Does Aviation Matter?

The economic implications of managing, not meeting, demand

This statement is based on a study commissioned by SASIG from Berkeley Hanover Consulting on 'The Impacts of Future Aviation Growth in the UK' (available on www.sasig.org). In addition it reflects other views of the local authorities that work within SASIG. It does not necessarily reflect the views of the Local Government Association who will be consulted on the published version.

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The Strategic Aviation Special Interest Group of the Local Government Association

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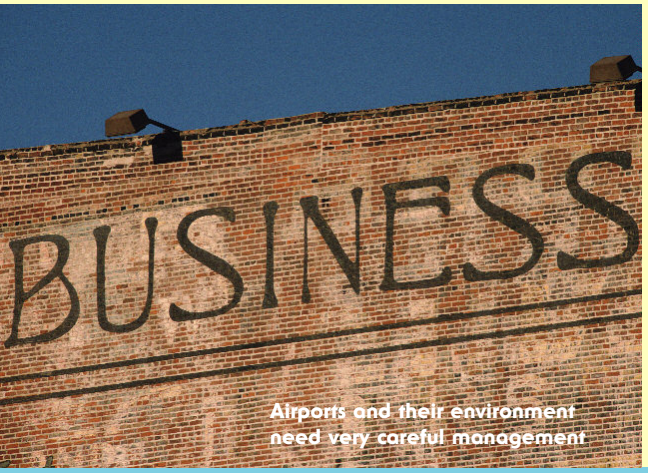
Introduction

Aviation is a high profile international industry. Its rapid growth has brought pleasure to many tourists and created wealth for many businesses. It employs large numbers of people and has been resilient to economic swings.

The growth in the number of passengers and aircraft has not been achieved without a range of environmental effects – notably noise, air pollution, safety, surface access congestion and urbanisation.

The government is now committed to preparing a new aviation policy that looks 30 years ahead. It must do so in the light of reliable, independently prepared studies that take the bias and emotion out of an industry that so many of us rely on but which causes so many disputes and so much disturbance. In preparing that policy, the government has also stated that the industry will be expected to meet its external environmental costs – another bold challenge which could have very far reaching effects.

This short statement by SASIG considers the forecast levels of growth for the UK, assesses the extent to which they are realistic and identifies the economic issues for the UK of meeting some but not all the demand. It finishes with a statement on the future for aviation in the UK.



Airports and their environment need very careful management

The conclusions reached differ from an earlier study undertaken for the aviation industry by Oxford Economic Forecasting (OEF), entitled "The contribution of the aviation industry to the economy of the United Kingdom" and publicised in November 1999 under the banner of 'AVIATION MATTERS'.

One of the findings of that earlier study was that 25 million less passengers per annum in 2015 would result in:

- 0.3% reduction in GDP (£4 billion per annum)
- 36,000 fewer UK jobs

This statement by SASIG, based on independent research, acknowledges that aviation does matter and that it is likely to continue to grow for the next 30 years or more. But SASIG also seeks to show that, if aviation is to meet its environmental costs, then some restraint will be needed but that there will be little or no economic penalty to the UK.

There should be no overall job losses and no reduction in GDP.

SASIG's conclusions are therefore radically different to those reached by the aviation industry.

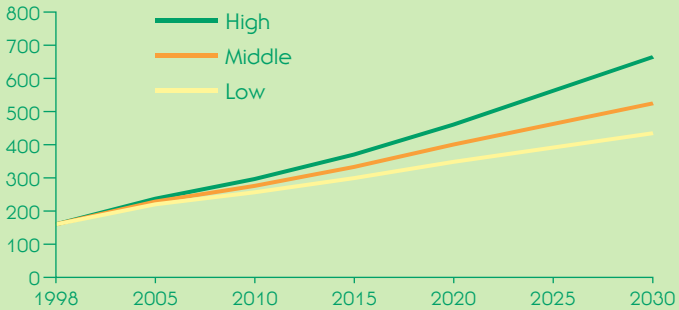
SASIG comprises around 60 local authorities spread across the country. Local authorities have a responsibility for both the economic well being of their areas as well as the environment and the quality of life of their residents and local businesses. They are thus able to take a more impartial view of the contribution that aviation makes to their areas than either the aviation industry itself or the national and local environmental organisations.

Forecasts

The government has just published new air traffic forecasts for the period up to 2020. They have assessed demand from UK and foreign business and leisure passengers for domestic and international flights. No account has been taken of the availability of airport capacity to meet demand. They are not therefore forecasts of what will occur but they do establish the base from which the new 30 year aviation policy will be developed. The forecasts are expressed as a low, medium and high range, with gradually declining percentage growth rates over the 20 year period.

In order to give a more complete picture for future policy formulation the graph below adds SASIG's forecasts for 2030, based on a continuation of those declining growth rates.

Forecast passengers at UK airports – millions per annum



There are some important observations to make on these figures.

Are the forecasts accurate? Earlier forecasts, published in 1997, showed a mid point of 310 million passengers per annum (mppa) in 2015. These latest forecasts have increased that figure to 333 mppa. This is because recent growth rates have been at or above the high end of the earlier forecasts. Achieving higher than predicted growth rates has now been prevalent for many years. It has contributed to the provision of infrastructure lagging behind demand, with resultant congestion at some airports.

The government's forecast average growth rate from 1998 to 2020 is 4.26% – almost 11 million extra passengers a year, requiring the equivalent of a new runway every 4 or 5 years somewhere in the UK.

Typical overcrowding at a major airport

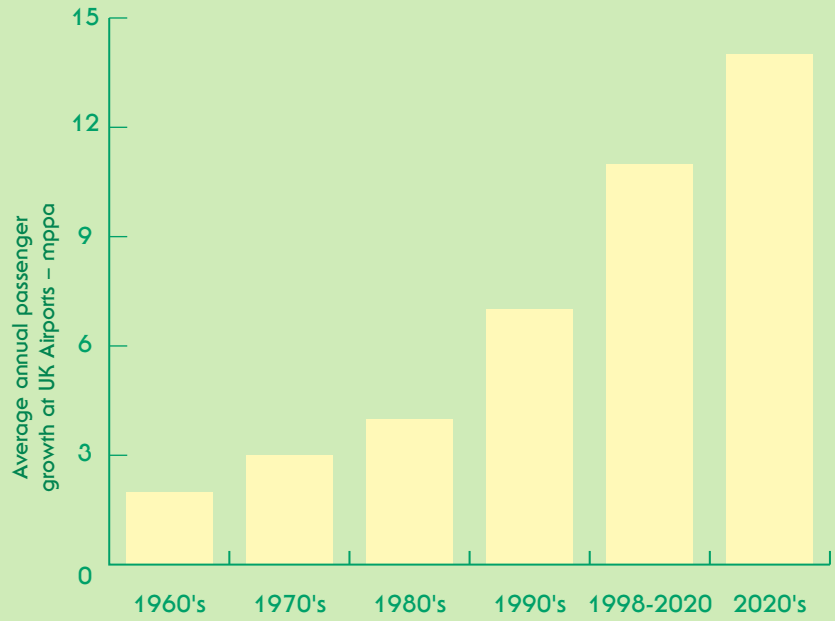
One of the assumptions built in to the forecasts is that air fares will decline by 1% per annum in real terms over the forecast period. An alternative assumption was tested, with air fares staying level. That reduced the forecast for 2020 by 25% – giving a mid point figure of 301 mppa rather than 401 mppa. If aviation is to pay its external environmental costs it seems likely that air fares cannot continue to decline, thus a lower forecast may indeed be more realistic.

The forecasts are merely a piece of technical work. The extent to which they are accurate, and will be realised in practice, will depend on the policies that are followed. A constraint on infrastructure or a rise in airfares is likely to result in much lower figures being achieved.

How has the industry grown in the past? In the 1990s growth was 5.4% – an extra 7 million passengers every year. In the 1980s it was 5.7% (4.2 million extra), in the 1970s it was 7.3% (2.9 million extra) but back in the 1960s the 13.5% annual growth resulted in a mere 2.0 million extra passengers each year.

Looked at another way, the mid-level forecasts show that by 2020 there will be an extra 14 million new passengers a year – presumably still growing year by year. This could mean 3 more runways, somewhere in the UK, between 2020 and 2030.

Average annual growth in passenger numbers at UK Airports



As the aviation industry matures and as the percentage growth rates decline, the problem is, and will be, that smaller percentage growth rates result in a huge increase in passengers and a matching demand for new infrastructure. The environmental effect of huge increases in passengers and aircraft, which has partially been mitigated in the past, will be more difficult for the community to handle in the future.

Who are all those passengers? The forecasts show different growth rates for different types of passenger. UK passengers travelling abroad on holiday are estimated to double between 1998 and 2020, but foreign visitors to this country may treble. Business passengers, both foreign and UK, are forecast to more than treble, but those travelling on the low cost airlines seem set to quadruple. And most of those rates could go on for the subsequent 10 years and still keep growing! By 2030 every UK citizen could be making, on average, two leisure return trips by air every year. Will we all have that much leisure time and money? SASIG is convinced that this level of growth will turn out to be an overestimate.

What will be the effect on foreign destinations? The work done by and for SASIG cannot examine this issue on a global scale. However, it is becoming increasingly obvious that many places and countries are becoming saturated with tourists. Gradually, the quest for remoteness and isolation is making people travel further, yet those destinations will lose their attractiveness, as they become more crowded. At the other extreme, those who seek a more hectic holiday style are putting unacceptable pressures on some of their host locations.

What will be the effect on UK destinations? It is important to think carefully about the capacity


Too many tourists could spoil this setting

of the key tourist destinations in this country. The air traffic forecasts suggest that they will need to absorb 3 or 4 times as many foreign visitors even though many of the famous locations are already overcrowded. It is difficult to imagine local residents accepting more tourists in York, Oxford, Stratford-upon-Avon, the Tower of London or the British Museum. Yet it is those very places that the foreign tourists want to visit. If they can't, or if they find them too crowded, then those destinations will no longer feature on the tourist circuit. It will always be difficult to persuade foreign tourists to spend most of their time in new or less well known attractions. Once again, this points to the forecasts being too buoyant to be achieved in reality.

Too many tourists could overcrowd London

So, what should we conclude?

The accuracy of the forecasts, or more importantly the likelihood of them being realised, is a critical factor in forward planning. The forecasts are the starting point for the government in developing a new 30 year airports policy. The present capacity of all the main airports in the UK is around 250 mppa so overall demand will outstrip supply by around 2007, or even earlier in the south east. New facilities could be needed for over 250 million further passengers by 2030 – the equivalent of 4 new Heathrow's or 14 more Manchester's at their present size. If the high end forecasts continue to be achieved, then it will be 6 new Heathrow's or over 20 Manchester's that will be needed.

The scale of growth is not only critical at a national level but its realism also needs to be considered at the level of individual airports. Some may find expansion easier to absorb than others, indeed many of the regional airports are actively seeking modest and sustained growth. However, if there are some airports where large-scale growth is impossible, then additional pressure is exerted on the remainder. This could result in some regional airports, perhaps now carrying only half or one million passengers, being identified to take 10 or even 15 million passengers a year.

SASIG believes that it may not be realistic to expect so many passengers to travel. It is certainly not realistic to expect new facilities to be acceptable at that scale. However, if the 30 year forecasts are unacceptable, then a policy change needs to be made now, not in 5 or 10 years time. Current growth trends of around 5% per annum need bending downwards.

Economic Effects

The next important aspect to consider is the economic effect of meeting or not meeting these levels of unconstrained demand. If growth slows down, is there a damaging effect on the national economy?

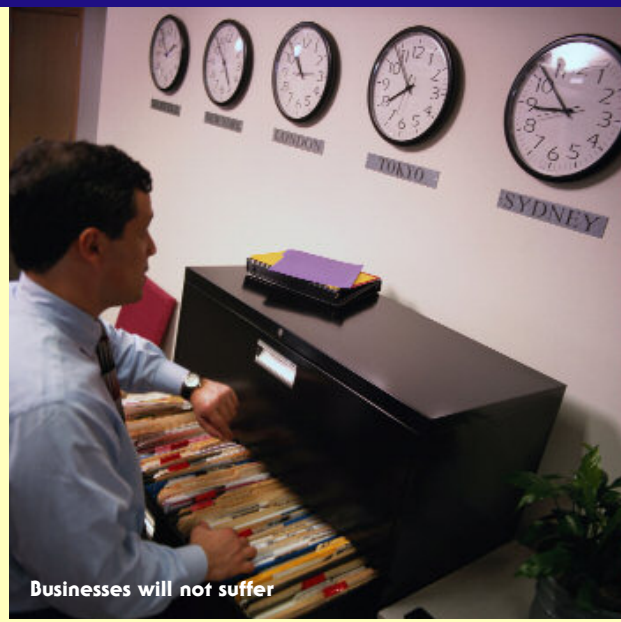
Aviation accounts for 1.2% of national GDP. OEF, in their report sponsored by the aviation industry, tried to claim it was as high as 1.4% by including an estimate of retailing and catering at airports but that is misleading. Spending of that sort would take place elsewhere if not at the airport and therefore properly belongs in the retailing and catering sectors of the statistics. Surely, one does not justify extra aviation capacity on people's desire to eat croissants or buy perfume at an airport!

To put aviation into the perspective of the national league table of our biggest organisations, it sits between agriculture and legal services, with some 25 sectors being more important to the national economy. **Just think – agriculture contributes more to the national economy than aviation.**

OEF, in their work on behalf of the aviation industry, tell us that there are around 180,000 people directly employed in aviation related jobs at present. SASIG accepts that growth in passengers will create a demand for more jobs. But it is important to remember that slowing down the growth rate in passengers will not reduce the existing number of jobs in aviation, but merely slow down the rate of increase. The important issue for the UK economy though is not the increase in jobs in aviation, it is the fact that money not spent on air travel will be spent on other goods and services. It will therefore create jobs in those other sectors.

Agriculture is more valuable than aviation

The economic effect of slowing down the growth in aviation will be to produce a different distribution of jobs around the UK.



Businesses will not suffer

The OEF report claims that the air transport industry provides a productivity benefit to the whole economy, whereas their research showed that it was all forms of transport that made the contribution. In that they could not show such a direct contribution from aviation, they in fact did not prove their own claim. **They could not produce any figures for the lower contribution to GDP of a lower growth rate in the aviation industry.**

Another aspect of economic importance is the need to estimate the type of passenger who will not be able to fly if there is a constraint on new infrastructure. Will UK businesses suffer if aviation growth is less than the forecasts?

If there is a shortage of seats on aeroplanes then the price of those seats will rise. Will it be the leisure passengers or the business flyer that fails to pay that extra cost – perhaps a very large extra cost? OEF's main assumption was that leisure and business passengers will all be priced off in similar proportions but surely common sense tells us that leisure passengers are far more sensitive to price rises than

Not just airports but whole towns may have to be built

businesses. After all, the business flyer will always travel if the extra cost of flying results in the trip itself producing more profit than staying at home.

So, on balance, a price rise in air tickets will deter more leisure than business passengers. Thus air travel price rises will not have a major effect on the role of London as a World City, nor on the UK as a prime destination for inward investment.

The aviation industry has in the past made strong claims about the number of jobs it creates and the spin-offs to the local economy. But growth in aviation activity can bring huge costs to a local area in terms of congestion, overcrowding, competition for scarce labour and environmental damage. So, who pays those costs? Are they greater or smaller than the benefits to the nation resulting from aviation activity?

In many cases the economy around airports, particularly those in the south-east, is operating at, or very close to full capacity such that any significant airport expansion could create problems. In essence, there is very little real unemployment around most major airports. But if airports expand, new jobs are created and that normally means more new houses or more inward commuting – either of people to work at the airport or to fill the jobs in other local firms where staff have moved to the airport. Bigger airports certainly mean more roads and more public transport. More aeroplanes means more environmental impact of noise and pollution.

Airport growth may only benefit a local economy when the expansion can be absorbed without third parties, particularly the local authorities and other local firms, having to spend more money on other essential services needed to support the overall level of airport expansion. Expansion of some of the smaller regional airports, if it can be achieved, may help their local economies but only if there is a sufficient suitable spare labour supply.

Many claims are made that the aviation industry brings economic benefits through facilitating tourism. This may be true for some areas but needs to be assessed at a national level. Incoming foreign tourists spent £9.9 billion (1997) when visiting the UK but UK tourists spent £13.4 billion when travelling overseas. Tourism thus represents a net loss to the economy. The OEF report recognised this and commented that constrained UK tourists "…*would arguably support more economic activity in the UK than overseas visitors travelling by air to the UK currently do, although it is not clear in practice what people would choose to spend their money on instead.*"

So, what should we conclude?

The real measure of the economic importance of the aviation industry is not the number of jobs, or even the rate of increase in jobs. **A slower increase in passengers than forecast will enable people to spend money on other goods and services. That will produce a different distribution of economic impact and thus the real assessment is whether that alternative distribution would be a more efficient use of resources.** No work has been done to enable that assessment to be made.

Social & Environmental Costs

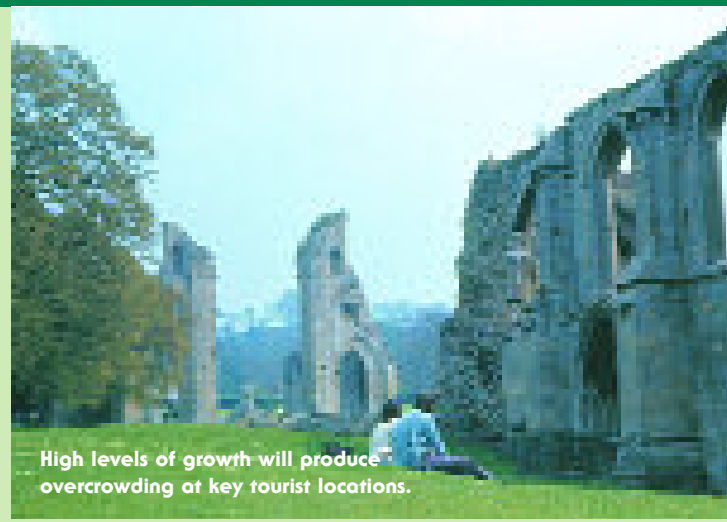
It is relatively easy to make assessments of the economic effects of more or less aviation growth. It is much more difficult to put figures to the social and environmental effects. This has always made decisions on aviation infrastructure difficult to take in a rational way.

The OEF report for the aviation industry very specifically did not set out to measure the environmental costs to set against their assessment of economic benefits. They thus produced no basis for the industry's claim that 'Aviation Matters'. At the present time there is still no study of environmental costs to rely on but the important factors are well known.

A typical congestion problem near a busy airport

Surface access. Whilst some airport developments do pay for relatively local road and public transport improvements, the effects on the transport network are often spread much wider. Nor can the aviation sector compensate other local firms and individuals for the cost of congestion. The majority of people still want to travel to airports by car or taxi. Car parks and taxi ranks at airports are just getting bigger and bigger.

Tourism facilities. It is not sufficient to assume that huge increases in the number of tourists visiting a region will ultimately bring overall benefits to that region. Careful planning is needed to minimise some of the negative effects while ensuring the whole community can reap the benefits. In the same way, it is not certain that improving access by air to a region would cause an increase in tourist spending. It is clear from many studies that levels of congestion and decreasing quality of life for local residents would make significant growth in tourism unattractive to many local people.



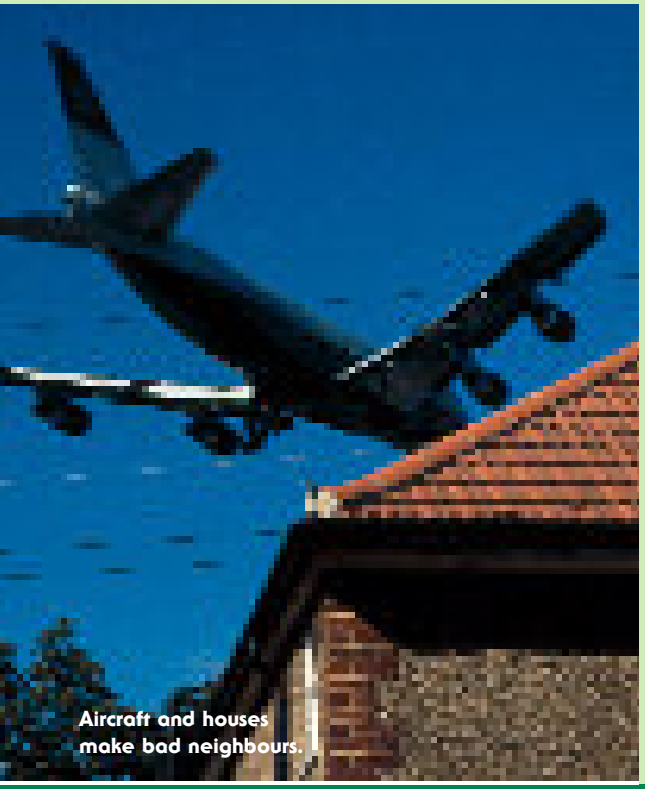
High levels of growth will produce overcrowding at key tourist locations.

Once again, some growth could be acceptable in that it could be absorbed and could provide some tangible benefits. But an overall growth of say, 300 to 400% could have too many disadvantages to be economically and socially beneficial. If the growth in the numbers of leisure passengers does slow down, then UK residents may take more of their holidays in this country. They are likely to choose more widespread destinations than foreign tourists – a move which could help in regeneration programmes.

Noise pollution. Some individual aircraft are getting quieter and the overall level of measured noise at most major airports is reducing over time. But high levels of expansion at any airport can reduce that trend. Communities are also becoming more sensitive to noise and many are finding the frequency of aircraft passing overhead more disturbing than the noise of one aircraft. Around the larger airports ground noise is as annoying as the noise from aircraft in flight.

What is the cost of being woken up at night and losing productivity the next day? What is the cost of children being unable to hear their teacher at school when an aircraft goes overhead? These costs, to people and to the National Health Service, need to be set against any economic benefits.

Air pollution. Residents around airports are aware of the smell of kerosene and the effect of air pollution on health. The huge volume of road traffic concentrated around airports also causes local pollution. But perhaps the greatest concern is the effect aviation has on global warming. Over the next 50 years it has been estimated by the International Panel on Climate Change that aviation could be producing up to 15% of the global warming gases – but at what cost? **It is now claimed that one passenger making a return journey to America produces more pollution than an average car does in a whole year.**



Aircraft and houses make bad neighbours.

Taxation. It is becoming increasingly well publicised that the aviation industry is, in effect, subsidised by exemptions from normal taxation. There is no tax on aviation fuel and even the vehicles that run around an airport do so on duty-free (red) diesel. There is no VAT on buying aircraft and aviation fuel nor on the meals that are eaten in aeroplanes. Why?

Aircraft contrails (water vapour) are a serious source of air pollution

The passenger does of course pay a recently introduced air passenger tax which once collected by the aviation industry seems to disappear in to the government's little leather bag. Why not make it, or some of it, available to provide better public transport or to minimise environmental disturbance?

Safety. More passengers means more aeroplanes in the sky, such that congestion, time delays and safety are becoming issues of concern to the public. A slowing down in the rate of growth would allow more time for technology to help the air traffic controllers.

So, what should we conclude?

There are clearly social and educational benefits from travelling. Once again, a slower than forecast growth rate would not produce an overall reduction in those benefits as, over time, more and more people would still be flying. **But a slowing down in the rate of growth would allow the aviation industry the time to improve its environmental performance and would allow communities to take positive action to minimise the adverse effects.**

The Future of Aviation

Travelling by air is here to stay. It is a mode of transport that many people enjoy or find necessary. It will continue to grow. It will continue to create additional jobs. **It will continue to bring economic benefits to the UK providing the growth is not excessive.**

The question is not about growth or decline of the aviation industry as some would have the public believe. Rather, it is about how much growth is sustainable – how much growth is good for us? Or put rather more bluntly, the need to understand that too much growth is bad for us. In some parts of the country neither the environmental nor the economic impact is acceptable.

The currently forecast growth rates assume a reduction in the real price of an air ticket. Yet the government is pledged to ensure that the aviation industry meets its external costs. If this happens, then the real price of air travel will increase and some people will decide not to travel. Will they save the money, spend it on something else or let it burn a hole in their pocket? Whichever they choose to do they will create jobs – either in the financial services sector to manage their savings or some other sector, such as UK tourism or by the purchase of other goods and services.

SASIG believes that the growth rates currently being forecast will not materialise and certainly should not be allowed to materialise. Other than price rises to deter travelling, the destinations to which people are forecast to travel will not be capable of accommodating them without detrimental effects – an influx of too many people will dissuade an ever-increasing number of visitors from travelling.

So, what if the growth rates slow down even more quickly than is currently being forecast – **perhaps averaging 2 to 3% per annum, rather than around 4% as forecast by the government for the next 20 or 30 years?** SASIG believes that the economic effect on the UK will be a redistribution of wealth and jobs. Other sectors of the economy will absorb the spending power that would have gone into aviation. Other sectors will produce the new jobs – perhaps there will be a different distribution of jobs with a greater emphasis on those regions outside the south-east of England.

Just a bit less than forecast growth in aviation will be good for us all.

SASIG therefore concludes that:

- Aviation growth needs to be slower than the current forecasts, averaging no more than 2 or 3% over the next 30 years.
- This will still result in more than doubling the existing number of passengers (160 mppa up to 300 to 400 mppa) – producing a leaner, more appropriate and more acceptable airport, runway and terminal building programme.
- This slower growth will not affect the UK economy as we will all spend our money on other things, thus creating different jobs.
- Air travel costs will need to increase so that the aviation industry and its passengers pay the full environmental cost of their activities.
- There is a need to create jobs, in aviation and other sectors, in the UK regions outside the south-east. Absorbing more jobs into regional economies will help implement current government policies.

SASIG urges the government to develop and implement a national aviation strategy based upon credible and fully independent research and analysis.