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# Reliever Airports: NOISE ABATEMENT PLAN Flying Cloud Airport (FCM)

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## INTRODUCTION

The noise abatement plan for the Flying Cloud Airport has been prepared in recognition of the need to make the airport and the surrounding community as environmentally compatible as possible. The plan, as set forth here, is the culmination of a cooperative effort between airport users, airport businesses, the Flying Cloud Airport Advisory Commission, City officials, Federal Aviation Administration representatives, and the Metropolitan Airports Commission.

Many of the recommended procedures contained in the plan are currently in use at the airport and have proven effective in reducing airport related noise in the surrounding community. The thrust of the noise abatement plan is to direct the bulk of traffic over the sparsely populated Minnesota River bottoms so as to reduce noise levels over the nearby residential areas. The additional step of raising the traffic pattern altitude to 1,000 feet should also help to reduce noise levels over sensitive areas. The plan does not purport to supersede any Federal Aviation Regulations, especially those regarding safe aircraft operating procedures. Certain flight conditions and aircraft operational limitations may make it unsafe to fly all or any part of these procedures.

No two airport situations are alike, and each requires a unique combination of procedures to achieve an acceptable solution to the noise problem. The best path to follow is to take a balanced approach which produces realistic and practical solutions fair to both aviation and non-aviation interests. In this regard, a full range of possible solutions has been explored and the best composition of solutions has been chosen and carefully weighed before settling on the final plan.

Comprehensive noise control and compatibility planning addresses a number of elements such as: Land use compatibility, airport design, aircraft and airport operational procedures, access restrictions, and noise program management. The noise abatement plan for this airport is only one part of what would be a comprehensive strategy and focuses on those elements under the control and jurisdiction of the Metropolitan Airports Commission.

**\*Note:** In December 2002, MAC and the City of Eden Prairie negotiated a “*Final Agreement*” to amend FCM Ordinance #51 and to resolve issues related to the proposed development of FCM and to address community concerns related to noise impact. In September 2003, MAC developed an “*Operational Implementation Plan*” that addresses the noise elements and requirements agreed to in the Final Agreement. As such, elements of the Operational Implementation Plan have been incorporated into the FCM Noise Abatement Plan and are denoted in this document with an asterisk\*.

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**\*ORDINANCE #97**

**Effective January 31, 2003 and replaces Ordinance #51**

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MAC Ordinance No. 97 has been implemented and replaces the previous MAC Ordinance No. 51. The new Ordinance prohibits aircraft maintenance run-ups at Flying Cloud Airport between the hours of 2200 and 0700 local time and restricts the use of the airport to only aircraft weighing less than 60,000 pounds certified max gross takeoff weight, dual wheel.

1. Exemptions to the above restrictions do exist in the case of emergency, U.S. Government Aircraft or unscheduled maintenance run-ups that are required to meet a departure time the next morning.
2. MAC Ordinance No. 97 carries punitive action in the form of a misdemeanor punishable in accordance with Minnesota Statutes, Section 609.03.

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**RULE I NOISE ABATEMENT TAKEOFF AND APPROACH PROCEDURES**

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A basic noise mitigation strategy is the use of noise abatement takeoff and landing procedures. There are a number of alternatives within this strategy including runway selection, takeoff and landing profiles and power settings, and approach or departure paths. Runway selection is affected by winds, airspace procedures with adjacent air traffic facilities, navigational aids, local tower procedures, aircraft performance and requirements, and traffic density. When linked with appropriate landing and takeoff profiles and approach/departure paths, runway selection should provide relief when compared to an unconstrained airport environment. The following takeoff and approach procedures shall apply to the Flying Cloud Airport.

**A. When the winds are calm (less than 5 knots) the preferred runway shall be 10R. However, if traffic density or air traffic procedures dictate, Runway 10L may also be used.**

**B. In most circumstances the winds, weather or traffic density will dictate the runway to be used. However in some circumstances there will be an option. To have the least impact on the surrounding community, and to provide for an orderly flow of traffic during non-towered hours, the following priorities are recommended when selecting a runway:**

1. Piston Engine Aircraft or Turbo Prop Aircraft:  
Arrivals - 10R, 10L, 28L, 28R, 36, 18  
Departures - 10R, 10L, 28L, 28R, 18, 36
2. Jet Aircraft:  
Arrivals/Departures - 10R, 28L

During tower hours, air traffic control will dictate the active runway.

- C. **An airplane approaching to land on a runway served by a visual approach slope indicator or precision approach slope indicator shall maintain an altitude at or above the glide slope until a lower altitude is necessary for a safe landing.**
- D. **Unless otherwise instructed by Air Traffic Control all general aviation turbine aircraft shall use National Business Aircraft Association Noise Abatement Procedures when arriving to or departing from the airport.**
- E. **Unless otherwise instructed by Air Traffic Control, turbojet aircraft departing on Runways 10R or 28L shall turn to a southerly heading after crossing the departure end of the runway and attaining an altitude of 500 feet above ground level.**
- F. **During non-tower hours, itinerant traffic will turn to a southerly heading; after crossing the departure end of the runway and attaining an altitude of 500 feet above ground level, and when traffic and other conditions permit.**
- \*G. **Per the Operational Implementation Plan, adherence to the south bound turn procedure applies to all operations when the tower is closed, especially between the hours of 0600 and 0700 local time.**

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## **RULE II TRAFFIC PATTERN PROCEDURES**

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The traffic pattern is the specified path to be flown by aircraft operating in the vicinity of an airport. The components of a typical traffic pattern are: upwind leg, crosswind leg, downwind leg, base leg, and final approach. The following procedures shall be adhered to while operating in the traffic pattern at the Flying Cloud Airport:

- A. **Consistent with recommended airport operating procedures and minimum safe altitudes as established in Part 91 of the Federal Air Regulations, the traffic pattern altitude shall be 1,000 feet above ground level.**
- B. **Multiple training events by jet aircraft in the traffic pattern are prohibited.**
- C. **Extended legs in the traffic pattern are not permitted unless required by Air Traffic Control or for operational safety.**
- \*D. **Per the Operational Implementation Plan, aircraft remaining in the pattern will utilize the south parallel runway (Runway 28L/10R) and execute turns to the south of the airport as soon as operationally practical, and/or assigned by the FAA.**

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### **RULE III MAINTENANCE RUN-UPS**

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Three locations on the airport are designated for engine tests and maintenance run-ups, as specified below. These locations are selected to minimize the amount of noise projected toward adjacent residential areas.

- A. Between 1700 local and 2200 all engine tests and maintenance run-ups in excess of 5 minutes shall be conducted in the designated area.**
- B. Aircraft will be parked on a heading of 360 to 030 degrees whenever practical.**
- C. Run-up Areas**
  - 1. When the active runways are 28L, 28R, 10L, or 10R, the intersection of Runway 18/36 and Taxiway Delta-2 or Echo-2 will be used.
  - 2. When the active runway is 18/36, the approach end of Runway 28R at Taxiway Charlie<sup>i</sup> or the approach end of Runway 10L will be used.
- \*D. Per Ordinance #97 and except in the circumstances outlined in the previous section, engine tests and maintenance run-ups are prohibited between 2200 local time and 0700 local time.**

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### **RULE IV HELICOPTER TRAINING**

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The unique design characteristics and capabilities of helicopters allow and sometimes require operations to and from movement areas not designated for fixed wing aircraft. In general, helicopter operators are instructed to avoid the flow of fixed wing aircraft. The following procedures shall apply to helicopter training.

- A. All helicopter training shall be conducted within the helicopter traffic pattern area as depicted in the Letter of Agreement between the Metropolitan Airports Commission and the Federal Aviation Administration. Multiple helicopter approaches to a hard surface shall be restricted to: the approach end of Runway 28L when runway 18/36 is in use; and to the approach end of Runway 36 when the east/west parallels are the active runways.**
- B. Helicopter training in the traffic pattern area is prohibited from 2200 local time to 0800 local time.**
- C. Air Traffic Control shall determine traffic pattern procedures for training helicopters, keeping in mind the noise sensitive areas surrounding the airport.**

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## **RULE V NIGHTTIME RESTRICTIONS**

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The period of 2200 hours to 0700 hours is when most people are resting and are most sensitive to noise intrusions. To help mitigate the effect of airport operations on the surrounding community, the following nighttime restrictions are in effect.

**\*A. Per the Operational Implementation Plan, MAC has implemented a voluntary restriction on operations during the quiet hours, 2200 to 0700 local time.**

1. Operations during the quiet hours are acceptable if they are conducted for the purposes of meeting nighttime flight currency requirements, pre-approved by the airport manager, or is a medical or public safety emergency.

**B. No training may be conducted in the traffic pattern between the hours of 2400 local and 0700 local.**

**C. Intersection takeoffs at the airport are discouraged at all times. There may be no intersection takeoffs between the hours of 2200 local and 0700 local.**

**D. Any aircraft not meeting Federal Air Regulation Part 36 is prohibited between the hours of 2200 local and 0700 local.**

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## **RULE VI STAGE II OPERATIONS**

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**\*A. Per the Operational Implementation Plan, MAC has implemented a voluntary restriction on Stage II aircraft operations at FCM. If the total number of Stage II aircraft operations at FCM exceeds seventy-five (75) in any rolling twelve-month period, a process to implement a mandatory ban on Stage II aircraft at FCM will be initiated.**

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## **NOISE COMPLAINT PROCEDURES**

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The Metropolitan Airports Commission set up a phone line to receive complaints about aircraft operations in the metropolitan area around 1970. The phone number is (612) 726-9411 which receives complaints 24 hours per day. Although originally set up to field complaints about the International Airport, they also handle complaints regarding the Reliever Airports including the Flying Cloud Airport.

\*Per the Operational Implementation Plan, complaints received from Eden Prairie residents, airport users, Fixed Base Operators or any other source will be evaluated/investigated to determine whether a violation or failure to comply with a voluntary measure has occurred. The nature of a violation will be determined by evaluating the Airport Noise and Operations Monitoring System (ANOMS) flight data for the time period of interest to verify the claims made by the complainant.

If a violation is determined to have occurred, MAC will send a letter to the owner/operator (in cases where contact information is accessible) notifying them that they have operated in a manner inconsistent with the voluntary restraints on nighttime aircraft operations, early morning departures and operations by Stage II aircraft. Furthermore the letter will state that MAC's policy is to voluntarily limit inconsistent operations and request the owner/operator provide a detailed response describing the reason for the operation in question. In the case of Ordinance 97 violations, MAC will coordinate and cooperate with the City of Eden Prairie in the prosecution of Ordinance violations.

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<sup>i</sup> The taxiway name changes in 2010 at FCM resulted in the reference to Taxiway "Alpha-2" changing to Taxiway "Charlie" (Rule III on Page 4).