O'HARE ★ MIDWAY
INTERNATIONAL AIRPORTS

FLY QUIET RUNWAY ROTATION TEST

ONCC FLY QUIET COMMITTEE

FEBRUARY 8, 2017

CHICAGO DEPARTMENT OF AVIATION

RUNWAY ROTATION GOALS AND GUIDELINES

1. **Provide Near-Term Relief** – Six-Month test with Citizen Feedback
2. **Reduce Impacts to the Highest Impacted Communities** – Provide Relief to Significantly Impacted Communities
3. **Provide Predictability** – Publish a rotation schedule that allows citizens to predict periods of relief to the extent possible

STRATEGIC

1. Establish Rotation Plan
2. Alternate East and West Flow
3. Avoid Consecutive Community Impacts

TACTICAL

4. Reduce Use of 10L/28R
5. Include 15 and 33

PROCESS

6. Conduct a Test and Monitor Performance
7. Refine after ONCC Review

FLY QUIET RUNWAY ROTATION TEST – TENTATIVE TIMELINE

ONCC RESPONSIBILITY

- Decision on Implementation
- ONCC Reviews Feedback Suggest Changes if Needed
- Develop Criteria for Post-Test Analysis
- ONCC Approves Test Plan — May 6
- ONCC Reviews Criteria — March 11
- Fly Quiet Committee Established Criteria — February 16

CDA & FAA RESPONSIBILITY

- 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
- CDA Develops Plan with Stakeholder Input

2017
December
November
July
June
May
April
March
February
2016

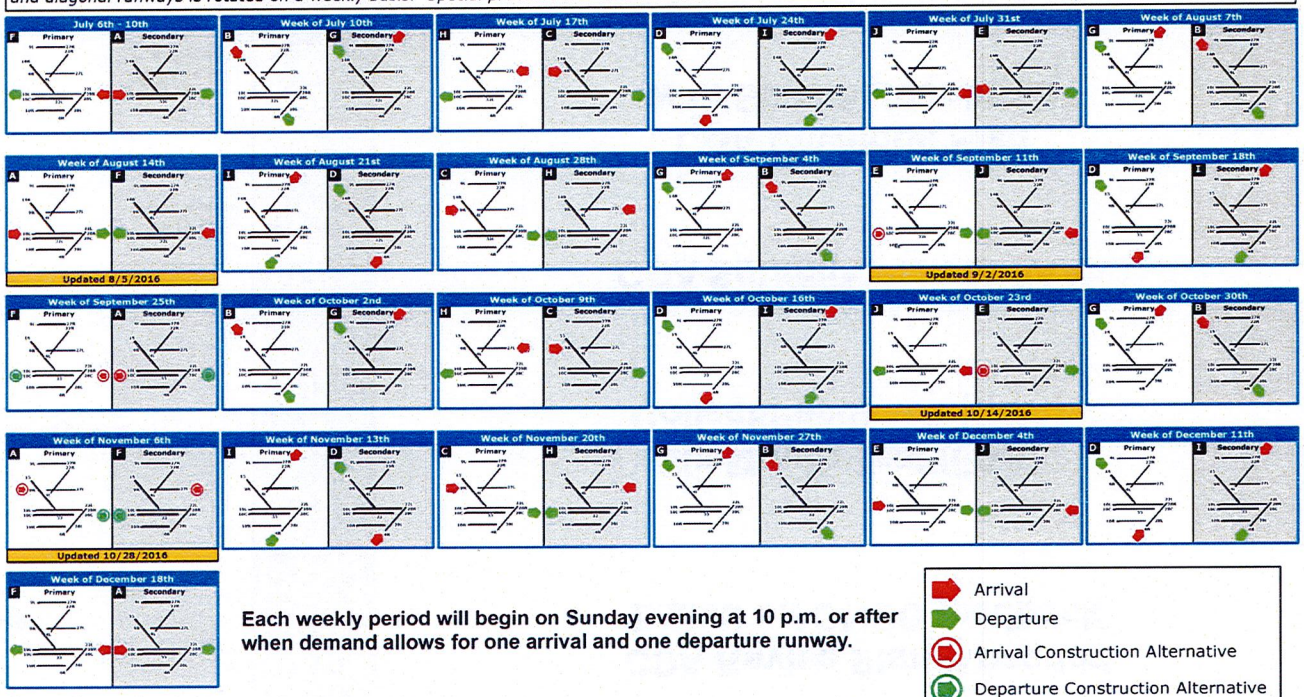
SCHEDULE

- 25-Week Schedule
- Alternate East/West Flow
- Alternate Parallel/Diagonal Runways
- Two Hour Advance Notice for Runway Requests
- Project Website Updates

  flychicago.com/flyquiettest

FLY QUIET II RUNWAY ROTATION TEST (Weeks 1-25)

This chart illustrates the proposed runway use configurations for 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.



Each weekly period will begin on Sunday evening at 10 p.m. or after when demand allows for one arrival and one departure runway.

- Arrival
- Departure
- Arrival Construction Alternative
- Departure Construction Alternative

Notes

- 2016 Runway Rotation Test
- Use of these runways is voluntary, pilots are encouraged to use designated nighttime preferential runways.
- 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.
- 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. When Runway 10L/28R is closed for construction, Runway 10C/28C will be made available for flights that require additional runway length.

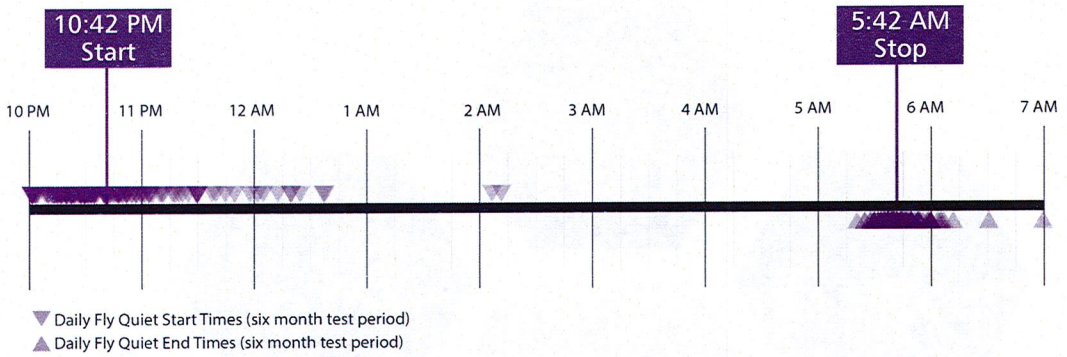
10/28/2016

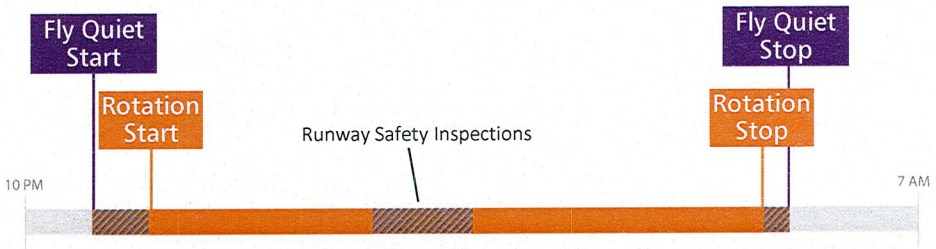
COORDINATION

- Airlines and Representatives
- Chicago Airline Cargo Manager's Association (CACMA)
- CDA Operations
- Construction Managers (CMs)
- FAA Airports
- FAA Air Traffic
- FAA Tech Ops
- Short-Term Operational Phasing (STOP) Meetings
- Special Requests

FLY QUIET TRACKING

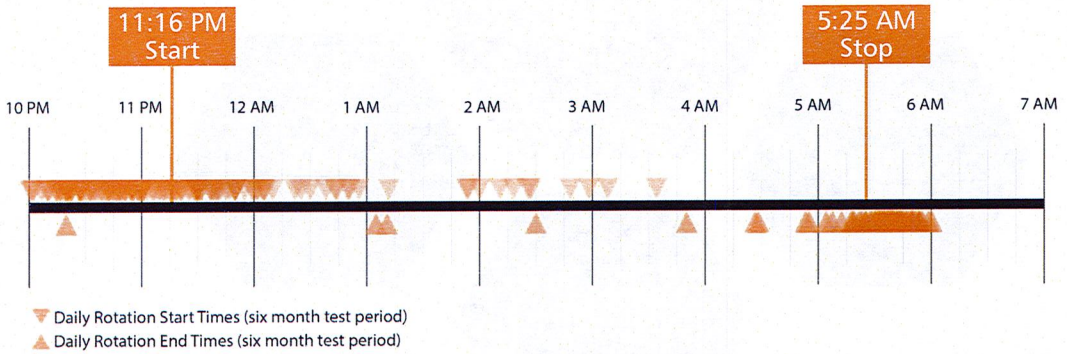
- Daily Tracking of Fly Quiet and Rotation Start/Stop Times
- Daily Tracking of Operations in Fly Quiet and on Designated Runways





Average Number of Operations

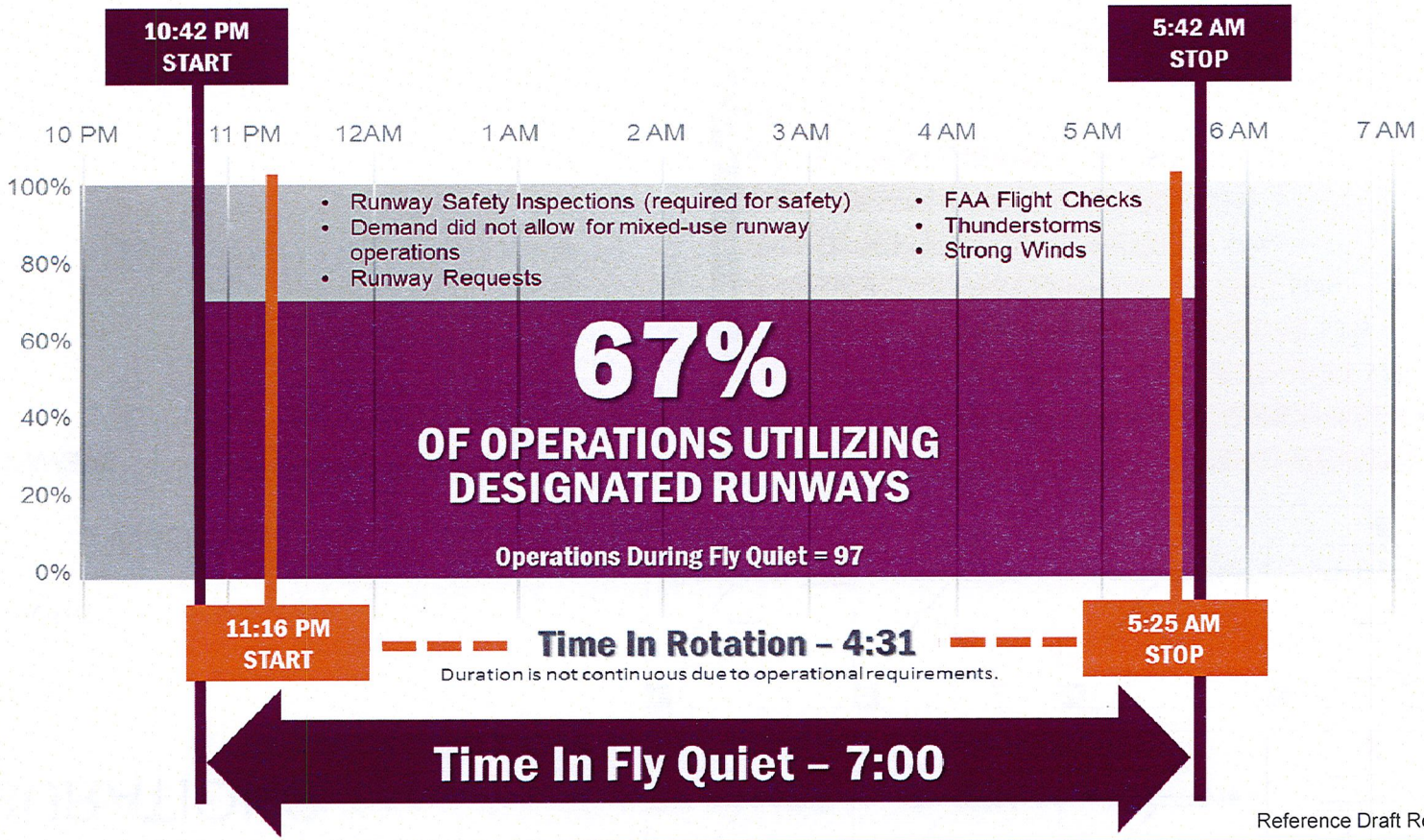
Runway Rotation Operations	**= 65 Operations**
Non-Runway Rotation Operations	**= 32 Operations**
Fly Quiet Operations	**= 97 Operations**



Reference Draft Report: pages 2 & 3

FLY QUIET SUMMARY

JULY 6 – DECEMBER 24, 2016
25 WEEK AVERAGE

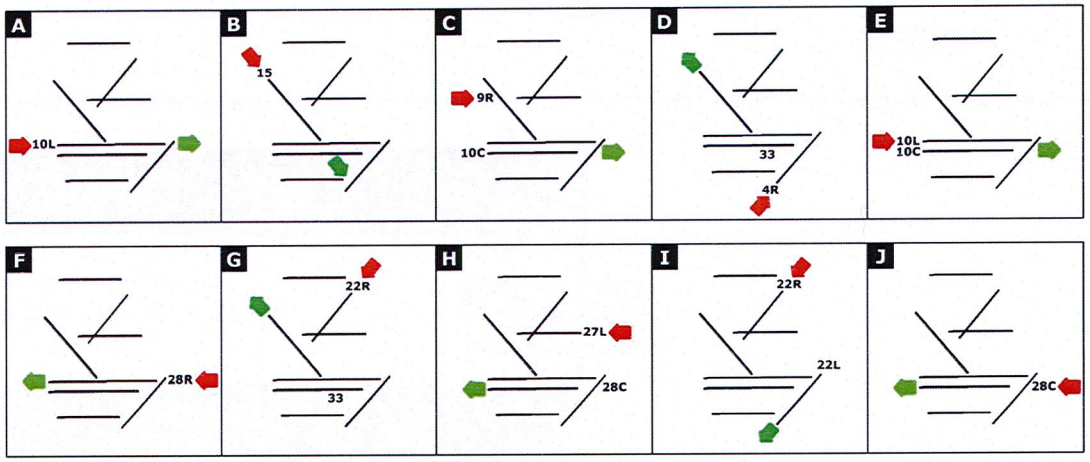


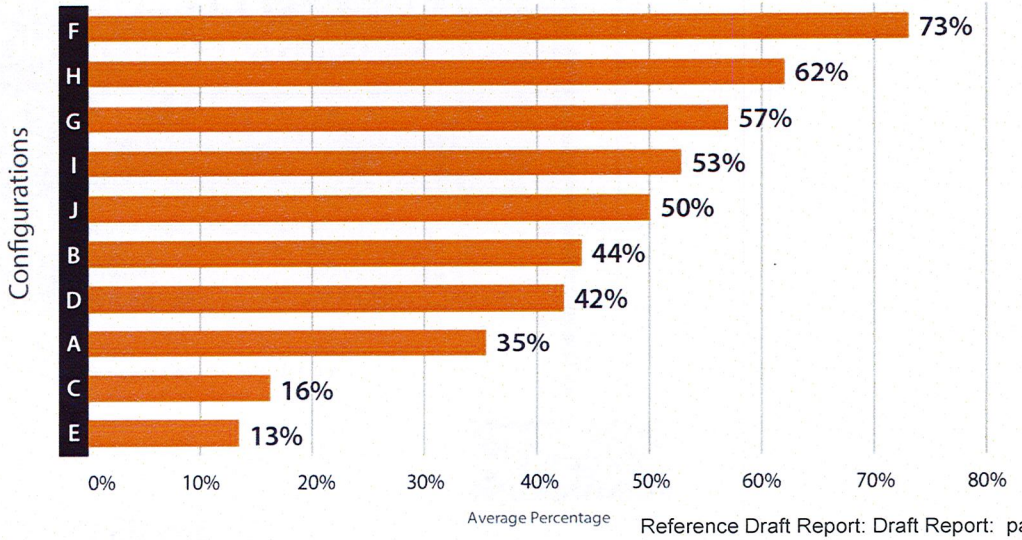
Reference Draft Report: Draft Report: page 14

Why 67%

RUNWAY CONFIGURATIONS

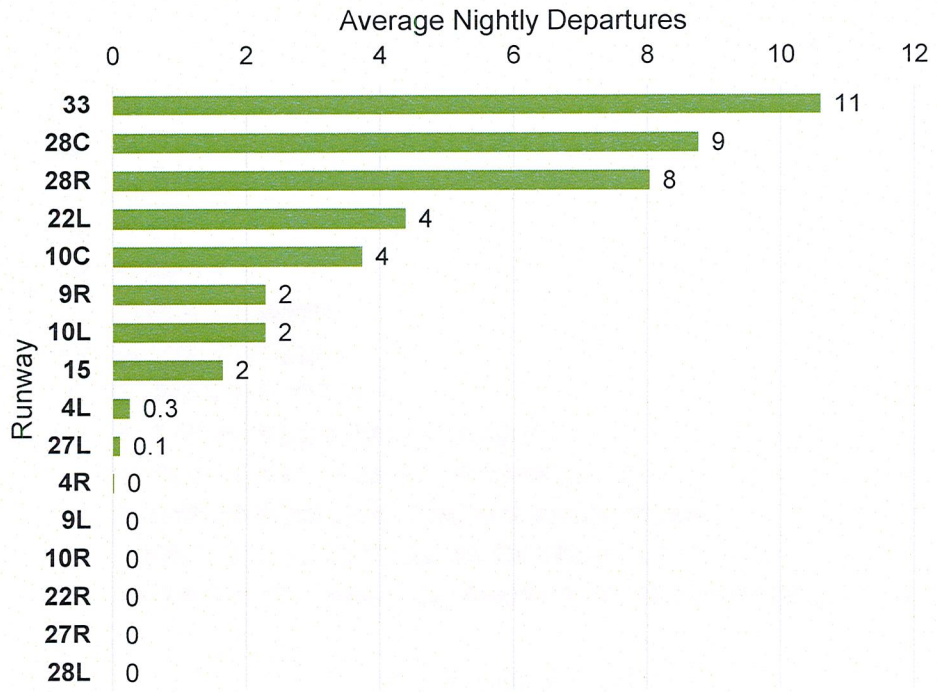
- 10 Configurations
- 5 East Flow | 5 West Flow
- 5 Parallel Runways | 5 Diagonal Runways



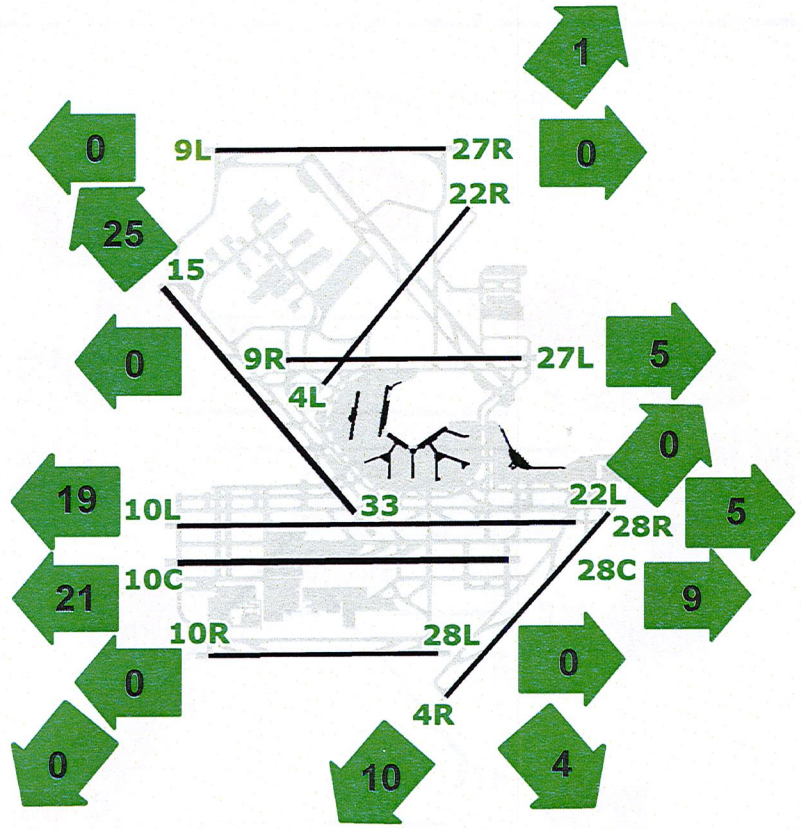


Reference Draft Report: Draft Report: page 4

RUNWAY USE: DEPARTURES



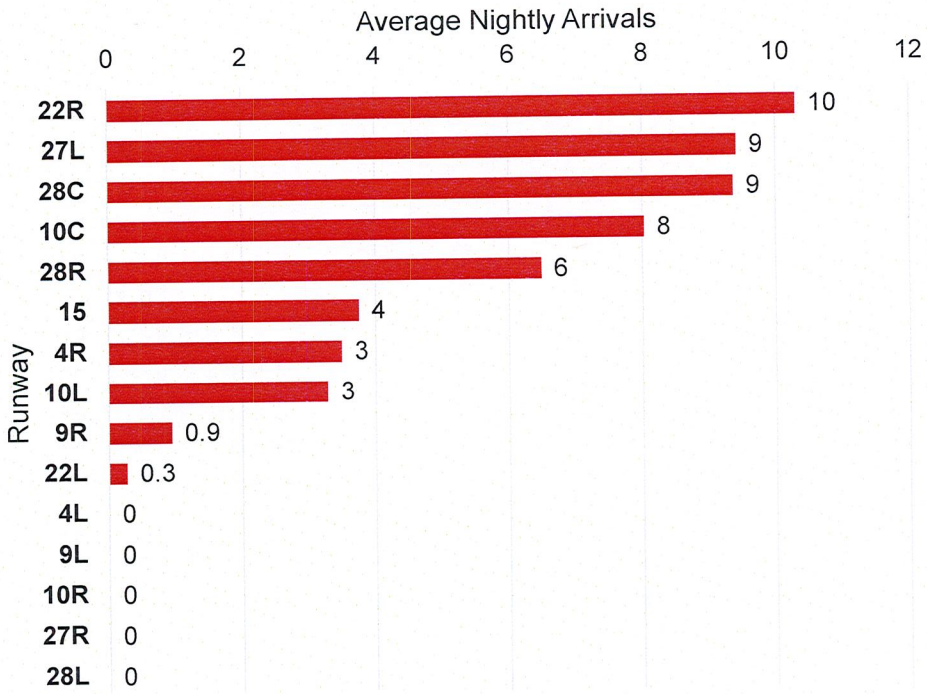
Average Nightly Departures in Fly Quiet = 42



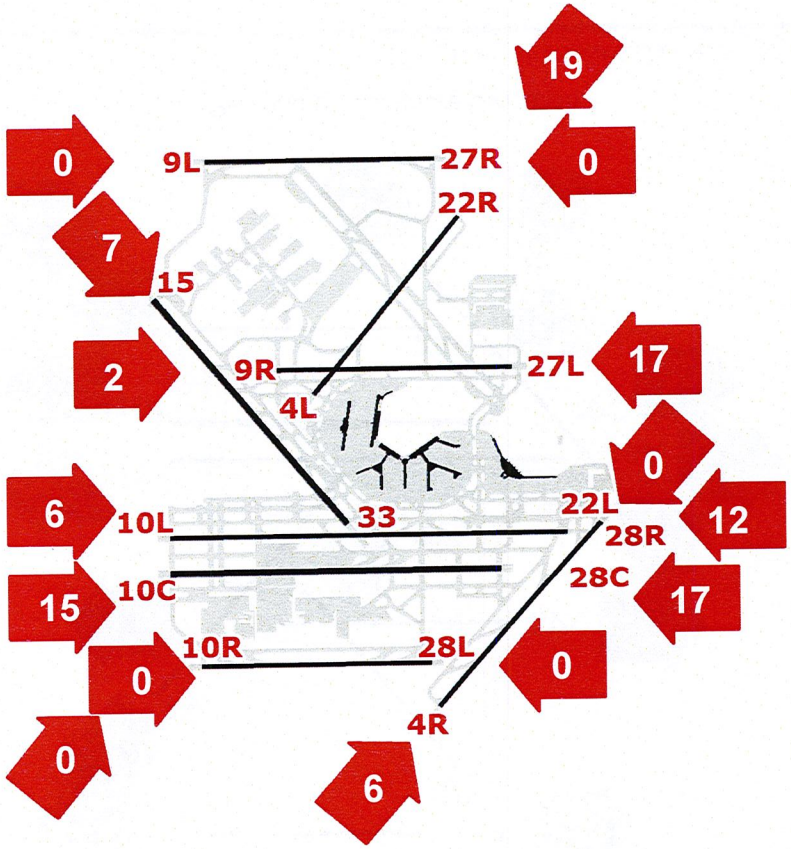
Percentage Departure Utilization

Reference Draft Report: Draft Report: page 21

RUNWAY USE: ARRIVALS



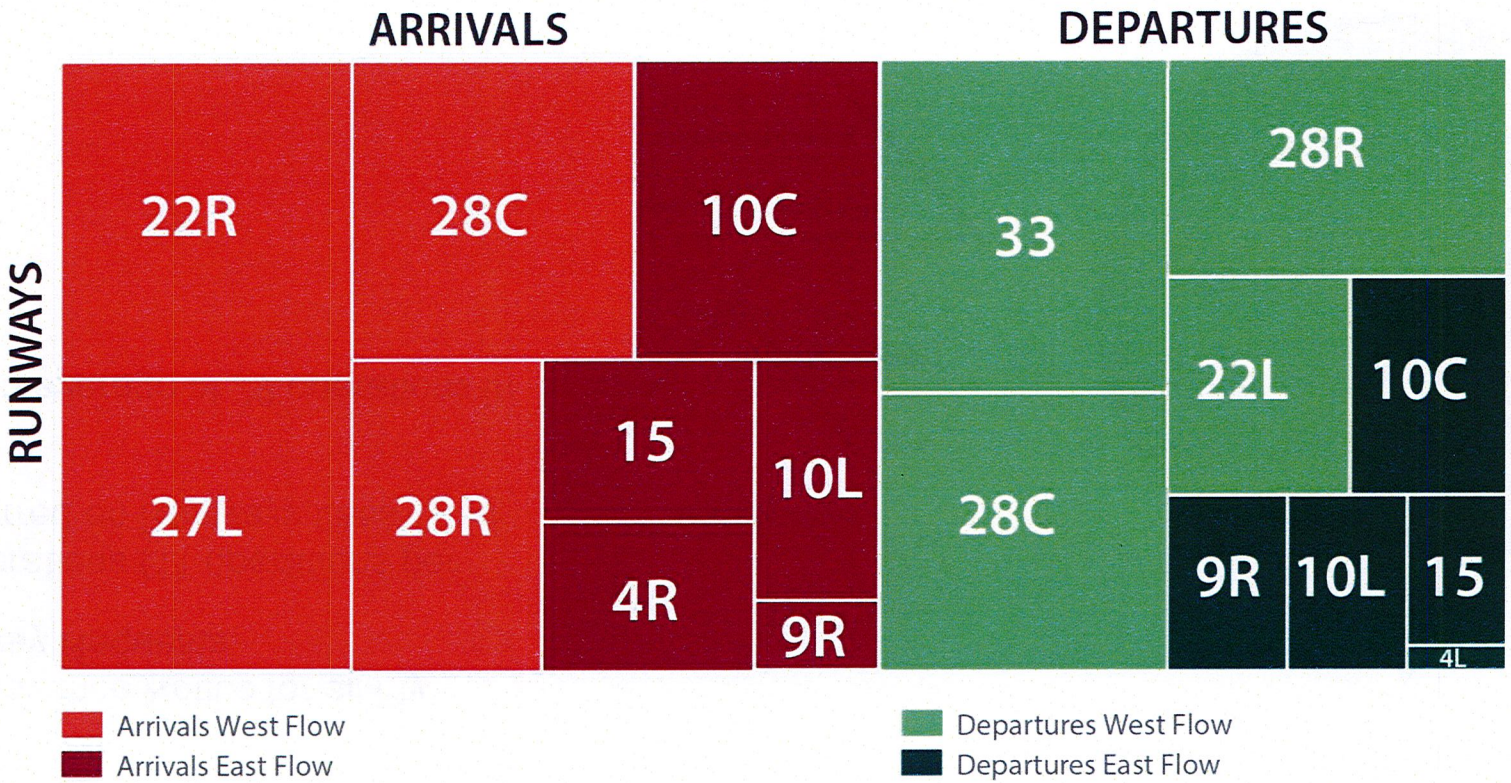
Average Nightly Arrivals in Fly Quiet = 55



Percentage Arrival Utilization

Reference Draft Report: Draft Report: page 21

RUNWAY UTILIZATION

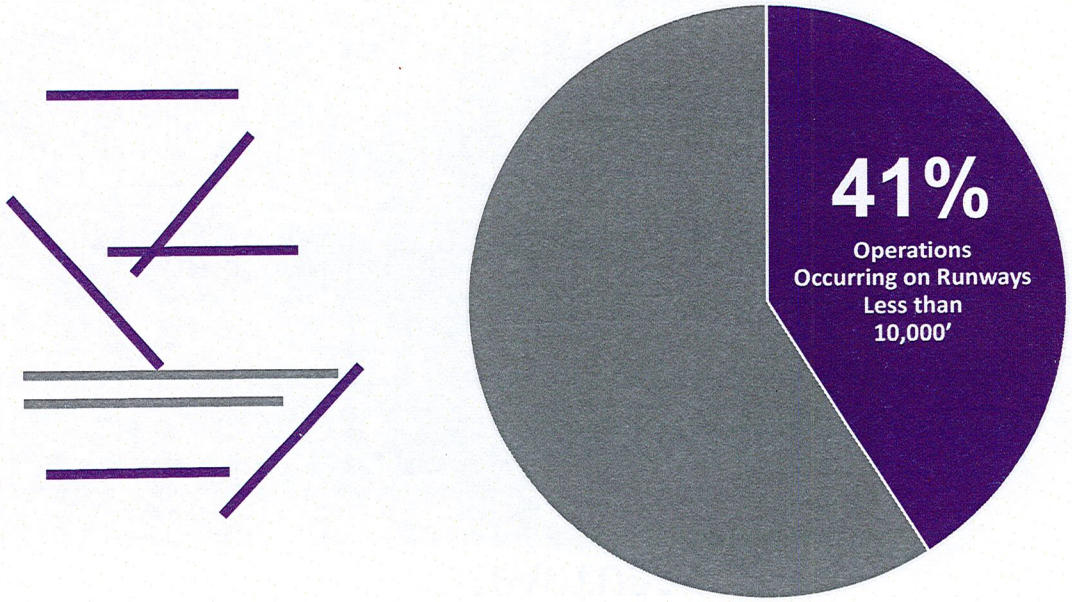


Average Nightly Operations in Fly Quiet = 97

Reference Draft Report: Draft Report: page 5

WIDE BODY OPERATIONS

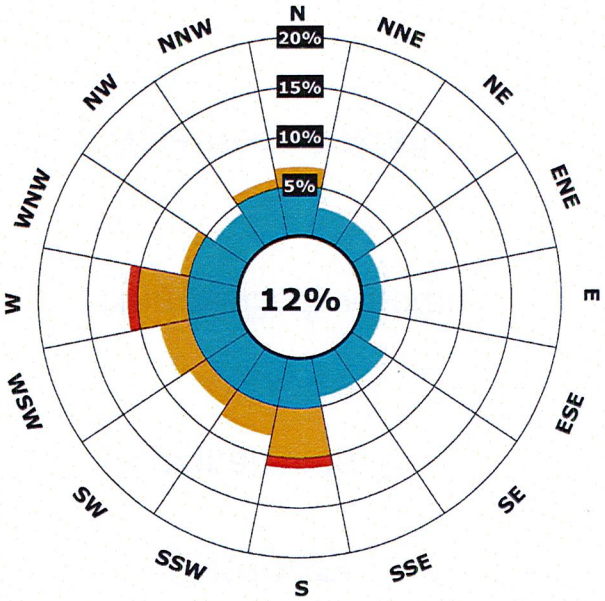
- Two Hour Advance Notice for all Fly Quiet Runway Requests
- 41% of Operations (11 operations per night) Occurred on Runways Less Than 10,000'
- Based on an average of 29 operations in Fly Quiet

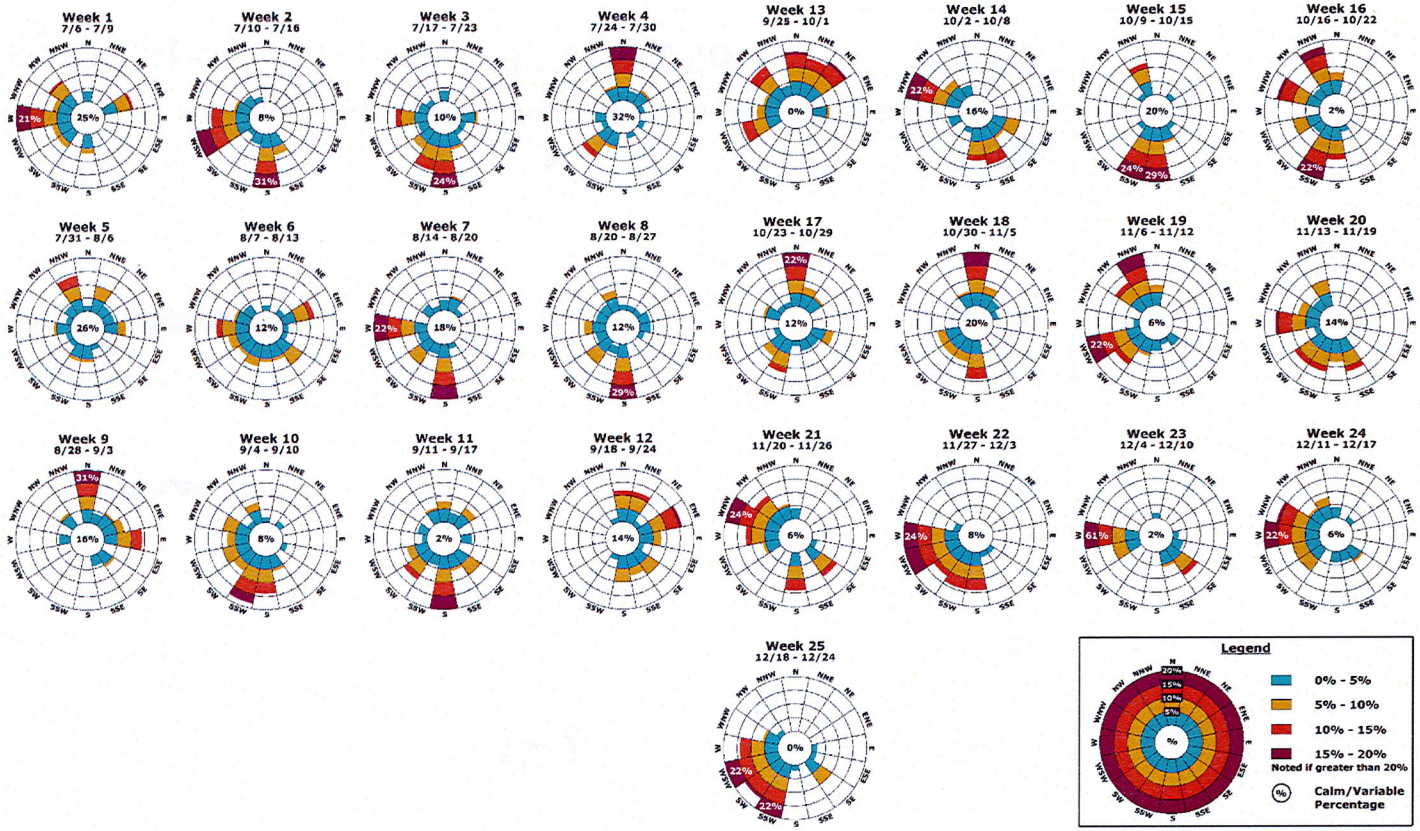


Note: Includes periods of time when the preferred runway was greater than 10,000'

Reference Draft Report: Draft Report: page 7

NIGHTTIME WIND SUMMARY





Source: National Climatic Data Center, 7/6/2016 - 12/25/2016; http://www.ncdc.noaa.gov

Reference Draft Report: Draft Report: pages 22 & 23

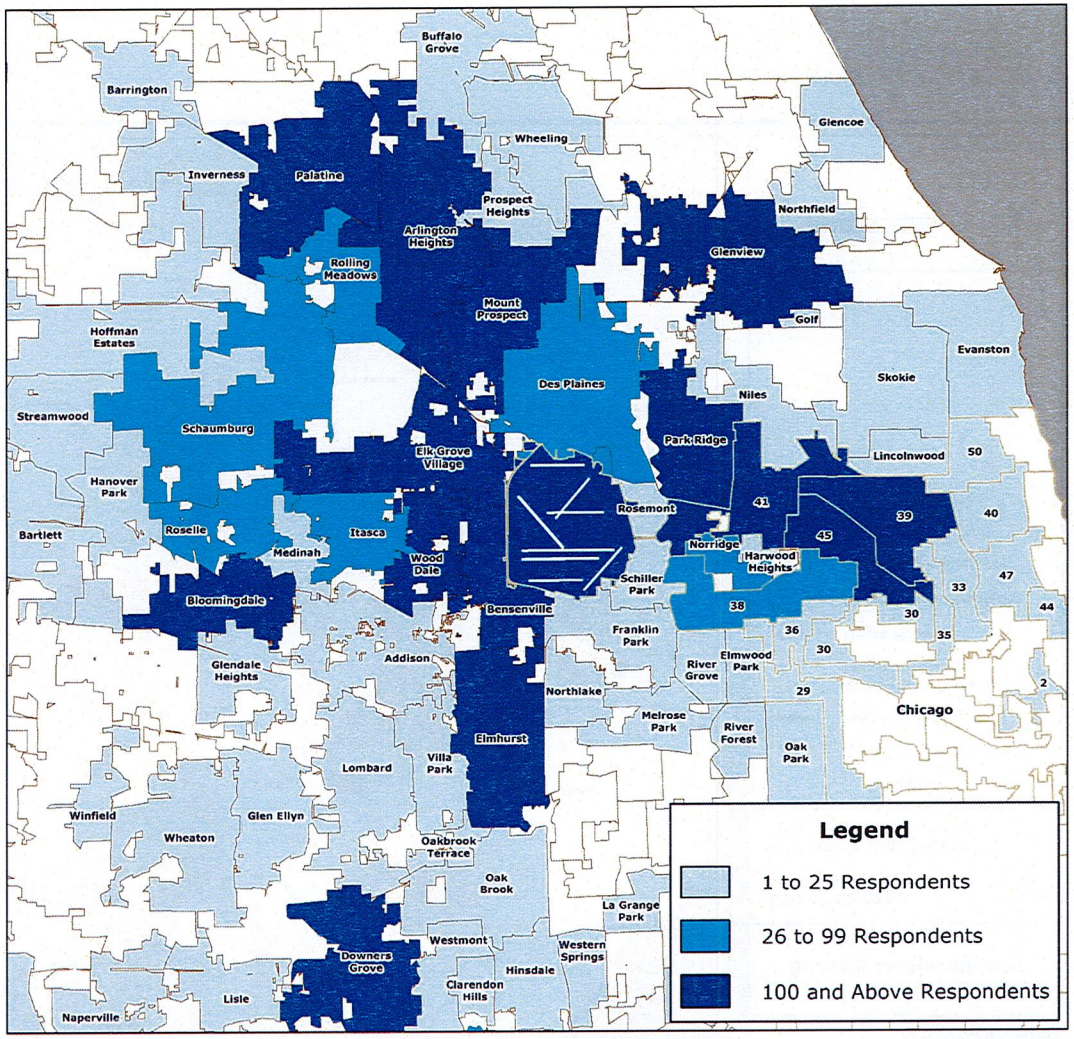
FLEETMIX

Category	AVG	%
Regional Aircraft	13	13.4%
Narrow-Body Aircraft	54	55.7%
Wide-Body Aircraft	29	29.9%
General Aviation	1	1.0%
Average Fly Quiet Operations =	**97 Operations**	**100.0%**

Reference Draft Report: Draft Report: page 23

SURVEY RESPONDENTS

- Total Responses = 6,160
- Total Respondents = 3,837
- 84 Communities



Reference Draft Report: Draft Report: page 8

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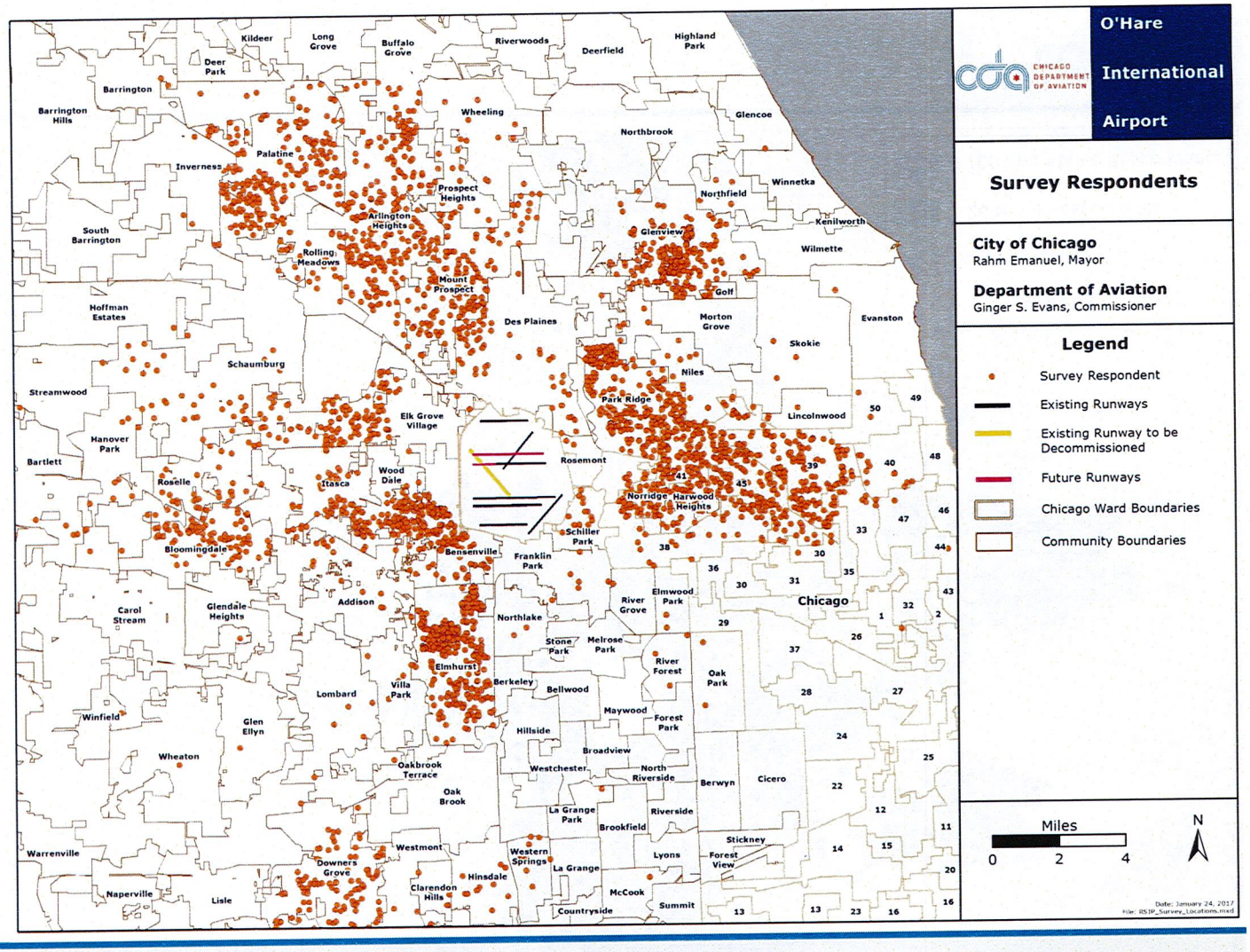
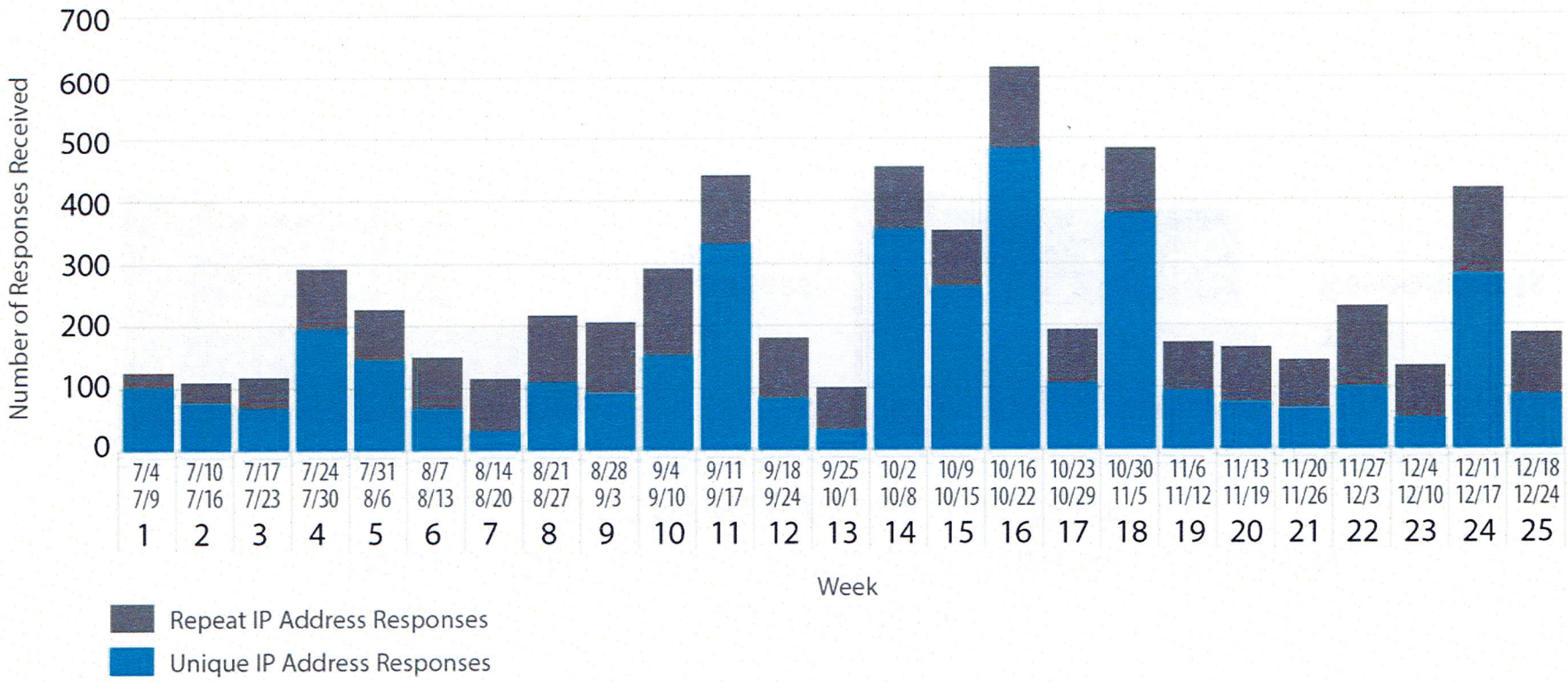


Reference Draft Report: Draft Report: page 48

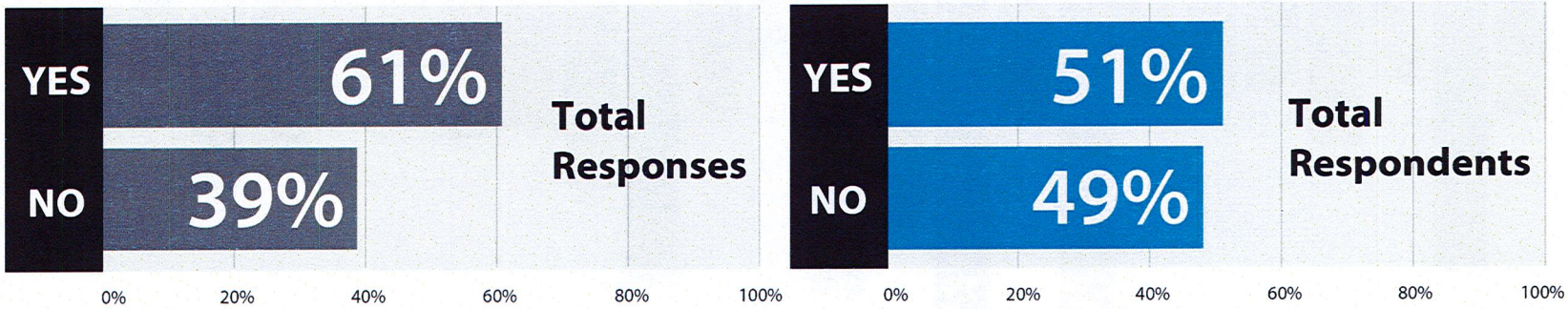
SURVEY RESPONSES: WEEKLY



Reference Draft Report: Draft Report: page 9

SURVEY RESPONSES

QUESTION 17:
WOULD YOU LIKE THE FLY QUIET RUNWAY ROTATION TO CONTINUE AFTER THE TEST?



Would you like the Fly Quiet Runway Rotation to continue after the test?

A. YES
B. NO

Reference Draft Report: Draft Report: page 9

FLY QUIET RUNWAY ROTATION TEST HIGHLIGHTS

	MIN	AVG	MAX
1. **Fly Quiet Start:**	10:00 PM	10:42 PM	2:12 AM
2. **Fly Quiet Stop:**	5:21 AM	5:42 AM	7:00 AM
3. **Rotation Start:**	--	11:16 PM	--
4. **Rotation Stop:**	--	5:25 AM	--

5. **Nights in Rotation:**	152/172 nights
6. **Longest Duration of Fly Quiet:**	9:00
7. **Longest Duration of Rotation:**	7:27
8. **Operations on Primary Runways:**	45%
9. **Operations on Secondary Runways:**	22%

FLY QUIET RUNWAY ROTATION TEST HIGHLIGHTS

10. Noise Monitors with events over 65 dB:	29/33
11. Noise Monitors with events over 85 dB:	4/33
12. Site 28 (Schiller Park) had the most noise events over 65 dB:	27
13. Site 28 (Schiller Park) had the most noise events over 85 dB:	9
14. Winds less than 5 knots (5.75 mph):	12%
15. Winds greater than 5 knots from the West:	50%
16. Winds greater than 5 knots from the East:	20%

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