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# Southeast Airport Expansion:

## Do we really need expansion at Thames Estuary or Heathrow—or anywhere?

26 June 2012





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# Agenda

2:00 Arrival and registration

2:15 Opening remarks (Jean Leston, WWF-UK)

2:30 Southeast airport capacity: can we achieve growth without expansion? (Tim Johnson, AEF)

2:50 Southeast airport connectivity: are we losing competitiveness? (John Stewart, AirportWatch)

3:10 Tea/coffee and cakes

3:30 Discussion groups: common messaging and ways forward

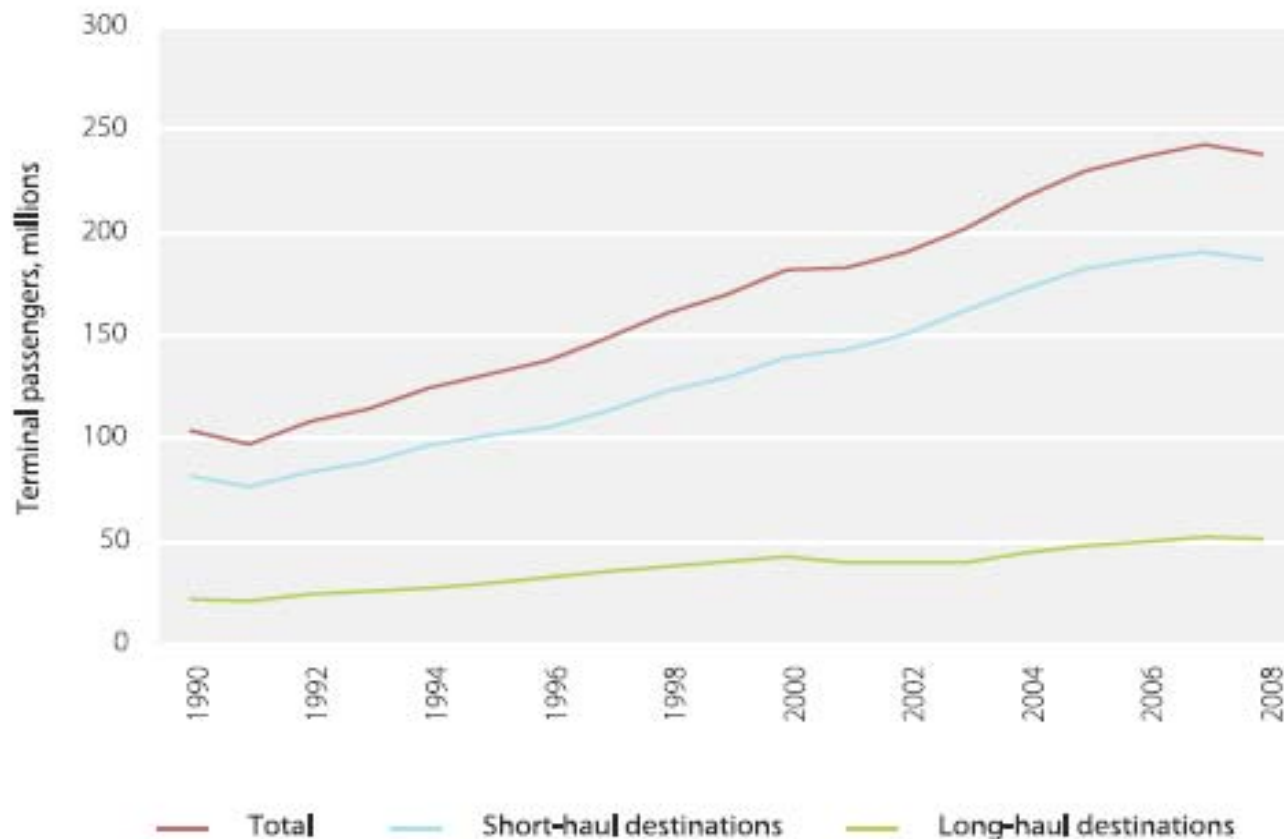
4:30 Finish



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# 130% growth in aviation demand since 1990

Figure ES.1 UK aviation demand since 1990



Source: CAA (2009).



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## WWF's One in Five Challenge

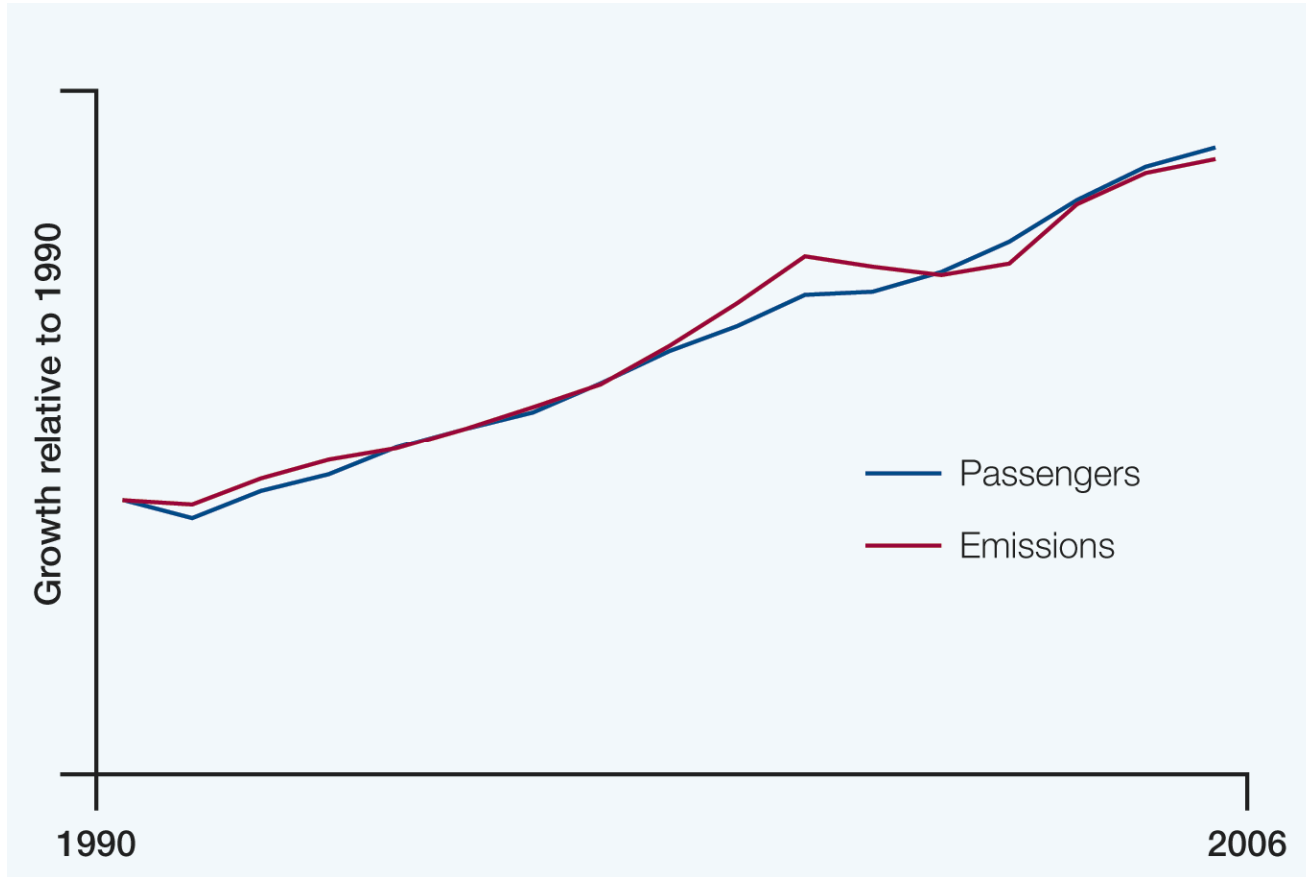
- Helps companies cut their flights by 20% within 5 years
- Many leading UK companies are members (eg Marks & Spencer, Lloyds Bank, Balfour Beatty)
- 41% average cut in flights over 2 years =
  - £2.4 million saved
  - 3,600 fewer tonnes CO<sub>2</sub>





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# Passenger growth = emissions growth



Sources: UK GHG inventory prepared for Defra; CAA Airport Statistics



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## Key messages

- Expansion at Thames Estuary or Heathrow is incompatible with UK climate targets
- We have more than enough existing capacity already
- Claims that unconstrained aviation growth is necessary for UK economic growth are dubious and overstated

Presentation of WWF/AEF report to South East  
Airports Expansion Meeting, London, 26 June 2012

# Making the most of available airport capacity, in line with climate change targets

Tim Johnson

AEF



# UK Terminal Capacity

2009 passengers (mppa):	219.63
Available terminal capacity in mppa:	333.81
Available % growth in mppa:	52%
2009 ATMs (million):	2.09
Max or associated ATMs:	4.95
Available % growth in ATMs:	137%

The CCC estimated that the maximum number of ATMs that could be supported under the “likely” pathway to the 2050 CO<sub>2</sub> target is 3.4 million. **This analysis indicates that adequate terminal capacity and a surplus or runway provision already exists within the UK airport system to facilitate growth to this level.**



# UK Terminal Capacity by Region

Region	2009 Pax (mppa)	Available terminal capacity (mppa)	ATWP UKC forecast in 2030 (mppa)	% of demand under UKC	Max mppa in 2050 under CCC emissions cap	Under / over provision (mppa)
Scotland	21.67	28.4	26.2	10.1	36.8	-8.4
Wales	1.63	3	3.6	1.4	5.1	-2.1
Northern Ireland	7.17	10.5	8.1	3.1	11.3	-0.8
North of England	35	59.3	53.9	20.7	75.5	-16.2
Midlands	13.76	24	16.1	6.2	22.6	1.4
South West	7.87	13.55	8.1	3.1	11.3	2.25
South East	132.52	195.05	144	55.4	202.1	-7.05
<b>Total</b>	<b>219.62</b>	<b>333.8</b>	<b>260</b>	<b>100</b>	<b>364.7</b>	<b>-30.9</b>

- By 2030, available terminal capacity exists in every region, except Wales, to meet the 2030 UKC scenario;
- By 2050, under the CCC scenario, a shortfall of 30.9mppa exists nationwide but there is only a modest shortfall in the South East region;
- Analysis only considers airports identified in the ATWP. Other airports serving regions, and alternatives to flying, should address some of the regional shortfalls.

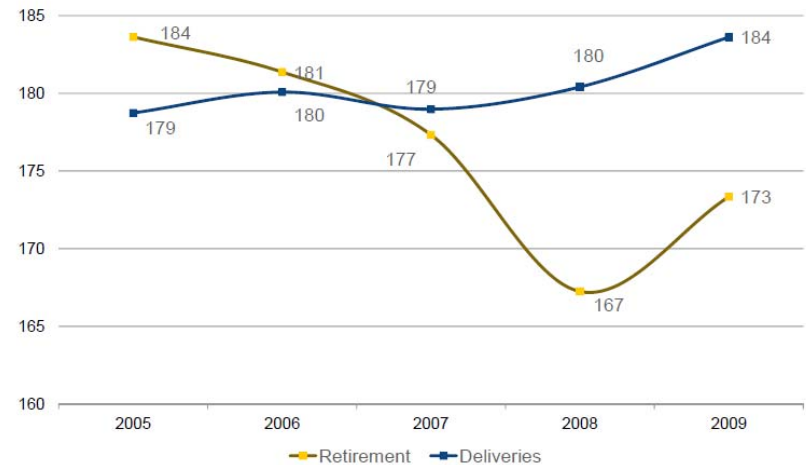
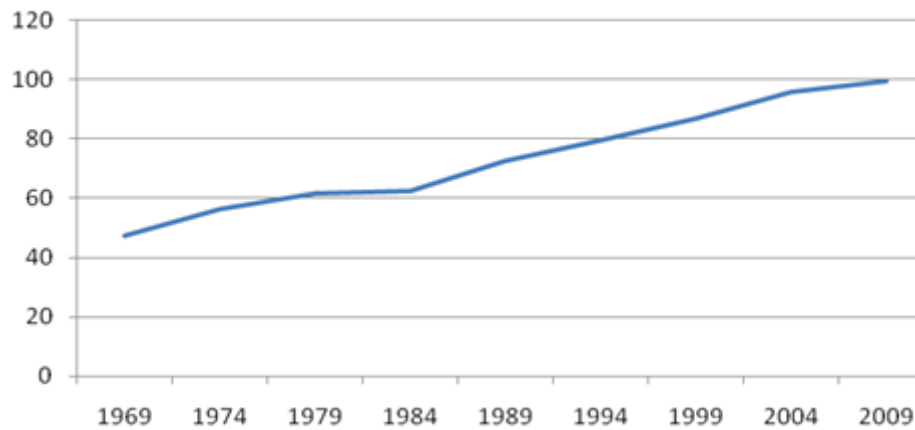
# UK Runway Capacity by Region

Region	2009 ATMs	Max mppa in 2050 under CCC emissions cap	Average passengers per ATM (2009)	ATMs Associated with CCC emissions cap in 2050	Maximum Available ATMs	Under / over provision
Scotland	319639	36.8	67.8	542,773	867,200	324,427
Wales	20537	5.1	79.37	64,256	170,000	105,744
Northern Ireland	83229	11.3	86.15	131,167	240,000	108,833
North of England	328459	75.5	106.56	708,521	1,300,918	592,397
Midlands	154356	22.6	89.14	253,534	389,119	135,585
South West	98277	11.3	80.08	141,109	635,000	493,891
South East (adjusted)	1081606	202.1	198 / 123 *	1,349,000	1,346,000	-3,000
<b>Total</b>	<b>2086103</b>	<b>364.7</b>	<b>105.28</b>	<b>3190360</b>	<b>4948237</b>	<b>1,757,877</b>

- South East figures adjusted for growth in average pax per aircraft: Heathrow assumed to be 198 consistent with BAA claims that 95 mppa can utilise Heathrow with 480,000 ATMs, and a 15% increase at other SE airports (to 123) over the next 40 years.
- Sufficient runway capacity exists in every region to meet the growth levels consistent with achieving the 2050 target.

# Realistic SE Assumptions?

UK average pax per ATM 1969 - 2009



Note: Passenger jet aircraft excluding regional types

Source: Ascend, Airbus



**BOEING** “The average seat count of airplanes in the fleet will verge upward incrementally as fuel and operating cost pressures encourage airlines to go to larger seat counts within all airplane size categories. ... Introduction of the 787 and, eventually, the A350 will spur airlines to trade up as airplanes in the 767 and A330 size category begin to reach retirement age. Within the large airplane segment, airlines will look to upgauge from the 747-400 to the 747-8 or A380”

# Conclusions

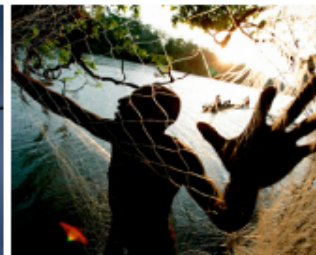
- Available runway and terminal capacity already exists, in most cases, to meet current and future demand consistent with returning aviation emissions to 2005 levels by 2050;
- The existing trend towards improved aircraft utilisation and a larger planes, plus increased use of rail and videoconferencing, will address the marginal shortfall forecast in some regions;
- The shortfall in Southeast runway capacity is too small to justify a new Thames Estuary airport or R3;
- Further expansion would come at the expense of meeting aviation targets consistent with achieving the Climate Change Act:
  - Very little room for new expansion if we are to keep within environmental limits
  - Allowing Southeast expansion while remaining within the CCC target would mean no room for regional expansion



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# John Stewart, AirportWatch





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## **Common messaging?**

**It would be better to use existing capacity at other airports than expand at ... (insert Thames Estuary or Heathrow)**



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## Ways forward?

- NGO speakers at local council events?
- Support from local campaign groups?
- Information packs?
- Local authority support for new WWF/RSPB/Hacan hubs research? (launching Autumn '12)
- Other????