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TRANQUILITY BASE

The topic of airport noise may be less relevant than some to the remit of the Airport Commission, but no other topic is so relevant to the public at large. Airport issues to the masses are substantially noise issues, and thus it is to be greeted that the subject is allotted its own Discussion Paper (DP). Here there is not much controversy; all want less noise. The question is how and what can best be done. This DP is in general adequate, and this critique has only certain distinctions and suggestions to add.

ADDITIONAL DISTINCTIONS

First and foremost it should be mentioned that a distinction between airport noise and aircraft engine noise is not inessential to the discussion. Airports themselves make no more noise than the average shopping mall (about which no one complains) were it not for the attendant noise of aircraft engines. While not exactly as silent as churchyards, it is the machines that are the problem, not the sites. This needs at all times to be held in the foreground while any debate takes place. Airports in this sense are the wrong addressee of noise concerns and related unpleasanties. As progressive as engine manufacturers have been, they have yet to produce an ultimate solution, a solution that in many a sense the airport cannot provide and should not be taken to task for. The DP could do a much better job here.

Secondly, the term 'noise pollution' which is bandied about, likewise needs further distinction and clarification. It differs significantly from certain other pollutions. For example, those outside the proximity to airport noise suffer no consequences at all; this is not the case with many types of pollution. Further there is no debris; one can be as loud as one likes in orbit, nobody and nothing is adversely affected. Noise pollution is in this sense not physical, but psychological; the deaf do not mind airports at all. This may be of small comfort to those who suffer understandably under the direct and after-effects of aviation noise, but the distinction is not without its importance. And the DP does not go far enough in depicting this distinction.

Thirdly, we need to distinguish always whether we are talking about day conditions (say 7 a.m. to 11 p.m.) or night conditions. The difference is all important. Noise is one thing, but often we are in fact talking about sleep, not noise. The day and the conditions of the day are a completely different animal altogether. Often what the DP is driving at should have been more lucid and forthcoming as to which of the two periods this particular passage and deliberations refer to. This can, and often does, change the whole nature of the discussion.

Finally, a greater distinction can be made between existing, 'legacy' airports and the issues (or lessening thereof) surrounding entirely new projects at a considerable distance from built up areas. This changes the discussion dramatically. Many a debating point becomes to a large extent mute and superfluous when the target airport changes. Once again this is not a distinction without a difference.

SOLUTIONS

As pertains to legacy airports, and to a certain extent future projects, only two practical solutions present themselves.

- 1 Opening hours. I hold night flights to be intolerable at legacy airports. Frankfurt is right in banning them completely and without any great negative impact. To render dysfunctional an entire population's sleep

for this minute and postponeable number of flights makes no sense.
Worse it is counter-productive for aviation as a whole.

Likewise the usual first hour of operations, i.e. 6 a.m. to 7 a.m. should be off limits. Vienna has dropped this hour to great accolade, once again without suffering at all. Here not only a precious final hour of sleep for the population is up for discussion, but the ungodly hour at which flying participants must awake to make the flight (some time between 3 and 4 a.m.), which especially for pilots has an impact all the way into safety and fatigue concerns. A lot of good will could be generated via adoption of these simple measures, including a ban on flights after 11 p.m., giving the general populace an eight (8) hour respite from aircraft noise. The main beneficiaries would be, of course, the airlines themselves, both for their working staff and their yawning customers as well.

- 2 The true solution is to bring engine noise down to under 50 decibels. Even the French with their most exacting parameters only descend to 55 decibels on the noise scale. After this even they reserve comment. Under this level only the most extremist reactionaries would have a complaint. The engine manufacturers have failed the public in that priority is not given to the noise issue first and foremost, but rather to speed, range, fuel efficiency, emissions, ease of maintenance, weight, etc. all playing a preferred role, and this has left the public to wince under their omissions. This is short-sighted in the extreme. Were noise to have been solved first, one could be selling a whole lot more engines. And here is the main point:
Noise is really only a problem at takeoff and landing, i.e. at low altitude around the airport. Noise as such does not have to be solved; only the noise levels immediately around the airport. This is seemingly forgotten. What is needed is the development of a sort of 'hush kit' for the temporary segment of airport vicinity flying. And down to the 50 decibel level. What happens after or before that can focus on all the other aspects of engine performance ideals. Something like the opposite of an afterburner, a noise suppressor mode, an aviation silencer, an airport proximity mode, is desirable that may involve certain sacrifices in all

other areas of engine performance, but meet, via dampening, all noise abatement requirements, and this to the ultimate furtherance of overall economic aims. The fantastic and commendable shrinkage in the noise footprints around airports is most laudable, but whether a plane is at 65 versus 75 decibels cuts no ice with most residents on the ground. A solution is needed, not necessarily improvements. If you have to notice a plane, the rest is immaterial. Under 50 and you do not notice it.

Thus noise issues have much more their place of reference with engine and aircraft manufacturers than in an airport discussion. Airports receive the reprehension and retribution for the failure of engine research priorities. Achieve that 50 decibel level around airports and one can safely dismiss probably every consideration brought forward in the DP. This involves international strivings and coordination, but would make any wait for results worthwhile.

NOISE FAIRNESS

The DP trips lightly over the very relevant issue of airport noise versus other transportation modes. Statistics and studies are adduced which compare very unfavourably airport nuisance and annoyance with say, railroad bother and rail station grief. This is very hard to believe. Rail and road noise is ubiquitous. Aviation noise has the strange but very real advantage of being localizable, confinable; something impossible for rail, which almost without exception tends to end in the heart of a city. No airport comes close to doing that. If noise is the issue, especially in built-up areas, one should almost be banning train travel. But this is evidently endured without a whimper. (One should, however, experience living next to the Chicago El.) Thus also ambulance noise in conjunction with hospitals; nobody complains about this necessity. And yet airports have also their own level of necessity not totally unlike that of hospitals. We chose not to refer to police sirens which rely on annoyance.

One home truth that the DP seems to take special care to pass quickly over is, in light of all this, the astonishing fact that residential creep and incursion into airport areas remains a major problem, not a minor one.

What does that tell you? (Real estate prices around Heathrow are the highest in the world! This somehow did not get mentioned.) Who can credit it and how is this to be reconciled with the apparent unforgiving stance of noise opponents. One is surprised to see people in Bombay, India, living at the airport fence. This is population encroachment with a vengeance. It is only fair to mention such things, even if negatively. And no one is forbidden from moving away from airport noise permanently, only the airport itself does not enjoy this option. It was built understandably when these issues were not a problem like today.

CONCLUSION

The culprit is speed. We have exchanged speed for noise. Airport noise is, however, perhaps the issue to watch. Airports movements will not stagnate any time soon and with it comes noise and lots of noise. In fact the presence of the 5th movement generations is already at work in England (1M to 10M mpa), and the 6th generation (10M to 100M mpa) is unavoidable. What will such massive developments mean for the issue of noise abatement? Massaging efforts as spelled out in the DP may not extend to resident satisfaction. Current airport schemes can at best buy time but not offer real solutions. The contribution of the engine makers will prove much more significant. If the Airport Commission understands this, then much help is to be found in this DP. And the public is amenable, if its exposure to noise is limited, and with permanent solutions in sight. Noise will, however, need to receive a different kind of priority than simply the negative notoriety it currently receives. Whether this present DP is up to this task remains to be seen.