

## D. Establishment of Action Level

As the actual airport operational data for 3RS operation is not available when this ANMP is being prepared, the action level for aircraft noise monitoring is established with consideration of historical monitoring data collected during the previous 2RS operation, i.e., before commencement of operation of the third runway on 8 July 2022.

Based on a review of the annual total air traffic movement (ATM) from 2015 to 2021 for the 2RS operation as summarized in **Table D.1**, 2018 is the year with the highest annual total ATM before the start of operation of the third runway in July 2022.

**Table D.1: Annual Total ATM under Previous 2RS Operation from 2015 to 2021**

Year	Annual Total ATM*
2015	406 048
2016	411 566
2017	420 659
<b>2018</b>	<b>427 766</b>
2019	419 795
2020	160 666
2021	144 810

\* Note that the decrease in ATMs from 2019 to 2021 in the previous 2RS operation was due to the social unrest that happened in the second quarter of 2019 and the COVID-19 pandemic that started in the first quarter of 2020. Between 2022 and 2024, air traffic at HKIA has continued to recover after the pandemic but the latest 12-month ATMs involved in the I-2RS operation are still lower than the ATMs reported in year 2018 for the previous 2RS operation.

It is considered that the highest value of the annual daily average of Leq (24 hours) that may be calculated from available SEL data obtained at the NMTs erected at the representative locations situated close to the NEF 25 contour (i.e., N1 to N6 and F1 to F4)<sup>4</sup> during the previous 2RS operation in 2018 when the ATM at HKIA was highest may serve as a good baseline for establishing the Action Level. This is calculated to be annual daily average of Leq (24 hours) 55.9 dB(A) which happened at the representative NMT at Tsing Lung Tau (i.e., NMT ID. N5) amongst the NMTs situated at representative locations outside the NEF 25 contour.

Accordingly, it is considered that the action level may be set at a level when the highest value of the latest rolling 12-month annual daily average of Leq (24 hours) noise levels obtained at the representative locations has increased by 1.5dB(A) or more above the above-mentioned baseline noise level.

The “1.5 dB(A) increase” is based on a similar significance threshold for aircraft noise adopted by FAA for consideration in relevant aircraft noise analysis i.e., when there is a 1.5 dB(A) or more increase in noise over noise sensitive areas within the Day-Night Average Sound Level (DNL) of 65 dB(A) noise contour, further analysis will need to be carried out.<sup>5</sup>

<sup>4</sup> Note that the NMTs at Siu Lam and Tuen Mun (i.e., NMT ID. N7 and F5) are not relevant as these two new NMTs were only erected in 2022 before the commencement of the I-2RS operation.

<sup>5</sup> See pages 13 and 14 in Sections 7 and 8 of Chapter 17 of the FAA’s *Environmental Desk Reference for Airport Actions* as extracted and presented in **Appendix J** (also accessible at: [https://www.faa.gov/sites/faa.gov/files/airports/environmental/environmental\\_desk\\_ref/desk-ref-chap17.pdf](https://www.faa.gov/sites/faa.gov/files/airports/environmental/environmental_desk_ref/desk-ref-chap17.pdf))