

## Out of the box thinking

My major concern about the original aviation scoping document, and other more recent publications, is there is no what I feel is "out of the box" thinking which is trying to find a radical solution which will make a major impact on the whole London & SE aviation problem, particularly in relation to runway use, and also noise reduction. Mainly what we are being offered is more runways rather than better ways of making use of existing runways.

So here is my attempt to do just that.

### Hubs

There also seems to be a fixation in the scoping document with hubs. So lets pick up on that idea.

It has always seemed to me that London's 5 airports are in effect one single, huge, but dispersed hub ( a mega hub) and could be treated as such in reality but only if they could all be linked up so that one could interchange as easily and quickly between each airport as one currently does between airport terminals at LHR, say.

### So what constitutes "quickly" ?

Apparently the guideline figure for getting between terminals at LHR is 20 minutes, so lets settle for that as being an acceptable "quick" time for getting between airports.

### How would we achieve it?

The M25 is 117 miles (188km) long so at MAGLEV train speeds (currently 300mph with 600mph currently under development) you could go all the way round it in 24 minutes, and half way round in 12 minutes (eventually 6 minutes).

So if we built a MAGLEV track alongside, or over the M25, with spurs off to the 5 airports predominately along existing motorways, then a 20 minute journey between any pair of airports should be easily achievable, even allowing for the extra distance on the spurs, as well as additional time for accelerating from start and slowing down to stop.

Inevitably there is the small problem of the money in these financially stretched times to build this sort of infrastructure project, but lets not worry about that just at the moment (I will come back to it). Let us instead think about the benefits of such a system on the grounds that if the benefits are sufficient then eventually the money will be found, and the investment made.

### Benefits

There are a few benefits that occur to me which I will list to get a discussion going, but what this is really all about is everybody trying to think out of the box "looking for a radical solution which will make a major impact on the whole London+SE aviation problem".

So here are a few potential benefits that I envisage to this dispersed "mega hub" approach

It enables best use to be made of all existing runways around London. If it is as easy to get between airports as it is between LHR terminals then new flights can be created where there are available slots at whichever airport has them without the need to build any more runways for many years yet. ("Stansted Airport has 47% of unused runway slots, while Luton has 51% and Gatwick has 12% unused slots. Caroline Pidgeon, London Assembly Transport Committee chair)
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You could much more easily relocate flights from one airport to a different airport, and thus a different runway, either permanently (e.g. move short haul out of LHR for example), or on a short term basis (e.g. because fog or a strike had taken a specific airport out of use.)
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You could make one of the 5 airports a UK only hub so that not only was it easy to get from any part of the UK to any other, but also to connect with any continental or long haul flights regardless of which London airport that flight was flying out of.
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Taking this a step further, you could eventually have different patterns of routing than at present. For instance all inter-continental planes from the west going to one of the other 4 airports that was best capable of servicing them (e.g. LHR); similarly from north (LTN), south (LGW) & east (STN).
You could then arrange it so that flights over the centre of London were very much the exception rather than the rule, thus making a massive reduction to the numbers affected by aircraft noise.
MAGLEV could link into the existing tube/rail system at key points so as to facilitate the reduction in numbers travelling to any airport by car.
You could also reduce car travel, and concomitant pollution, by driving to your nearest airport or tube station then completing your journey to your departure airport on Maglev.
If planes had to be diverted because one of the airports was closed it would cause minimum inconvenience to passengers: simply take MAGLEV back to where you wanted to be.
It would be a lot easier to persuade Airlines to migrate their services from one airport to another because they could grow their facilities at the new airport whilst running down their facilities at the old, with fast interconnect between the two.
Over a period of time you could move many (possibly all) short haul flights out of LHR thus freeing up slots there for long haul flights.

### The cost

In one major US study a few years ago the estimated cost per mile of MAGLEV track construction was calculated to be about one third of the cost of motorway building. On top of which you have the costs of stations, rolling stock, signalling and control systems.

If you take the figures used by [UKU \(£6.69m/km in 2006\)](#) you come out with a figure for this scheme of about £12.58bn. It is probably an overstatement since UKU costings included significant sums for way leave payments which would not be needed in this case with 95% of the land (M25 and motorways) already being in the public sector. However that is still a chunky sum, and probably in need of updating for inflation. But then all these big infrastructure projects all involve chunky sums. Consider these projects:

For comparison	£bn Source
Cost of M25	6 DoT (decades ago)
Cost of 5-Airport MAGLEV link	13 Estimate based on UHU 2006 figures (excludes rolling stock)
Crossrail	16 BBC <a href="http://www.bbc.co.uk/news/magazine-21231044">http://www.bbc.co.uk/news/magazine-21231044</a>
LHR preferred Stanwell Moor runway	18 Evening Standard
HS2	32 BBC
Thames estuary airport (original)	40 BBC
Thames estuary airport (Forster version)	50 Evening Standard

### Everybody wins

So you could link all the airports together, share their capacity and runways, add runways as needed at Gatwick and Stansted, gradually reorganise flight schedules, reduce carbon emissions, and eventually noise over London, and at the same time keep the airlines happy for a fraction of the cost of an estuary airport.