



Luton Airport 19mppa Noise

December 1st 2021

Luton Borough Council Committee Meeting

19mppa are forecast to be carried by 142,566 ATMs.

18mppa, the passenger throughput, reached in 2019 required 141,481 ATMs

Put another way, the application is for an increase in ATMs of 0.7%.

- Assuming no change in the aircraft mix this is equivalent to change in noise level of +0.03dB: effectively no change.

In 2011 (2012 ES Baseline Year) there were 99,298 ATMs: 19mppa requires 43.5% increase in movements over this figure.

- Assuming no change in the aircraft mix this is equivalent to change in noise level of +1.57dB: this is a minor negative change but, on its own, would not normally be considered to give rise to a significant impact.

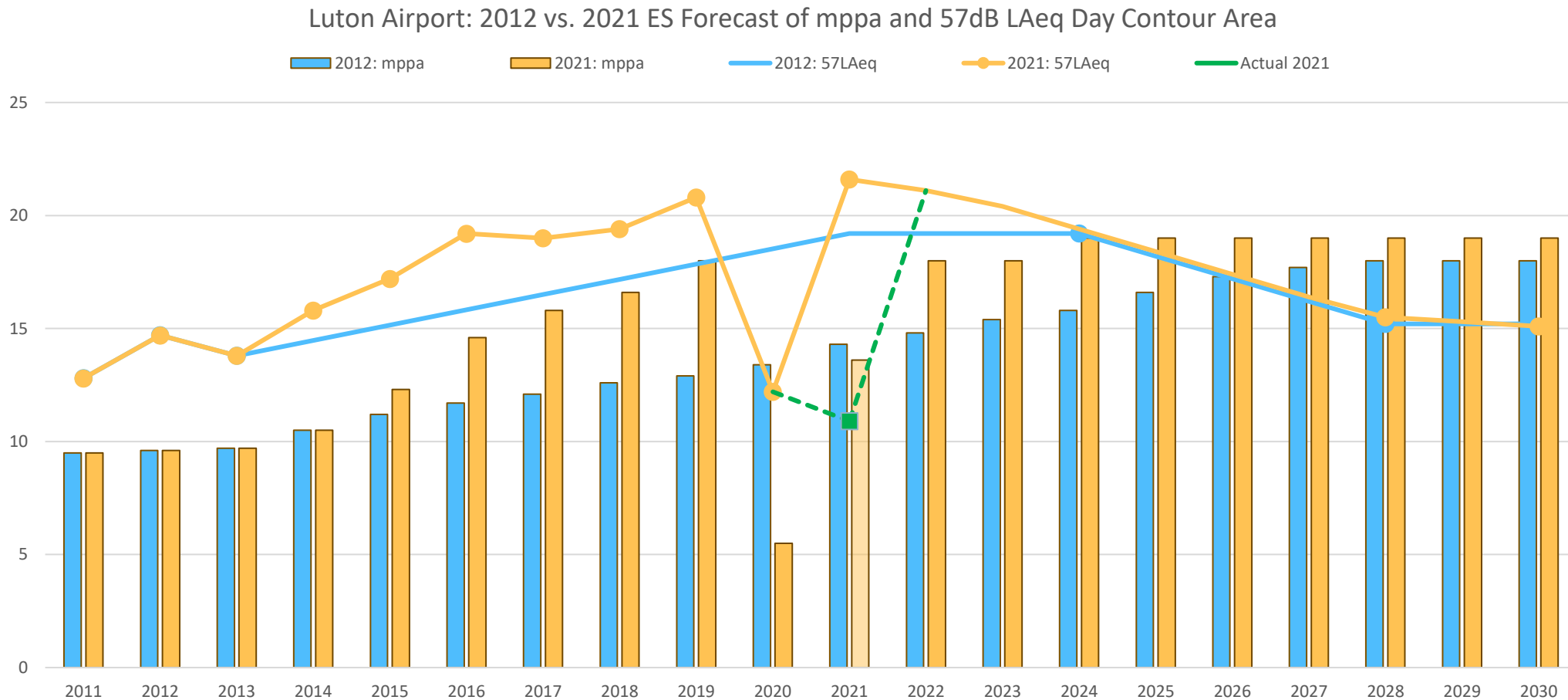
2012 ES forecast that 18mppa would require 156,840 ATMs (by 2028) : 19mppa requires fewer movements, a 9% decrease over this figure.

- Assuming no change in the aircraft mix this is equivalent to change in noise level of -0.4dB: this is a minor positive change and again, on its own, would not be considered to give rise to a significant impact.

19mppa

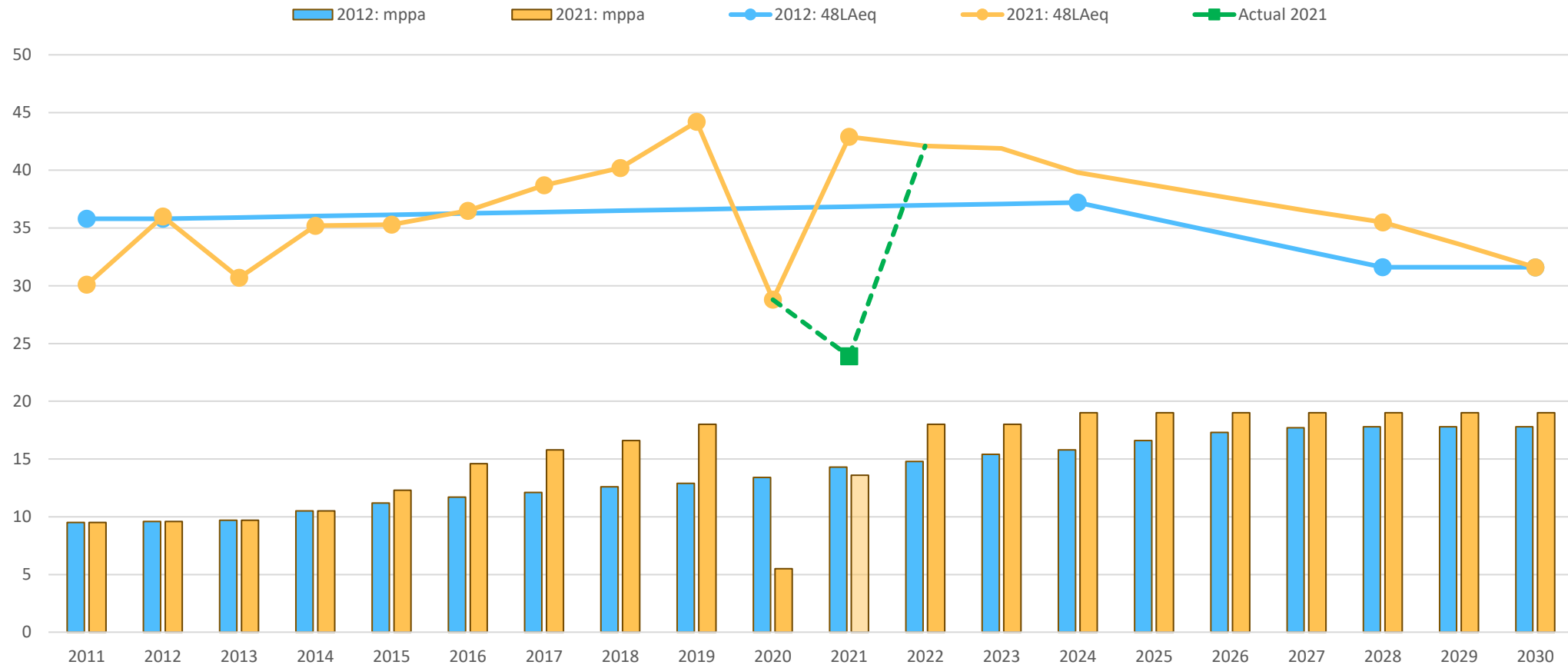
Noise Timeline: Daytime

Showing passenger throughput and 57dB $L_{Aeq,16h}$ contour area: comparing the 2012ES forecasts to the 19mppa application



Showing passenger throughput and 48dB L_{Aeq,8h} contour area: comparing the 2012ES forecasts to the 19mppa application

Luton Airport: 2012 vs. 2021 ES Forecast of mppa and 48dB LAeq Night Contour Area



- The growth in passenger numbers and, therefore, ATMs has been much quicker than anticipated.
- As a result, noise levels and associated contour areas have been higher than forecast between 2013 and 2019.
- 18mppa was achieved in 2019, 9 years ahead of the originally forecast 2028.
- 2019 noise levels were higher, even with a lower ATM figure, than forecast for 2028 and the contour limits set out in Planning Condition 10 have been exceeded in the years 2017 to 2019.
- The principle reason for this is that new, lower noise aircraft have not been introduced at a rate that has kept pace with the rate of increase in ATMs.
- These facts were known before the 19mppa application was made.
- The effects of Covid 19 on the passenger numbers in 2020 and 2021 can clearly be seen.
- The rebound suggested for 2021 according to the 19mppa ES forecasts has not materialised, so the projected passenger and noise figures in the following years may be different to what is shown.
- However, the commitment for the reduced contour limits to be achieved still holds, albeit 3 years after the originally forecast 2028. The delay is principally due to Covid 19 effects.
- Meeting the lower noise contour limits is a vital commitment if the application is to meet government policy aspirations.

- The revised ES indicates that noise level differences in the worst case year between the 'with development' (19mppa) case and 'without development' (18mppa Condition 10 limits) case are less than 3dB.
- For daytime operations, noise level differences are less than 1dB for all assessment years. For night-time operations noise level increases are up to 1.9dB from 2021 onwards, dropping to less than 1dB by 2028.
- Judged by this standard in isolation, noise effects are not significant. The Stansted Airport 35+ application assessed similar noise level changes and came to the same conclusion. This was accepted by the Inspector Panel and the SoS in granting consent for the application.
- By the applicant's own definition, however, significant noise effects are assessed due to additional dwellings being exposed to noise levels above the SOAEL at night (55dB $L_{Aeq,8h}$) while also experiencing a noise level increase of 1dB or more. The highest number is 1,877, forecast to occur in 2022.
- These significant effects must be mitigated in order for the application to be acceptable in noise terms.
- Note: the extent of the day and night noise contours was larger in 2019 than originally forecast in 2012 for 2028, even though for both years the passenger throughput is 18mppa. Had the 2019 noise conditions been used as the 'without development' case for the noise assessment, as opposed to the 18mppa Condition 10 limits, forecast noise effects would have been smaller.

- **Forecasts:** the year-on-year operating forecasts used for the noise modelling do not reflect the actual speed of recovery from Covid 19. Future noise levels were forecast in the ES to be highest in 2021, but in actuality they were lower than in 2020. Therefore, there is a question mark as to the forecast operating numbers and attendant noise effects in future years. The extent of the change requested for the noise contours, day and night, is not justified by the analysis in the ES. As a result, it is recommended that the requested variation to the condition is altered to reflect the predicted contours for 2022.
- **Aircraft Noise Levels:** The 19mppa noise analysis used more realistic noise corrections for new generation, low noise aircraft compared to the variants they are replacing. However, there are still question marks regarding the noise data used for the A321Neo.
- **Mitigation:** enhanced sound insulation is proposed as a response to significant adverse effects, and the assessment identifies the number of properties expected to qualify. A concern is that many dwellings may not benefit from the enhanced sound insulation required to mitigate significant effects in time to prevent those effects from occurring.
- **Condition 10 contour limits:** although significant noise effects associated with the 19mppa application are limited and mitigation is proposed, there have been, and will continue to be, several years in which the Condition 10 noise contour limits are exceeded. These have not been mitigated and no compensation has been offered.

- The structure and content of the ES noise chapter, although modified since the first submission, still does not present the noise case in a manner that is clearly understandable to all readers. The use of aircraft movement forecasts which do not seem to match reasonable short term expectations is not helpful.
- The application offers no remedy for the excess noise experienced in the community since 2017, and expected to continue for some years in the future, arising from the much more rapid growth in ATMs than originally forecast (in the 2012ES). This had led to the Condition 10 contour limits being breached for a number of years.
- Now that the analysis has been extended beyond 2028 and the noise contour limits originally applicable to that year are demonstrated as being achievable approximately 3 years later, I believe that the application is in line with government policy for airport operators to share the benefits of technological enhancements in noise reduction with affected communities.
- On balance, therefore, while significant noise effects are forecast to arise, they are not sufficient in scale or extent to warrant refusal of the 19mppa application purely on noise grounds.
- This is contingent on mitigation in the form of enhanced sound insulation being provided for the affected dwellings on a scale and timeline that minimises the occurrence of significant effects.