

The Harpenden Society (“The Society”)
Deadline 9 response Comments on any further
information/submissions received by Deadline 8
Luton Rising (“LR”) Development Consent Order (“DCO”) application

REP8-038 ID 12 pages 15-16

- 1 We note LR assert that “the fleet projections continue to represent a reasonable pathway for fleet replacement overall”.
- 2 We also note that LR, at deadline 8, did not address the Society’s concerns properly, instead providing a number of banal and incorrect answers (which we address below, for the record).
- 3 However, as the examination is drawing to a close we have, for this submission, sought a way of quantifying the extent to which LR’s fleet mix in 2027 is unrepresentative to allow the ExA to make a qualitative judgement as to whether the difference is material to the noise assessments to which it relates, especially that part of national aviation policy that requires airports to reduce noise where possible. For communities like ours (and those representing the 1,000+ voices who have spoken out against LR’s proposals at this examination) every unnecessary aircraft passing overhead represents a very significant one-time effect (not an averaged effect) and the most effective way of reducing noise, where possible, is to reduce the number of aircraft flying overhead to the minimum necessary to meet demand.
- 4 Our assessment is twofold, firstly in relation to fleet modernisation and, secondly, in relation to the number of aircraft movements.
- 5 With respect to fleet modernisation, the following paragraph appears in REP6-066, page 10:
 - 3.5.13 The Applicant confirmed it had accounted for the fleet mix proposed. The P19 application recorded 50-53% transition of commercial passenger aircraft in in 2025, and 88% in 2028. The figures for the application for development consent is 69% in 2027 for the Core Planning Case which is robust against the P19 trendline.
- 6 In the absence of concrete information to suggest otherwise, the 50-88% modernisation in the P19 application gives rise to the following (interpolated) modernisation values for 2026 and 2027, 62.3% and 75.6%.
- 7 75.6% is 6.6% higher than 69%, LR’s preferred modernisation % for 2027. It is 9.7% higher, equivalent to 37 aircraft movements a day in the 92 day summer period. We are not acoustics experts but this will make a difference to the noise contours.
- 8 With respect to the total number of aircraft movements, we initially address LR’s critique of our approach:
 - a. LR suggest that they adjusted the widely reported airline load factors for a “small proportion” of seats that are sold but not occupied. They do not say what that “small” adjustment is but it’s not something airlines think is large enough to report nor could we find any mention of it being an adjustment factor in the Gatwick DCO application or indeed was it an adjustment factor at the P19 inquiry. Furthermore, given the period relevant to noise assessments (the 92 day summer period) we are confident any adjustment factor would be infinitely small. We also note that LR didn’t say this to CSACL when it suggested more representative load factors of 91% or 93% (paragraph 4.16 of REP2-057).
 - b. LR also mention “seasonal variations” – the 92 summer day period is the peak period for flying and the load factor for this period will be above the annual load factor reported by airlines. We did not explicitly take this into account but it would mean the load factor is likely to be higher than airlines target load factors.

- c. LR state we included freight aircraft movements. Apologies. However, in our analysis in REP7-116, we calculated passenger capacity using LR's fleet mix, rather than the more likely fleet mix which would include considerably more A321neos as that is about all that Wizz Air will be flying at Luton airport in 2027. We estimate below (f.5) there will be about 9,500 aircraft movements that will be A321s not A320s. Despite LR's claims to the contrary, if they cannot retain and expand the operations of the current core airlines there will be little growth. LLAOL made that clear at P19. The incremental passenger numbers from the aircraft switch more than wipes out the B757 point LR made.
 - d. LR claim the Society "neglects to account for factors such as the upcoming Airbus A319 replacement by easyJet which is likely to bolster Airbus A320 flying at the airport". This is a nonsensical statement: the replacement of A319s (only easyJet flies them) with A320s is obvious from the fleet mix table 6.40 – no account was needed.
 - e. LR also claim the Society "assumes these aircraft [A320s] are all associated with airlines such as Wizz Air". This is also nonsensical: we are clear and evidence the fact that **very few** of the A320 movements will be Wizz Air (paragraphs 13-17 of REP7-116), the very opposite of what LR claim. Furthermore, for the reason we set out in paragraph 22 of REP7-116 and LLAOL's point at P19 in c. above, we doubt any other airlines, who fly Airbuses, will become established at Luton airport by 2027 so the vast majority of A320s in the LR 2027 fleet mix will be either Wizz Air or easyJet aircraft.
 1. Appendix 1 sets out the aircraft movements for 2027, 2038/9 and 2042/3 based on LR's annual movements in the Need case (AS-125 tables 6.12 and 6.13).
 2. As the current core airlines will continue to dominate in 2027, easyJet's capacity to serve 21.5 million passengers will grow to roughly 10 million seats or thereabouts (NB capacity must be reduced by the load factor to arrive at passenger numbers). Given only a small difference between the A320ceo and A320neo seating we've used the A320neo seating (186) to calculate that easyJet will need 52,016 movements, yet there will be 72,000 A320's at Luton airport. That implies 20,000 for Wizz and other airlines (in 2019 other airlines accounted for just over 2,000 of these movements - INQ-27, P19 Inquiry).
 3. As Wizz's capacity will also grow commensurately, and all the A321 movements in LR's fleet mix are Wizz, Appendix 1 shows A321s will only deliver 7 million so an additional 3 million, according to LR, will come from A320s (16,000 aircraft movements using 186 seats). It's possible there will be 4,000 movements from other airlines by 2027 but there will not be 16,000 A320 Wizz movements at Luton in 2027.
 4. The vast majority will be A321neos as we explained in REP7-116 due to the reduction in A320s in the Wizz fleet and in the clearly visible reduction in the proportion flying to/from Luton.
 5. Given 92% of Wizz's fleet will be A321s we estimate that there will need to be approximately 38,500 A321 movements (and only about 4,500 A320 movements).
- 9 Thus, all of LR's "challenges" to our assessment of the number of aircraft required to deliver 21.5 million passengers in the Core growth scenario don't add up to much.
- 10 We therefore stand by the conclusions we drew in REP7-116 that LR's fleet mix, once you apply a more realistic load factor, includes too many aircraft and the aircraft movements for Core growth could be between 5-7% less (the difference between LR's assumed load factor

and a more reasonable, airline informed, load factor – we concur with CSACL that 93% is more reasonable given airline ambitions)

- 11 Note: we haven't adjusted LR's fleet mix figures in 2027 in Appendix 1 – we thought it better that the ExA saw the "raw" figures based on LR's hypothetical fleet mix. The trouble with hypothesising is once it's demonstrated it lacks, for EIA purposes, any grounding in reality you can't reverse engineer someone's hypothesis without hypothesising! That said, a back of an envelope attempt still showed the fleet to be overstated within the 5-7% range if a realistic load factor is applied. We have not challenged the 2030's and 2040's fleet mix as those dates are a long way off and the overall shape doesn't appear unreasonable but there are still too many aircraft movements when a more reasonable load factor is applied.
- 12 Finally, we note LR refer to host authorities saying the annual movements and fleet mix are "appropriate" (in response to NE2.4 REP7-055 page 5). We don't see any point in getting into a discussion about whether the annual movements and fleet mix represent a reasonable worst case for assessment purposes. For the purposes of assessing "significant effects" padding of aircraft movements ensures that the estimate is conservative. However, as we've highlighted, communities do not hear noise as an average and we believe that, under the EIA Regulations applicants should consider reasonable alternatives to meet policy objectives of reducing noise. It is perfectly reasonable for LR to recognise that airlines are targeting improved load factors to service the forecast demand as that's economically attractive compared to flying more aircraft. On this point, we note in Appendix 1 that the load factor LR's fleet mix implies **does not** change throughout the project. This is completely unrealistic.
- 13 We respectfully ask the ExA to require LR to come up with a sensible reduction in aircraft movements so communities see real reductions in noise they would otherwise hear.

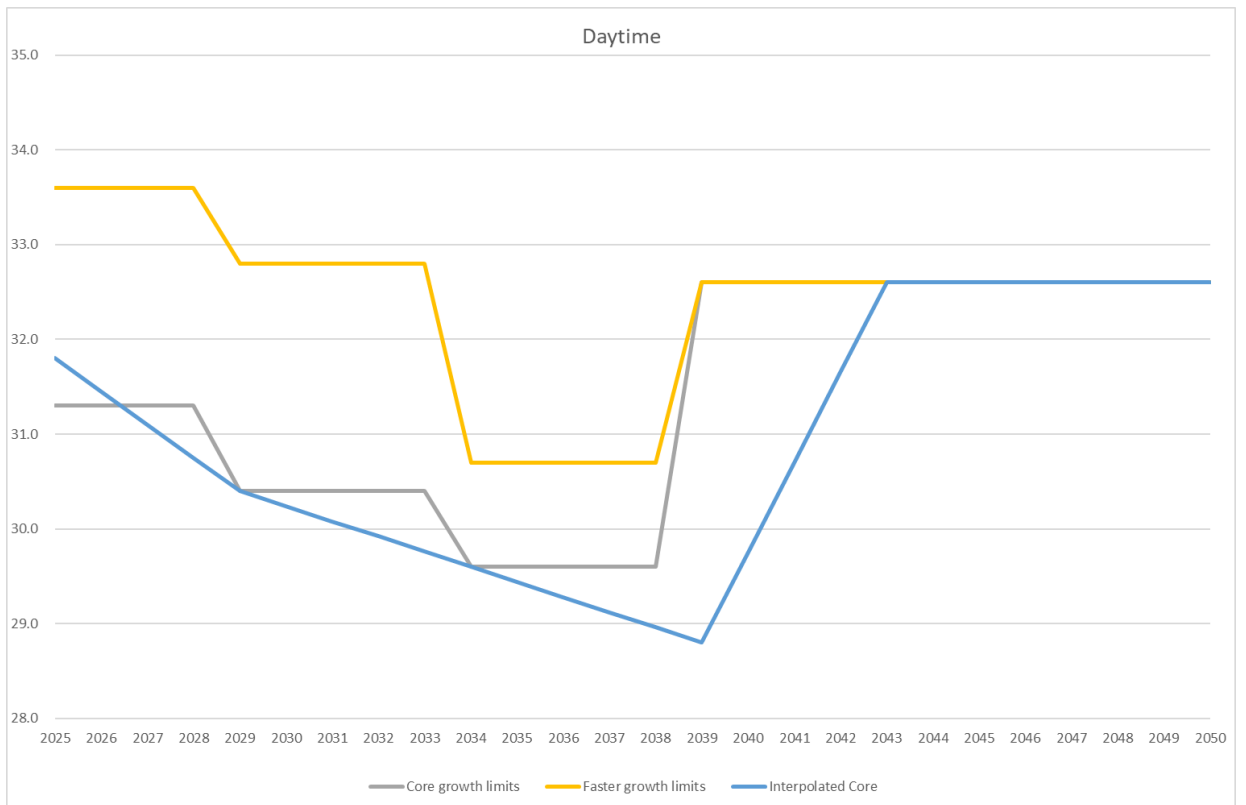
REP8-036 Reference 4 pages 98-100

- 14 We support the ExA's proposal to substitute the Core Growth Limits for LR's Faster Growth Limits and to include them on the face of the DCO (although our view is that that LR's aircraft movements used to calculate the Limits are overstated).
- 15 Faster Growth (or indeed Slower Growth) was labelled a "sensitivity" test for EIA purposes and was not subject to the level of assessment from LR's experts or was capable of the level of scrutiny by Host Authorities and Interested Parties that Core Growth has been subject to. We believe it would be entirely wrong to set environmental limits on the basis of a "sensitivity" test.
- 16 By way of example, the Faster Growth fleet mix assumes a slower transition to newer generation aircraft, without offering either an explanation for why this might be the case or assessing whether airlines would seek, firstly, to increase load factors rather than send sub-optimally filled aircraft to Luton.
- 17 On the first point, as we've already explained, Wizz Air (the biggest airline at Luton who you'd expect to shoulder most of the growth burden), is highly unlikely to use more than a token number of current generation aircraft at Luton airport – it won't have many - and also Ryanair has been prioritising Luton airport for Max8's. As we've said, this is hardly surprising given the aircraft's fuel efficiency (and greater capacity – significantly so in the case of the A321neo over the A320).
- 18 On the second point, our analysis at Appendix 1 shows that there's virtually no difference in load factors between core and faster growth. That doesn't make sense, in a faster growth scenario, flights will fill up first before capacity is added.
- 19 There is a further point, LR also say that airlines will need to fly outside peak periods:

6.6.39 A busy day timetable was also derived for the **Faster Growth** case to ensure that the worst case impacts can be tested. This case assumes that, if faced with constraints on scheduling more movements in the commercially desirable busy hours as a result of the limited additional airport capacity assumed to be provided at Assessment Phase 1 and the timeframe before substantial additional capacity is assumed to be provided in Assessment Phase 2, airlines might be willing to operate a greater proportion of flights outside of the peaks, although this is not considered to be the most likely outcome. On this basis, the

Faster Growth Case assumes that the Phase 1 infrastructure has the potential to support up to 23 mppa but without increasing demand in peak periods. The change in demand profile over the day is illustrated in **Figure 6.25** with the profile at 21.5 mppa in 2027 compared with that for 23 mppa in the **Faster Growth** Case.

- 20 So, despite it “not [being] considered to be the most likely outcome” LR has based its Faster Growth claim on this very outcome!
- 21 All told, LR just make assertions about the rationale for Faster Growth, none of which are tested to establish their authenticity.
- 22 Furthermore, the underlying rationale (passenger demand) for claiming that Faster Growth is a reasonable basis for setting GCG Limits isn’t supported by performance since the DCO was submitted, 2023 passengers below Core and Faster growth, aircraft movements January 2024 (per flightradar – 29 days plus estimate for 2 days) very similar to January 2023, constrained economic indicators (including stubborn inflation and a risk of a recession) and government demand forecasts are being pegged back.
- 23 Separately, we note, recognising the ExA’s point about interpolation in its recent letter, that there is an even greater variation between the GCG Limits and the anticipated fall in actual contours, if the Faster Growth Limits are used. The graphs below show the effect for the Daytime and the Night-time (apologies for the small typeface):

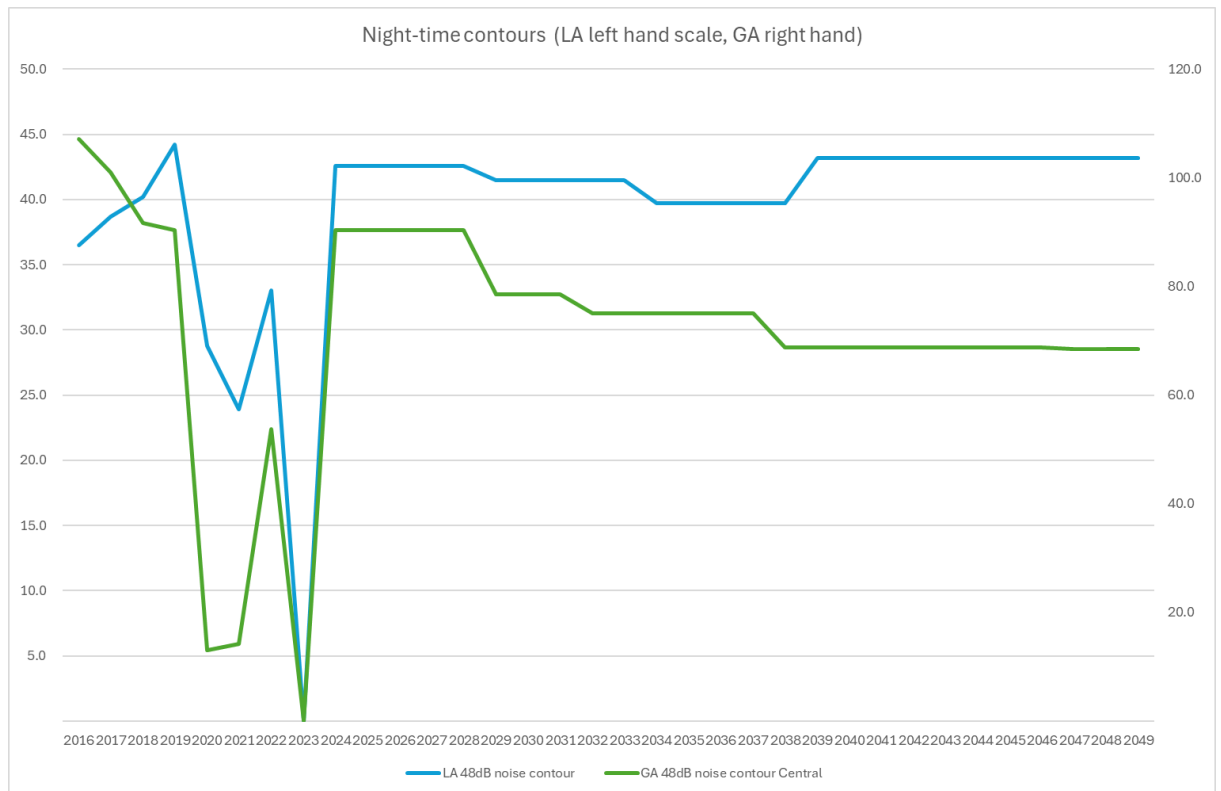


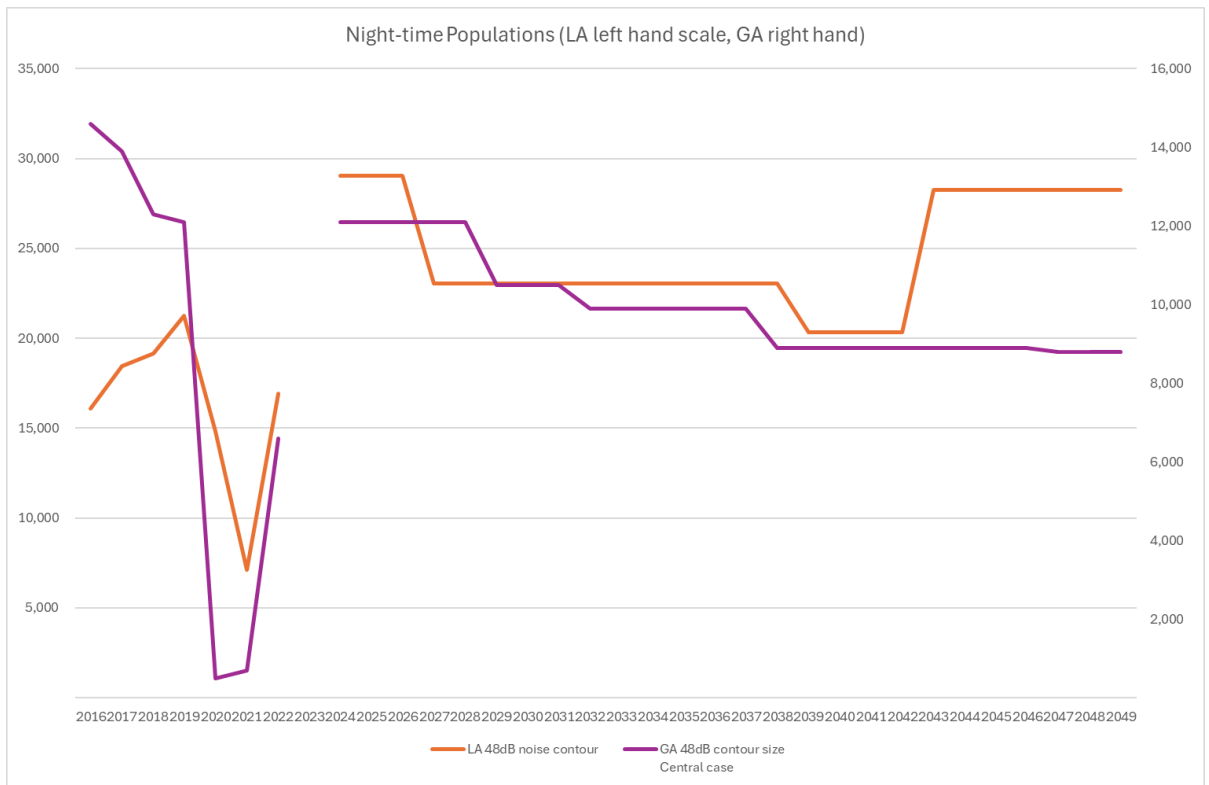
REP8-036 Reference 6 pages 102-103

24 The Society welcomes the ExA's proposal to set an Annual Movement Cap.

- 25 As our analysis above shows, LR has over-estimated the number of aircraft needed to meet the Core and Faster Growth targets and will, unless an Annual Movement Cap is put in place, attempt to fly more planes into and out of Luton airport than it says it needs to as it will be confident the Limits will not be breached. It's no coincidence that the cap LR is proposing is 7% above the number of movements used for assessment purposes that we've calculated.
- 26 We also note that LR restate their opposition to any finessing of their proposed night-time aircraft movements (in particular shoulder period limits). As we noted at the last deadline, government policy does not appear to be supportive of increasing night noise.
- 27 The following two graphs illustrate the difference in outcomes for night-time contours and affected populations at Luton airport (LA) and Gatwick airport (GA) per their respective DCO applications, Luton airport's data shows its Core Growth scenario and Gatwick airport's data shows its Central Case – to ease comparisons LA's contours use the scale on the left and GA's contours use the scale on the right – there is no data yet for 2023:

28





- 29 Gatwick airport don't appear to be expecting a relaxation of its current night-time noise restrictions and this feeds through into its night period (23:00-07:00) contours with the obvious result that night noise will decrease significantly and the number of people will, similarly, reduce.
- 30 Luton airport by contrast, which is expecting a relaxation of its current night-time noise restrictions, will see its night period contours more or less flatline (following the unconsented high of 2019) but an immediate and material increase in the population affected following consent to the DCO and then a drop off but never below 2019's level before the population affected again increases.
- 31 Given the DCO is a nationally significant infrastructure project, it would be appropriate to apply national expectations on future night-time noise to Luton airport, i.e. minimal, if any, increase in night-flying permissions and, thus, an expectation that noise contours and the population affected will fall.
- 32 Separately. we do wonder whether any additional night flying permission granted to Luton airport would, in any event, be anti-competitive (as it would hand Luton airport a competitive advantage compared to the other London airports).

Appendix 1

	2019 Actual mnts Aircraft	2019 Capacity Seats	2027 Core Growth Fct capacity Aircraft	2027 Core Growth Seats	2027 Faster Growth Fct capacity Aircraft	2027 Faster Growth Seats	2039 Core Growth Fct capacity Aircraft	2039 Core Growth Seats	2038 Faster Growth Fct capacity Aircraft	2038 Faster Growth Seats	2043 Core Growth Fct capacity Aircraft	2043 Core Growth Seats	2042 Faster Growth Fct capacity Aircraft	2042 Faster Growth Seats
A319	156	3,349,320												
A320ceo	180	7,929,720	25,880	4,658,400	35,000	6,300,000								
A320neo	186	1,118,418	46,210	8,595,060	42,500	7,905,000	71,400	13,280,400	71,400	13,280,400	75,640	14,069,040	75,640	14,069,040
A321ceo	230	18,918	620	142,600	1,870	430,100			1,250	287,500				
A321neo	161						630	101,430	630	101,430	630	101,430	630	101,430
A321neo	239	1,434	28,960	6,921,440	29,370	7,019,430	43,840	10,477,760	42,590	10,179,010	54,210	12,956,190	54,210	12,956,190
A350-900	330						630	207,900	630	207,900	630	207,900	630	207,900
Boeing 737-800W	189	16,659	11,710	2,213,190	15,000	2,835,000	3,130	591,570	3,130	591,570	1,890	357,210	1,890	357,210
Boeing 737-900W	189	540	620	117,180	620	117,180								
Boeing 737-Max10	220						2,510	552,200	2,510	552,200	5,040	1,108,800	5,040	1,108,800
Boeing 737-Max8	198		9,860	1,952,280	8,120	1,607,760	19,420	3,845,160	19,420	3,845,160	23,950	4,742,100	23,950	4,742,100
Boeing 737-Max9	175						630	110,250	630	110,250	630	110,250	630	110,250
Boeing 787-10	330						1,250	412,500	1,250	412,500	1,890	623,700	1,890	623,700
Boeing 787-8	269						1,880	505,720	1,880	505,720	4,410	1,186,290	4,410	1,186,290
Boeing 787-9	299						630	188,370	630	188,370	1,260	376,740	1,260	376,740
Dash8-Q400	76						5,010	380,760	5,010	380,760	4,410	335,160	4,410	335,160
Embraer E190-E2	110										2,520	277,200	2,520	277,200
	109,088	20,341,935	123,860	24,600,150	132,480	26,214,470	150,960	30,654,020	150,960	30,642,770	177,110	36,452,010	177,110	36,452,010
Passenger targets		18,000,000		21,500,000		23,000,000		26,500,000		26,300,000		32,000,000		32,000,000
Implied load factor		88%		87%		88%		86%		86%		88%		88%
Applying a more realistic load factor =														
"Spare" capacity				23,118,280		24,731,183		28,494,624		28,279,570		34,408,602		34,408,602
Number of "spare" aircraft movements				1,481,870		1,483,287		2,159,396		2,363,200		2,043,408		2,043,408
Average aircraft seat capacity				199		198		203		203		206		206
Spare aircraft				7,461		7,496		10,634		11,642		9,928		9,928
				6%		6%		7%		8%		6%		6%