travel to work area. A key factor in the demand for the airport's services will be the future growth of such business. This in turn will be dependent on the flow of FDI coming to the UK and the extent to which domestic firms relocate within the UK. In recent years, the inward flow of FDI has slowed due to recession in the Far East and America, the high value of the pound and the dilatory stance of the UK on whether or not to join the single currency. Moreover, similar factors have caused the closure, or severe curtailment, of some foreign and UK owned manufacturing operations (e.g. Nortel, Sony, Panasonic, Lucent, Dyson) and their transfer to lower cost destinations overseas. An expanded EU may further exacerbate some of these trends with new entrants with low labour costs becoming an attractive location for international investment.

The above factors suggest that the flow of both foreign and domestic inward investment to locations such as Plymouth will remain slow for the foreseeable future. However, there may be new sources of business demand associated with the expansion of the Tamar Science Park, spin-off developments from the Eden project, the development of a new University for Cornwall and the new Peninsula Medical School. These developments are likely to increase the professional, scientific and academic occupation groups in the area and these relatively high-income individuals may have a high propensity to fly.

Although the overall impact of these factors may be fairly small in the short term, they will assist in developing a more "up-market " image for the sub-region.

As far as inbound travel is concerned, business demand will be determined by similar factors to those outlined for outbound business passengers. Other sources of inbound demand are leisure tourists and individual's visiting friends and relatives. Tourism is extremely important to the far South West economy. For example, the South West Economy Centre estimates that tourism currently comprises 7% of GDP and 7.7% of employment in Devon in 2000. Moreover, the RCD (2002) notes that aviation has a "... *growing role...*" in serving the South West tourist industry. Thus, a new airport could play an important role, if it was to generate substantial new tourism for the sub-region.

Of equal importance to the number of tourist visits to the region is the nature of tourism activity. The development of "up-market" tourism features strongly in the objectives of the South West RDA and Regional Assembly and there are already successful examples of such developments including the Eden Project in Cornwall and the gastronomic tourism associated with Padstow. There has also been increasing demand for activity holidays encompassing, for example, walking, riding and golf. In the face of continuing competition from foreign package holidays and no frills airlines, it is likely

that many traditional tourist locations will have to move up-market or change the nature of their appeal in order to survive. The potential for attracting up-market tourism to the region may hence constitute an important potential source of new demand for air services. The extent of such traffic will depend partly upon the success of regional tourism strategies and is also likely to be sensitive to the price of air travel. At present scheduled flights from Plymouth are relatively high cost. A normal return fare to London costs over £300 while the lowest cost return fare (with very limited availability) and the requirement of a Saturday night stay is £99. The generation of substantial tourism business is likely to require much lower average fares to compete with the low cost of fares, for example, to some European destinations. This, in turn, will clearly depend upon the ability of airlines to achieve economies of scale through significant passenger numbers.

Another key issue determining the viability of a new airport is the extent to which airlines would use this capacity. Whilst the local demand for such services is crucial in attracting airlines, market saturation elsewhere in the UK may be an additional important factor. Clearly, if the demand for no frills air travel is saturated in the South East, operators such as RyanAir and EasyJet may look to areas such as the South West for growth. Similarly, the development of no frills services on the continent could see new operators from hubs in say, Holland and Germany, offering services to a new airport at Plymouth. As far as package holidays are concerned, the trend seems to be

unfavourable as passengers switch to individual mix and match flight and hotel options operated by companies such as Expedia and the low cost no frills carriers.

The issues determining the future demand for the services of a new Devon airport are hence complex and depend upon a range of factors. Forecasts of the number of passengers using the existing airport under the various DfT (2002) scenarios were presented earlier in this report. However, a new airport would remove many current constraints on growth and might attract new tourist traffic and generate an increase in the local propensity to fly. Moreover, the airport might attract the no frills traffic that would otherwise go to Newquay, and all the services which are or could go to Exeter. Further demand could be generated by future increases in road congestion which may considerably lengthen the already long journey times to the main UK urban centres. In addition, problems associated with the rail line may be exacerbated by an increase in “storm events” associated with global warming and generally higher winter rainfall. Given the above factors the potential demand for a new airport at Plymouth could feasibly approach or exceed the combined total for the three Devon and Cornwall airports, which the RCD report estimates could range from 2.6 million to 6.1 million across the four main scenarios presented.

Sutton Harbour Holdings estimates that on opening (say in 2007), a new Plymouth airport could generate total passenger traffic of 750,000 to 1m. This traffic might involve 20% of passengers on full scheduled services, for example, to Bristol, Brussels, London City, London Gatwick, Paris, Jersey and Guernsey; 50% on low cost flights to Newcastle, Prestwick, Stansted, Dublin, Frankfurt, Oslo, Manchester and Stockholm, and, 30% of charter passengers to typical Mediterranean and winter ski/sun destinations. By 2030, it is estimated that the airport could reasonably expect to generate 3.0 to 3.5m passengers in similar proportions to the above. We have no way of validating the likelihood of the above scenarios. However, the projections for 2030 lie within the range of the forecast for the three South West airports as a whole produced by the RCD and hence the predictions do not seem implausible if a successful airport was developed and Exeter closed.

The cost of a new airport would clearly depend upon the precise site chosen and the nature of the facilities constructed. A study by DBA Associates (referenced in the ERM (2002) report) estimated the cost at £40 million in 1990. Sutton Harbour Holdings have indicated that the likely costs today would be in the order of £100m. The financial viability of spending such a large sum on a new airport is difficult to predict given the complex nature of the factors involved and no detailed cost-benefit analysis is presented in the report. The RCD (2002) argues that the cost per unit of capacity of developing a new facility would be very high. Moreover, it suggests that a new airport is not

likely to be financially viable even under optimistic assumptions of growth and taking into account the possible proceeds from the sale of land for housing. Unfortunately, it is impossible to evaluate this conclusion without detailed knowledge of the assumptions involved in the analysis.

The economic impact of a new airport

This section assesses the economic impact of a new Plymouth airport opening in 2007, together with the simultaneous closure of Exeter and the existing Plymouth airport. An alternative scenario, which envisages Plymouth closing and Exeter remaining open, is also modelled for comparative purposes. It should be noted that the temporary benefits arising from expenditure during the construction phase of a new airport are not modelled.

In order to generate a dynamic picture of economic impact over time it is necessary to make assumptions of the growth of passenger numbers. For the new airport scenario, the initial (2007) passenger numbers were assumed to be 0.9m rising to 3.2m by 2030. These numbers are within the range of forecasts provided by Sutton Harbour Holdings outlined in the previous section. Data for intermediate years was generated by deriving the constant compound growth rate per annum required to generate the final numbers in 2030. For the alternative scenario, Exeter and Plymouth were assumed to grow in line with the basic RRC scenario presented in the RDC until 2015

when Plymouth is assumed to close. After the closure of Plymouth, Exeter is assumed to acquire half of Plymouth's passenger numbers in addition to its base growth in the RRC scenario. Passenger numbers in intermediate years are derived on the basis of the required constant compound growth rate. Clearly, a variety of other scenarios are possible and the estimates should be viewed as illustrative, rather than firm predictions as to the level of economic impact.

To estimate the income injection into the local economy in a particular year, it is necessary to estimate the turnover generated by passengers. To reflect the impact of competitive effects, it is assumed that revenue per passenger declines at 0.5% per annum from the initial date. Employment effects are estimated on the basis of an employment function which relates passenger numbers to employment based on existing UK data for regional airports. The estimated function implies increasing returns to scale with an elasticity of employment with respect to passenger numbers of 0.54. Thus, a 1% increase in passenger numbers implies a 0.54% increase in air transport employment. Initially, Exeter and Plymouth have employment above that predicted by this function. It is assumed that "productivity" (i.e. passenger numbers per employee) improves over time and converges to the average for all regional airports by 2030. In order to generate the indirect employment effects, it was assumed that productivity elsewhere in the region grows in line with general

UK productivity at 2.5% per annum and that GDP increases in line with productivity.

In addition to the economic benefits arising from the air transport sector itself, benefits could also arise from any additional net passenger spending due to the tourism generated by the new airport. This impact is dependent upon the ratio of inbound to outbound passengers. On the basis of information supplied by Sutton Harbour Holdings it was assumed that all charter passengers were outbound and that 30% of scheduled and low cost were outbound passengers. The average tourist spend per trip was derived from UK tourist board data for the South West region and it was assumed that real tourist spend rises over time by the same rate as the increase in productivity. Adjustments were also made to take into account the fact that, in the absence of the new airport, some of the additional inbound passengers would have come to the far South West by other modes of transport, and, some outbound passengers would have taken a holiday within the region.

Table 10 provides details of the growth of passenger numbers and net tourist spend over time arising as a consequence of the opening of a new airport. It can be seen that the forecast implies a substantial increase in additional net tourist spend (covering both business and leisure visits), rising from £22m in 2010 to almost £300m in 2030. This reflects the impact of the inbound tourism generated under this scenario.

Table 10: Passenger numbers and net tourist spend of a new airport

	Passengers	Net Tourist Spend
	000s	£m
2000	431	9
2005	576	13
2010	1064	60
2015	1407	89
2020	1859	133
2025	2458	199
2030	3249	298

Table 11 summarises the impact of the new airport on employment. It can be seen that the new airport itself is estimated to generate just over 2,000 jobs by 2030 including 1,220 direct jobs and 842 indirect jobs. However, these jobs are dwarfed by the 9,047 jobs created by the additional tourist spend.

Table 11: Employment effects of a new airport, (FTE Jobs)

	Airport Operation			Tourist Effects	Grand Total
	Direct	Indirect	Total		
2000	814	325	1139	264	1403
2005	779	375	1155	405	1560
2010	668	499	1167	1808	2975
2015	776	569	1345	2704	4050
2020	902	648	1551	4045	5595
2025	1049	739	1788	6049	7837
2030	1220	842	2062	9047	11109

A similar picture is presented in Table 12, which identifies the impact on South West GDP. The direct and indirect operation of the airport is estimated to generate £164m by 2030, whilst the tourist effect is £233m.

Table 12: GDP effects of a new airport, (£m) 2000 prices

	Airport Operation			Tourist Effects	Grand Total
	Direct	Indirect	Total		
2000	20	10	30	7	37
2005	26	13	39	10	50
2010	39	20	59	46	106
2015	50	26	76	70	146
2020	65	33	98	104	202
2025	84	43	127	155	282
2030	108	55	164	233	396

The total impact of the new airport is substantial, generating 11,109 jobs and £396m of GDP by 2030. To put this in context, this represents approximately 3.4 % of Devon's GDP at 2000 prices (although some of the impact will occur in other areas of the South West). However, it is clear that the major impact arises from additional tourism spending rather than the direct operations of the airport. The total impact is hence very sensitive to the assumptions made about the additional inbound tourism generated by the new airport.

Tables 13, 14 and 15 present information on the impact of scenario 2, which involves the closure of Plymouth. Exeter's passenger traffic is assumed to comprise 50% charter, 40% low cost and 10% full scheduled services. Passenger growth and net tourist spend is somewhat lower than the first scenario as growth follows the basic RRC case and Exeter is assumed to only capture half of Plymouth's traffic, reflecting its limitations as a business airport.

Table 13: Passenger Numbers and net tourist spend (scenario 2)

	Passengers	Net Tourist Spend
	000s	£m
2000	431	9
2005	576	14
2010	771	22
2015	1033	33
2020	1240	59
2025	1684	90
2030	2285	138

The employment and GDP impact of scenario 2 reflect the lower passenger and tourism numbers. Thus, the total jobs created are 5,925 (over 5,000 lower than the first scenario) whilst the GDP impact is £150m lower at £246m.

Table 14: Employment effects of scenario 2, (FTE Jobs)

	Airport Operation			Tourist Effects	Grand Total
	Direct	Indirect	Total		
2000	814	325	1139	279	1418
2005	779	375	1155	428	1583
2010	827	433	1260	657	1917
2015	917	499	1416	1009	2426
2020	747	517	1264	1782	3046
2025	868	605	1473	2736	4209
2030	1016	708	1724	4201	5925

Table 15: GDP effects of scenario 2, (£m) 2000 prices

	Airport Operation			Tourist Effects	Grand Total
	Direct	Indirect	Total		
2000	20	10	30	7	37
2005	26	13	39	11	50
2010	34	17	51	17	68
2015	44	23	67	26	93
2020	52	27	79	46	124
2025	69	35	104	70	174
2030	91	47	138	108	246

Figures 1 - 3 illustrate the differences between the two scenarios in terms of employment arising from the airport operations, net tourist spending and the total impact. The new airport scenario is represented by the dotted lines and scenario 2 by the heavy line.

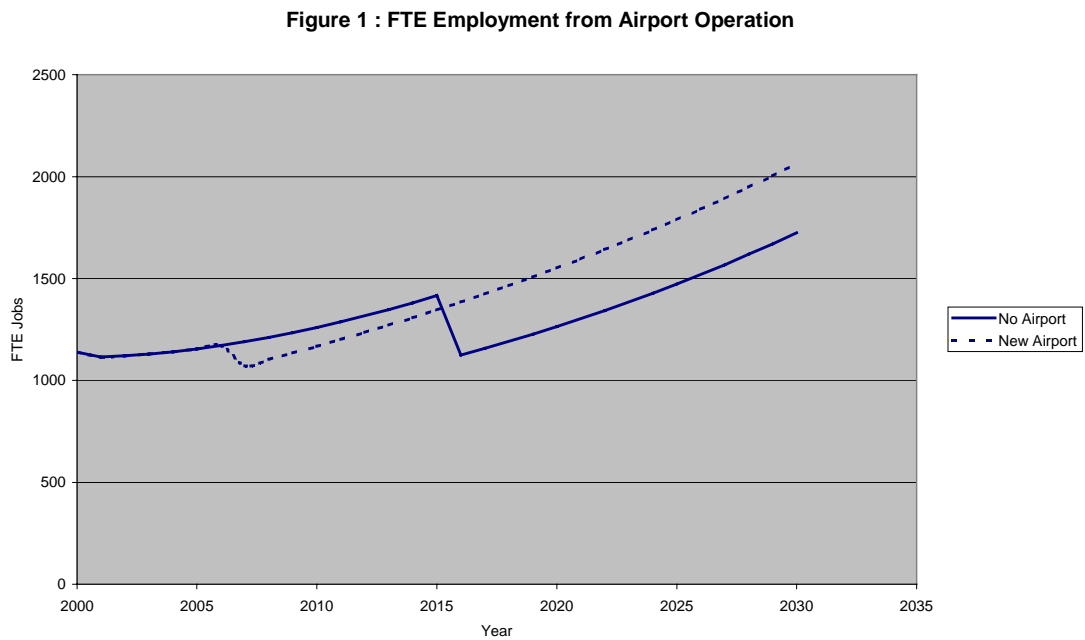


Figure 2 : Net Tourist Expenditure Effects, FTE Jobs

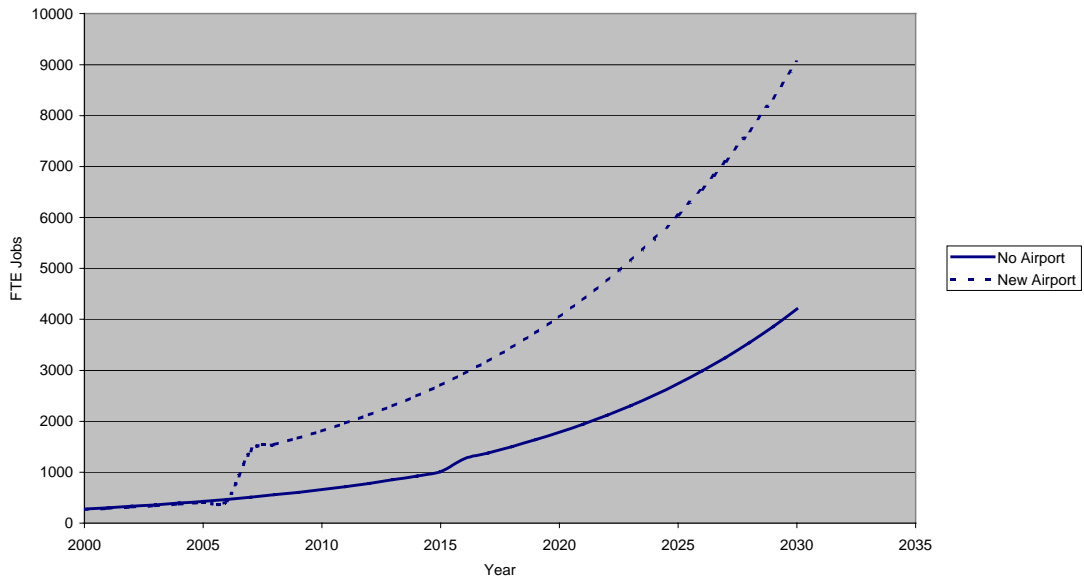
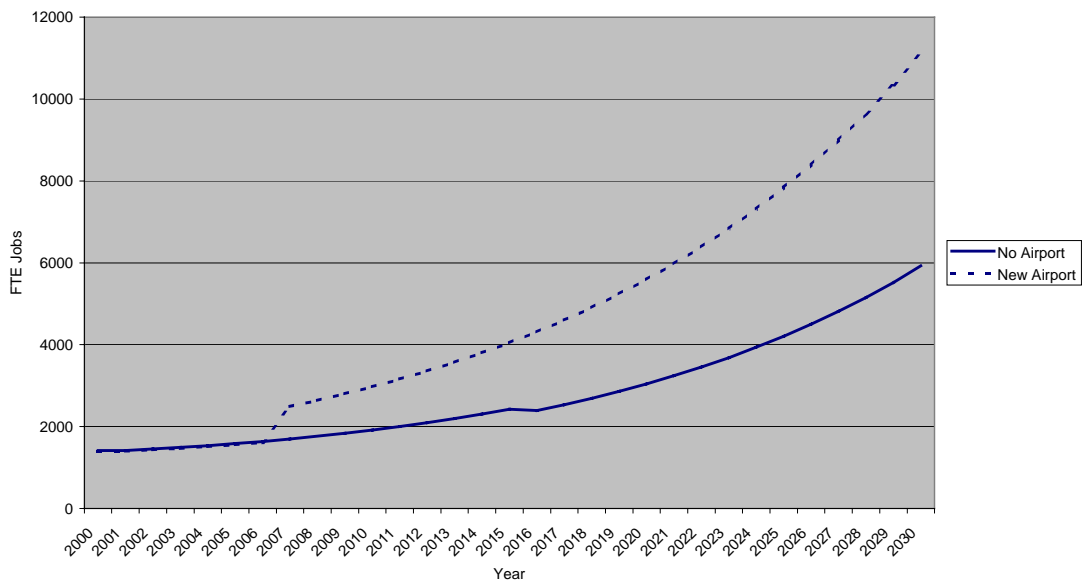


Figure 3 : Total Demand Effects, FTE Jobs



It must be emphasised that the differing economic impact of the two scenarios reflects the assumptions underlying these scenarios. Different assumptions could result in substantially different conclusions. Nevertheless, the forecasts

highlight the potential significance of a new Plymouth airport, particularly if it can generate substantial additional inbound tourism. In addition, it is plausible that an expanded airport could attract significant inward investment into the sub-region, although it is impossible to assess this impact with any degree of accuracy.

Strategic Issues

Section 3 provided an overview of the far South West economy and noted that neither Plymouth nor its sub-region is economically robust and the situation relative to the UK seems to be worsening. Moreover, the situation could further deteriorate if there is a significant run-down in the defence sector. In addition, many of the new jobs created in recent decades are also vulnerable as they are very heavily based upon branch plant manufacturing which is suffering from competition from lower cost alternative locations. Significant job losses have already been announced at companies such as Toshiba, Acheson Colloids, Paper Converting and Acturna. Similar considerations apply to the 4000 or so Call Centre jobs which have come to Plymouth in the last five years. Jobs at ITV Digital and USIT Campus have already been lost and others may be attracted to lower cost destinations such as India. The rest of West Devon and Cornwall also faces substantial problems as traditional industries such as fishing, agriculture and traditional tourism continue to suffer.

Within the context of a relatively weak sub-regional economy, the wider strategic and catalytic impacts of a new airport could be considerable. In particular, a new enlarged airport could help “put Plymouth on the map” as a tourist destination and location for “up-market” inward investment. It has already been argued that the region needs to move up-market in terms of the attraction of tourists, and, a similar argument could be made for wider entrepreneurial activity. Certainly, Plymouth has the potential to be a business and political conference centre and trade more effectively on its maritime heritage. There is also considerable potential for the development of knowledge-based industries associated with Plymouth University, the new University for Cornwall and possible biology spin-offs at the Eden site.

Given the strategic importance of Plymouth to the far South West economy, measures to encourage new “up-market” developments are crucial. Clearly, these types of development would be greatly facilitated by improvements in communications to the main UK urban communities. In principle, this could come from improvements in the rail network to London and, for example, from a spur from the Great Western Main Line to Heathrow. However, it is unlikely that any significant improvements will be achieved west of Exeter without a major re-routing of the line between Exeter and Newton Abbot. Given the cost of such work, the backlog of necessary investment in the railways countrywide, the shortage of funds available and the environmental

consequences, this would not seem to be a likely scenario. Under such circumstances, the development of a new airport may be crucial.

The further development of Exeter airport is a potential alternative strategy to a new Plymouth airport but such a scenario would face considerable problems. On the positive side, Exeter has a long runway, plenty of space for expansion and is located close to the M5 motorway and A30. However, it is an hour's drive from Plymouth and further by rail. Moreover, access times from Cornwall are even longer. Moreover, Exeter is considered to be too close to London to be viable for air services to the capital. There is the added disadvantage that, if flights to Plymouth were to cease, those between Gatwick and Newquay would also be likely to fold. Indeed, the ERM (2002) report concludes that if Plymouth closed this would imply *"... the total loss of the London Gatwick air link. There is no evidence to suggest that other routes such as Newquay-Exeter-London or Newquay-Exeter would be viable."* In any event, Exeter may be threatened by the proximity of Bristol, by the decreasing popularity of Charter holidays and by the fact that it has so far been unable to attract a no frills operator. Realistically, its catchment area and business community may be too small to act as a hub for an operator in this market sector whilst its relatively short distance from London makes it a less than obvious destination from Stansted, Luton or similar airports.

Clearly, the closure of Exeter would have some impact on its local economy as a consequence of the loss of the jobs associated with the direct operations of the airport. However, some of those employed at Exeter could gain employment at the new airport and thus part of the impact would simply see a transfer of welfare within the sub-region. Moreover, at present, Exeter is a relatively prosperous part of the far South West and does not face the severity of the transport communication problems that affect Plymouth and Cornwall. Exeter would also derive some benefits from the ability of a new, modern airport at Plymouth to generate substantial additional tourism. Moreover, new developments such as the move of The Met. Office should also help the local economy to more than compensate for any job losses in the air transport sector.

One important issue in assessing the impact of a new site concerns the potential environmental costs. An assessment of these issues would clearly require a detailed analysis of a specific site and is outside the scope of the current study. However, if such a development was in an area already scheduled for new housing, which could now be located on the former airport site, the environmental impact may be mitigated. For example, if the new site was at Sherford, the housing presently earmarked for this site could be accommodated within the Plymouth boundary. If Exeter was to close, a similar scenario could apply with the land used to accommodate overspill from the city rather than in an adjacent new town. Moreover, there may be

considerable environmental and traffic benefits associated with the new airport solution. The dangers and noise of an airport within the main Plymouth urban area would be avoided. Moreover, although high density residential development could add to traffic flows on already congested roads, it could also make a tram or light rail public transport system more viable. Of course, all these scenarios would require the full co-operation of all the relevant local and county authorities.

7. Conclusions

In conclusion, it seems clear that the case for a new Devon airport at Plymouth deserves serious appraisal within the context of the process of developing a strategy for air transport in the South West. Even if a strict financial case for an airport is difficult to justify in the short term, there is a strong strategic case in terms of the long term potential to generate tourism, inward investment and revitalise the wider far South West economy. Indeed the SWRDA has identified air transport as a key element in its regional economic development strategy. Such a development would also accord with the government's desire to stimulate regional airport growth to "*... maximise the contribution they make to local and regional economies...*" and "*...reduce the need for long surface journeys...*" to South East airports (RCD, 2002).

The problems of Plymouth and the far South West have long been recognised and large sums of money have been allocated to their solution. Resources have, for example, been channelled through Objective Two, Objective One, Health Action Zones, Employment Action Zones, New Deal for Communities, Devonport Urban Village etc. However, the general criticism of planning outlined in the recent Green Paper (DTLR 2001) applies to the far South West. This is that “... *there has been a tendency to avoid making the hard strategic choices, such as accommodating demand for new housing or the location of key areas of employment growth. Instead, a lowest common denominator approach is taken, which in the long term can damage development across the region*”. This comment is applicable to the airport issue, which has been discussed at various times since the 1960s, as has the central role of Plymouth to the economic vitality of its wider sub region.

Given the operational problems associated with the current Plymouth airport, closure is a real possibility and could have major knock-on effects throughout the region. The FOST operations could be lost and attracting and keeping inward investment would be made even more difficult, particularly as scheduled London services would not be viable without a Plymouth stop. In a wider context Plymouth would be "off the map" and the absence of air services may have a detrimental impact on the image of the area. Given the

vital importance of Plymouth to the sub-region this could have serious long-term consequences.

Developing a new Devon airport may be a hard strategic choice, in the sense that it would generate widespread environmental and political debate. However, addressing this type of major strategic issue is vital for the future development of a relatively weak peripheral economy. At the very least, the case for a new airport deserves detailed appraisal within the context of the development of a new White Paper on transport.

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