Airport Noise and Health

Dennis Graham PhD, ANP-BC R/D Committee

Airplane noise and children learning

- There is sufficient evidence for a negative effect of aircraft noise exposure of children's cognitive skills such as reading and memory, as well as on standardized academic test scores.
- Evidence is also emerging to support the insulation of schools that may be exposed to high levels of aircraft noise.
- A range of plausible mechanisms have been proposed to account for aircraft noise effects on children's learning.
- Further knowledge about exposure—
 effect relationships in different contexts
 would further inform decision-making.

To date, few studies have evaluated the effects of persistent aircraft noise exposure throughout the child's education, and there remains a need for longitudinal studies of aircraft noise exposure at school and educational outcomes.

Conclusions

- There is sufficient evidence for a negative effect of aircraft noise exposure on children's cognitive skills such as reading and memory, as well as on standardized academic test scores.
- Evidence is also emerging to support the insulation of schools that may be exposed to high levels of aircraft noise.
- 1. Clark C, Martin R, van Kempen E, Alfred T, Head J, Davies HW, et al. Exposure-effect relations between aircraft and road traffic noise exposure at school and reading comprehension **The RANCH project. Am J Epidemiol. 2006;163:27–37**. [PubMed]
- 2. Stansfeld SA, Berglund B, Clark C, Lopez-Barrio I, Fischer P, Ohrstrom E, et al. Aircraft and road traffic noise and children's cognition and health: A cross-national study. Lancet. 2005;365:1942–9. [PubMed]

Sleep Disturbances

Aircraft noise effects on sleep

- Noise-induced sleep disturbance is considered the most deleterious nonauditory effect of environmental noise exposure.
 - The auditory system has a watchman function and constantly scans the environment for potential threats.
 - Humans perceive, evaluate, and react to environmental sounds while asleep.[29] At the same
- Sleep is a biological imperative, and a very active process that serves several vital functions.
- Undisturbed sleep of sufficient length is essential for daytime alertness and performance, quality of life, and health.

Conclusions

- Epidemiologic evidence is overwhelming that chronically disturbed sleep is associated with negative health outcomes (such as obesity, diabetes, and high blood pressure)
 - Undisturbed sleep is a prerequisite for high daytime performance, well-being and health.
 - Aircraft noise can disturb sleep and impair sleep recuperation.
- Further research is needed to derive reliable exposure—response relationships between aircraft noise exposure and sleep disturbance.
- This research will inform political decision-making and help mitigate the effects of aircraft noise on sleep.

Aircraft noise and cardiovascular disease hospitalizations and mortality

- Two large studies have found associations between aircraft noise and heart disease and stroke one of these examined hospitalization rates in 6 million adults aged 65 years and over living near 89 US airports,[41
- The second examined hospitalization and mortality in a population of 3.6 million potentially affected by noise from London Heathrow airport. [42]
- These studies used a small area (ecological) not individual-level design, so may not have fully accounted for confounding factors.

- Two individual-level studies have found associations between heart disease and stroke
 - in subgroups who had lived in the same place for >15-20 years; one a crosssectional study of approximately 5000 individuals living near seven European airports,[43
- The second a census-based study of 4.6 million individuals in the Swiss National cohort. [44] A further two individual-level studies, of heart disease mortality in adults in Vancouver, and stroke mortality in 64,000 adults living in Denmark did not find associations possibly due to the fact that the study areas had low levels of noise.

How does airplane noise cause disease to the heart and blood vessels?

."Effects of noise on vascular function, oxidative stress, and inflammation: mechanistic insight from studies in mice" Munzel et al 2017

We established a novel and unique <u>aircraft noise stress model with increased blood</u> <u>pressure and vascular dysfunction associated with oxidative stress.</u> This animal model enables future studies of molecular mechanisms, mitigation strategies, and pharmacological interventions to protect from noise-induced vascular damage

"Nighttime aircraft noise impairs endothelial function and increases blood pressure in patients with or at high risk for coronary artery disease" Schmidt et al 2015

<u>Nighttime aircraft noise markedly impairs endothelial function</u> in patients with or at risk for cardio- vascular disease. These vascular effects appear to be independent from annoyance and attitude towards noise and may explain in part the cardiovascular side effects of nighttime aircraft noise.

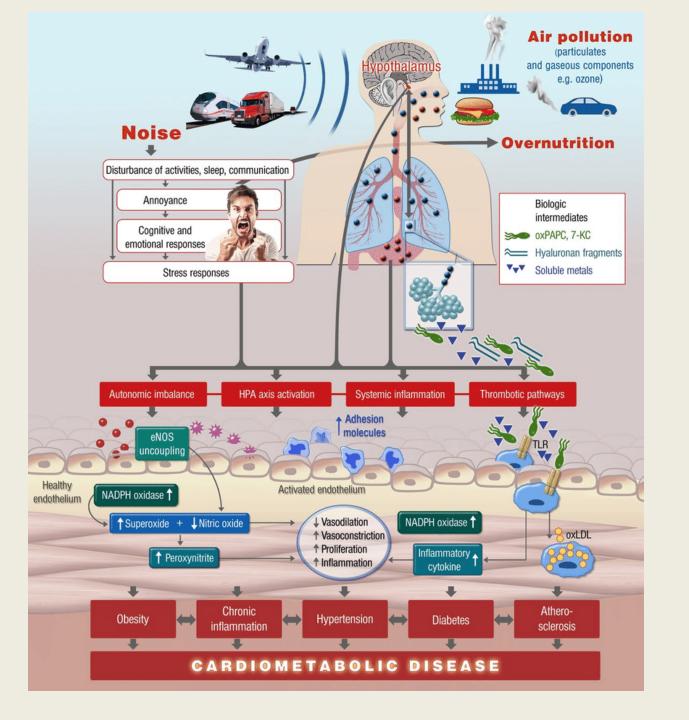
Leading causes of death

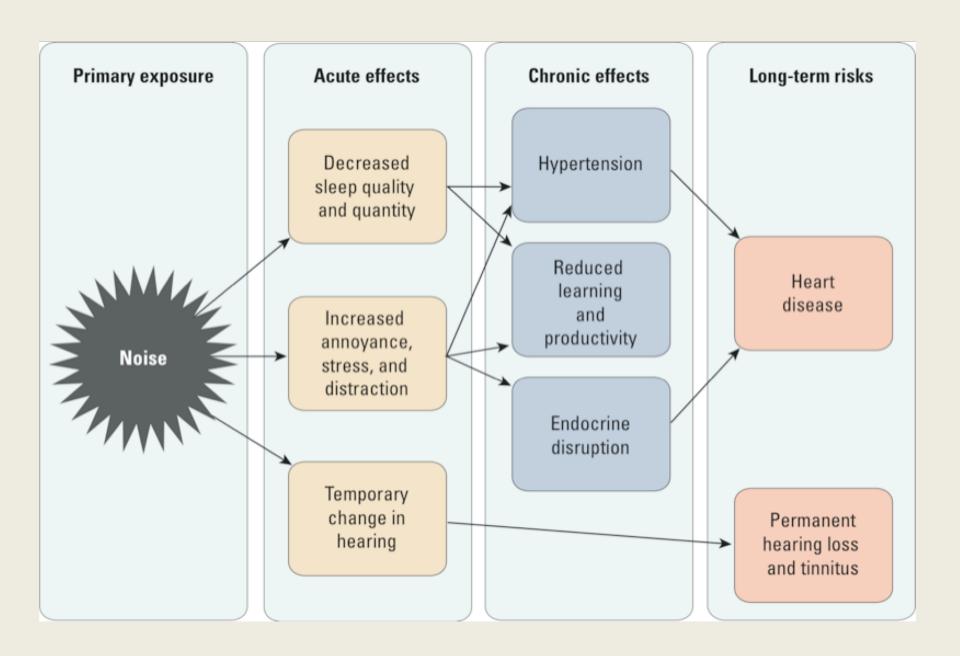
Rockaway and Broad Channel			New York City	
RANK	CAUSE: NUMBER OF DEATHS	DEATH RATE	RANK	DEATH RATE
1	Heart disease: 2,211	350.3	1	202.6
2	Cancer: 1,021	163.3	2	156.7
3	Lower respiratory diseases: 233	37.1	5	19.8
4	Flu/pneumonia: 179	28.3	3	27.4
5	Diabetes mellitus: 148	23.8	4	20.6
6	Stroke: 95	15.1	6	18.8
7	Nephritis: 86	13.6	15	5.2
8	Accidents (excluding drug poisoning): 75	12.6	7	11.8
9	Hypertension: 62	9.9	8	11.4
10	Drug-related: 58	10.0	9	8.6

[•] The top causes of death for residents of Rockaway as for most New Yorkers, are heart disease (57% higher than NYC) and cancer.

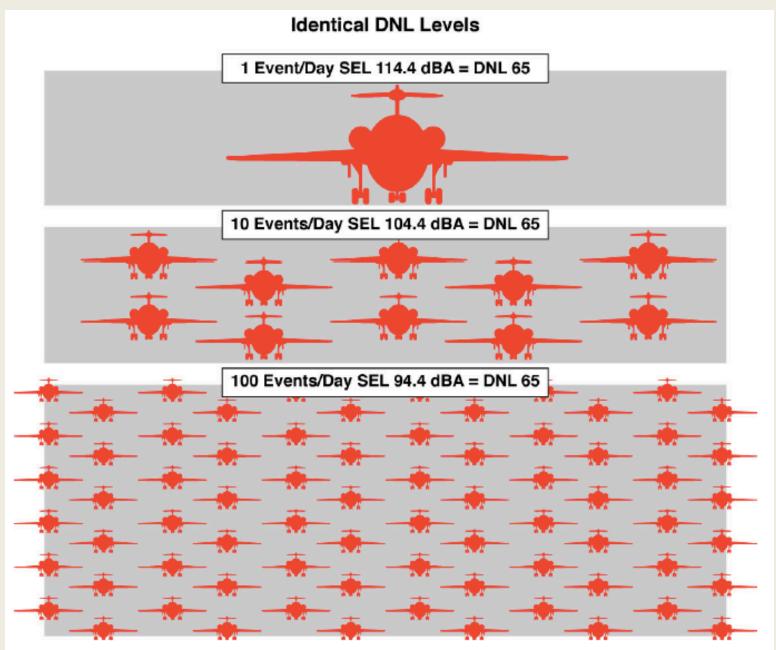
Lower respiratory disease death rate is 53% higher than NYC

[•] The death rate due to nephritis is 2 X the citywide rate



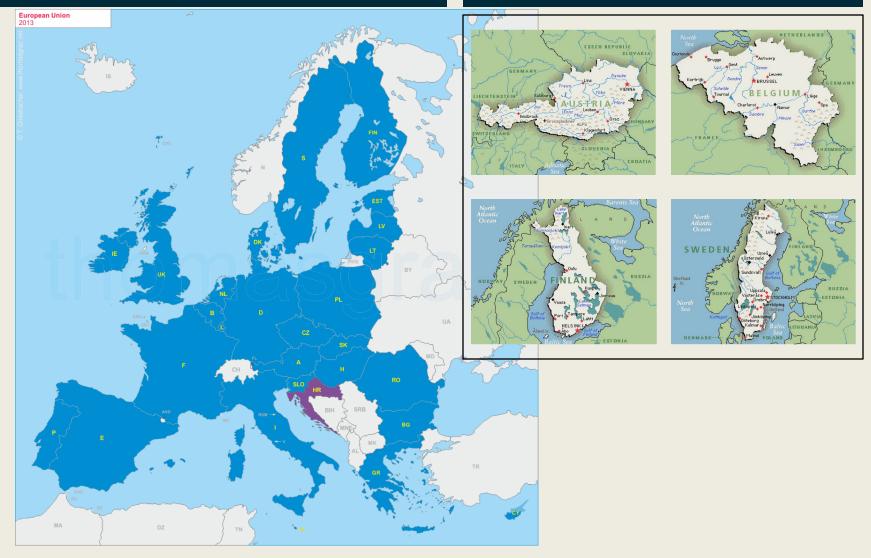


DNL does not account for real world perceptions of noise.



Many countries use the 55 dB CNEL contour to restrict uses due to health concerns, and all of Europe is required to show the 55 dB contour.

55 dB contour lines required 55 dB limit on noise



2 | DNL is the modeled logarithmic average of noise exposure over the course of a year, adjusted for our extra sensitivity to nighttime noise.

$$L_{dn} = 10 * \log_{10} \left(\left[\sum_{i=1}^{n} 10^{SEL/10} + \sum_{i=n+1}^{m} 10^{(SELi+10)/10} \right] \right) - 49.4$$

Daytime Nighttime + 10 dB

John F. Kennedy International Airport – 14 CFR Part 150 Study Technical Advisory Committee

Comparison of the 2016 and 2021 JFK DNL Contours

DRAFT - For Preliminary Discussion Purposes Only



SOURCE: ESA, 2016; INM 7.0d; ESRI Mapping Services.



Airplane Noise DNL

- Reducing noise exposure to a single value of DNL does not convey to the public the extent of the impact upon them"
- "A DNL contour map does not tell residents how many times airplanes fly over them, at what time of day, what type of airplanes, or how those flights may interfere with activities, such as sleep and watching television"
- If the number of aircraft noise events above the minimum threshold that an individual finds annoying increases, then the noise environment for that person has increased"

Air Quality and Community Health

Harms & Risks of Living Near an Airport







Dawn Roberts-Semple, PhD

Emissions from Airport-related Activities

Key Air Pollutants

- Nitrogen oxides (NO_x)
- Hydrocarbons (HC)
- Particulate matter (PM)
- Carbon monoxide (CO)
- Toxics: benzene & formaldehyde known human carcinogens

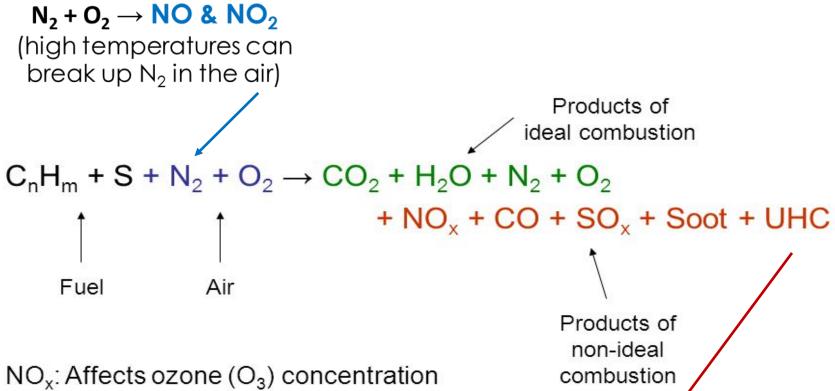
Precursors of ground-level ozone(O₃)



Adverse public health and welfare (environmental) effects

- Lung irritation and lung tissue damage
- Aggravating diseases: asthma, chronic bronchitis and emphysema

Jet Fuel Combustion



NO_x: Affects ozone (O₃) concentration CO₂: Absorbs outgoing infrared radiation

CO: Toxic

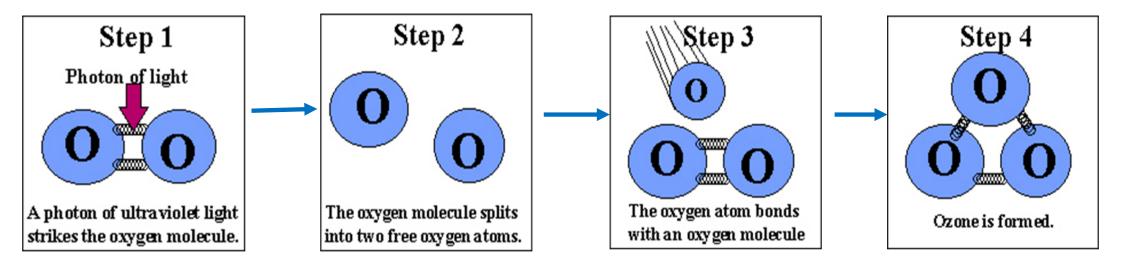
Soot: Visible

Incomplete or inefficient combustion (high temp)

→ Unburned HC



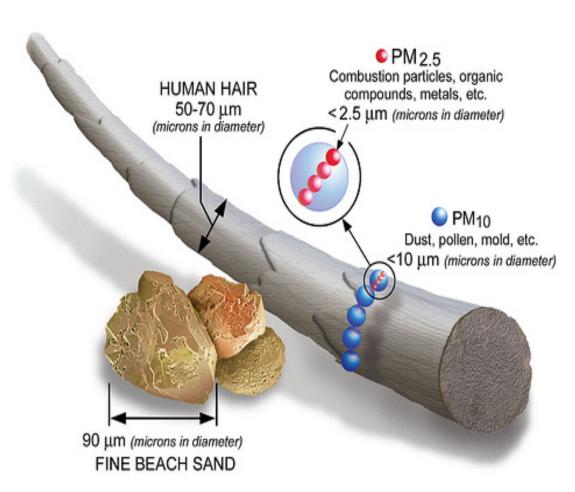
Nitrogen Oxides and Ozone



O₃: atmospheric chemistry requiring sunlight (dangerous to human health & vegetation)



Particulate Matter



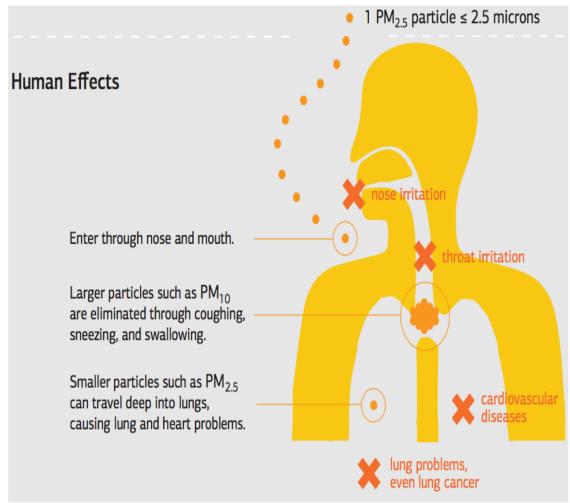


Image: http://www.environment-assured.com/pm25/

Previous Studies

- Hsu et al (2013) Significant contributions of UFP concentrations from aircraft in close proximity to departure runways
- Adamkiewicz et al (2010) Emission rates at airports exceeded specified individual risk threshold; air toxics —benzene, 1,3-butadiene, particle-bound PAHs (increased lifetime cancer risk)
 - Reasonably determine likelihood of public health impacts of concern for airport modifications or expansions
- Schlenker and Walker (2012): Daily air pollution exposure linked to health in communities surrounding 12 largest airports in CA & US; idling times on tarmac from network delays in Eastern US.
- Variation in daily airplane taxi time and congestion significantly impacts health (hospitalization rates for asthma, respiratory, and heart-related ER admissions) of local residents; driven by increased CO.
- Increased hospitalization costs for respiratory and heart-related admissions for 6 million people within 10 km (6.2 miles) of airports in CA
- Health effects occur at levels of CO exposure far below existing EPA mandates

References

Brasseur, G. P., R. A. Cox, et al. (1998). European scientific assessment of the atmospheric effects of aircraft emissions. *Atmospheric Environment*, 32(13), 2329-2418.

Holzman D (1997) Plane pollution. Environ Health Perspect, 105:1300-1305.

Hsu HH, Adamkiewicz G, Houseman EA, Zarubiak D, Spengler JD and Levy JI. 2013. Contributions of aircraft arrivals and departures to ultrafine particle counts near Los Angeles International Airport, Science of The Total Environment, 444: 347-355

Jung, Kyung-Hwa, Artigas, Francisco, Shin, Jin Y. (2011). Personal, indoor, and outdoor exposure to VOCs in the immediate vicinity of a local airport. *Environmental Monitoring and Assessment*, 173(1), 555-567.

Kesgin, U. (2006). Aircraft emissions at Turkish airports. Energy, 31(2-3): 372-384.

Schlenker, W and Walker R. 2016. Airports, Air Pollution, and Contemporaneous Health. Review of Economic Studies, 83: 768–809 doi:10.1093/restud/rdv043



Thank You!

LAX MASTER PLAN CBA

Prepared by: JFKAC ROUNTABLE MASTER PLAN COMMITTEE

DATE: AUGUST 16, 2018

On December 6, 2004, Los Angeles World Airport Board of Airport Commissioners (BOAC) approved an agreement with the LAX Coalition for Economic, Environmental and Educational Justice (Coalition). The approved agreements provides mitigation and benefits to communities and schools impacted by implementation of LAX Master Plan. The agreement with LAX Coalition for EEEJ comprises of two parts: Cooperation Agreement that sets the legal framework of the agreement including conditions, commitment, obligations and enforcement. The CBA details various proposals of mitigation and community benefits.

LA Mayor Jim Hahn first CBA agreement was birth when the coalition approached him in 2003 to propose this agreement. He immediately directed LAWA and his staff to work with the coalition to negotiate the CBA.

The LAX Coalition for Economic,
Environmental and Educational Justice
includes approximately 22 community,
educational, religious, environmental, and
labor organizations. A large majority of
interest representation targeted were given to
low income and minority populations located
contiquous to LAX.

The Board approved settlement agreements with two school districts to provide noise abatement improvements at specific schools within each of the these districts that are located in areas subject to high noise levels from aircraft operations at LAX.

Action occurred after nine months of negotiation between LAWA, the City department that owns and operates LAX and three other Southern California Airports and the Coalition members to try to resolve the Coalition's legal and policy concerns about LAX Master Plan via cooperation and settlement oppose to litigation.

Implementation of specified elements in the agreement is tied to approvals of the LAX Master Plan by the City Council and the Federal Aviation Administration (FAA). The Cooperation Agreement prohibits funding from Los Angeles City's General Fund or any other city controlled source of funds to meet any of LAWA's obligations under the agreement.

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Set minimum annual levels of funding at \$4,275 million each for the aircraft noise mitigation programs conducted by City of Inglewood and Los Angeles County.

Accelerate soundproofing programs for qualified Los Angeles City residents and places of worship.

Institute an "end –of-block" soundproofing program for residences on a particular city block if at least one residence on that block is eligible for noise mitigation (after currently eligible residences are soundproofed).

Under certain circumstances, suspend its requirement for homeowners to execute avigation easements after receiving LAWA provided or funded soundproofing benefits (and require only limited noise easements).

Agreement stipulates to cease requiring more stringent building codes than those normally enforced by the local government jurisdiction

Conduct a Federal Aviation
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MITIGATION: PROPOSAL WITHIN CBA

• Conduct a Federal Aviation Regulation (FAR) Part 161 Study departures between midnight and 6:30 am when LAX flights operate in either over ocean or westerly directions.

LAX'S CBA includes LAWA providing \$# million per year for five years to fund job training for airport and aviation related jobs for LAX Master Plan Program Construction pre-apprenticeship training. Its job training program would be administered by the Los Angeles City Community Development Department and the City Workforce Investment Board. LAWA would be required to develop work experience programs for targeted applicants living in the Project Impact Area.

Creation of a "first Source Hiring Program" and referral system for airport related jobs targeting low income individuals living in the Project Impact Area. Individuals who have received public assistance within 24 months of applying for a job or job training, homeless, ex-offenders, chronically unemployed, dislocated airport workers, and lowincome individuals in the City of Los Angeles.

Small businesses and minority –owned and woman – owned businesses in the Project Impact Area would be sought to increase their participation as LAX contractors in the planning, design, financing, construction and all other projects of the LAX Master Plan Program.

CBA requires LAWA to fund air quality, health and environmental studies conducted by independent experts. Reduce and control pollutant emissions, LAWA is responsible to electrify all new and current aircraft boarding gates, implement a multi-faceted program aimed at reducing emissions from ground service equipment, trucks, buses, and other heavy—duty vehicles operated by airport—related businesses. Use of alternative fuel and hydrogenfuel cell technologies also would be increased under the agreement.

LAWA would minimize construction traffic impacts to local communities and consult with the Coalition about mitigating negative impacts should participation in constructing an interchange of one the freeways.

The costs of the agreements covering the communities and the two school systems total an estimated \$500 million.

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August 16, 2018 7:00-9:30PM Jamaica Chamber of Commerce

Meeting called to order at 7:15pm

I. Introduction - Barbara Brown

- a. Introduction of Executive Committee and Standing Committee Chairs
- b. JFK Airport Committee: Who are we?
 - Community based organizations combined efforts to complain about airport noise and air pollution. In response, Governor Cuomo mandated the Port Authority to create a roundtable to address concerns of stakeholders who live nearby or are impacted by activity at LaGuardia and JFK Airports.
 - ii. Review of structure of the NYCAR, LaGuardia Committee and JFK Airport Committee.
 - iii. Review of standing committee structure within the JFK Airport Committee
- c. Redevelopment Plan Why is redevelopment necessary?
 - i. # of passengers out of JFK airport will increase dramatically by 2050.
 - ii. current airport will reach capacity by 2020.
 - iii. JFK strives to be among the top 5 airports in the world

d. Challenges

- i. Terminals and their configurations
- ii. Airport operations and delays
- iii. Cargo operations much of the cargo facility is currently unoccupied
- iv. Currently JFK is capped at 82 slots per hour. If slots are eliminated or expanded, the number of flights overhead will be impacted significantly
- v. Airport's goal is to build capacity. Improve the customer experience.
- vi. The airport's understanding of being a good neighbor: "promote economic development and preserve environment and wildlife." This does not take needs of the stakeholders who live in surrounding communities into account.

e. Goal of the CBA Community

- i. Look at the redevelopment plan and see how it is impacting the quality of life of the people on the ground.
- ii. Tonight's meeting is a first effort to bring all conversations on the harms/mitigations together

II. \$Ten Billion -- From where? - Patrick Evans

- a. 10-year plan, funding will be supplied over 10-year period
- b. PANYNJ has committed to \$1B
- c. Rest of money will be coming from private investors
- d. PA will act as the deal maker, bringing private companies to the table to invest; eg: Jet Blue, etc
- e. Everything is just a concept until the investments are pledged
- f. Plan to widen the Van Wyck; make airport more accessible via the LIE. These plans may take up to \$2B of the \$10B

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g. At this point, PA indicates that the funding/investors have been identified and the terminal operators are all on board with enhancing their facilities within the next 10 years, according to plan.

III. Community Benefits: What, Where, How? – Barbara Brown

- a. Community wants to know: If you are coming into our community to build your business, what's in it for the community?
- b. How do we keep the balance among economic vitality, natural environment and healthy communities?
- c. A Community Benefits Agreement (CBA) is a contract signed by community groups and real estate developer(s) that requires the developer to provide specific amenities and or mitigations to the local community or neighborhood.
 - i. Legally enforceable contract signed by community groups (acting together as a coalition) and a developer
 - ii. What are the harms, risks to those on the ground?
 - iii. What kinds of givebacks should the community "demand"
 - iv. Prioritizing of our requirements
 - v. 30% MWBE is required on all NYS capital projects and is not part of the CBA with PANYNJ
- d. Benefit of a strong coalition
 - i. Strong advocacy
 - ii. Communication between the coalition and developers and the PANYNJ

IV. What can we learn from LAX Community Benefits Agreement? – Michele Keller

- a. We will have to determine what is applicable to the stakeholders at JFK and adapt our CBA accordingly.
- b. Review of the components of the LAX CBA

V. The Economics – Deriving Benefits – Dolores Hoffman

- a. What is the Queens Air Service Development Office (ASDO)
 - i. Agency within the PANYNJ
 - ii. Connects airport tenants and service suppliers

VI. The Environment and our Health – Harms and Risks, Dennis Graham and Dawn Semple

- a. Presentation: Air quality and community health Dawn Semple
- b. Presentation: Airport generated noise and you Dennis Graham

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VII. Questions and Answers – Facilitated by Tom Curry

Question: Clive Williams, CB13

Thank you for a thorough presentation. There will be conflict between PANYNJ and private investors; how do we balance both in terms of what they and what we are asking for in terms of a CBA?

How do we get other organizations/stakeholders to come to the table to support your CBA efforts?

Response: We are inviting all to come and work together with the JFKAC so that we can pool our resources. There are no "carrots" to give orgs; but working one by one is not going to achieve anything.

Question: Crystal Brown, Springfield/Rosedale Community Action Association (SRCAA)

Echo Mr. Williams' comments. Very helpful meeting/information. Ms. Brown been involved in studies that have assessed the air quality around her home; and has identified elevated levels of benzene in her surrounding air.

Can we have studies and a fund for providing for the health needs of stakeholders who are being impacted in this way?

Question: Dol?

Is real estate developer the Port Authority or is it the investors?

Response: Not clear on an answer at this time

Question: Bishop Charles Norris, Bethesda Missionary Baptist Church

How did you on the Executive Board get involved to this extent? Where do people go to get benefits outlined in LAX outline?

Response: Each member was selected to represent an elected official. The benefits outlined in the LAX overview is only a sample of the benefits demanded by LAX; we will need to adapt to our own situation

Question: Brittany, After School Non-Profit

What is the timeline for development?

Response: Uncertain. Before Governor is re-elected? Does that matter? The redevelopment project is just getting off the ground. We have met with the manager of the redevelopment project who has confirmed this.

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Question: Keisha Esquire, local entrepreneur

There are 5 standing committees, what are we doing to get the younger people involved? Are committees open to getting other people involved?

Response: Each committee can take up to two people who are not on the JFKAC. We are looking for people who have expertise and who have keen interest, please see Barbara Brown after the meeting

Question: Shirley Phipps

How will you engage the homeowners in the flight paths? Will they get flyers at their door?

Response: The goal is to get as many organizations as possible who represent the homeowners so that they will be engaged. BEB appealed to the attendees to provide us with contact information about groups that should be at the table.

Question: LaToya, Senator Sanders office

When you talk about other coalitions are there conversations about how you are going to coordinate/unify with the QCT organizations?

Response: We are inviting the QCT to be a part of the JFK AC effort. The JFK AC effort encompasses the broader interests of the stakeholder community, including SE Queens, LI and Brooklyn.

Question: Bonnie Huie - CB13

JFK has a limited footprint, where are they building? Are they building "up", or do they require more land? Will PA increase the air traffic controller facilities?

Response: They have not identified a need to acquire additional land.

Comment: Fred Simmons, Queens Connection (QCT)

QCTs focus is on the economic aspect. Our focus is to try to get the economic opportunities addressed. QCT is not here because they do not necessarily think that this is the time for them to be here. But we will have to figure out at what time will we need to merge our efforts.

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Question: Alan Barrett, Young entrepreneur

What have you done to build trust with people who are not here? We are talking about a history of distrust. The issues that I care about are with SE Queens, to be honest with you I don't care about the issues in Brooklyn or LI.

Response: We are here to address the concerns of *all* communities that are impacted by the airport. Not all communities are affected in the same way. We need to assess needs in the various communities and consider appropriate mitigations accordingly.

Question: Michael Scotland, Addisleigh Park Civic Association

The issues surrounding the airport may not resound with young people. The question is, how do we make it relevant to them?

Grassroots, knocking doors and speaking passionately about the issues. What is going to grab people? Has the board seen the plans for JFK? It needs to be seen. These plans may have been in existence for decades without our knowledge. How do we get to come together to respond?

Response: The PA is just now getting off the ground to identify developers and we have been persistent in reaching out to them to obtain the information that we know will help us to move forward. We have worked hard to make sure that every elected official in SE Queens has a seat at the table.

Comment: Dolores Hoffman, ASDO

There is no master plan and the PA is sincerely looking for engagement from the community

Comment: Clive Williams

Clive objected to Tom Curry's facilitation of the meeting and insisted on having the opportunity to ask a follow up question.

Question: Mr. McKenzie, Brookville resident

We had a meeting with the airport at St Peter's Lutheran Church, about 2 years ago, and what has been done?

Response: This meeting is not designed to address that. And there are no quick fixes or easy answers. The coalition will put together the organizations who identify harms and demand mitigations

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VIII. Next Steps

Barbara Brown: If you are an organization and you would like to work on a CBA, please pick up a CBA commitment form on your way out.