

**Enforcement of General Aviation Noise Ordinance (“GANO”)
Semi-Annual Report
January 1, 2021 through June 30, 2021**

General Aviation (GA) noise levels for the period remained substantially below maximum permissible levels. Total noise violations (64) represent 0.055% of the total 115,567 General Aviation operations, and demonstrate the continued success of our educational and enforcement efforts. Average noise levels, number of general aviation violations, and related complaints are discussed below.

I. AVERAGE NOISE LEVELS

Noise energy averages (expressed as "Single Event Noise Exposure Levels" or "SENEL") at the criterion noise monitoring stations (NMS) 1S, 2S and 3S have been regulated since the ordinance enforcement date of April 1, 1986.* Table 1 illustrates average SENEL values at NMS 1S through NMS 7S produced by private jet aircraft during the first six months of the 2021 calendar year. There are approximately 3,600 to 4,200 private jet operations per month.

This report covers the six month period of January through June 2021, and most of the comments here relate to that period.

* Ordinance No. 3505; Codified Ordinance of Orange County Section 2-1-30.1 et. seq.

TABLE 1

General Aviation Jet Average Monthly Noise Levels

| | NMS 1S | | | NMS 2S | | | NMS 3S | | | NMS 4S | | | NMS 5S | | | NMS 6S | | | NMS 7S | | |
|----------------------|--------|------|-------|--------|------|-------|--------|------|-------|--------|------|-------|--------|------|------|--------|------|-------|--------|------|-------|
| MAXIMUM PERMISSIBLE: | 102.5 | | | 101.8 | | | 101.1 | | | 94.8 | | | 95.3 | | | 96.8 | | | 93.7 | | |
| MEASURED AVERAGES: | | | | | | | | | | | | | | | | | | | | | |
| Month | 2020 | 2021 | Chg. | 2020 | 2021 | Chg. | 2020 | 2021 | Chg. | 2020 | 2021 | Chg. | 2020 | 2021 | Chg. | 2020 | 2021 | Chg. | 2020 | 2021 | Chg. |
| January | 88.2 | 88.1 | (0.1) | 87.6 | 87.4 | (0.2) | 89.0 | 89.0 | 0.0 | 83.0 | 83.0 | 0.0 | 82.5 | 82.8 | 0.3 | 83.8 | 83.8 | 0.0 | 82.4 | 82.0 | (0.4) |
| February | 87.6 | 88.0 | 0.4 | 87.2 | 85.4 | (1.8) | 88.5 | 88.8 | 0.3 | 82.7 | 83.3 | 0.6 | 82.3 | 82.7 | 0.4 | 83.5 | 83.8 | 0.3 | 82.2 | 82.1 | (0.1) |
| March | 88.5 | 88.0 | (0.5) | 88.1 | 85.3 | (2.8) | 89.4 | 89.1 | (0.3) | 83.7 | 83.4 | (0.3) | 82.9 | 82.9 | 0.0 | 84.1 | 83.8 | (0.3) | 82.6 | 82.0 | (0.6) |
| April | 88.0 | 88.4 | 0.4 | 87.4 | 85.5 | (1.9) | 89.0 | 89.2 | 0.2 | 83.2 | 83.2 | 0.0 | 82.6 | 82.6 | 0.0 | 84.2 | 83.7 | (0.5) | 82.4 | 81.8 | (0.6) |
| May | 87.8 | 88.3 | 0.5 | 87.4 | 85.3 | (2.1) | 88.8 | 89.3 | 0.5 | 83.1 | 83.1 | 0.0 | 82.3 | 82.4 | 0.1 | 83.7 | 83.8 | 0.1 | 81.7 | 81.6 | (0.1) |
| June | 87.9 | 88.3 | 0.4 | 87.3 | 85.2 | (2.1) | 88.9 | 89.3 | 0.4 | 82.7 | 82.7 | 0.0 | 82.1 | 82.1 | 0.0 | 83.6 | 83.6 | 0.0 | 81.7 | 81.5 | (0.2) |

In reviewing general aviation monthly noise levels for the first six months of the 2021 calendar year, noise levels were found to be generally equal to, or slightly lower than, the January to June 2020 period.

II. GANO VIOLATIONS

Strict adherence to GANO noise limits remains a priority. Aircraft identification (through Federal Aviation Administration System Wide Information Management (SWIM) data, and review of aircraft voice digital recordings of controller-pilot communication), owner notification, and follow-up communication with GA operators, continues to strengthen our educational process to achieve GANO compliance.

For the first noise limit violation by an aircraft, the aircraft's registered owner is sent a "Notice of Violation" letter by certified mail. The letter lists the measured noise levels, a comparison to the GANO noise limits, and the time and date of occurrence. The aircraft owner is asked to understand and comply with the noise limits during subsequent operations. The owner is encouraged to contact the Access and Noise Office with any questions.

For the second GANO noise limit violation by an aircraft, within a three-year time period, a "Second Notice of Violation" is sent to the aircraft's registered owner. This certified letter also lists the measured noise levels, a comparison to the GANO limits, and documents the time and date of occurrence. The second violation letter urges the owner to contact the Access and Noise Office.

For the third GANO noise limit violation within a three-year time period, a letter, also sent by certified mail, informs the registered owner that he or she, the aircraft operator, and the aircraft itself are denied use of John Wayne Airport for three years. The letter also explains the GANO appeal of violation procedures. County Counsel prepares this written correspondence notifying the aircraft owner that future operations at JWA may result in civil action. The aircraft owner may meet with Counsel and Airport Administration to discuss the feasibility of the aircraft's future use of JWA. Such meetings have been very beneficial, with typical results ranging from the owner voluntarily ceasing operations at JWA, to performing a noise test (similar to that performed by commercial aircraft) to demonstrate whether the aircraft is capable of meeting the GANO noise criteria.

Table 2 illustrates the GANO noise limit monthly violations count for January 1, 2021 through June 30, 2021.

TABLE 2

GANO Noise Limit Monthly Violation Count
 January through June 2021
 (Total General Aviation Operations = 115,567)

| Month | Violation | | | |
|---------------------|-----------|--------|--------|--------|
| | First | Second | Third | Total |
| January | 6 | 1 | 0 | 7 |
| February | 3 | 1 | 0 | 4 |
| March | 9 | 0 | 0 | 9 |
| April | 11 | 1 | 1 | 13 |
| May | 9 | 0 | 0 | 9 |
| June | 21 | 1 | 0 | 22 |
| 6-Month Total: | 59 | 4 | 1 | 64 |
| % of GA Operations: | 0.051% | 0.003% | 0.001% | 0.055% |

III. GENERAL AVIATION OPERATION COMPLAINTS

Table 3 illustrates the number of General Aviation operation monthly complaints received by the Access and Noise Office.

TABLE 3

General Aviation Operation Monthly Complaints

| Month | 2020 | 2021 | Change | % Change |
|----------------|--------|--------|--------|----------|
| January | 1,980 | 1,097 | (883) | (44.60%) |
| February | 2,081 | 1,801 | (280) | (13.46%) |
| March | 1,607 | 2,942 | 1,335 | 83.07% |
| April | 1,597 | 3,223 | 1,626 | 101.82% |
| May | 2,235 | 5,026 | 2,791 | 124.88% |
| June | 2,978 | 3,807 | 829 | 27.84% |
| 6-Month Total: | 12,478 | 17,896 | 5,418 | 43.42% |

Note:

- Beginning in September 2018, an online complaint form subscription service was utilized.

SUMMARY

Enforcement of the General Aviation Noise Ordinance by Airport staff remains a high priority.

General Aviation compliance is evident through pilot awareness and noise mitigation actions. Staff will continue to monitor General Aviation activity closely, and I will continue to advise the Board and Airport Commission concerning GANO enforcement.