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International Zagreb Airport Noise Level Report from 2022 to 2023



ZAGREB
AIRPORT

Međunarodna zračna luka Zagreb d.d.
International Zagreb Airport Jsc.

Noise Level Report 2022 and 2023

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1. GENERAL

International Zagreb Airport has implemented a system of noise monitoring in order to measure noise to gain insight into the level of the noise and to determine the area of influence on the population that lives near the airport.

Within the national framework, the Republic of Croatia has regulated aircraft noise by way of an Act restricting the obligation of noise monitoring to airport operators (Air Traffic Act, Official Gazette 69/09, 84/11, 54/13, 127/13, 92/14). It has set forth:

- (Article 122) Air navigation service provider, aircraft pilots, aircraft operators and aerodrome operators are obliged to take measures of aircraft noise protection, in accordance with the regulation adopted pursuant to this Act or EU regulations.
- (Article 123) The aircraft noise and the exhaust gases that aircraft produce during take-offs and landings must be below the prescribed maximum levels of noise and exhaust emissions established by the regulation adopted pursuant to this Act or EU regulations.
- (Article 124) An Airport Operator operating an airport on which traffic of military jet airplanes and/or scheduled air services are carried with more than 50 000 operations during the preceding year, is obliged to ensure constant measuring of noise on the aerodrome and its surroundings. The results of noise measuring shall be used to produce noise maps and action plans in the part relating to air traffic. Terms and methods of noise measuring shall be determined by regulations adopted pursuant to this Act or EU regulations.
- (Article 125) On the basis of results of noise measuring from Article 124, the airport operator has the obligation to establish aircraft noise protection areas in which noise level equivalent exceeds 67 dB (A), i.e. 75 dB (A).

Although International Zagreb Airport has less than 50 000 movements during the preceding year, International Zagreb Airport implemented a noise monitoring system on totally voluntary basis. Indeed, International Zagreb Airport is aware that its commitment toward surround communities is the warranty of its future sustainable development as most solutions should be delivered locally.

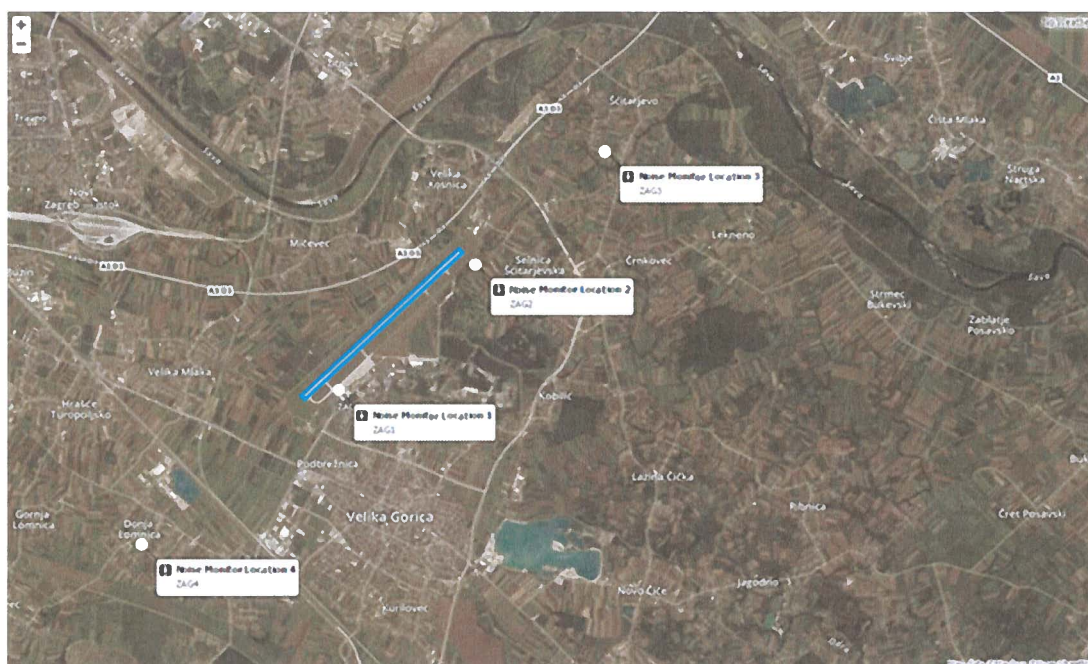
Results are gathered below.

2. NOISE MONITORING TERMINAL – FACILITY MAP

The system of permanent noise monitoring which was introduced in International Zagreb Airport consists of four fixed and one portable measuring device.

The positions of the fixed noise measuring device in International Zagreb Airport (NMT - Noise Monitoring Terminal):

- NMT 1 measures noise near Threshold 04
- NMT 2 measures noise near Threshold 22
- NMT 3 measures noise in the village of Obrezina
- NMT 4 measures noise in the village of Donja Lomnica



Two fixed measuring devices are close to the edges of runway 04 and 22. Distance of station NMT 1 from edge of runway 04 about 306 meters, distance of station NMT 2 from edge of runway 22 about 307 meters.

The third and fourth station are fixed devices set at settlement Obrezina and Donja Lomnica.

The portable device has its own power supply, which can be transferred to any location around the airport.



3. Results of measuring noise levels for the year 2023

LOCATION NEAR THRESHOLD 04 – Noise Monitoring Terminal 1 (NMT 1)

Measured noise levels near Threshold 04 where NMT 1 is located vary from 60.0 dB up to 66,1 dB.

LOCATION NEAR THRESHOLD 22 – Noise Monitoring Terminal 2 (NMT 2)

Measured noise levels near Threshold 22 where NMT 2 is located vary from 58,4 dB up to 62,7 dB.

LOCATION IN THE VILLAGE OF OBREZINA – Noise Terminal Monitoring 3 (NMT 3)

Measured noise levels at the location in the village of Obrezina where NMT 3 is located vary from 52,3 dB up to 57,0 dB.

At location of the village Obrezina noise levels were below 65 dB.

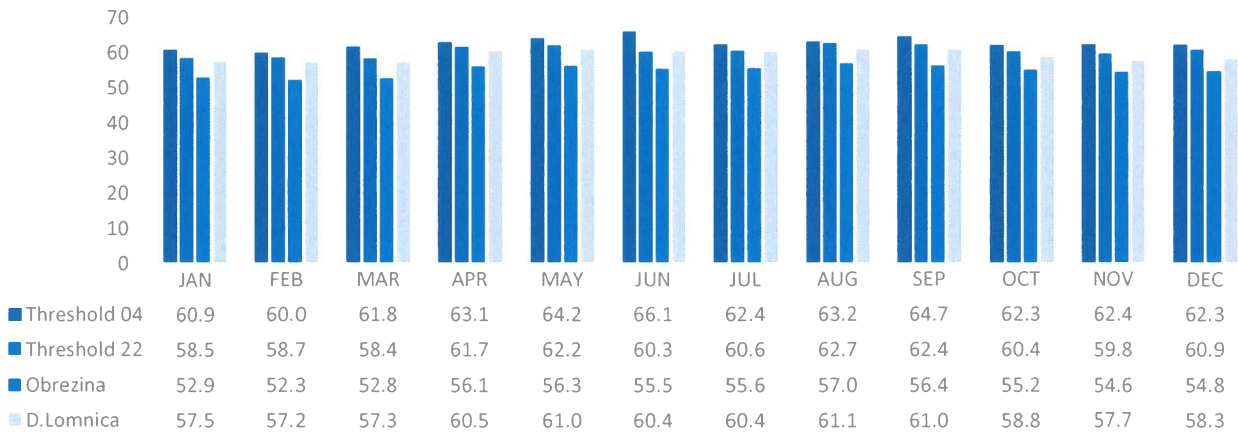
LOCATION IN THE VILLAGE DONJA LOMNICA – Noise Terminal Monitoring 4 (NMT 4)

Measured noise levels at the location in the village of Donja Lomnica where NMT 4 is located vary from 57,2 dB up to 61,1 dB.

At location of the village Donja Lomnica noise levels were below 65 dB.

LDEN - LEVEL-DAY-EVENING-NIGHT (dB)

Noise measuring results from Jan 2023 - Dec 2023





4. Results of measuring noise levels for the year 2022

LOCATION NEAR THRESHOLD 04 – Noise Monitoring Terminal 1 (NMT 1)

Measured noise levels near Threshold 04 where NMT 1 is located vary from 62,4 dB up to 68,4 dB.

LOCATION NEAR THRESHOLD 22 – Noise Monitoring Terminal 2 (NMT 2)

Measured noise levels near Threshold 22 where NMT 2 is located vary from 57,6 dB up to 61,7 dB.

LOCATION IN THE VILLAGE OF OBREZINA – Noise Terminal Monitoring 3 (NMT 3)

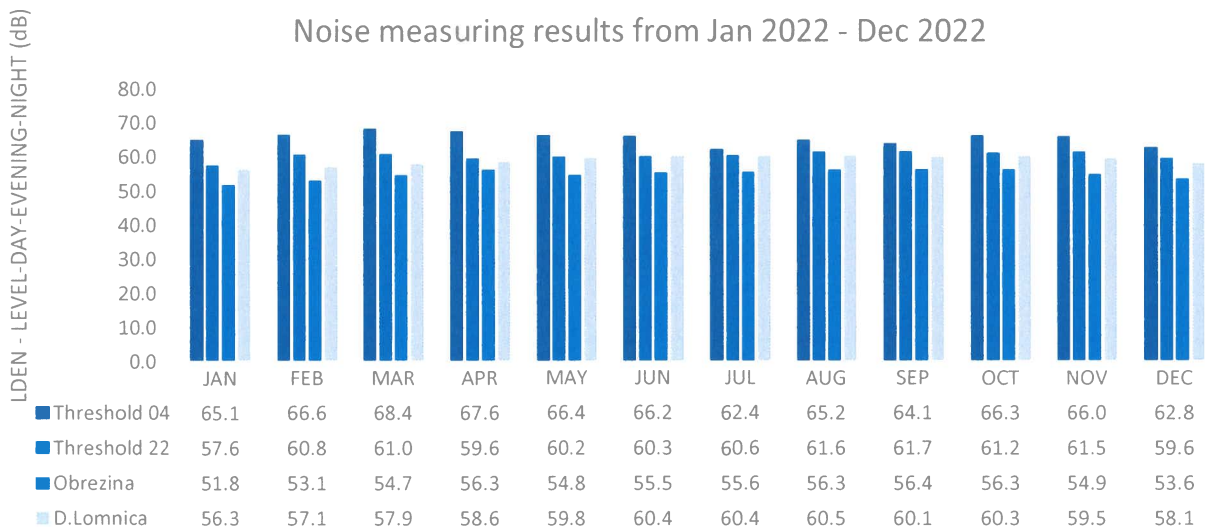
Measured noise levels at the location in the village of Obrezina where NMT 3 is located vary from 51,8 dB up to 56,4 dB.

At location of the village Obrezina noise levels were below 65 dB.

LOCATION IN THE VILLAGE DONJA LOMNICA – Noise Terminal Monitoring 4 (NMT 4)

Measured noise levels at the location in the village of Donja Lomnica where NMT 4 is located vary from 56,3 dB up to 60,5 dB.

At location of the village Donja Lomnica noise levels were below 65 dB.





5. Comparison of year 2022 noise level data with the year 2023 noise level data

Observation period for noise levels data comparison is 2023 and 2022.

The results are shown below:

LOCATION NEAR THRESHOLD 04 – Noise Monitoring Terminal 1 (NMT 1)

The highest increase in noise levels was recorded in September 2023 by + 0,7 %.

The highest decrease in noise levels was recorded during March 2023 by -6,6 %.

LOCATION NEAR THRESHOLD 22 – Noise Monitoring Terminal 2 (NMT 2)

The highest increase in noise levels was recorded in April 2023 by +2,1 %.

The highest decrease in noise levels was recorded during March 2023 by -2,6%.

LOCATION IN THE VILLAGE OF OBREZINA – Noise Terminal Monitoring 3 (NMT 3)

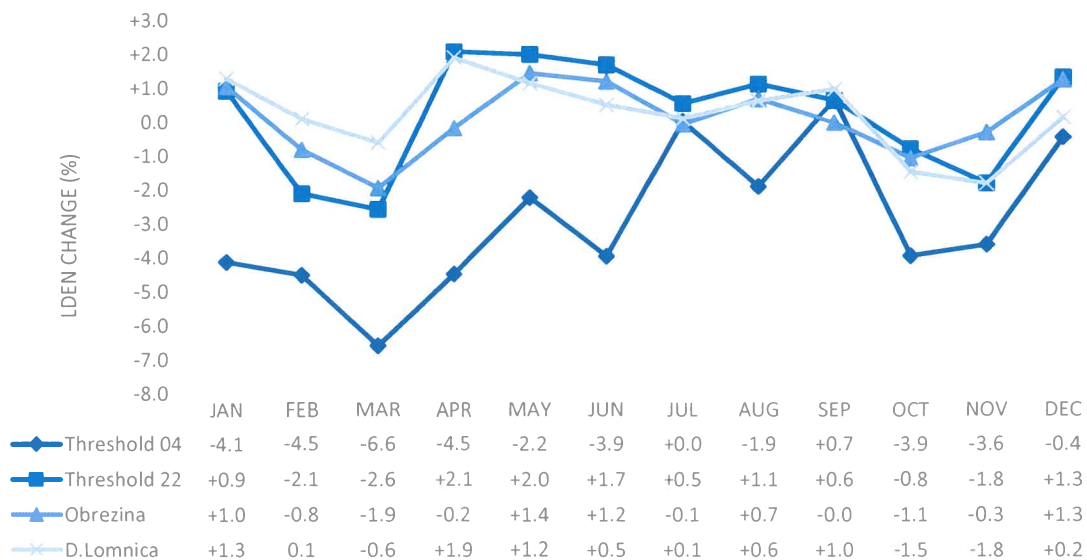
The highest increase in noise levels was recorded in May 2023 by +1,4 %.

The highest decrease in noise levels was recorded during March 2023 by -1,9 %.

LOCATION IN THE VILLAGE DONJA LOMNICA – Noise Terminal Monitoring 4 (NMT 4)

The highest increase in noise levels was recorded in April 2023 by +1,9 %.

The highest decrease in noise levels was recorded during November 2023 by -1,8 %.



NOISE MEASURING COMPARATION RESULTS FROM JAN 2023 - DEC 2023