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# NOISE ABATEMENT RECOMMENDED PRACTICES

## Lake Elmo Airport (21D)

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### INTRODUCTION

The Metropolitan Airports Commission (MAC) acquired land for Lake Elmo Airport in 1949 and added additional acreage in 1966 to create the present-day airport. Flight operations at the airport began in 1951. As the area around the airport developed over time, it continues to be important to take measures for maintaining positive relationships with neighbors. This set of Noise Abatement Recommended Practices (measures) has been prepared in recognition of the need to make the environment around the airport and the surrounding community as neighborly as possible and reduce impacts of aircraft activity and noise experienced by people in areas surrounding the airport.

The Federal Aviation Administration (FAA) prohibits restriction of flight paths to and from airports, restricted hours of operation, and discriminatory access to airports. Only airports with restrictions in place prior to a 1990s congressional act are allowed to retain restrictions. Therefore, the measures for Lake Elmo Airport can only be voluntary.

The MAC is prohibited by federal law from levying fines, restricting hours of operation, or restricting access to the airport for the purpose of noise abatement. The MAC must rely solely on the notification, education, and compliance of aircraft operators. Noise abatement measures are dictated by safety considerations as well as federal law.

The voluntary measures were developed through a cooperative effort between airport users, airport businesses, local communities, City officials, FAA representatives, the Lake Elmo Airport Advisory Commission, and the MAC.

None of the voluntary measures below are intended to conflict with FAA regulations or any safety requirements. As such, the airport is open for use by aircraft operators 24-hours per day; however, pilots are asked to consider operating with the noise abatement measures below in mind. A Fly Neighborly Guide consolidates the voluntary measures contained in this document for easy reference during flight operations. Refer to the Fly Neighborly Guide in your navigation tool or call 612-726-8100 to request a copy.

### 1. TAKEOFF AND APPROACH

During takeoff and landing the measures below 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 pilots are encouraged to operate aircraft as quietly as possible with due regard to the performance capabilities of the aircraft being flown, as follows:

- A. When winds are calm, Runway 32 is the preferred runway.
- B. In most circumstances, winds, weather, or traffic density will dictate runway use. When wind, weather, or traffic density allows, pilots are asked to prioritize runways and flight paths as follows, particularly during nighttime hours: Runway 32, 14, 22, 4
- C. Precision approach path indicators (PAPI) on Runways 14 and 32 use a 3.5-degree glide slope for several reasons, including obstacle clearance, noise abatement, etc. Aircraft approaching to land on a runway served by a PAPI are advised to maintain an altitude at or above the glide slope until a lower altitude is necessary for a safe landing, and in accordance with Federal Aviation Regulations 14 CFR 91.119: Minimum Safe Altitudes.
- D. Use guidance published by the FAA, National Business Aircraft Association (NBAA) or Aircraft Owners and Pilots Association (AOPA) when arriving to or departing from the airport.

FAA Advisory Circular 90-66C Non-Towered Airport Flight Operations:

[www.faa.gov/regulations\\_policies/advisory\\_circulars/index.cfm/go/document.information/documentID/1041885](http://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1041885)

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

[www.faa.gov/regulations\\_policies/advisory\\_circulars/index.cfm/go/document.information/documentid/23156](http://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentid/23156)

NBAA Noise Abatement Program:

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

AOPA Noise Awareness Steps:

[www.aopa.org/-/media/Files/AOPA/Home/Advocacy/AOPANoiseSteps.pdf](http://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 within 300 feet of traffic pattern altitude. Avoid overflight of residential areas, and gain as much altitude as practical before overflying residential areas.

## 2. TRAFFIC PATTERN

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 in accordance with Federal Aviation Regulations 14 CFR 91.119: Minimum Safe Altitudes:
  - Turbine-powered aircraft traffic pattern altitude is 1,500 feet AGL<sup>1</sup> (2433 MSL)<sup>2</sup>
  - 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, including flight training activities.
- F. When departing the traffic pattern, choose a path that avoids overflying residential areas, if practical.

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<sup>1</sup> AGL is above ground level.

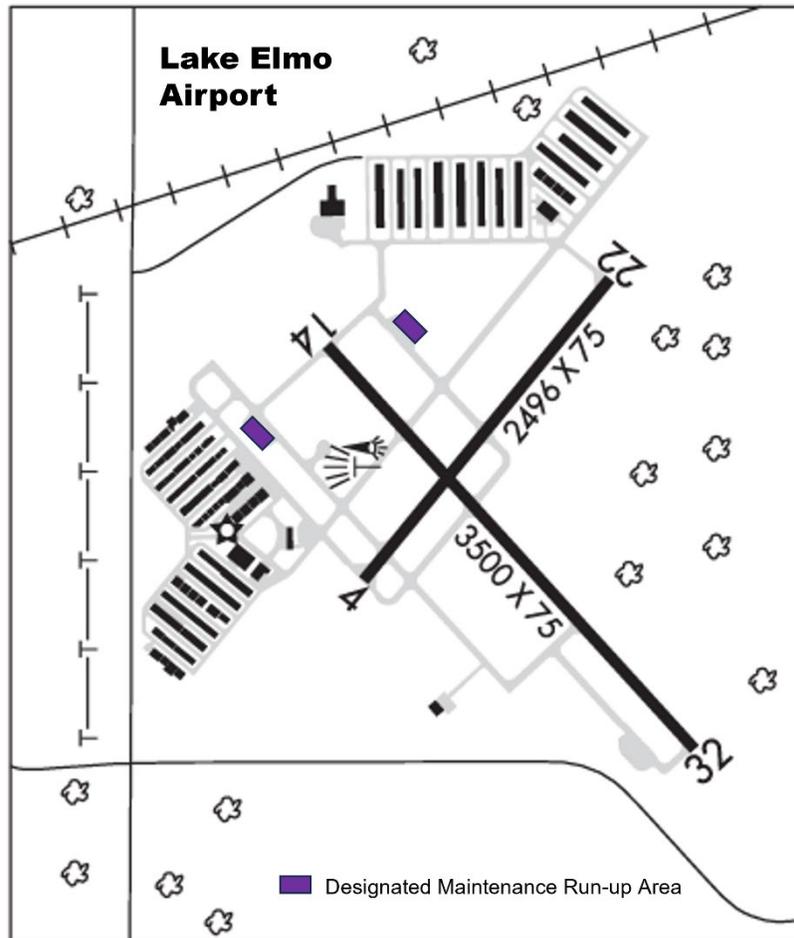
<sup>2</sup> MSL is mean sea level.

### 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):

- A. Conduct all engine tests and maintenance run-ups in excess of 5-minutes only in a designated area (see map).
- B. Avoid engine tests and maintenance run-ups during nighttime hours.

NOTE: A pre-departure run-up of less than 5-minute duration may be conducted at other areas on the airfield, as needed.



#### **4. HELICOPTER TRAINING**

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

- A. Avoid helicopter training in the traffic pattern during nighttime hours.
- B. Avoid hovering for extended durations in the vicinity of residential areas.
- C. Avoid repetitive activity over residential areas.

#### **5. NIGHTTIME OPERATIONS (2200-0700)**

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 noise and operate with consideration for neighbors by following these measures:

- A. Avoid operating aircraft.
- B. Avoid nighttime currency operations and flight training in the traffic pattern after 2400 local time.
- C. Avoid intersection takeoffs and stop and go operations.
- D. Avoid low-level flyovers at the airport.

#### **6. FLY NEIGHBORLY GUIDE**

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