
Reliever Airports: NOISE ABATEMENT PLAN

Lake Elmo Airport (21D)

INTRODUCTION

The Noise Abatement Plan (NAP) for Lake Elmo Airport has been prepared in recognition of the need to make the airport and the surrounding community as environmentally compatible as possible.

This NAP is a set of voluntary measures designed to reduce the negative impacts of aircraft noise experienced by the communities surrounding the airport. These measures were developed through a cooperative effort between airport users, airport businesses, local communities, City officials, Federal Aviation Administration representatives, the Lake Elmo Airport Advisory Commission, and the Metropolitan Airports Commission.

The NAP measures below are voluntary and are not intended to conflict with Federal Aviation Administration regulations or any safety requirements. As such, the airport is open for use 24-hours per day, however, pilots are asked to consider operating with the following measures in mind.

1. - NOISE ABATEMENT TAKEOFF AND APPROACH

Use of noise abatement takeoff and landing procedures attempt to reduce the amount of aircraft noise affecting sensitive land uses, such as homes. It is recognized that a wide variety of aircraft use Lake Elmo Airport and each aircraft performs differently. All aircraft operators are encouraged to follow noise abatement procedures with due regard to the performance capabilities of the aircraft being flown, as follows:

- A. When the winds are calm the preferred runway shall be 32. However, if traffic density or air traffic procedures dictate, Runway 14 may also be used.
- B. In most circumstances the winds, weather or traffic density will dictate the runway to be used. However, when circumstances allow, pilots are asked to utilize a runway and flight path that offers the quietest impact for the surrounding community, particularly between 2200-0700 local time. The following priorities are recommended when selecting a runway:

- 1. Piston Engine Aircraft or Turbo-prop Aircraft:

- Arrivals - 32, 14, 22, 4

- Departures - 32, 14, 4, 22

2. Jet Aircraft:

Arrivals/Departures - 32, 14

- C. An aircraft approaching to land on a runway served by a visual approach slope indicator (VASI) or precision approach slope indicator (PAPI) shall maintain an altitude at or above the glide slope until a lower altitude is necessary for a safe landing.
- D. Use noise abatement arrival and departure guidance published by the Federal Aviation Administration (FAA), National Business Aircraft Association (NBAA) or Aircraft Owners and Pilots Association (AOPA) when arriving to or departing from the airport.

FAA AC 91-53A - Noise Abatement Departure Profile:

https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/22420

FAA AC 91-36D - Visual Flight Rules (VFR) Flight Near Noise-Sensitive Areas:

https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentid/23156

NBAA:

<https://nbaa.org/aircraft-operations/environmental-sustainability/noise-abatement-program/>

AOPA:

<https://www.aopa.org/-/media/Files/AOPA/Home/Advocacy/AOPANoiseSteps.pdf>

- E. Turbine-powered aircraft and itinerant aircraft departing on Runways 32 or 14 fly runway heading and turn to a northerly heading after attaining an altitude of 500 feet agl. Avoid overflight of noise-sensitive residential areas, and gain as much altitude as practical before overflying residential areas.

2. - TRAFFIC PATTERN PROCEDURES

The traffic pattern at Lake Elmo Airport consists of standard left turns for each runway. The following procedures pertain to aircraft while operating in the traffic pattern at the Lake Elmo Airport:

- A. Operate aircraft at the airport traffic pattern altitude as follows, unless a lower altitude is needed while in the process of departing or arriving:
 - Turbine-powered aircraft traffic pattern altitude is 1,500 feet agl (2433 msl)
 - Propellor-driven aircraft traffic pattern altitude is 1,000 feet agl (1933 msl)
- B. Avoid multiple training events by turbine-powered aircraft in the traffic pattern.
- C. Keep traffic pattern legs as short as possible and close to the airport without risking safety.

D. Use the full length of runway for arrivals and departures:

- Avoid intersection takeoffs, and
- Avoid stop and go operations.

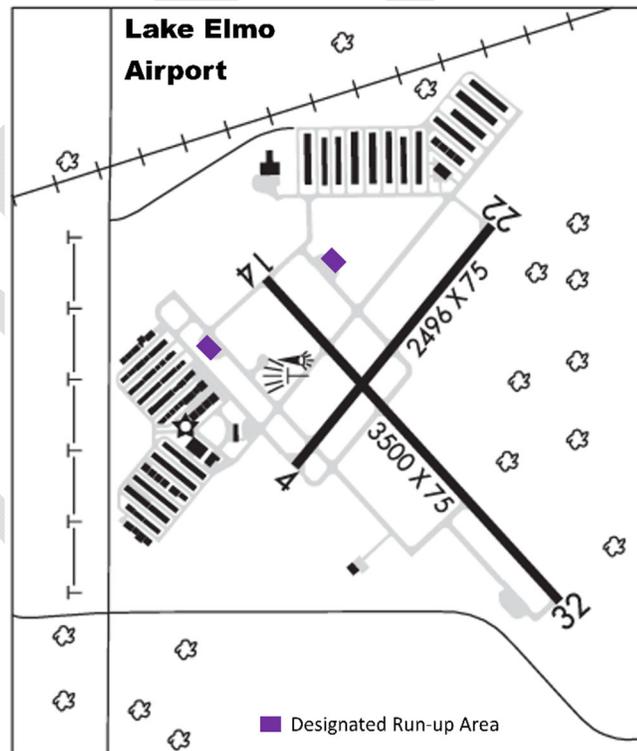
E. Avoid repetitive activity over residences as much as possible.

F. When departing the traffic pattern, choose a path that avoids overflight of residential areas if practical. Follow FAA guidelines regarding close-in noise abatement procedures to reduce impact to surrounding areas.

3. - MAINTENANCE RUN-UPS

Specific locations on the airfield are designated for engine tests and maintenance run-ups. These locations are selected to minimize the amount of noise projected toward adjacent residential areas (see map below). NOTE: A pre-departure run-up with less than 5-minute duration may be conducted at other areas on the airfield, as needed.

A. Conduct all engine tests and maintenance run-ups in excess of 5-minutes in a designated area only



B. Avoid engine tests and maintenance run-ups between 2200 and 0800 local time.

4. - HELICOPTER TRAINING

The unique design and operational characteristics of helicopters operations do not require use of a runway surface; however, helicopter operators must avoid conflicting with the flow of fixed wing aircraft. The following procedures apply to helicopter training.

- A. Avoid helicopter training in the traffic pattern from 2200 to 0700 local time.
- B. Avoid hovering for extended durations in the vicinity of residential areas.
- C. Avoid repetitive activity over the same neighborhoods as much as possible.

5. - NIGHTTIME OPERATIONS

Nighttime hours (2200 to 0700 local time) are noise sensitive because people are resting and noise intrusions are more noticeable. When nighttime flight activity is needed, please limit the noise and operate with consideration for the neighbors during nighttime hours by following these measures:

- A. Avoid operating aircraft between 2200 and 0700 local time as much as possible.
- B. Avoid flight training and repetitive activity in the traffic pattern between 2400 and 0700 local time.
- C. Avoid intersection takeoffs and stop and go operations at all times.
- D. Avoid low-level flight over the airport.