

O'Hare Noise Compatibility Commission Meeting

May 6, 2016

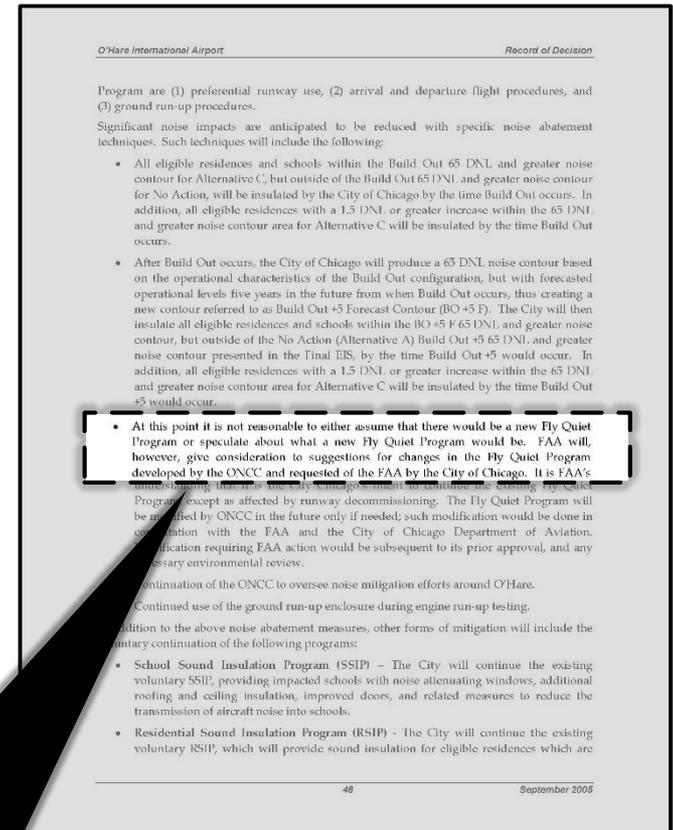
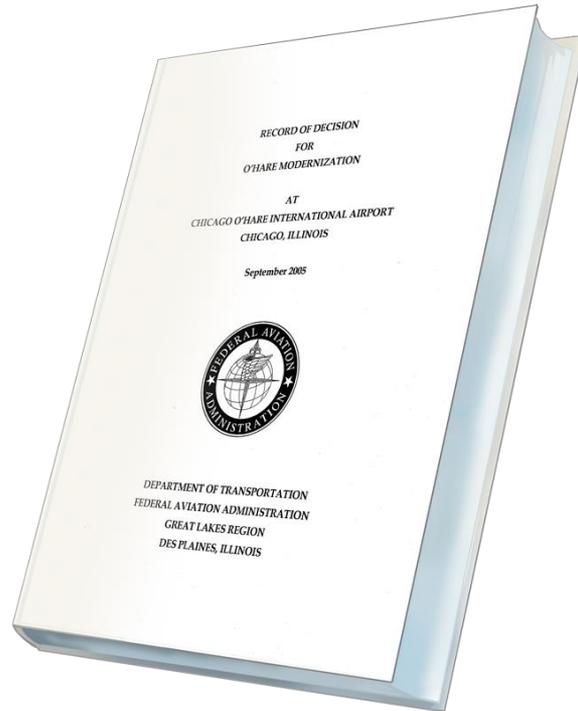


Test of Proposed
Interim Fly Quiet Runway Rotation Plan

CHICAGO

O'HARE MODERNIZATION ROD - FLY QUIET

Record of Decision (ROD) was issued on September 30, 2005



• At this point it is not reasonable to either assume that there would be a new Fly Quiet Program or speculate about what a new Fly Quiet Program would be. FAA will, however, give consideration to suggestions for changes in the Fly Quiet Program developed by the ONCC and requested of the FAA by the City of Chicago. It is FAA's intent to continue to evaluate the Fly Quiet Program except as affected by runway decommissioning. The Fly Quiet Program will be modified by ONCC in the future only if needed; such modification would be done in consultation with the FAA and the City of Chicago Department of Aviation. Any modification requiring FAA action would be subsequent to its prior approval, and any necessary environmental review.

Continuation of the ONCC to oversee noise mitigation efforts around O'Hare. Continued use of the ground run-up enclosure during engine run-up testing. In addition to the above noise abatement measures, other forms of mitigation will include the voluntary continuation of the following programs:

- School Sound Insulation Program (SSIP) – The City will continue the existing voluntary SSIP, providing impacted schools with noise attenuating windows, additional roofing and ceiling insulation, improved doors, and related measures to reduce the transmission of aircraft noise into schools.
- Residential Sound Insulation Program (RSIP) – The City will continue the existing voluntary RSIP, which will provide sound insulation for eligible residences which are

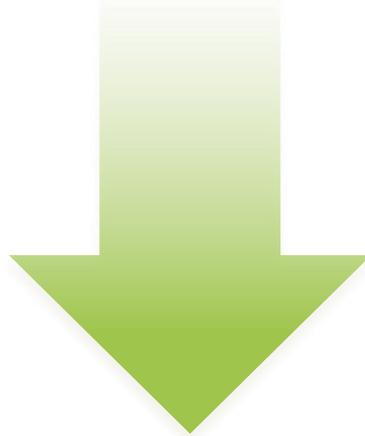
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FAA Record of Decision for O'Hare Modernization, September 30, 2005, page 48)

MISSION STATEMENT FOR FLY QUIET ENHANCEMENT



The ONCC acknowledges that aircraft noise at night impacts the residents in communities around O'Hare and that conditions have changed since Fly Quiet Program inception in 1997. The ONCC desires to evaluate ways to modify the Fly Quiet Program and make recommendations to the Chicago Department of Aviation (CDA) based on ONCC consensus.



Accomplished through a Six-Month Test of the Proposed Runway Rotation Plan

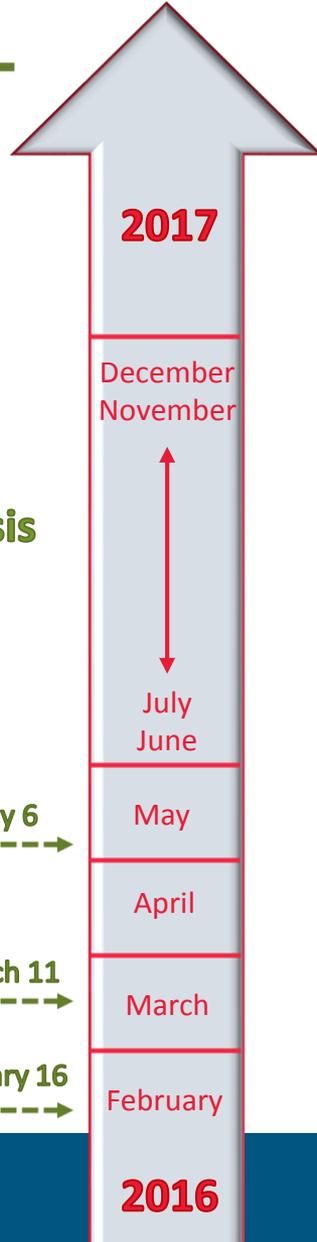
Fly Quiet II (Overnight)

Fly Quiet II is a redefinition of the existing program which includes a runway rotation plan to spread out community noise exposure. This program applies to overnight hours in which demand can be served by a single arrival or departure runway.

FLY QUIET RUNWAY ROTATION TEST – TENTATIVE TIMELINE

ONCC RESPONSIBILITY

CDA & FAA RESPONSIBILITY



Decision on Implementation

**ONCC Reviews Feedback
Suggest Changes if Needed**

Develop Criteria for Post-Test Analysis

**ONCC Approves Test Plan
(Tentative)**

ONCC Reviews Criteria

**Fly Quiet Committee
Established Criteria**

May 6
----->

March 11
----->

February 16
----->

2017

December
November

July
June

May

April

March

February

2016

NEPA Analysis on Revised Plan (FAA)

**CDA Revise Plan if needed based on
ONCC feedback**

**Six Month Test (FAA)
Collect Feedback (CDA)**

**CDA Submits Plan to FAA
Analyze Test Plan**

**CDA Develops Plan
with Stakeholder Input**

SUMMARY – TEST OF FLY QUIET RUNWAY ROTATION PLAN

1. Applies during overnight hours when demand allows for one arrival/one departure runway
2. Balanced Approach for 12 Weekly Periods
 - 6 Parallel Configurations and 6 Diagonal Configurations
 - 6 West Flow and 6 East Flow
3. Reflects Stakeholder input
 - ONCC – Meets ONCC Criteria
 - SOC – Supports this Plan
 - FAiR – Use of Diagonals
4. Includes mixed-use runways
5. Includes procedures to limit use of longest runways
6. Primary and secondary runway use configurations defined to accommodate wind conditions
7. Communication Protocols defined for CDA and Airlines

TEST OF FLY QUIET RUNWAY ROTATION PLAN – KEY FEATURES

1. Six-month test to obtain actual data and community feedback
2. Based on existing departure headings – does not include new departure headings
3. Applies during overnight hours when demand is low
4. Balances runway use by approximately 45 arrivals and 35 departures on an average night during overnight hours
5. Maintains existing sound insulation commitments and criteria
6. Potential for implementation depends on ONCC review of test results

APPROVED CRITERIA

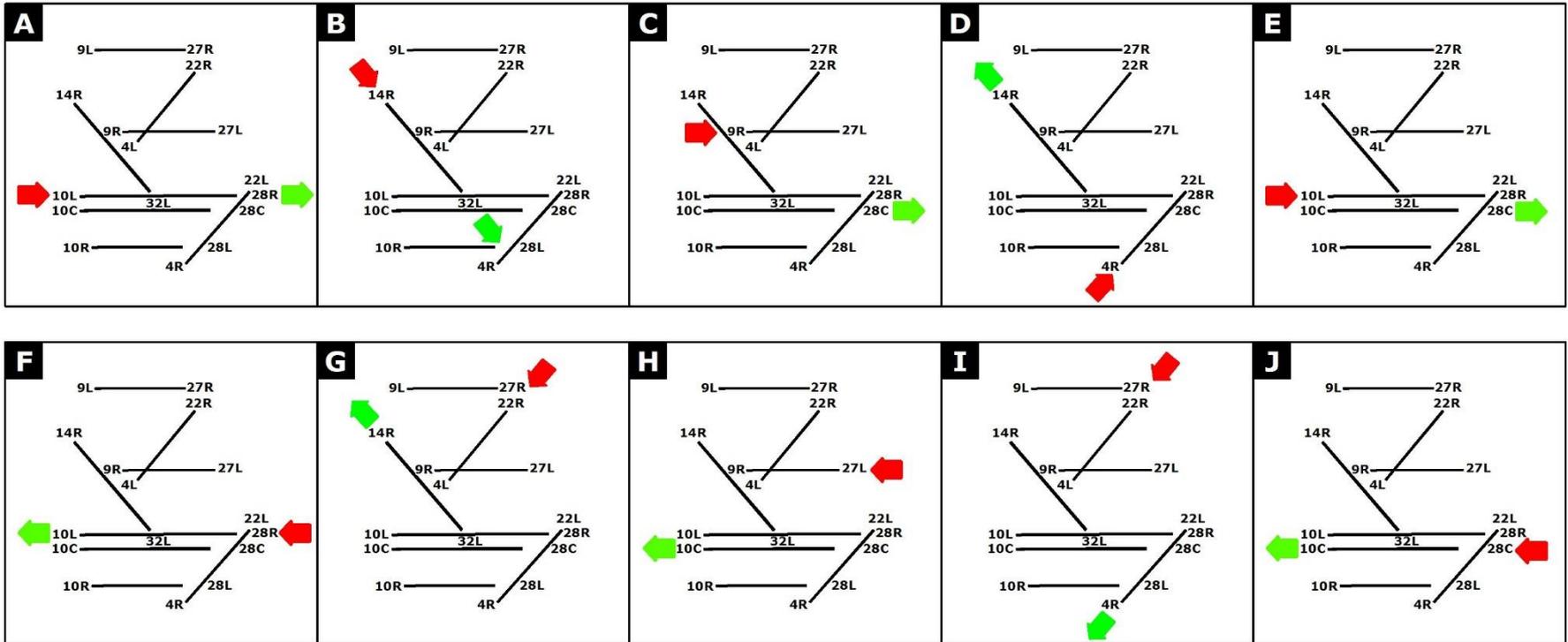
Departure
Procedures

Three Fly Quiet
Programs

Fly Quiet II
Rotation

1. **Establish Rotation Plan (SOC FQ-18)** – Request the FAA/CDA establish a weekly runway rotation program for Fly Quiet II (Overnight hours) to achieve a more balanced distribution of noise exposure. Each period may consist of one arrival and one departure runway or one mixed use runway (runway used for both arrivals and departures).
2. **Alternate East and West Flow (5 knot Tailwind)** – Minimize the potential for consecutive periods of east flow or west flow runway use to the extent possible, except when conditions require the opposite flow due to a tailwind exceeding 5 knots.
3. **Avoid Consecutive Community Impacts** – Minimize the potential for impacting communities with the same operation type (arrival or departure) two periods in a row.
4. **Reduce Use of 10L/28R** – Include Runway 10L/28R in the rotation but reduce its use if needed by assigning it for departing aircraft that require additional runway length to the extent possible. Prioritize the use of other runways to the extent possible for flights that do not require additional runway length.
5. **Include 14R and 32L (FAiR Recommendation)** – Include 14R arrivals and 32L departures until the permanent closing of 14R/32L. Once this occurs, the compatible land use corridor to the northwest could be utilized with other runways to the extent possible.
6. **Conduct a Test and Monitor Performance** – Ask FAA to Conduct a 6-month test that applies these principles. Request CDA records nightly runway use and collects citizen feedback for ONCC review.
7. **Require ONCC Review** – Final rotation plans including any changes are to be reviewed by ONCC after the test prior to finalization and publication.

PROPOSED FLY QUIET II RUNWAY CONFIGURATIONS



Notes

- Use of these runways is voluntary, pilots are encouraged to use designated nighttime preferential runways.
- Alternative runways may be used to allow for construction, snow removal, runway maintenance, runway inspection and specific aircraft operational needs. Available runways are determined by Chicago Department of Aviation (CDA) Operations, and prevailing winds.
- This proposed plan has not been approved by the Federal Aviation Administration (FAA).
- Runway 10L/28R, if closed for noise abatement, would be made available for flights that require additional runway length after operator coordination, at a minimum of 2 hours prior to arrival or departure, with Chicago Department of Aviation (CDA) Operations.

POTENTIAL USAGE BASED ON HISTORICAL WINDS

CONFIGURATION	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
A	53.4%	60.0%	76.7%	76.2%	81.6%	83.6%	83.1%	89.9%	84.9%	72.0%	63.1%	61.5%
C												
E												
B	61.0%	59.2%	70.2%	74.3%	83.7%	88.1%	89.1%	89.5%	83.0%	72.3%	69.8%	66.9%
D	56.8%	65.3%	69.9%	65.5%	69.5%	76.7%	79.1%	82.7%	78.1%	67.0%	56.4%	56.0%
F	91.2%	87.5%	78.1%	74.2%	86.3%	91.3%	94.8%	94.8%	92.5%	91.0%	89.4%	88.9%
H												
J												
G	72.5%	71.2%	59.0%	56.2%	66.7%	74.3%	85.6%	85.3%	77.5%	75.3%	67.0%	70.8%
I	87.6%	81.3%	74.1%	74.2%	81.2%	85.4%	91.2%	92.5%	88.8%	87.7%	87.5%	87.5%

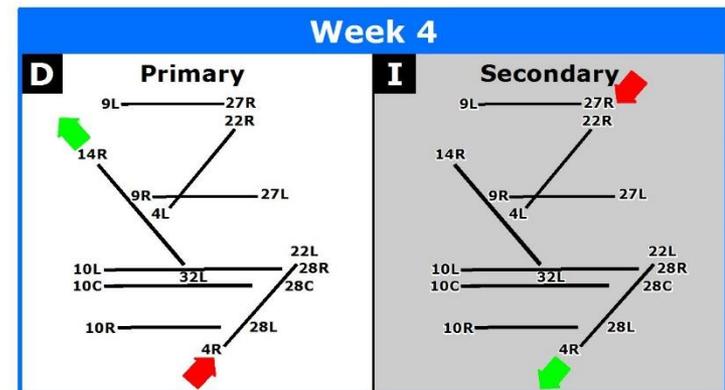
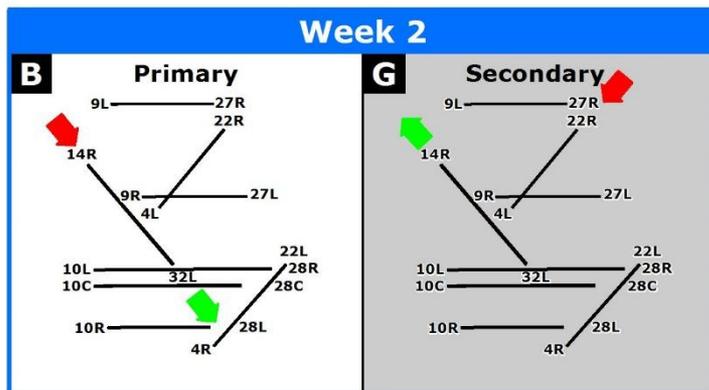
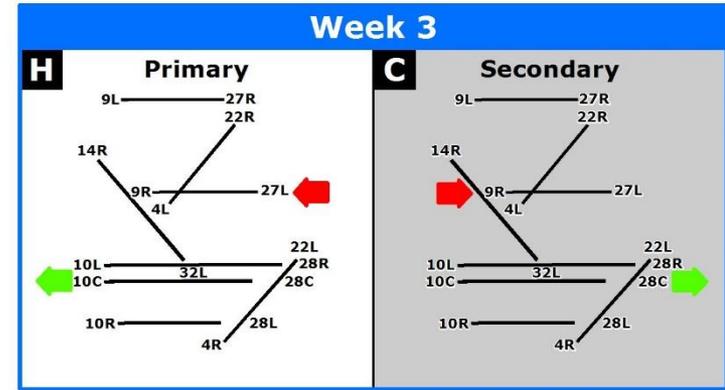
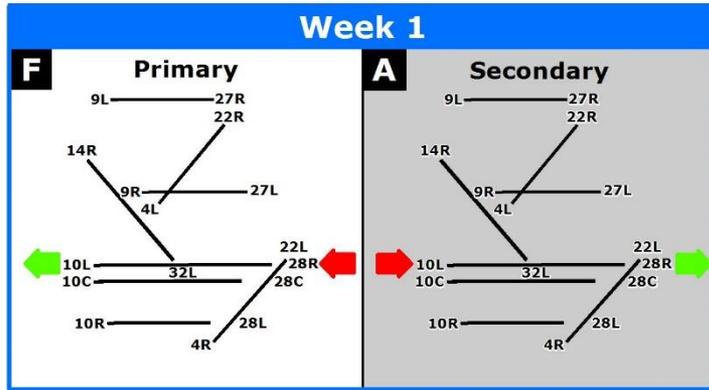
Percentages are based on a tailwind limit of 5 knots and a crosswind limit of 25 knots; includes wind gusts.

Source: National Climatic Data Center, 8/1/2005 - 7/31/2015, 10:00 p.m. to 6:59 a.m. <http://www.ncdc.noaa.gov>

Does not include historical runway maintenance, inspections or other non-weather runway closures

PROPOSED FLY QUIET II RUNWAY ROTATION PLAN (Weeks 1-4)

This chart illustrates the proposed runway use configurations for weeks 1 through 4 of the Fly Quiet II Runway Rotation Plan (out of a 12 week rotation schedule). For each week, a primary and secondary runway use configuration is provided to accommodate potential changes in wind direction. Historical wind data suggests that the primary runway use configuration can be used the majority of the time. The runway use configurations have been defined to balance noise exposure by community by complying with the criteria approved by the ONCC Fly Quiet Committee. The use of east flow, west flow, parallel, and diagonal runways is rotated on a weekly basis. Special procedures have been defined to accommodate additional aircraft that require added runway length.



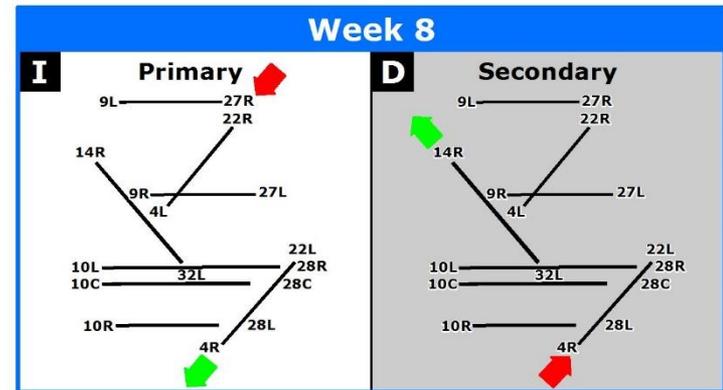
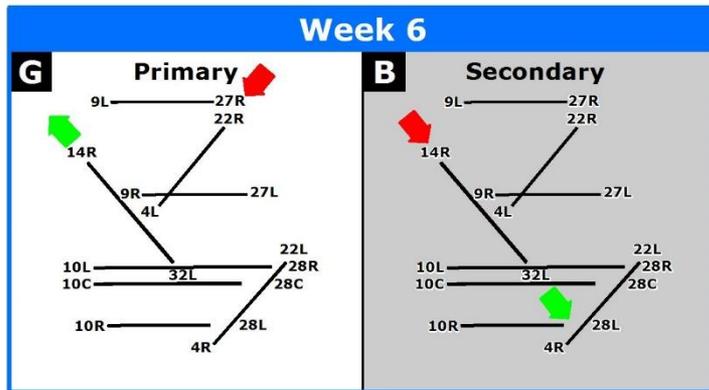
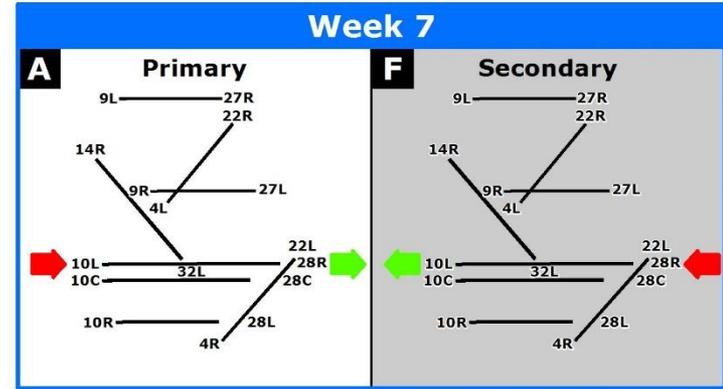
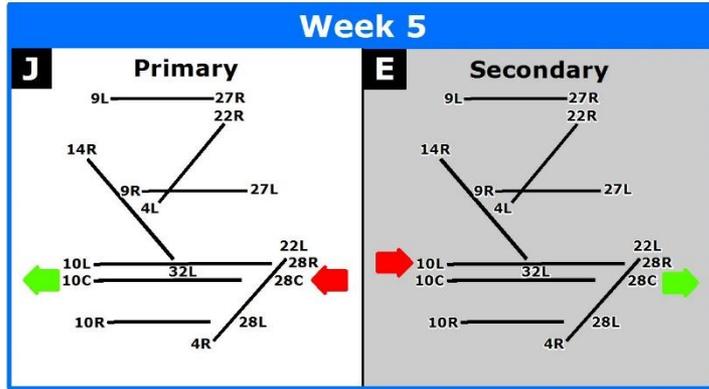
Notes

- Use of these runways is voluntary, pilots are encouraged to use designated nighttime preferential runways.
- Alternative runways may be used to allow for construction, snow removal, runway maintenance, runway inspection and specific aircraft operational needs. Available runways are determined by Chicago Department of Aviation (CDA) Operations, and prevailing winds.
- This proposed plan has not been approved by the Federal Aviation Administration (FAA).
- Runway 10L/28R, if closed for noise abatement, would be made available for flights that require additional runway length after operator coordination, at a minimum of 2 hours prior to arrival or departure, with Chicago Department of Aviation (CDA) Operations.



PROPOSED FLY QUIET II RUNWAY ROTATION PLAN (Weeks 5-8)

This chart illustrates the proposed runway use configurations for weeks 5 through 8 of the Fly Quiet II Runway Rotation Plan (out of a 12 week rotation schedule). For each week, a primary and secondary runway use configuration is provided to accommodate potential changes in wind direction. Historical wind data suggests that the primary runway use configuration can be used the majority of the time. The runway use configurations have been defined to balance noise exposure by community by complying with the criteria approved by the ONCC Fly Quiet Committee. The use of east flow, west flow, parallel, and diagonal runways is rotated on a weekly basis. Special procedures have been defined to accommodate additional aircraft that require added runway length.



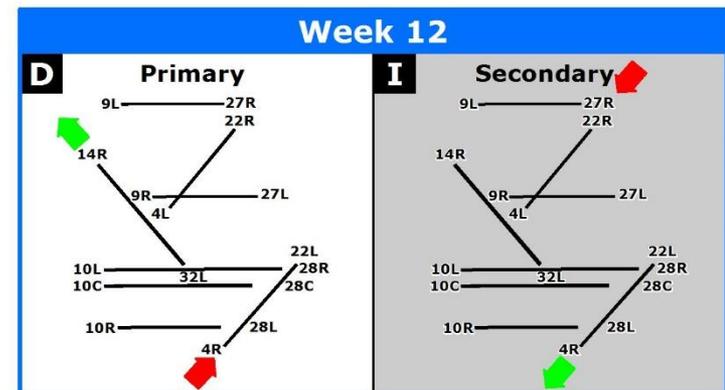
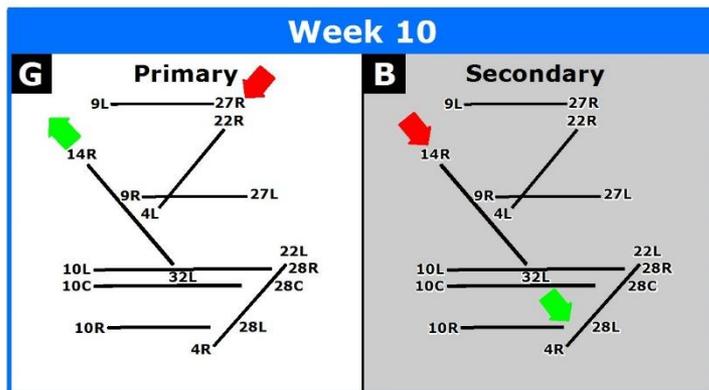
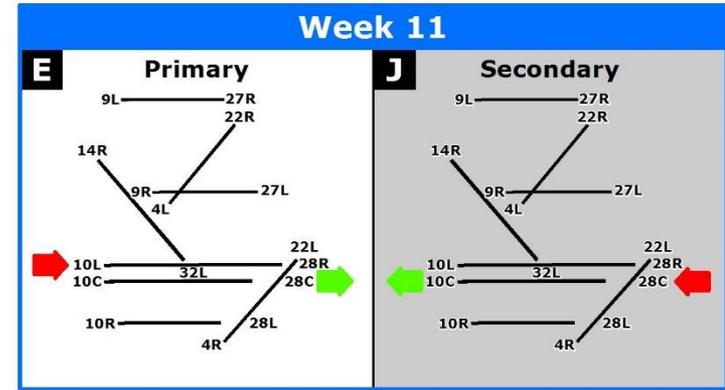
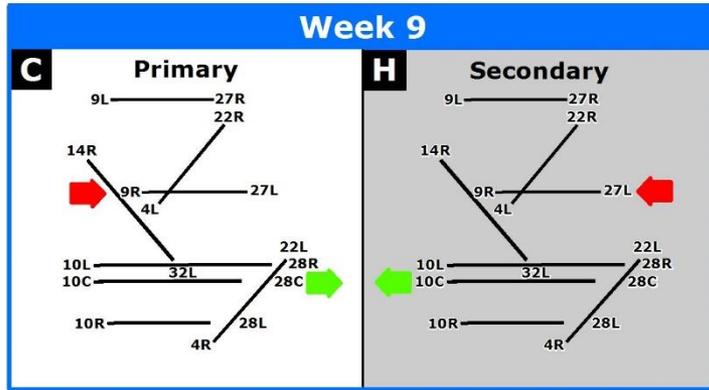
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PROPOSED FLY QUIET II RUNWAY ROTATION PLAN (Weeks 9-12)

This chart illustrates the proposed runway use configurations for weeks 9 through 12 of the Fly Quiet II Runway Rotation Plan (out of a 12 week rotation schedule). For each week, a primary and secondary runway use configuration is provided to accommodate potential changes in wind direction. Historical wind data suggests that the primary runway use configuration can be used the majority of the time. The runway use configurations have been defined to balance noise exposure by community by complying with the criteria approved by the ONCC Fly Quiet Committee. The use of east flow, west flow, parallel, and diagonal runways is rotated on a weekly basis. Special procedures have been defined to accommodate additional aircraft that require added runway length.

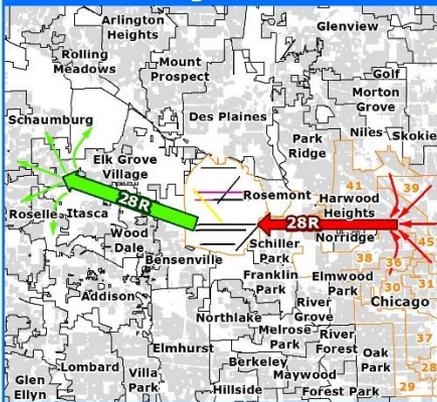


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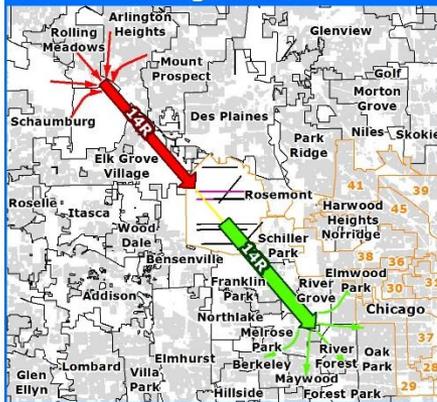
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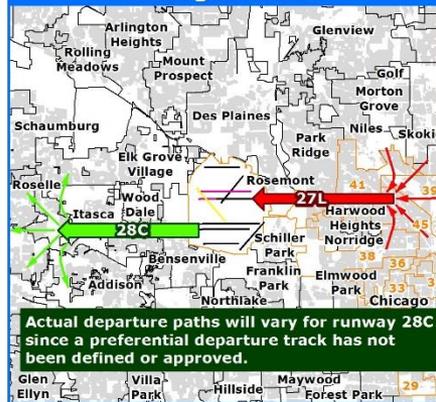
Week 1 - Primary Configuration F



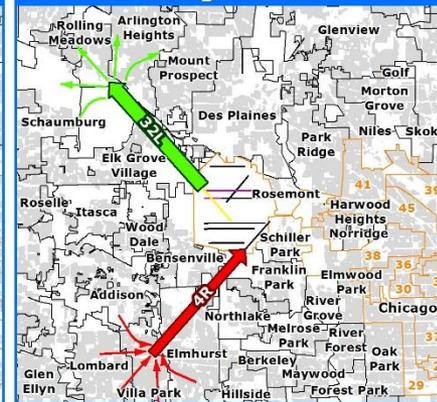
Week 2 - Primary Configuration B



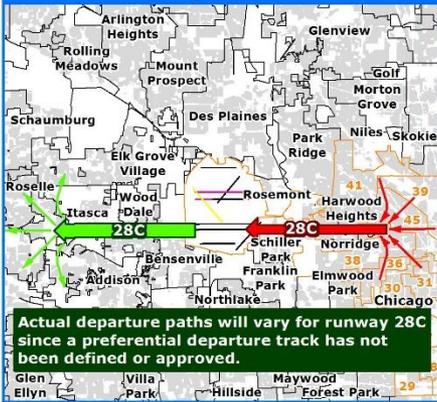
Week 3 - Primary Configuration H



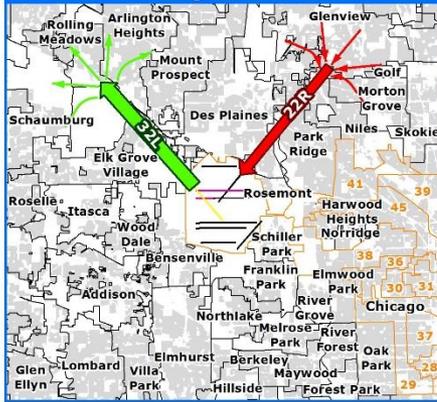
Week 4 - Primary Configuration D



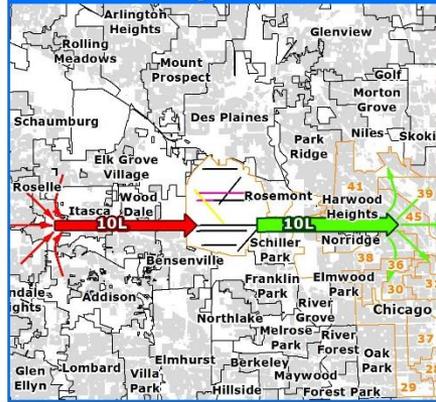
Week 5 - Primary Configuration J



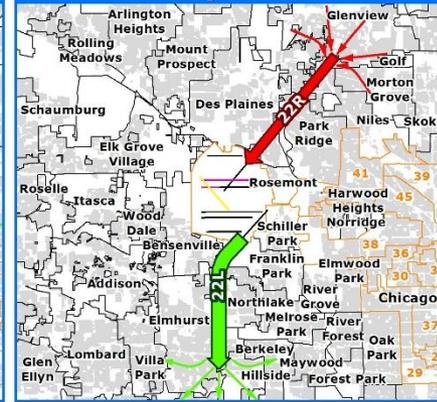
Week 6 - Primary Configuration G



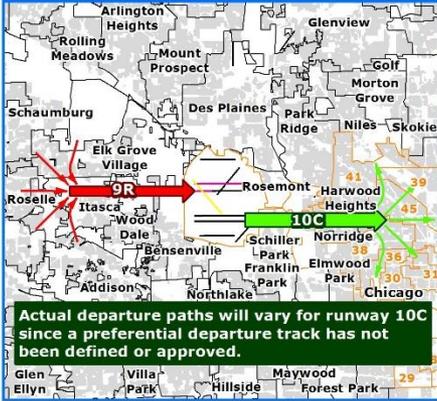
Week 7 - Primary Configuration A



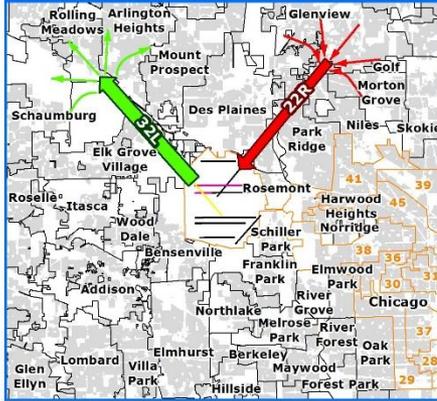
Week 8 - Primary Configuration I



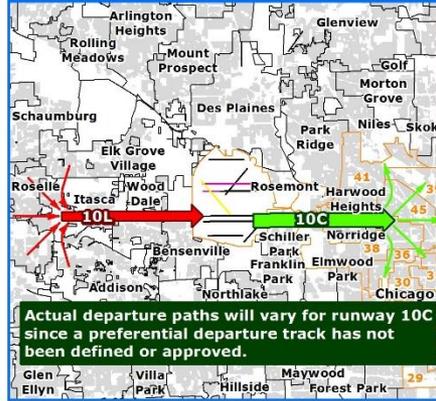
Week 9 - Primary Configuration C



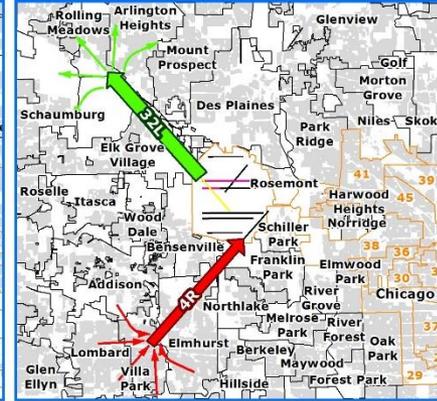
Week 10 - Primary Configuration G



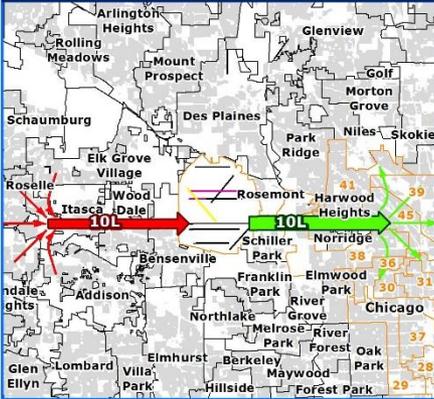
Week 11 - Primary Configuration E



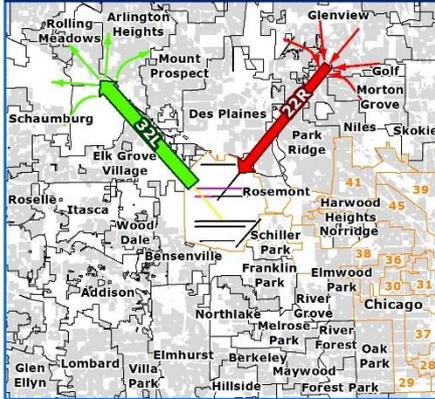
Week 12 - Primary Configuration D



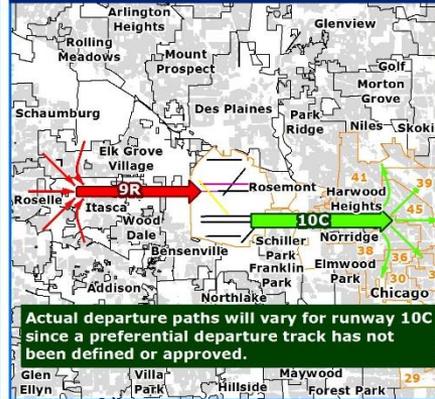
Week 1 - Secondary Configuration A



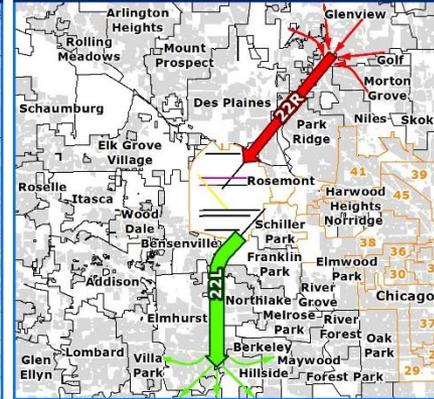
Week 2 - Secondary Configuration G



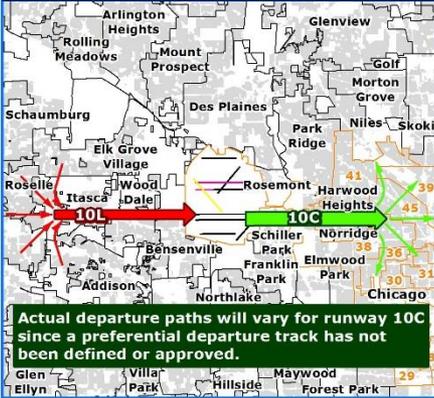
Week 3 - Secondary Configuration C



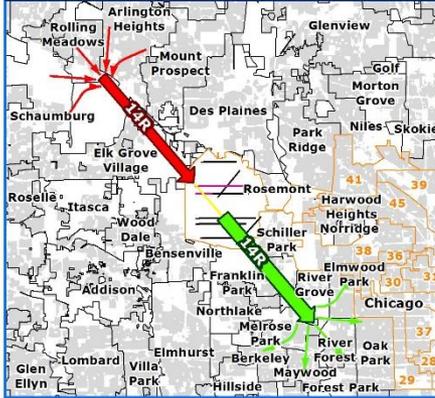
Week 4 - Secondary Configuration I



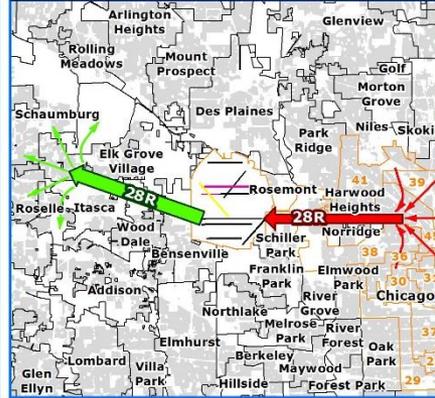
Week 5 - Secondary Configuration E



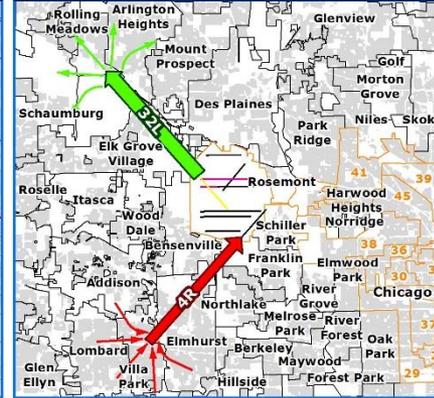
Week 6 - Secondary Configuration B



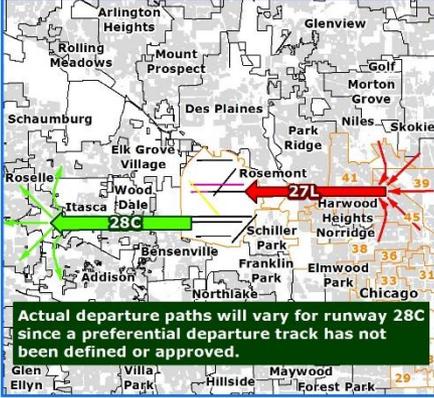
Week 7 - Secondary Configuration F



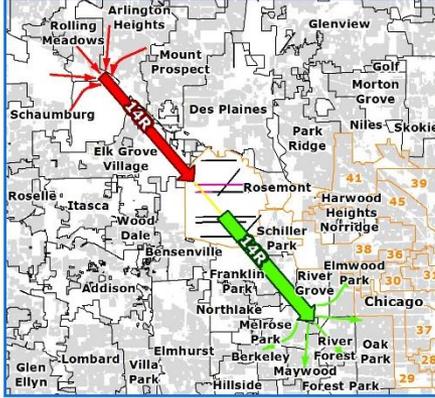
Week 8 - Secondary Configuration D



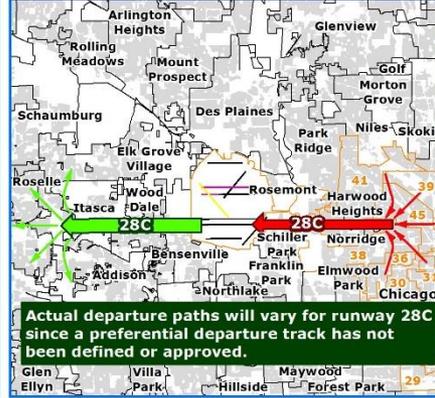
Week 9 - Secondary Configuration H



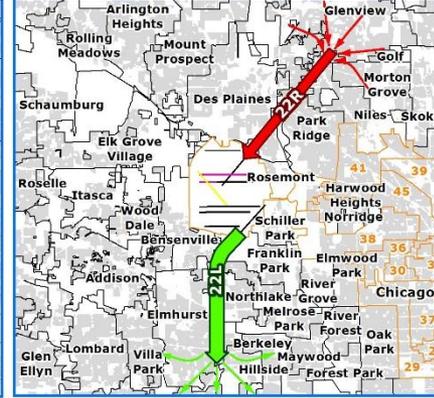
Week 10 - Secondary Configuration B



Week 11 - Secondary Configuration J



Week 12 - Secondary Configuration I



COMMUNITY OUTREACH/FEEDBACK DURING THIS SUMMER'S RUNWAY ROTATION TEST

- Fly Quiet Website
 - Summary of Test Plan
 - Published Rotation Schedule
 - Feedback Survey
 - Adherence Updates
- Weekly Adherence Monitored
- ONCC will Review Feedback

Schedule

Survey

Information



Fly Quiet Rotation Test

The Chicago Department of Aviation (CDA) will be conducting a test of a proposed nighttime runway rotation plan potentially beginning in the summer of 2016. Citizen feedback will be collected during the entire test period on this website in the form of a survey.

Fly Quiet Program

On June 17, 1997, the City of Chicago announced that airlines operating at O'Hare International Airport had agreed to use designated noise abatement flight procedures in accordance with the Fly Quiet Program. This program was implemented in an effort to reduce the impacts of aircraft noise on neighborhoods surrounding O'Hare.

The Fly Quiet Program is a voluntary program that encourages pilots and air traffic controllers to use designated nighttime preferential runways and flight tracks developed by the CDA in cooperation with the O'Hare Noise Compatibility Commission (ONCC), the airlines and the air traffic controllers. These preferred routes are intended to direct aircraft over less-populated areas, such as forest preserves and highways, as well as commercial and industrial areas.

FLY QUIET RUNWAY ROTATION PLAN – NEXT STEPS

1. ONCC Votes on plan.
2. If plan is approved by the ONCC, CDA submits detailed plan to FAA for review and approval of the six-month test.
3. If Plan is not approved, existing conditions continue.