



FAiR

Allocation in Runways

Improving the quality of life in Chicagoland and NW Indiana neighborhoods negatively impacted by aviation changes.

Agenda

- What is the O'Hare Modernization Program (OMP)
- How the OMP has led to the current noise and pollution crisis
- NextGen System
- Who is FAiR
- What are solutions to help remedy this crisis



Project History:

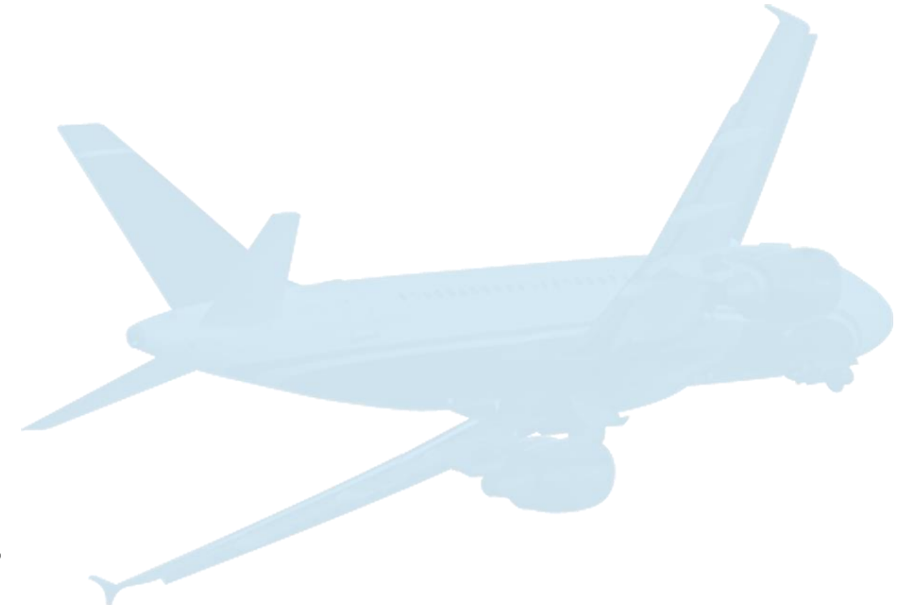
O'Hare Modernization Program (OMP)

Timeline



History of the OMP

- In 2001 the City of Chicago proposed a ~\$7 billion reconfiguration of O'Hare, known as the **O'Hare Modernization Program (OMP)**.
- The FAA **approved the OMP** and master plan projects in **September 2005**.
- The OMP changes the airport **from a predominantly intersecting runway configuration to six parallel runways** with two crosswind runways.



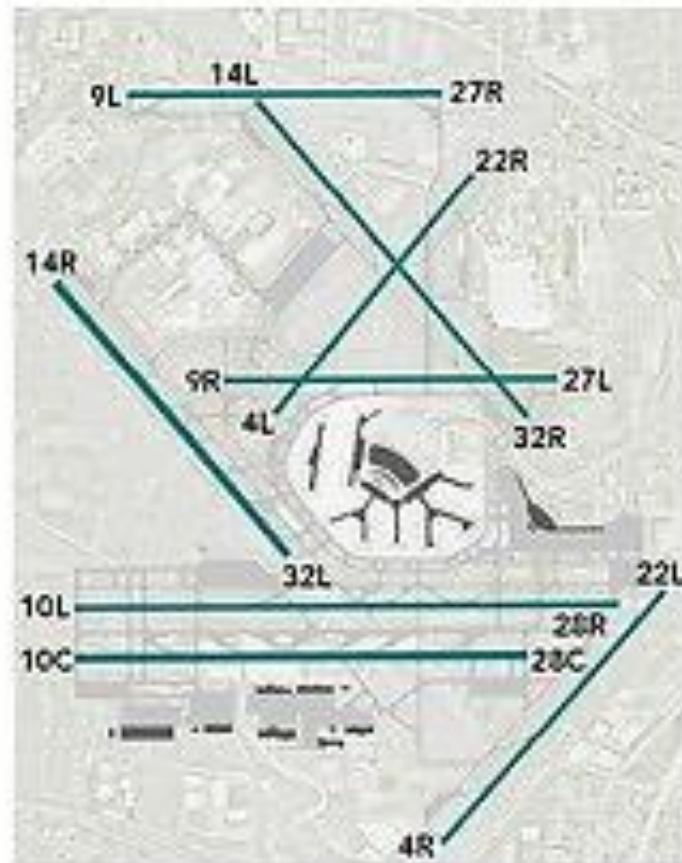
Runway Configuration Timeline



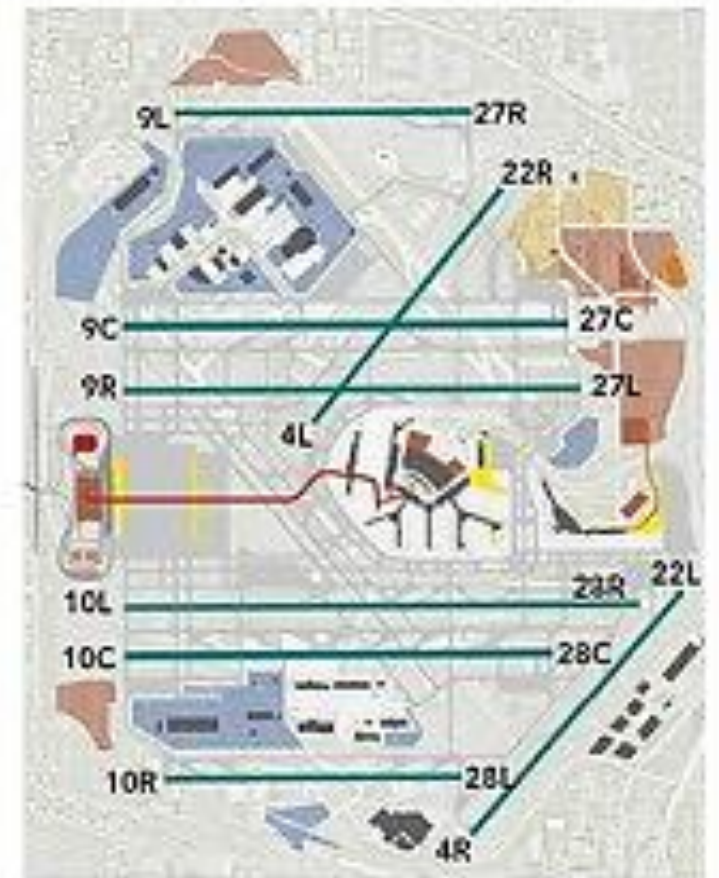
ORD Layout 1950- 2003



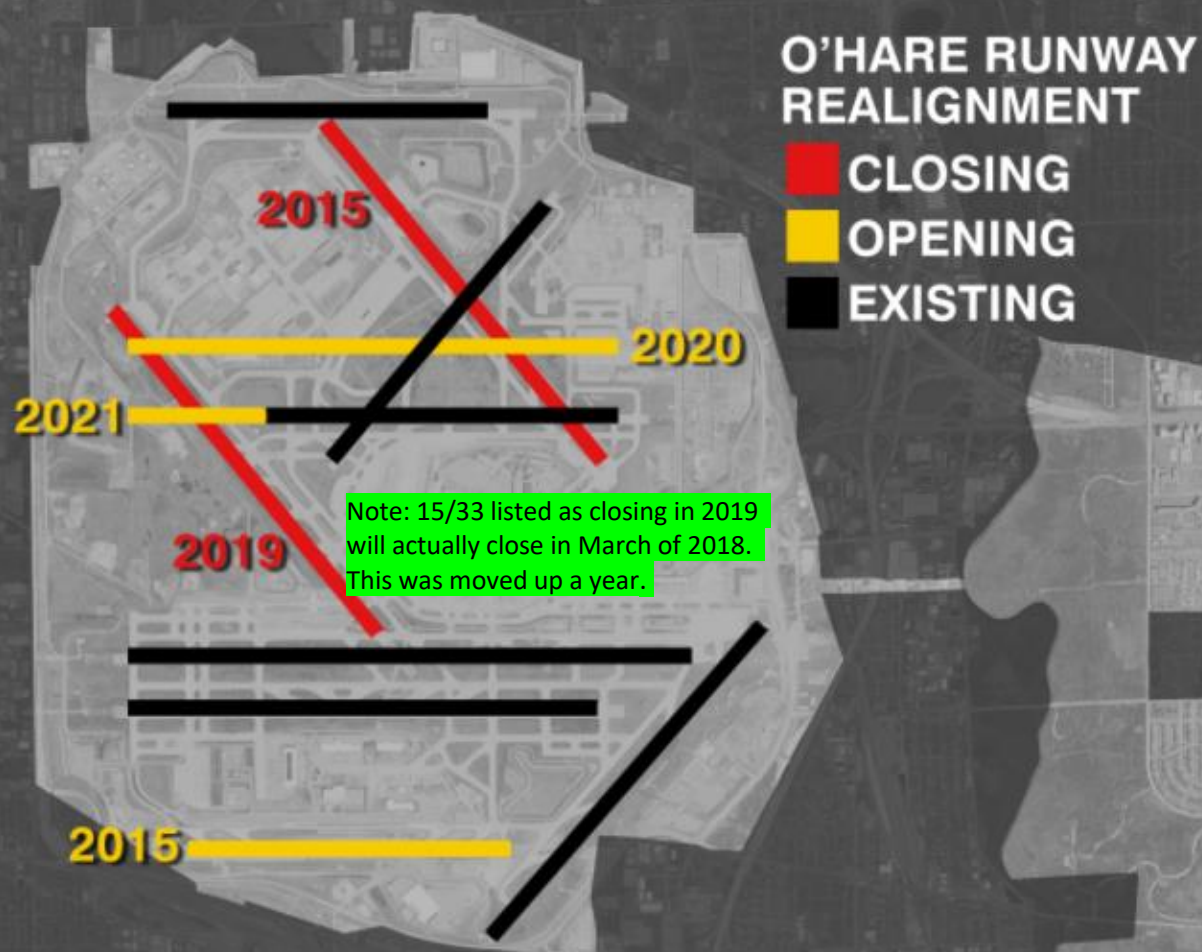
ORD New Runway Layout Starting 2013



ORD Runway Layout 2017 & Future



O'Hare Full Build-Out



Courtesy: FAA & Chicago Dept. of Aviation

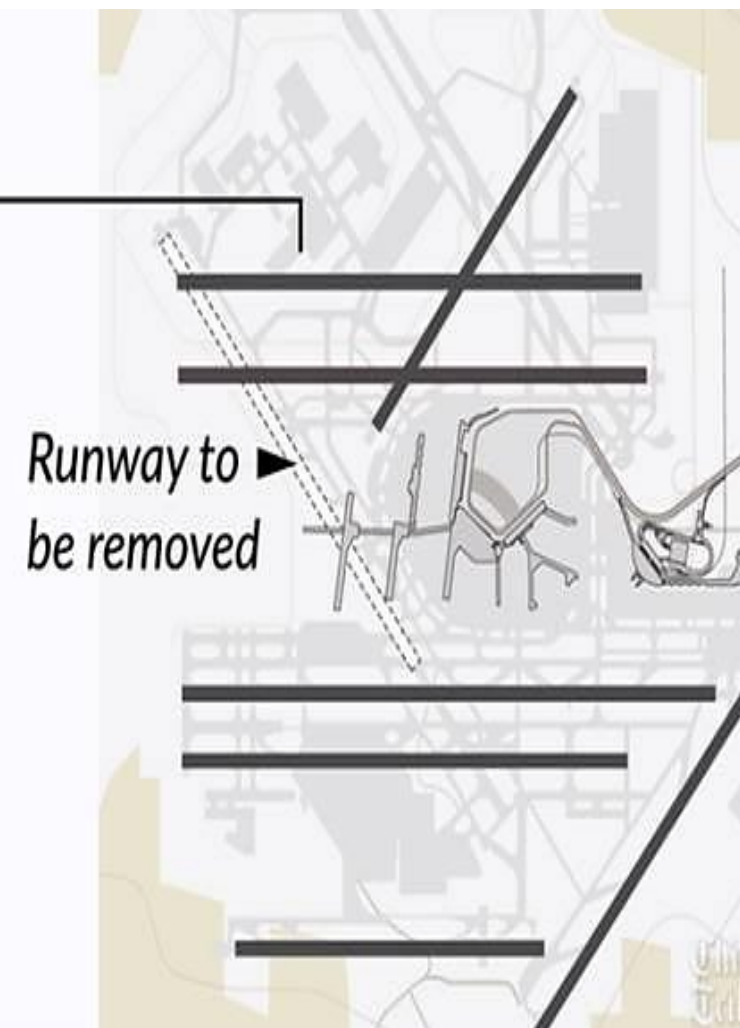
- The OMP reconfiguration will funnel **70% of arrivals** over dense northern portions of Chicago, areas not used to such traffic.
- This massive shift in airplane traffic has put the **burden of noise, fuel, air and visual pollution** almost solely on the residents of North/NW side neighborhoods and near NW suburbs.

O'Hare Full Build-Out



- The **REAL** reason diagonal runway 15/33 was closed, and one year ahead of schedule.

O'Hare's ongoing shift to **east-west runways** from old diagonal runways cleared the space for the expansion and the possibility of two more western concourses, and another western terminal in the future.





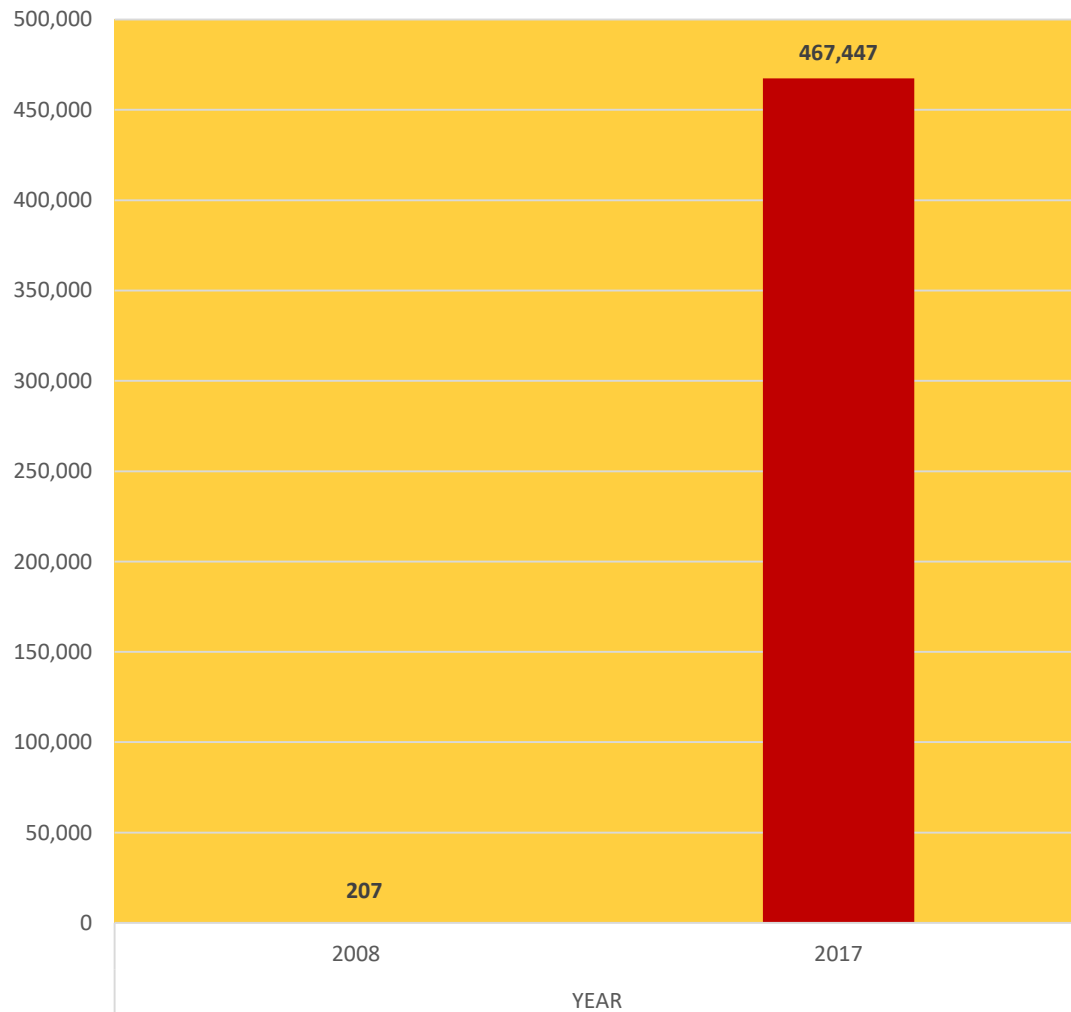
Noise:

Impact of O'Hare Modernization Program (OMP) Build-Out

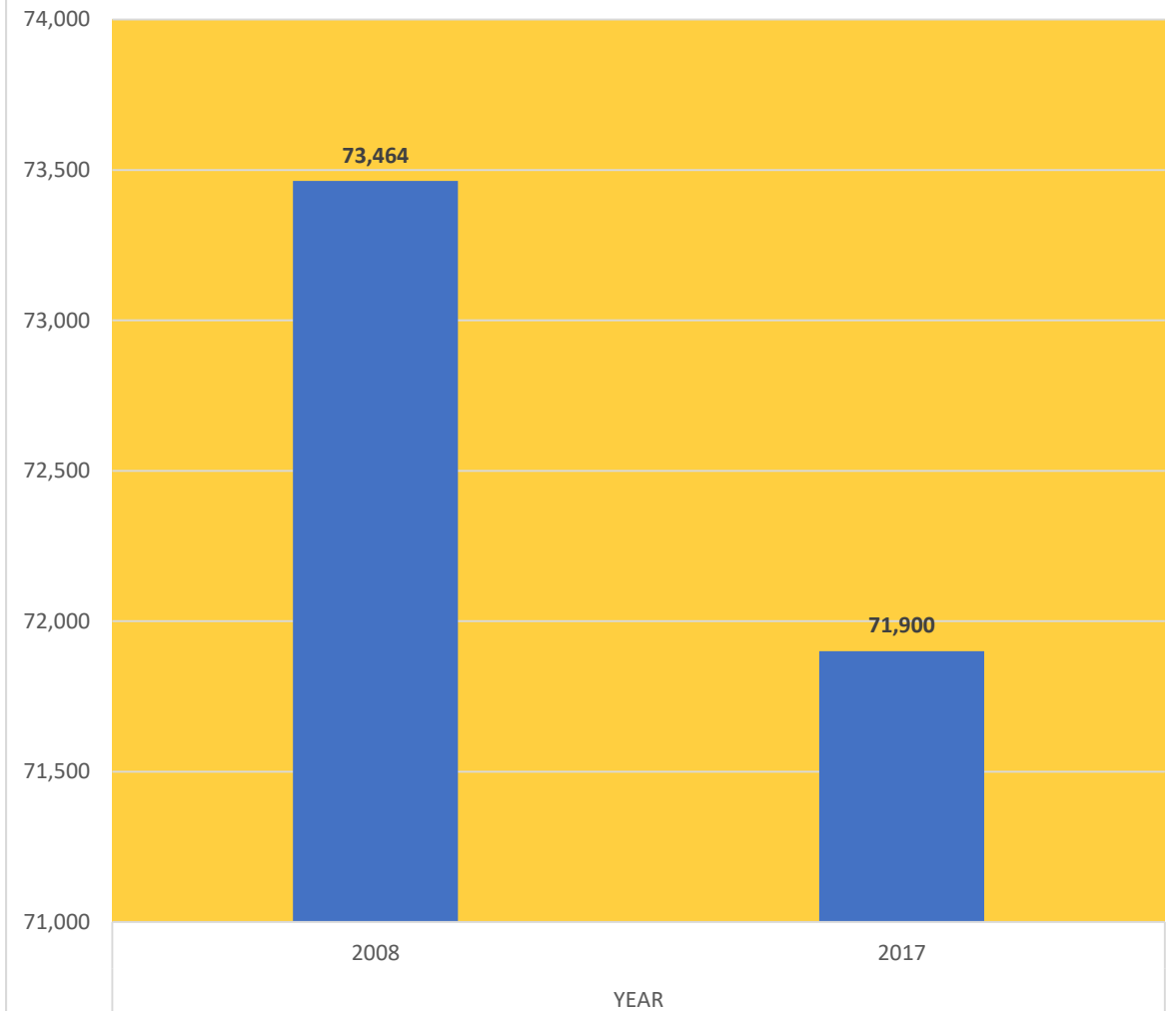
Noise: OMP Impact



Average Monthly Complaints



Average Monthly Operations



Noise: OMP Impact



Among the 10 busiest U.S. airports, as ranked by total 2014 operations, O'Hare racked up the most 2014 noise complaints – and the most complaints – by wide margins.



Rank/Airport	2014 Operations	2014 Complaints	Complaints per 1,000 operations	Avg. complaints per month
1. O'Hare	881,933	268,211	304.12	22,350.9
2. Atlanta	868,359	162	0.19	14
3. Dallas-Ft. Worth	679,820	204	0.30	17
4. Los Angeles	636,706	8,062	12.66	672
5. Denver	575,160	4,522	7.86	377
6. Charlotte*	545,294	12,045	22.09	1,004
7. Las Vegas	522,067	6,422	12.30	535
8. Houston (Bush)	508,940	194	0.38	16
9. San Francisco	431,966	14,999	34.72	1,250
10. New York (JFK)	431,236	23,657	54.86	1,971

*Due to a computer glitch in May and June of 2014, Charlotte provided July 2014 to June 21, 2015 data for its 12-month count.

**Los Angeles counts complainants by individuals, not households or unique addresses.

SOURCES: FAA, individual airports



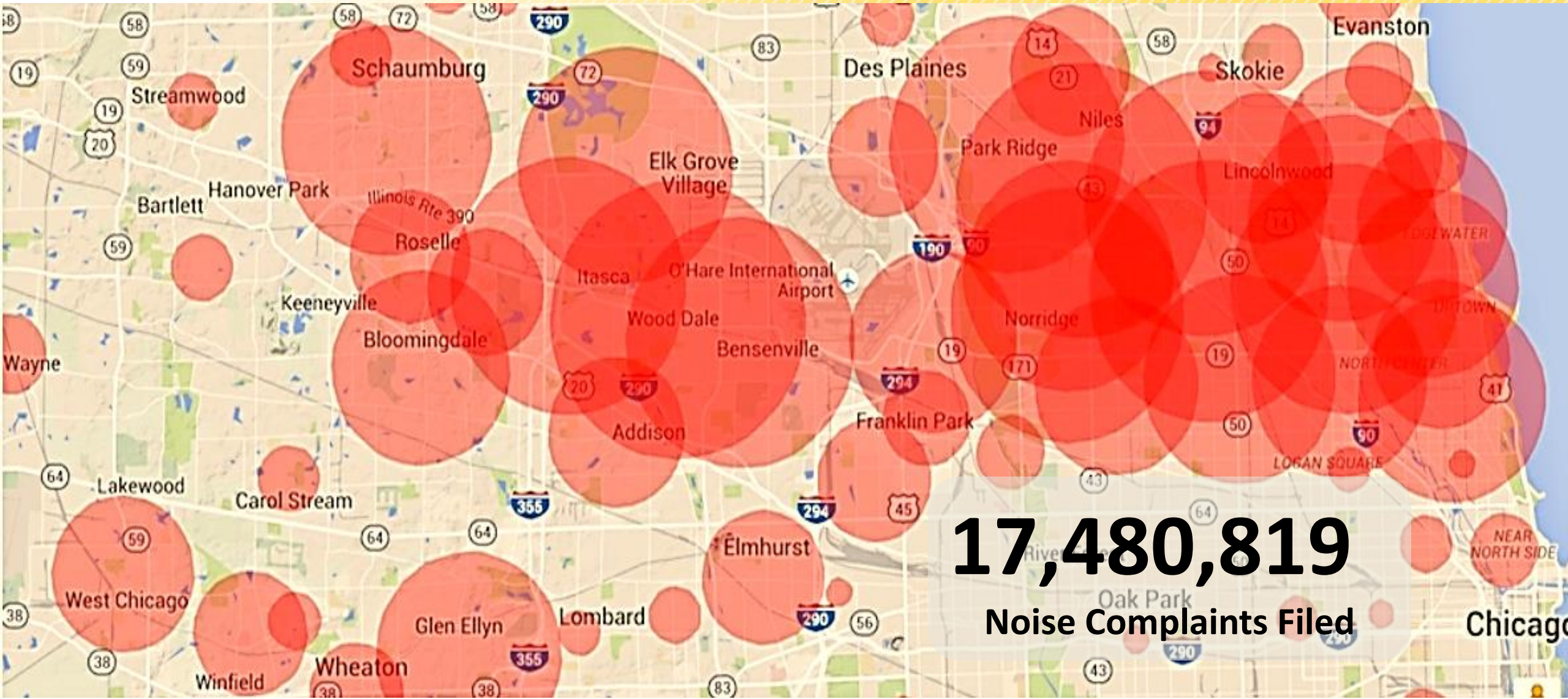
Noise Complaints by Month



Month	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
January	31	860	907	1,349	5,635	1,357	6,321	39,500	359,633	354,185
February	20	1,186	968	1,060	3,236	966	7,472	122,803	343,149	337,094
March	60	1,069	1,222	1,209	2,175	1,402	11,145	352,846	468,691	466,189
April	63	985	1,478	1,099	1,113	1,863	10,961	408,468	459,026	565,697
May	92	1,235	1,168	1,192	1,210	1,881	21,436	407,523	415,778	606,591
June	140	1,131	1,587	1,340	1,332	2,419	22,566	436,119	483,443	483,252
July	138	1,466	1,077	849	1,074	2,280	27,956	382,999	512,849	490,368
August	210	1,649	1,358	2,050	1,470	2,296	30,249	420,716	503,447	427,557
September	151	1,883	1,290	3,120	993	2,124	32,532	388,767	434,796	476,086
October	123	1,514	1,207	3,292	1,366	3,496	33,866	401,379	403,855	519,276
November	271	825	1,234	3,443	877	4,763	30,748	351,873	319,437	465,943
December	1,184	1,055	850	4,044	1,016	4,646	32,959	345,168	263,238	Pending
Total Complaints	2,483	14,858	14,346	24,047	21,497	29,493	268,211	4,058,161	4,967,342	5,192,238



Noise: Complaints By Community



17,480,819

Noise Complaints Filed

Noise: OMP Impact



Noise at Night - Air Cargo

- A **190-percent** increase in inbound air cargo volumes and **300-percent** increase in outbound volumes by 2040 is being predicted.
- The CDA is currently building a new cargo facility to **expand cargo capacity** of the airport by more than **50-percent**.
- DHL opened a new facility in 2015 that added **491,000 square feet of cargo handling capacity** to O'Hare.

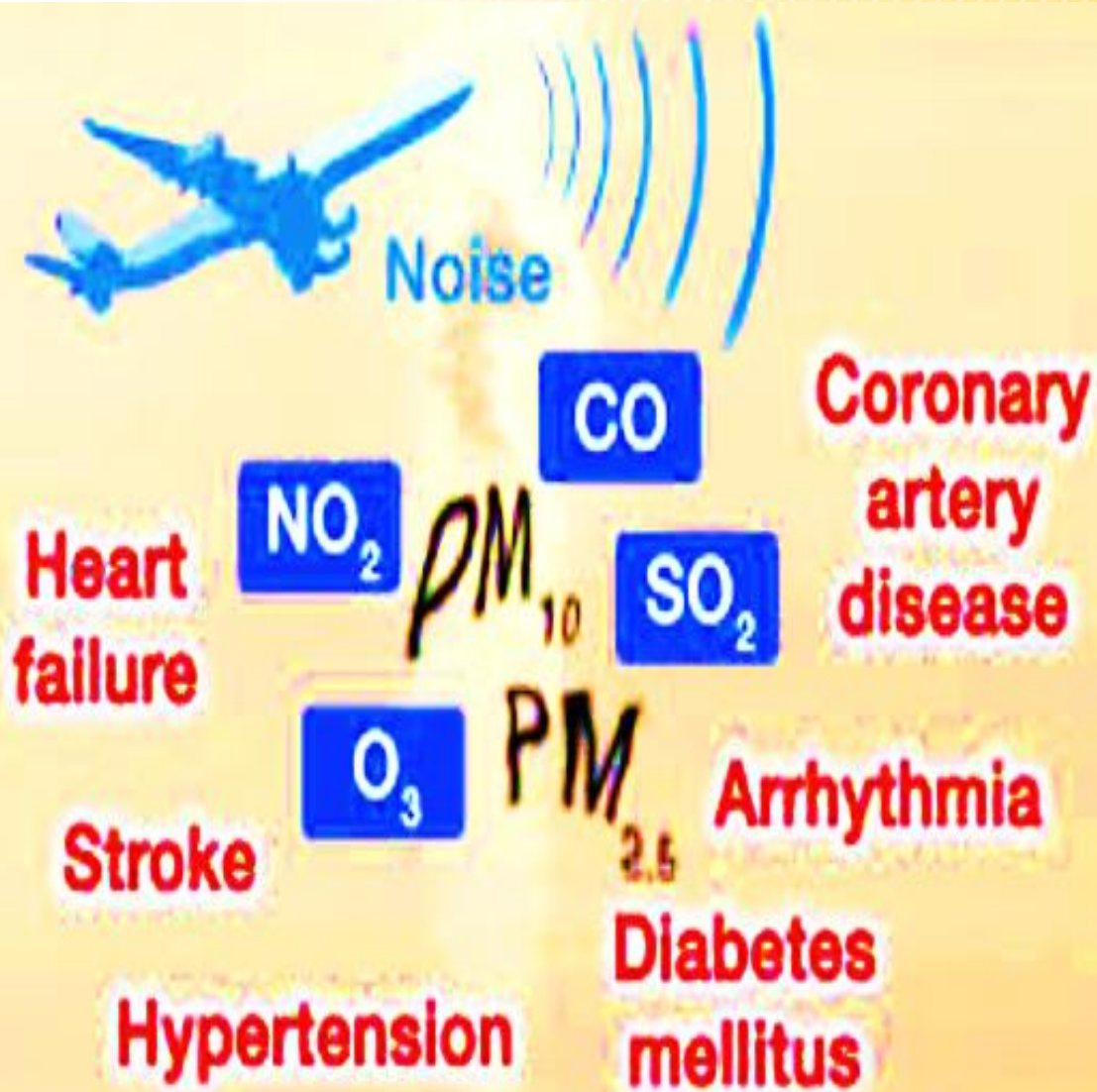
Landed cargo weights for top 10 U.S. airports by volume, 2000 and 2014

	2000	2014	% Change, 2000-14
Memphis (MEM)	12,636,635,340	23,760,172,569	88%
Anchorage (ANC)	16,167,182,855	16,271,897,386	1%
Louisville (SDF)	7,973,435,125	11,568,369,154	45%
Chicago O'Hare (ORD)	4,123,267,738	7,541,411,779	83%
Miami (MIA)	5,858,478,455	7,192,790,882	23%
Indianapolis (IND)	5,767,863,860	5,355,984,715	-7%
Los Angeles (LAX)	5,784,310,530	4,297,359,912	-26%
Cincinnati (CVG)	1,824,952,609	3,644,404,568	100%
New York City John F. Kennedy (JFK)	5,586,263,701	3,170,996,874	-43%
Dallas/Fort Worth (DFW)	3,382,896,291	3,140,733,270	-7%

Note: 2014 figures are based on preliminary data.

Source: Chicago Metropolitan Agency for Planning analysis of FAA data.

Noise: OMP Impact on Health



- Arrhythmia (Irregular heartbeat)
- Cognitive Disturbances
- Coronary Artery Disease
- Diabetes
- Disturbed Sleep
- Emotional Disturbances
- Hypertension
- Heart Failure
- Stroke



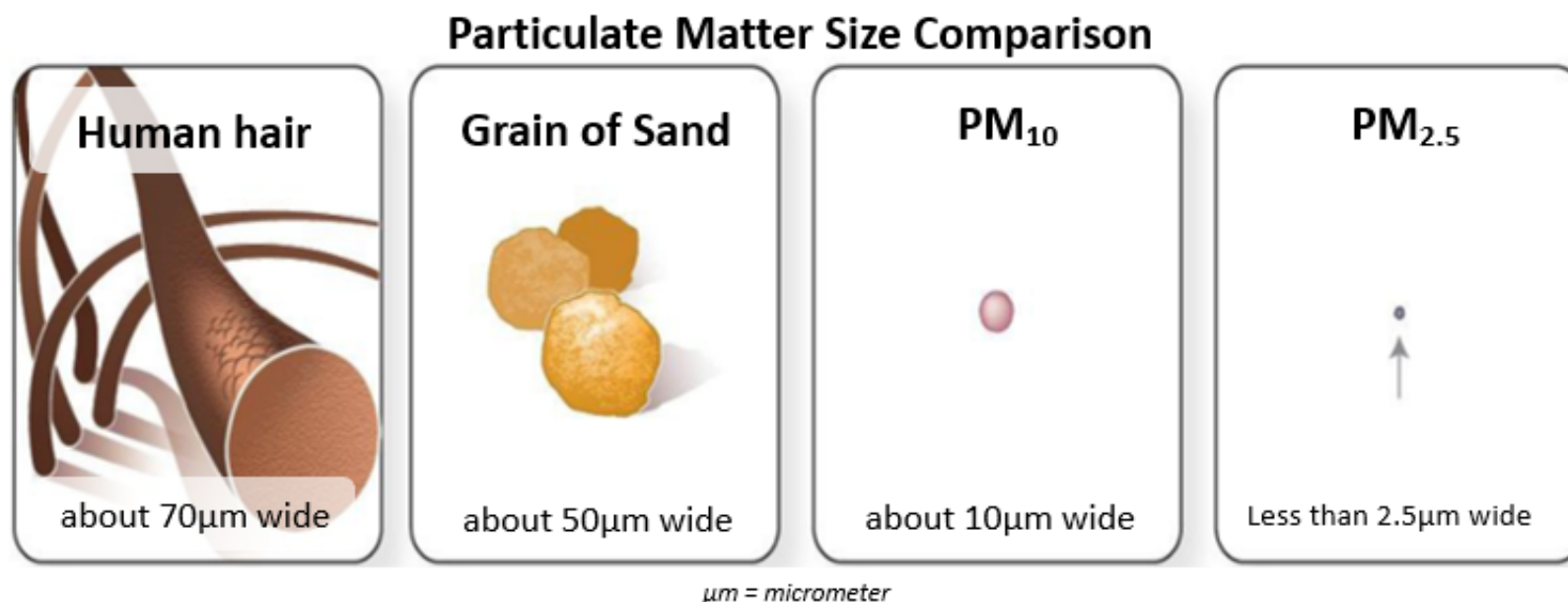
Impact Pollution & Toxins

“Pollution **kills communities,**
not just people....”

– Scott Fulton President, Environmental Law Institute

Pollution: OMP Impact - Particulates

- Particulate Matter(PM), are air pollutants emitted in plane exhaust.
- The smallest particulates ($PM_{2.5}$) can **remain in the air for weeks**.
- Individuals with **pre-existing heart or lung disease, children, the elderly** and **pregnant women** are especially vulnerable to this type of pollution.
- There are **no** safe levels of exposure.



Pollution: OMP Impact - Particulates



Airport emissions have been linked to **cancer, asthma, brain tumors, emphysema, heart disease, leukemia, Hodgkin's disease, kidney damage,** and numerous other conditions.



Pollution: OMP Impact



Local Pollution and Toxic Air Emission Studies

- In 2002, the **City of Park Ridge**, Illinois paid for environmental experts to analyze the effects of the proposed O'Hare Airport expansion on their neighborhood.
- The studies showed that **ORD was/is a major source of toxic air emissions** and those toxic air emissions **impose undesirable cancer risks** on a vast area of residential communities in the Chicago metropolitan area.
- Environ and Mostardi-Platt advised Federal and State agencies, in conjunction with affected communities, need to measure, report, assess and control toxic emissions from O'Hare International Airport. **Permanent and comprehensive monitoring systems should be installed around O'Hare and impacted communities.**

Based on their findings, Environ and Mostardi-Platt concluded:
O'Hare International Airport should NOT be expanded.

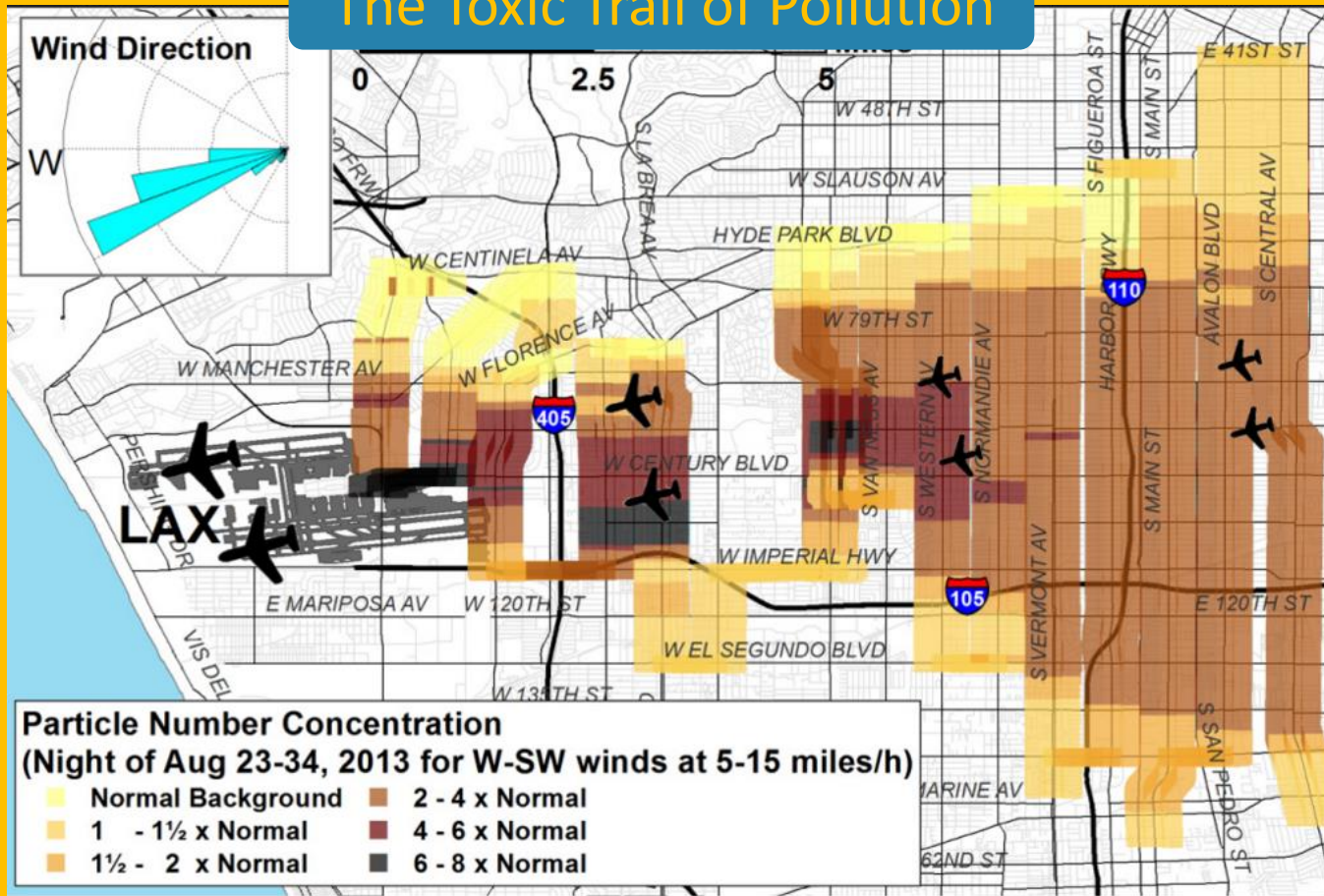
Pollution: OMP Impact



A 2014 air quality study conducted by the University of Southern California Keck School found pollution levels within **nine square miles** of Los Angeles International Airport (LAX) were **10 times higher** than in other parts of LA and affects neighborhoods up to 10 miles east of the airport.

Pollution: OMP Impact

The Toxic Trail of Pollution



O'Hare International Airport (ORD) is **4x larger in size than LAX**. Chicago is also much more densely populated than LA with **nearly 12,000 residents per square mile over Los Angeles's 8,300 residents per square mile**.



Concentrated Noise

Next Generation Air Transportation System (NextGen)

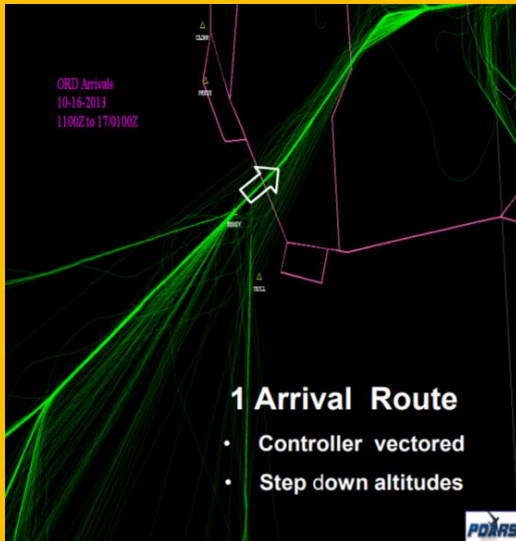
What is **NextGen**?

Next Generation Air Transportation System (NextGen) is a **National Airspace System** being implemented across the **United States**. It converts current radar based tracking to GPS or satellite based.

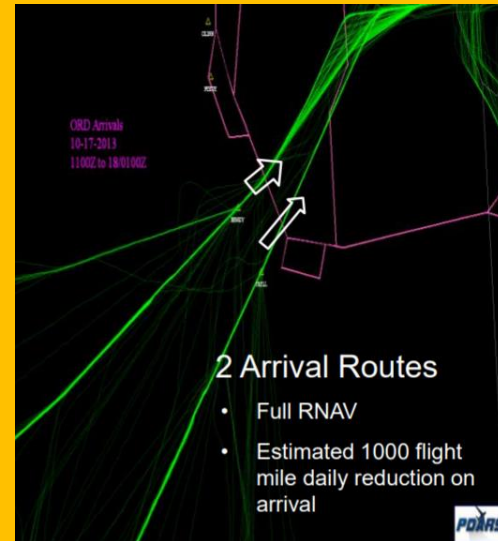
NextGen: Noise Concentrated



Arrival Routes

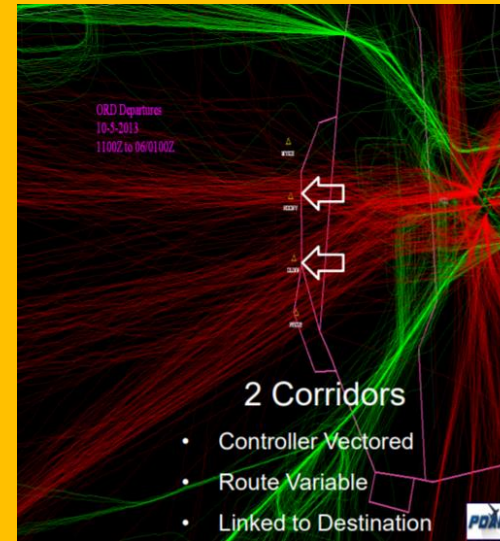


Before CAP

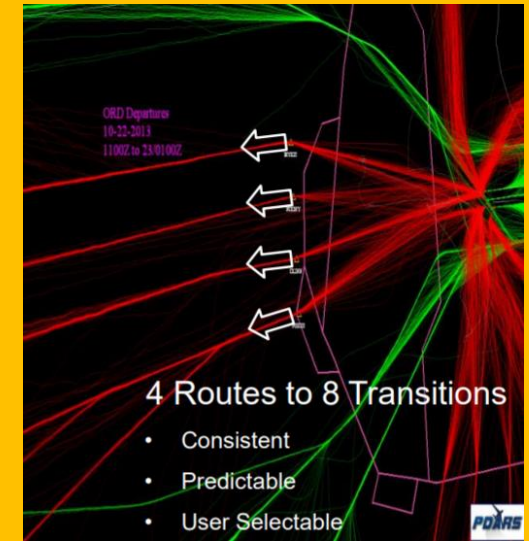


After CAP

Departure Routes



Before CAP



After CAP

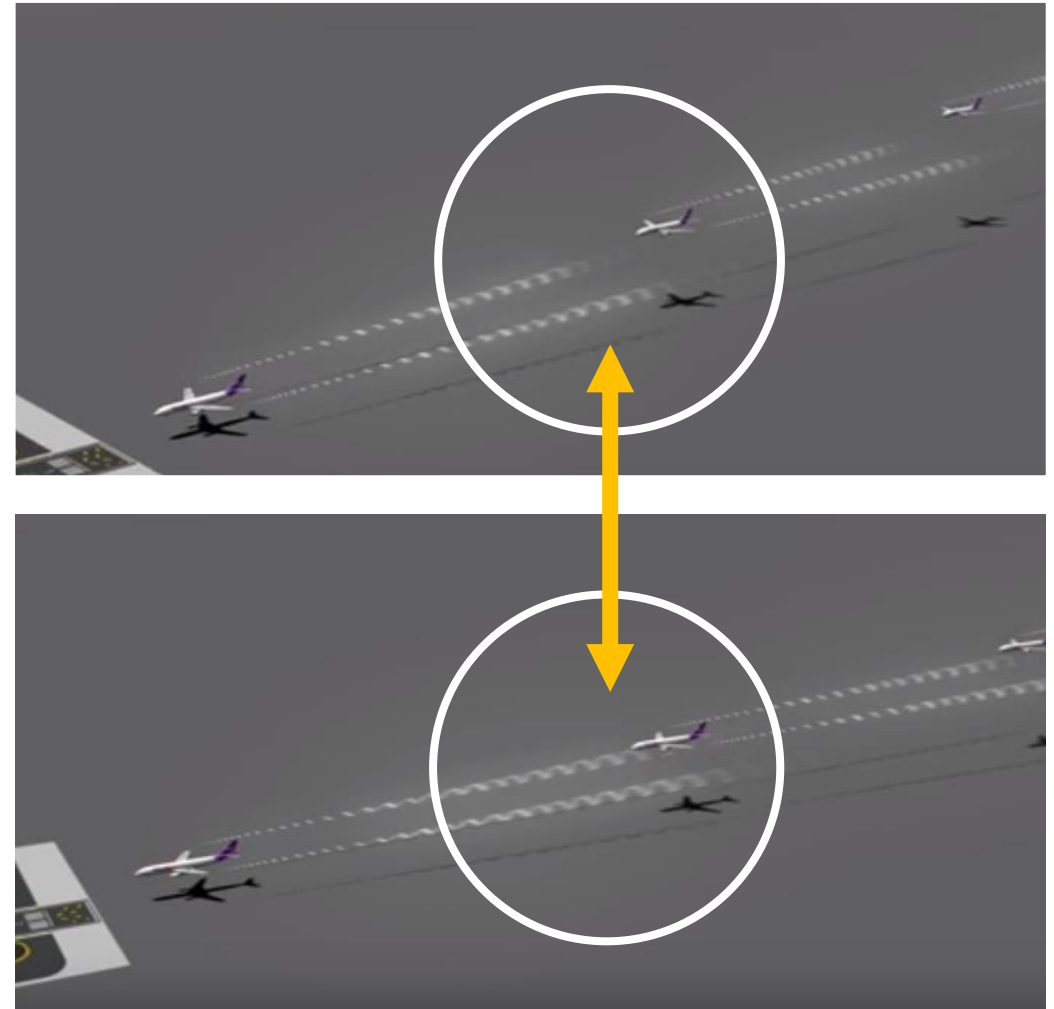
NextGen will put all aircraft into a few narrow corridors, creating concentrated noise. **Flight paths will shrink from miles wide to a mere couple of thousand feet** and planes will fly at lower altitudes and closer together.

NextGen: Noise Concentrated



The **Wake Recat system** part of NextGen (and being implemented in Chicago) enables planes to **fly closer together** during take-off and landing.

What could go wrong? >>>>



Nationwide Fight Against NextGen



Noise complaints and legal filings have **exploded** from San Diego to Charlotte, North Carolina; Phoenix, Arizona to Baltimore, Maryland; and from Florida to New York as flights are **concentrated at lower altitudes, in narrower paths and on more frequent schedules.**

“FAA officials knew a decade ago some homeowners would suffer more noise because of the changes, but hoped their complaints would be offset by the people who benefited.”

-- David Grizzle, a former FAA chief operating officer

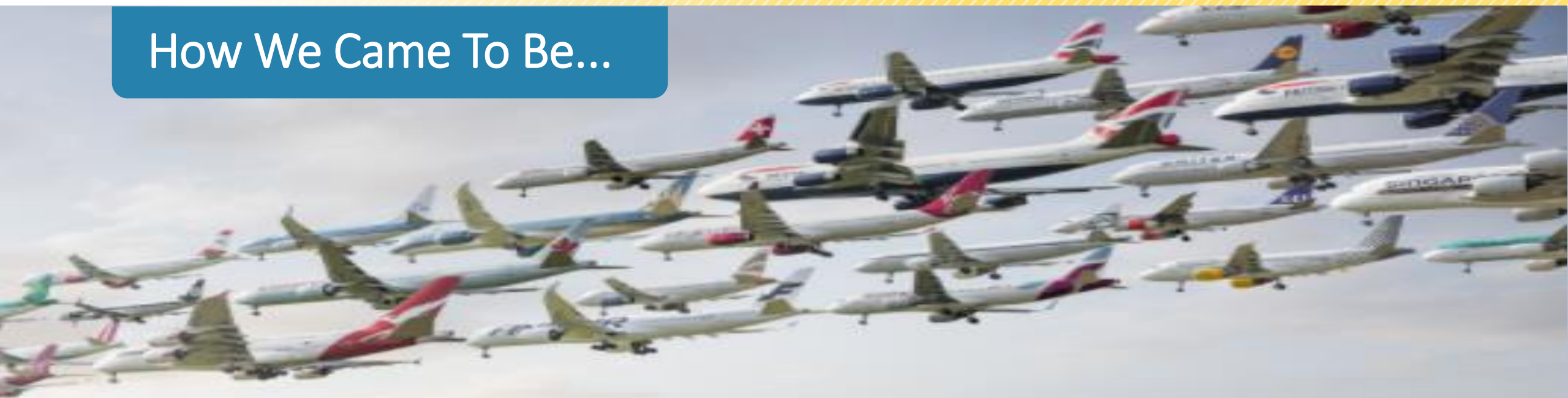


Citizens Fighting Back: Fair Allocation in Runways (FAiR)

What and Who is FAiR?



How We Came To Be...



- In **October 2013**, residents around O'Hare woke up to a new “**sky superhighway**” over their homes caused by runway configuration changes.
- Tranquil neighborhoods— **including Mayfair, Norwood Park, Park Ridge, Wood Dale, Itasca and the 39th, 40th, 41st and 45th wards** in Chicago were suddenly dealing with a heavy stream of plane traffic day and night.
- This dramatic change in flight paths from diagonal runways to predominantly east-west parallel runways was made **without resident input or informed consent**.

What and Who is FAiR?



Neighbors from these communities got together to discuss the issue of noise and pollution and what they could do about it.

– The premise and name of **FAiR** came about in these meetings

These runway changes have **negatively affected our daily lives, our sleep, health and our property values** by increasing noise and pollution over communities.

Who We are Now...

- As the number communities affected by noise has grown both east and west of the airport, so has FAiR.
- We launched a **new website** and membership continues to grow daily as do our **Facebook** and **Twitter** followers.
- We filed for non-profit status to strengthen the organization and to **enable members to contribute to our cause.**

On July 10, 2017 we received **501c3 non-profit status!**

The Facts

- New Runway configurations **negatively** impact **Chicago and suburban neighborhoods**
- Increased air traffic means **increased noise pollution**
- Increased air traffic means **increased air pollution**
- Citizens can take action, including **legal action**

YOU CAN HELP!



Solutions

FAiR Solutions



1. **Support and champion immediate and long-term solutions** to mitigate and abate noise and air pollution generated by current and future airport operations.
2. **Educate community members, elected and appointed officials and business interests** that increasing the utilization of regional airports is necessary to safely meet the future airport capacity needs of the entire region. This includes the **use of regional airports such as Gary Chicago, Rockford**, and the yet to be constructed South Suburban Airport.

Help Make The Solutions COUNT!

3. **Coordinate interested residents and businesses into strong, influential support groups** to rally for a community-sensitive, regionalized aviation policy.
4. **Litigate** if necessary to compel our elected and appointed political representatives to enforce existing municipal, state, and federal laws on behalf of the public interest.

Together Our Voices COUNT!



Legal Action

Noise Fight Nationwide



- There are currently 2,000+ noise lawsuits against the FAA winding through courts.
- Noise precedents have been established in Los Angeles, CA; Laguna Beach, CA and Phoenix, AZ.
- In October 2017, Baltimore, MD became the latest city to file suit against the FAA.



Noise: OMP Impact Local Battle



Bensenville Residents Win Round 1 Against Airplane Noise!

In 2015, the owners of **65 homes in Bensenville** filed suit, against the City of Chicago, asserting claims of "inverse condemnation" regarding airplane noise. In October 2017 the homeowners **claimed a significant victory** after a Cook County judge allowed a lawsuit against Chicago to proceed.

The case has been in limbo since 2015 as lawyers for Chicago tried to get the case dismissed.

The **lawsuit seeks, at a minimum, that residents be compensated** for the fair value of their homes before the runway opened.

Chicago Legal Department Officials Have Repeatedly Said This Complaint Has No Merit...

Laguna Beach Wins Departure Case!



- Laguna Beach reached a settlement with FAA in the city's lawsuit over departure patterns at John Wayne Airport.
- Aircraft will be required to cross the coast south of Laguna Beach at an altitude of more than 10,000 feet. This is expected to decrease airplane noise for residents.
- At the city's urging, the FAA already decreased the percentage of planes turning early over Laguna Beach from 55% of flights in 2014 to 11% of flights in 2017.

ARSAC Wins for Southern CA Region



- **Alliance for a Regional Solution to Airport Congestion (ARSAC)** is a grass roots organization formed in 1995 in Southern California.
- Its mission is to establish a unified voice of elected officials, business and community leaders to promote a regional solution for the future commercial aviation demands of the entire Southern California region.
- Together they have improved airfield safety without moving runways closer to airport neighbors.
- These taxiway enhancements will result in a reduction in aircraft emissions, thereby protecting the surrounding communities and the 50,000 people working at LAX.

Phoenix Forces FAA to Address Noise



On August 29th, 2017, the U.S. Court of Appeals for the District of Columbia Circuit agreed with the city of Phoenix and its historic districts that the FAA was “arbitrary and capricious” in its flight procedure revisions in that area. The court said by leaving people in the dark the agency made it impossible for the public to express views on the project’s potential effects — something the FAA is especially required to do for historic places and parks.



NOISE ACTION PLAN

FAiR is formulating a comprehensive NOISE ACTION PLAN

Important noise mitigation measures include but are not limited to:

O'Hare All Hours:

- Increase glide slope to 3.2 degrees to increase altitude and reduce noise of arrivals
- Eliminate visual approaches to increase altitude and reduce noise of arrivals
- Mandate vortex generators on all A300 series aircraft to reduce noise of arrivals
- Set phase-out for Stage 3 engines

O'Hare Fly Quiet:

- Make Fly Quiet mandatory from 10pm to 7am
- Mandate full-length runway departures of all aircraft to increase altitude and reduce noise of departures
- Limit operations to 1 arrival and 1 departure runway from 10pm-12am and 5am-7am
- Enact full curfew from 12am-5am

National:

Revise outdated ANCA to reflect noise impacts that didn't exist in 1990

Revise outdated DNL metric

Mandate environmental standards for aircraft

Regional:

Reduce operations at O'Hare and Midway through use of Rockford, Gary Chicago, and SSA

Establish Select Committee similar to Bay Area

Tax credits for homeowner funded noise mitigation

Overnight Curfew



- Fly Quiet is **unsustainable** without runway 15/33.
- The impacts are **too great** on the East/West and 4/22 communities as shown in Test 3 and proposed IFQ
- Demand management is **critical** for the **entire** period of 10 pm to 7 am



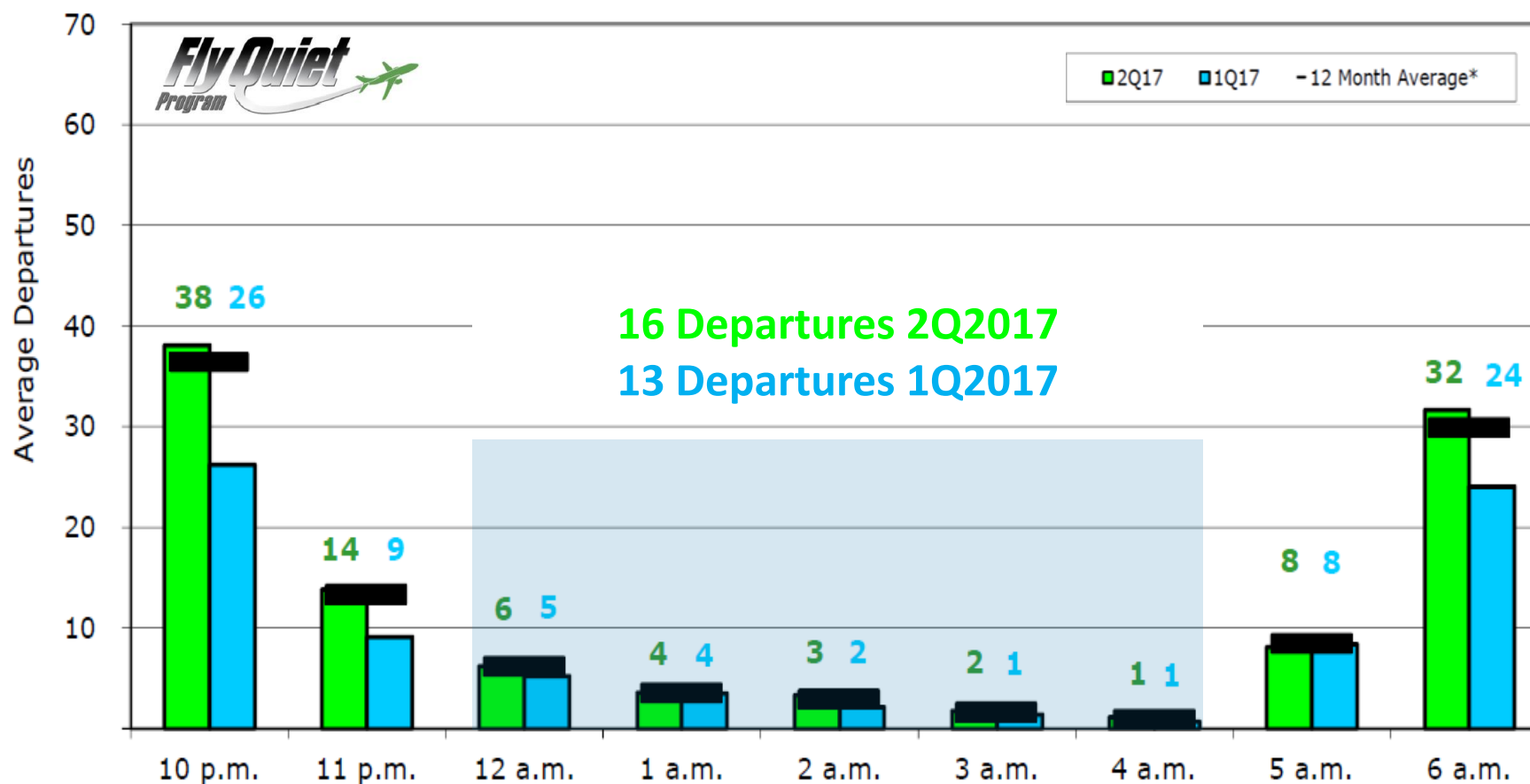
What We Propose



- Make Fly Quiet **mandatory** from 10pm - 7am
- Restrict all runway operations from 12am -5am
 - This is the lowest demand period and averages 50 flights or 2% of total operations
- Limit operations from 10pm-12pm & 5am-7am to 1 arrival and 1 departure runway

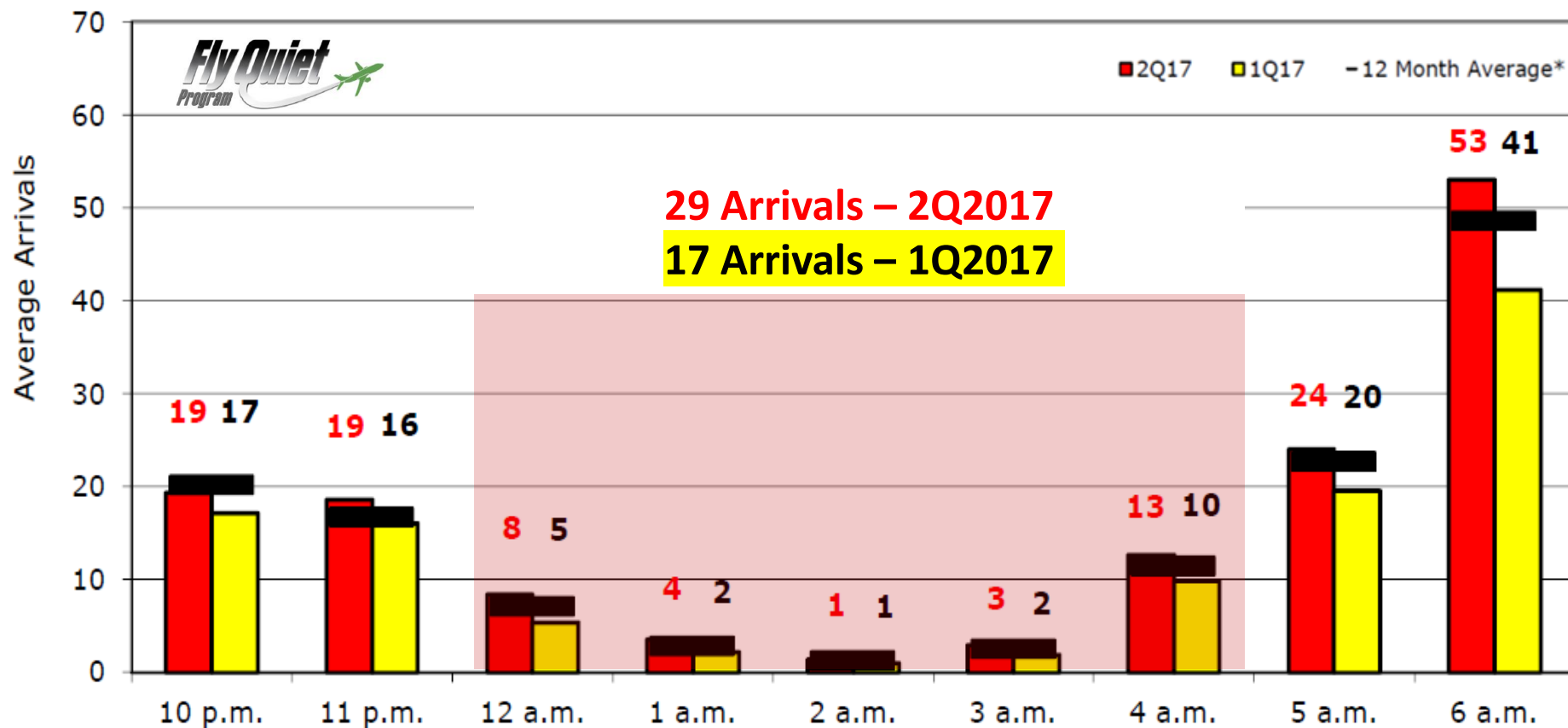
Average Departures by Hour

Operations by Hour (%)										
2Q 2017	10 p.m.	11 p.m.	12 a.m.	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	Total
Departures	35.4%	12.8%	5.8%	3.3%	3.1%	1.7%	1.0%	7.5%	29.4%	100%



Average Arrivals by Hour

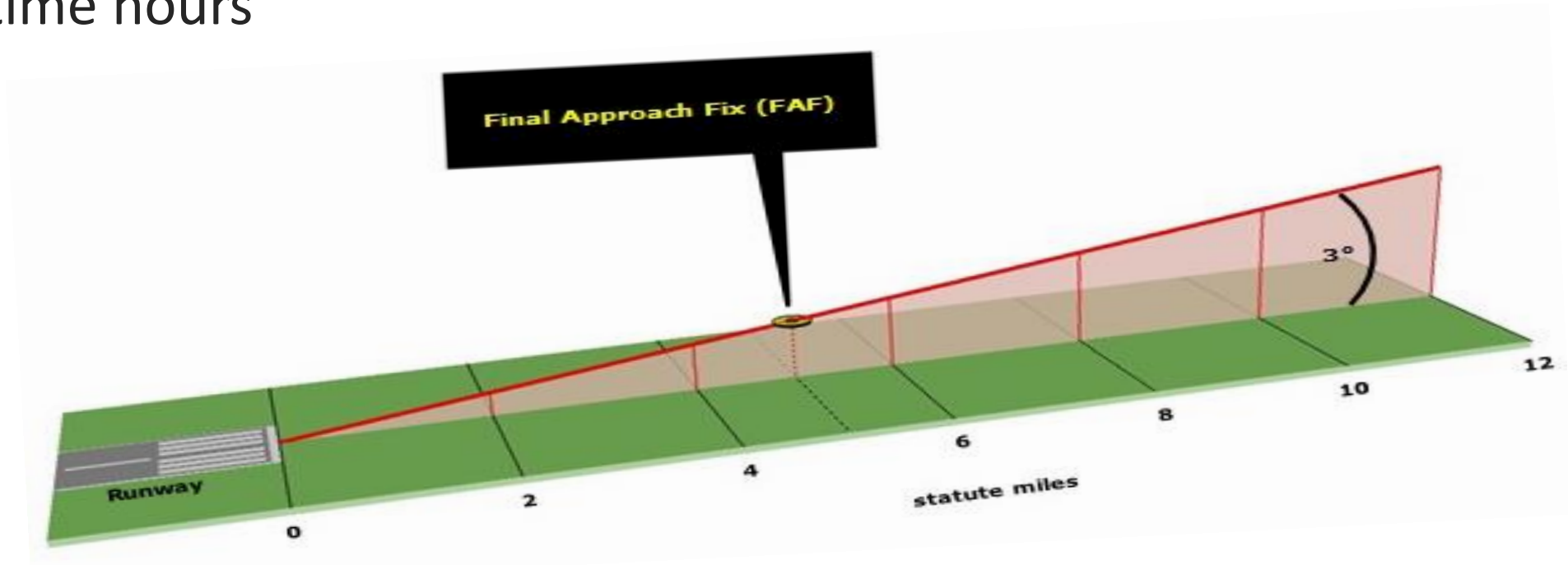
Operations by Hour (%)										
2Q 2017	10 p.m.	11 p.m.	12 a.m.	1 a.m.	2 a.m.	3 a.m.	4 a.m.	5 a.m.	6 a.m.	Total
Arrivals	13.4%	12.9%	5.9%	2.4%	1.0%	2.0%	8.8%	16.7%	36.9%	100%



* 12 Month Average equals the average of 3Q 2016, 4Q 2016, 1Q 2017 and 2Q 2017

How Can We Increase Altitude?

- Increase glide slope for arrivals to 3.2 degrees to reduce noise
- Eliminate visual approaches for arrivals
- Mandate full-length runway departures during FQ and low demand daytime hours





Be a part of the movement:
Call to Action

Reject the Status Quo!



“...You can’t fight city hall...the Chicago Machine always wins”

Other cities - Bensenville, IL; Phoenix, AZ; Los Angeles, CA; Laguna Beach, CA etc. have all successfully fought airport “modernization” through legal means and it is time that we do the same!

“...I’ve lived here all my life and there has always been noise from O’Hare”

Many of you experienced little or no noise from O’Hare. Then suddenly in 2013 we woke up and had superhighways over their heads due to new runway configurations. **We didn’t move to the airport – it moved over us.**

“Status quo is, you know, Latin for ‘The mess we’re in.’”
~Ronald Reagan

Join the Fight!



Join FAiR and Help Us Protect Our Neighborhoods!

- **Join FAiR** today to receive our newsletter and stay informed www.fairchicago.org
- Volunteer or join a FAiR committee. We need you!
- Consider making a financial contribution to FAiR. Contributions are essential for the vitality of the organization and go toward operating costs, outreach and legal activities.
- **Follow us on Twitter:** @FairChicago
- **Follow and Like us on Facebook** <https://www.facebook.com/FairAllocationInRunways/>
- **File a noise complaint** through the City of Chicago site through our app on website (chicagonoise.complaint.com)
- **Contact Your Elected Officials**



Tell Your Friends and Neighbors about FAiR!

What Can You Do?



Support FAiR's efforts and
make a contribution today!

Thanks!



Thank You!