



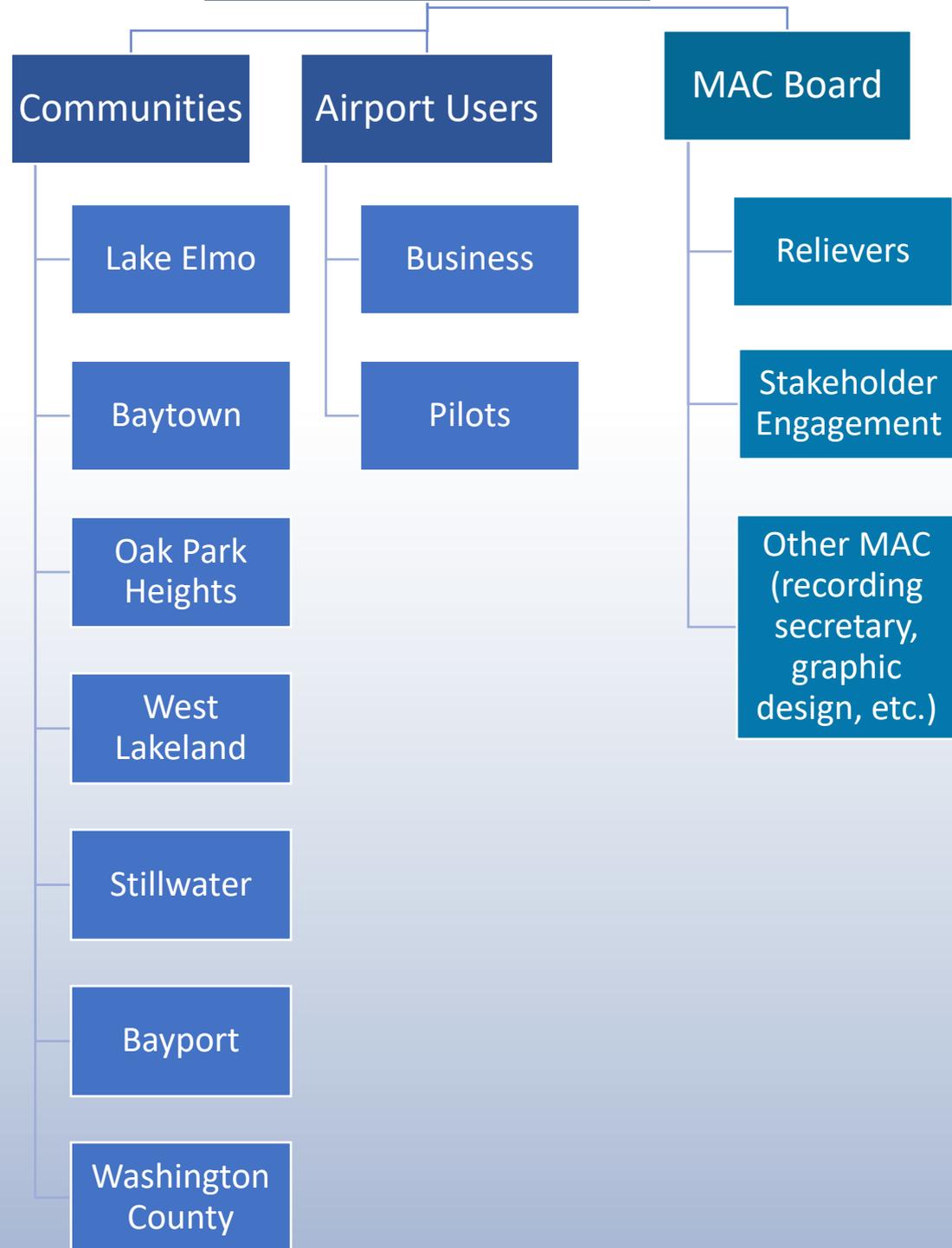
Lake Elmo Airport
ADVISORY COMMISSION
LEAAC

Regular Meeting

November 27, 2023



LEAAC



Goal and Purpose

GOAL:

Further the general welfare of the community and the Lake Elmo Airport through minimizing or resolving problems created by the aircraft operations at the airport.

PURPOSE:

1. **ADVISE** the community and MAC on all matters affecting the Lake Elmo Airport, the classification, rules and regulations supplied to the operation of the Airport and the development of lands adjacent to the Airport
2. **COOPERATE** with the MAC staff in reviewing matters affecting Lake Elmo Airport use and control
3. **RECOMMEND** to the MAC regarding any proposal affecting the use or operations of Lake Elmo Airport



Agenda

Welcome & Introductions

Approval of Meeting Minutes

Public Comment

MAC Leadership Comments

Airport Manager Update

Airport User Spotlight

Noise Abatement Plan

Recommendations

Member Comment

Set 2024 LEAAC meeting schedule



Welcome & Introductions



Action

Approval of Meeting Minutes: 8-28-2023



Public Comment

Members of the public are
welcome to share their
remarks with the
Commission

Please state your name
and address

Limit remarks to
3 minutes



Information



MAC Leadership Comments

Lake Elmo Airport



ADVISORY COMMISSION

Information



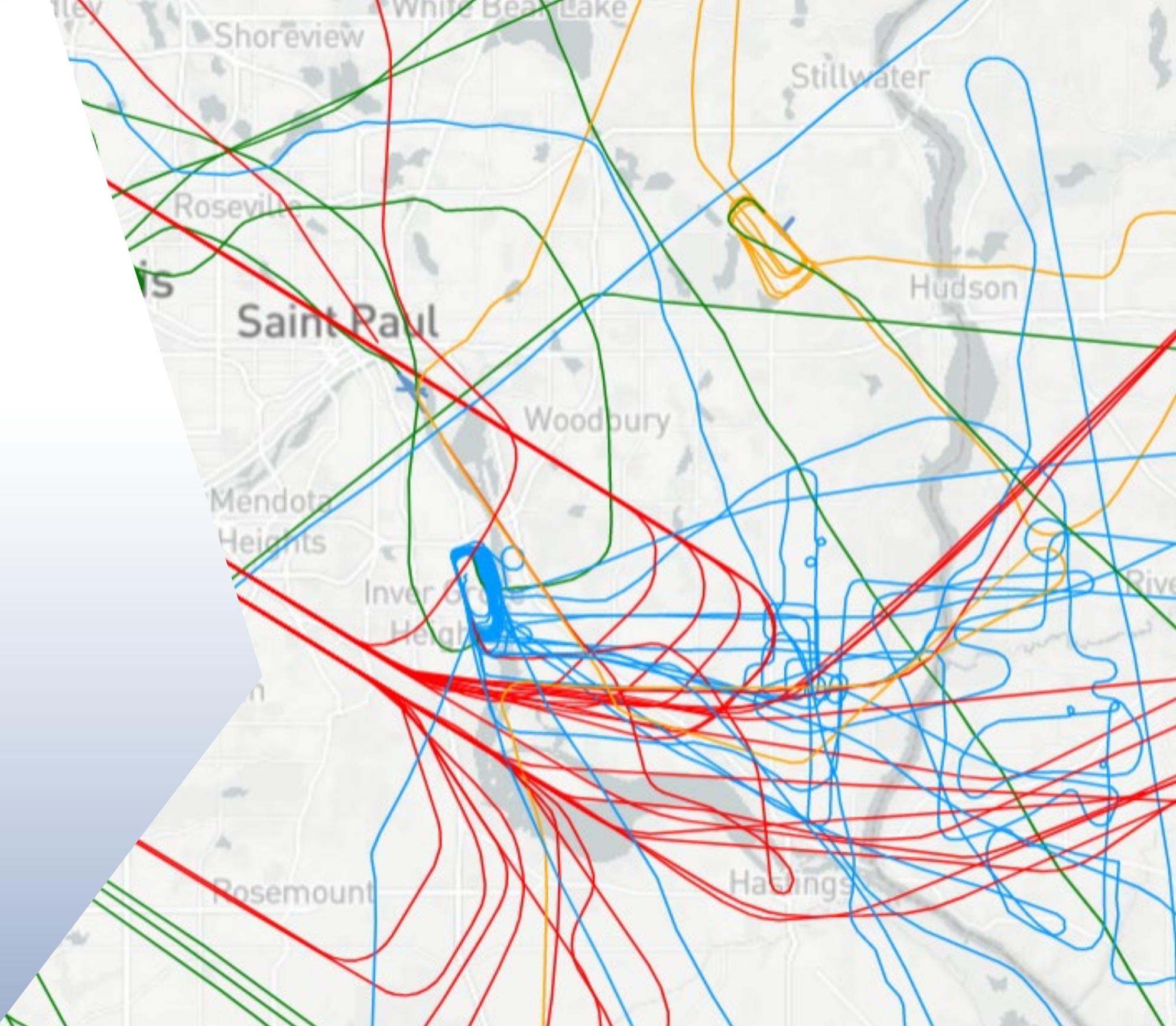
Airport Manager Update

Lake Elmo Airport



ADVISORY COMMISSION

MAC
FlightTracker:
macnoms.com



MAC Reliever Interactive Reports

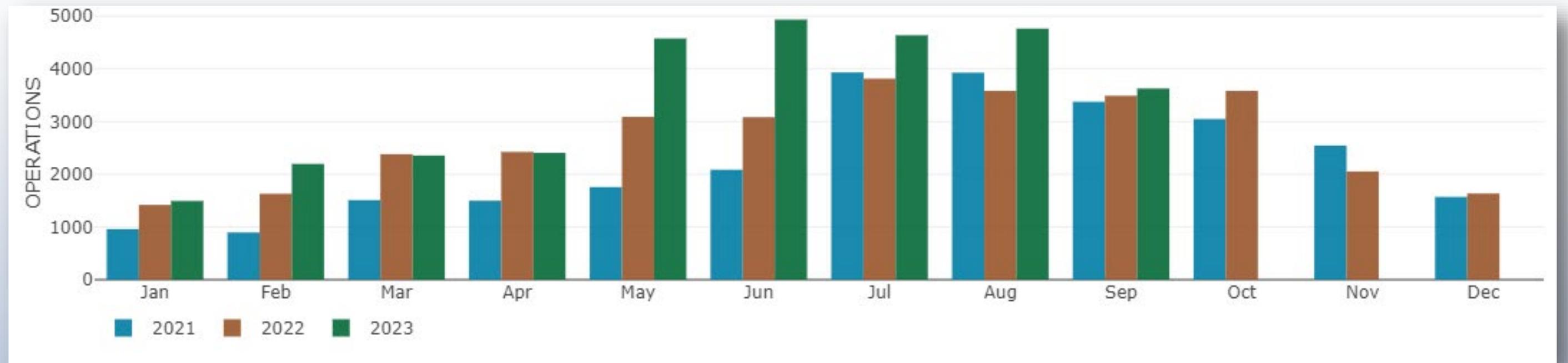


Quarterly Reports available here: <https://customers.macnoms.com/reports/relievers.html>



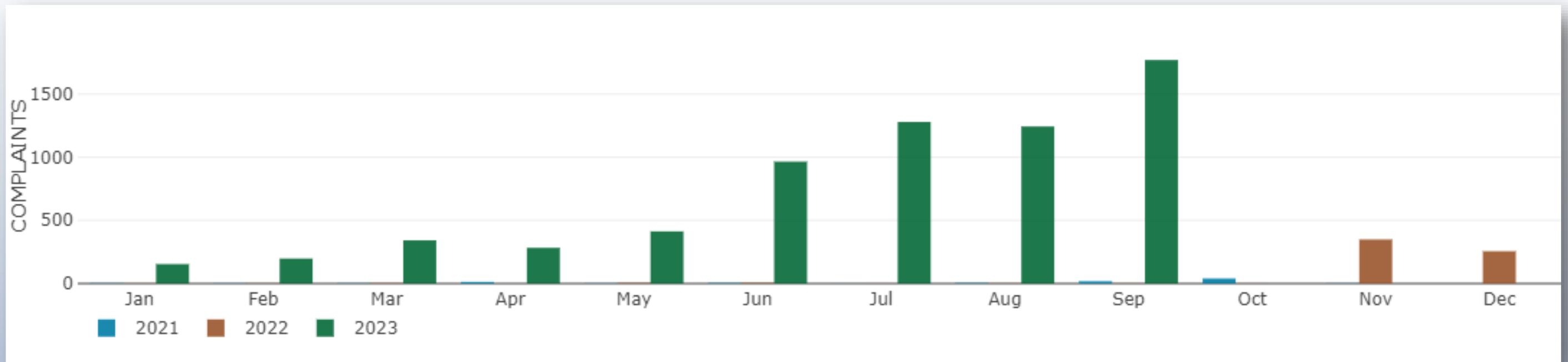
Aircraft Operations Q3 2023

OPERATIONS			
2023		2022	
13031	253	10888	224
OPERATIONS	NIGHTTIME OPERATIONS	OPERATIONS	NIGHTTIME OPERATIONS



Aircraft Noise Complaints Q3 2023

COMPLAINTS				
2023	4291 COMPLAINTS	16 LOCATIONS	80 NIGHTTIME COMPLAINTS	9 NIGHTTIME HOUSEHOLDS
2022	6 COMPLAINTS	4 LOCATIONS	0 NIGHTTIME COMPLAINTS	0 NIGHTTIME HOUSEHOLDS



Information



Airport User Spotlight

Lake Elmo Airport



ADVISORY COMMISSION

Harry & Mary



Bellanca aircraft originated with an Italian-American aircraft designer, Giuseppe Mario Bellanca. Bellanca is credited with many aircraft design first and his aircraft have set many records.

Harry is a long-time Stillwater resident (over 40 years). He is a process engineer with an aptitude for mechanical systems, and flying was a natural interest for him.

Flying since the mid-1980's, Harry performed his pilot training at Lake Elmo Airport and enjoys the mechanics of flying, the motion, navigation and the freedom of soaring above the earth. He piloted to every airport in MN in a Cessna 150 (two-seat high-wing plane typically used for training). Flying for recreation was halted during a few periods in Harry's life, but in 2023 he purchased a 1946 Bellanca Cruise Air that had spent the last 20 years being restored.

Harry's Bellanca received the EAA's 2023 Reserve Grand Champion – Silver Lindy award this year at the annual fly-in at Oshkosh WI and will be featured in the EAA's Vintage Airplane Magazine.

Harry loves the culture of pilots at Lake Elmo airport and the quiet, close to home

Information



21D Noise Abatement Plan Recommendations

Lake Elmo Airport



ADVISORY COMMISSION

Purpose for NAP Update

The most recent version of the 21D Noise Abatement Plan (NAP) and Pilot Guide is dated 2022. Changes to the 21D operating environment, surrounding community land uses support an update to the 21D NAP.

Proposed changes to the NAP will also comply with current Federal Aviation Administration aircraft operating standards and flight procedures relevant to 21D.

The NAP is a set of best practices only and voluntary guidance.

An updated Pilot Guide will reflect the content of the revised NAP.

Timeline and Process for NAP Update

1. Input was requested from neighbors, airport tenants, and other airport stakeholders to date.
2. MAC staff evaluated input received and created a draft NAP for review and discussion during today's LEAAC meeting.
3. A draft NAP is included in LEAAC meeting packet.
4. This presentation will review each section of the draft NAP and consolidated input.
5. Comments received about the draft NAP will be considered by MAC staff in production of the final NAP (presented during February 2024 LEAAC meeting).



Airport and Communications Detail Updated

- Field Elevation: 933
- TPA (Traffic Pattern Altitudes):
1933 (1000 agl) and **2433 (1500 agl)**
- Runway Information:
 - RWY 14-32 3,500' x 75'
 - RWY 14: REIL.
PAPI – 3.5° (on left) Left traffic
 - RWY 32: REIL. **PAPI – 3.5°** (on left) Left traffic
 - RWY 4-22 2,496' x 75'
 - RWY 4: Left traffic
 - RWY 22: Left traffic
- CTAF/UNICOM: 122.8
- MSP APP/DEP: 121.2
- Clearance Delivery: 118.625
- WX AWOS-3: 120.075
- WX AWOS Phone: 651-779-5949

Pilot Information & Noise Abatement Plan

A voluntary Noise Abatement Plan (NAP) for 21D is the result of cooperative efforts between airport users and pilots, surrounding communities, the Lake Elmo Airport Advisory Commission, and the Metropolitan Airports Commission.

NOTE: FAA regulations and requirements take precedence over noise abatement procedures. RECOMMENDED PROCEDURES ARE NOT INTENDED TO CONFLICT WITH INSTRUCTIONS FROM ATC OR THOSE THAT ARE THE EXCLUSIVE AUTHORITY OF THE FAA



Voluntary Nature of 21D NAP

Input Received:

- Prohibit access to the airport during certain times of the day.
- Require pilots to avoid operating over certain areas of the community.
- Establish mandatory runway use.
- Replace “prohibit” with “discourage.”

Response:

- All aspects of the 21D NAP are voluntary. Federal Aviation Regulations supersede any and all measures of the NAP. Language reflects voluntary-nature of the NAP.

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.

Noise Abatement Takeoff and Approach (Continued)

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:

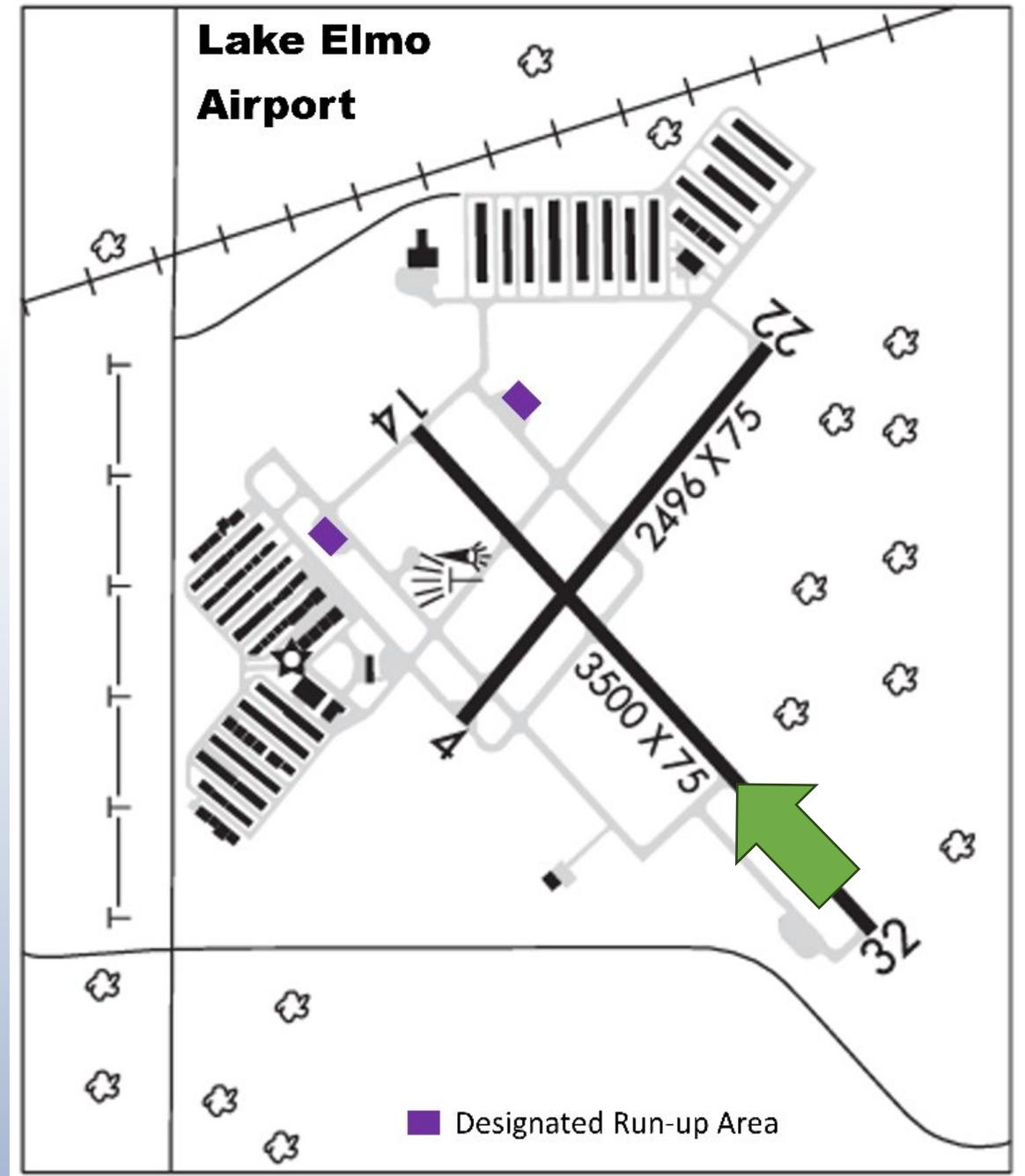
Arrivals/Departures - 32, 14

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.



Preferred Runway Use

Runway 32 is the calm wind runway.
Communicate runway use intentions on
UNICOM/CTAF.



Noise Abatement Takeoff and Approach (Continued)

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:

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

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>



Noise Abatement Takeoff and Approach (Continued)

- 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.



Noise Abatement Takeoff and Approach

Input Received:

- No incursion allowed. (No intersection takeoffs?)
- Maintain 500 feet above residences.

Response:

- Aircraft are advised to follow the established glide path guidance associated with VASI or PAPI, which does not allow aircraft to be 500 feet above residences along the glide path in some cases.
- Federal regulations specify altitude requirements that aircraft operators must follow when operating over congested areas (14 CFR Part 91.119).

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.



Traffic Pattern Procedures (Continued)

- 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.





Lake Elmo Airport



AD

Traffic Pattern

Input Received:

- Remove recommendation for touch and go operations to use Runway 14/32.
- Require aircraft to avoid flying over residences.

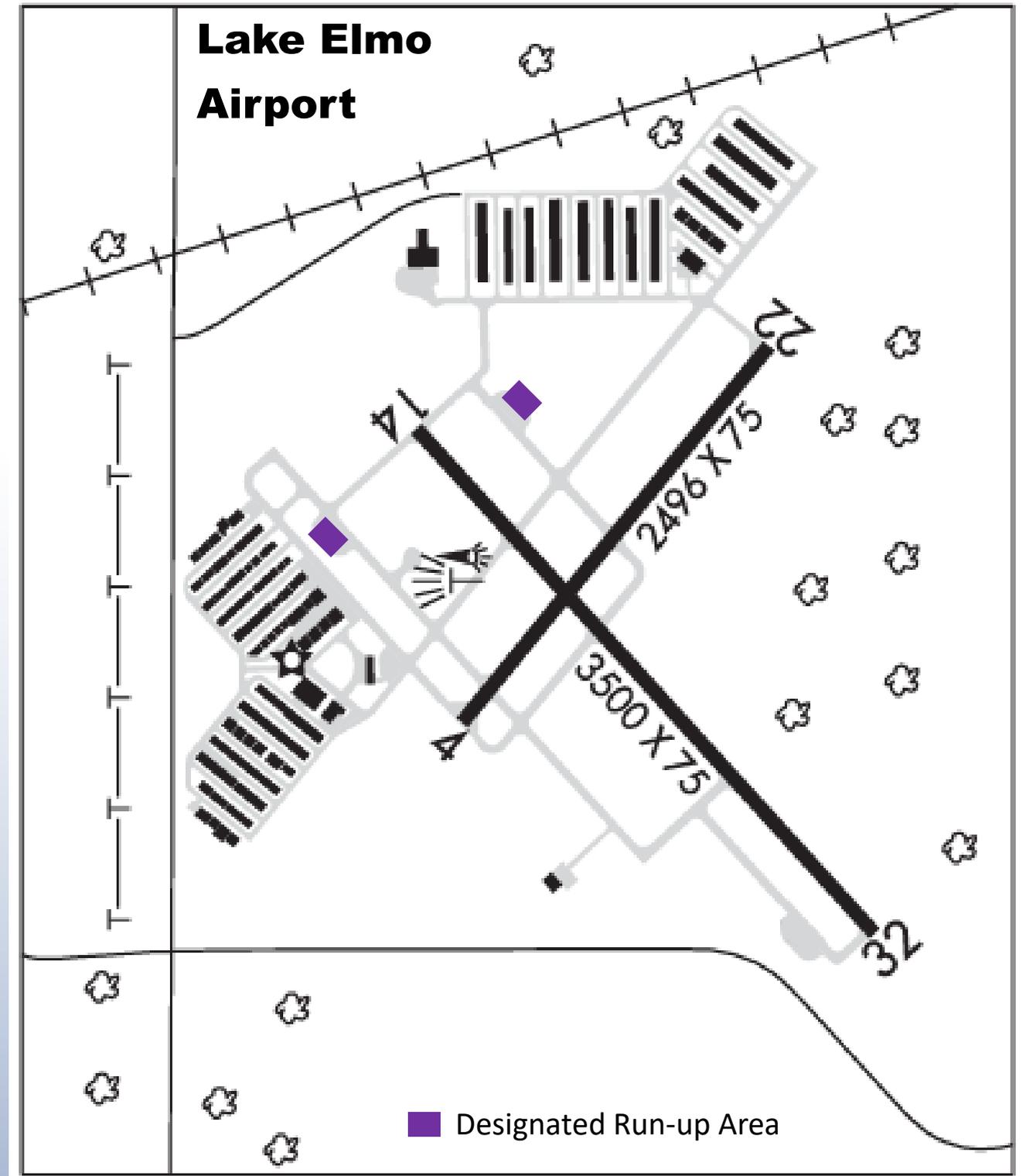
Response:

- Statement was added to encourage aircraft operators to keep traffic pattern close to airport, and fly the traffic pattern altitude unless in the process of departing or arriving.
- Language is included to avoid repetitive flights over residences when possible.
- Cannot remove recommendation for use of Runway 14/32. Runway 4/22 cannot be preferred due to size and lighting limitations

3. Maintenance Run-Ups

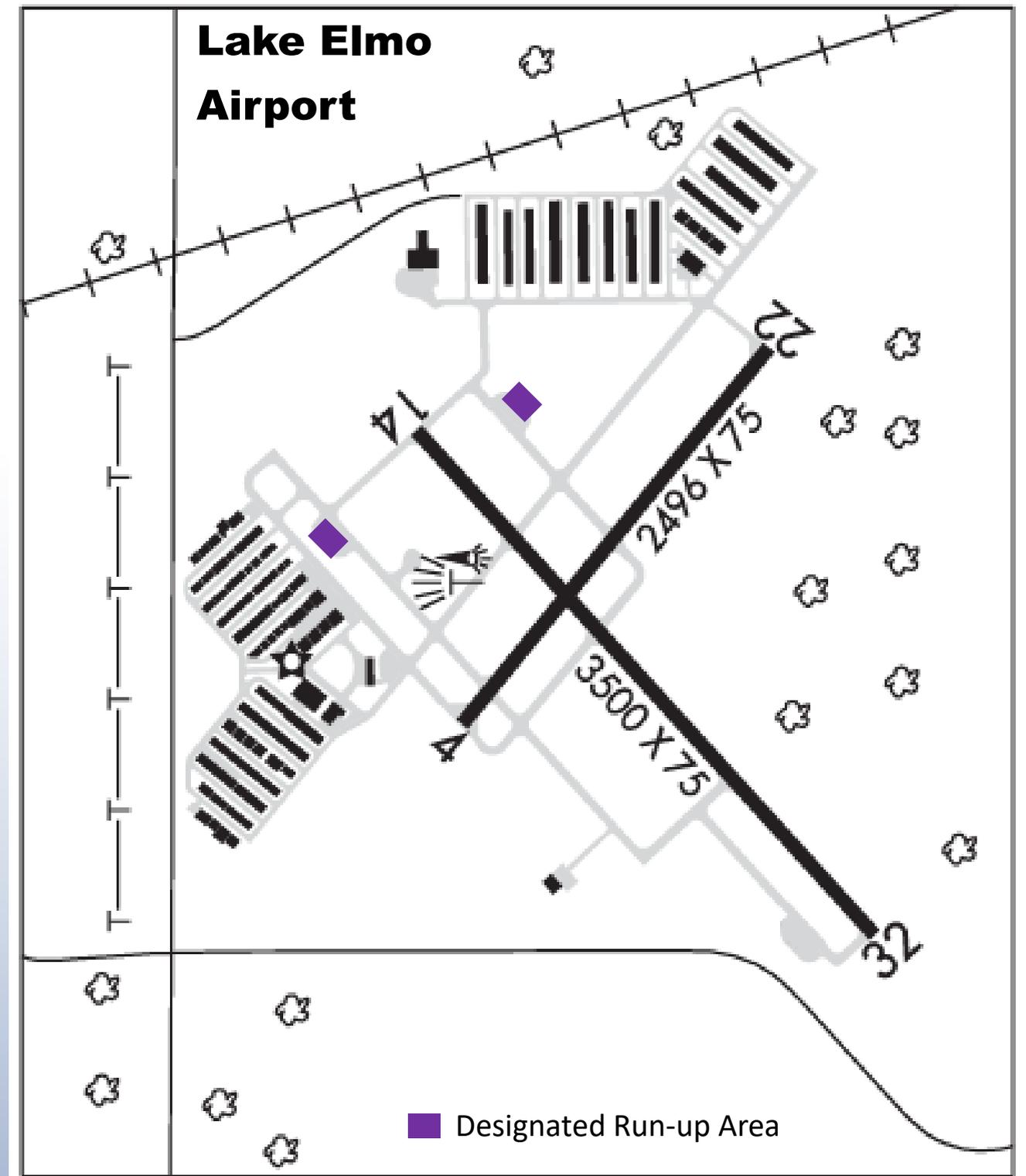
Specific locations on the airfield are designated for engine tests and maintenance run-ups. These locations are selected to minimize the amount of noise projected toward adjacent residential areas (see map).

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



Maintenance Run-Ups (Continued)

- 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.



Maintenance Run-up Procedures

Input Received:

- Allow one location for engine tests and maintenance run-ups.
- Specify airport as recreation and hobby only and no emergency use of run-up area.

Response:

- Two new run-up areas were designed and positioned on the airport to reduce noise impacts.
- Exceptions are allowed with Manager approval only.

4. Helicopter Procedures

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 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.



Helicopter Procedures

Input Received:

- Prohibit helicopter training in the traffic pattern from 200-1000.
- Avoid low-level training and repetitive activity over residential areas.

Response:

- The hours specified for helicopter training were unchanged.
- Language was added to avoid hovering for extended durations in the vicinity of residential areas, and 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 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.



Nighttime Operations

Input Received:

- Specify nighttime hours as 2200-0800 local time.
- Do not allow training flights 2200-0800 local time.
- Prohibit intersection takeoffs at all hours.

Response:

- Nighttime hours are defined by the FAA as 2200-0700 local time.
- All measures in the NAP are voluntary and cannot conflict with Federal Aviation Regulations. Pilot certification requires flight during darkness.
- Aircraft operators are asked to avoid operating during nighttime, and to be mindful of neighbors if it is not possible to avoid nighttime flight activity.

Next Steps for NAP Update

1. Additional comments received by December 31, 2023
2. Any additional changes made to the NAP will be shared during the LEAAC meeting in February 2024
3. The final NAP will be produced and used to create an updated Pilot Guide
4. The updated NAP and Pilot Guide will be published on the MAC website
5. Distribution and communication of the updated NAP and Pilot Guide





Comments may be emailed:

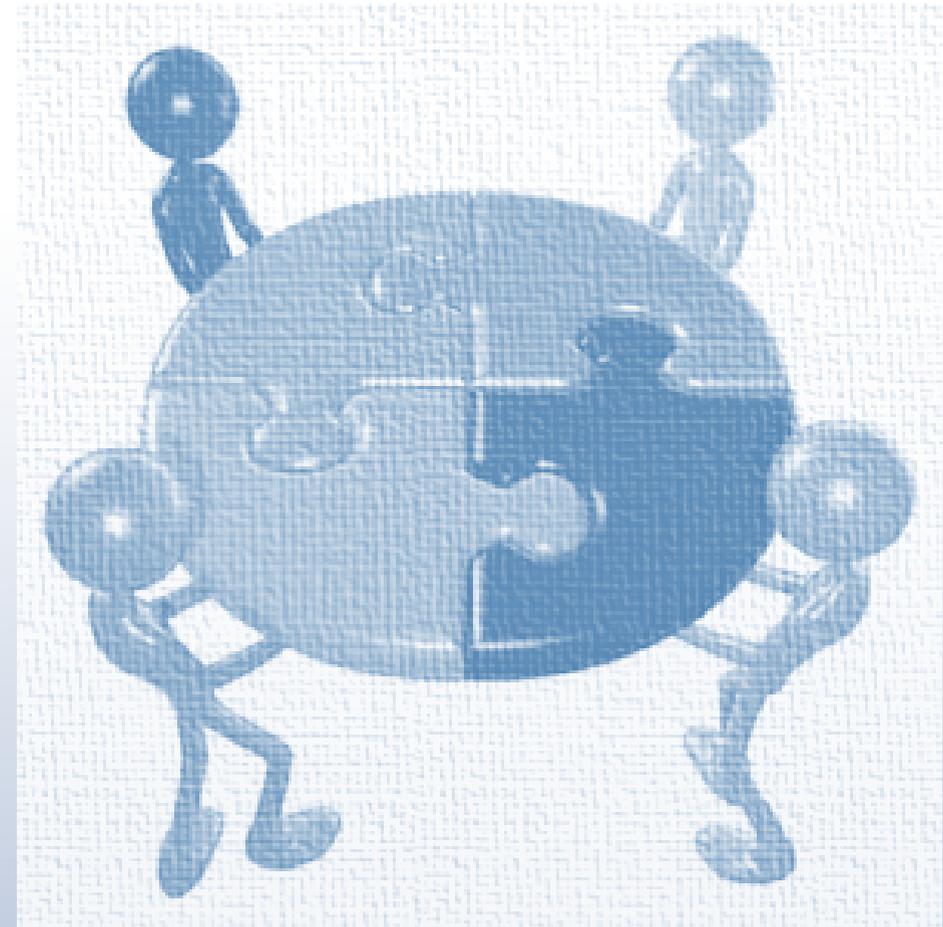
Philip.Tiedeman@mspmacc.org

Michele.Ross@mspmacc.org

Jennifer.Lewis@mspmacc.org



Member Comment



**Set Next
Meetings:**

February 26, 2024

May 20, 2026

August 26, 2024

November 25, 2024



2024

Set Next Meetings:

January						
S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
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April						
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July						
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September						
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October						
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November						
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December						
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15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

 Proposed Meeting Date





Thank you!