

Appendix One

Additional Noise Information

BACKGROUND

GROUND RUN-UP ENCLOSURES

Noise from aircraft maintenance run-ups is a concern facing many commercial airports. Airlines must conduct maintenance repair on aircraft. For certain types of aircraft maintenance, the airline must conduct an engine run-up in order to demonstrate that the aircraft's in-flight systems are working properly before the aircraft can be put back into service.

To mitigate the noise from run-up operations, a number of options are available. These options have a wide range in application, cost, degree of noise reduction and technical complexity. Therefore, it is important to first focus on the noise problem and the level of noise reduction that is necessary and then select the design options that best address the noise problem. The design options must account for the unique conditions that exist at each airport. These unique conditions include availability of land, wind conditions, atmospheric conditions and the types of maintenance work performed at the airport.

Noise control measures for aircraft run-up operations at commercial airports in the United States have primarily consisted of restrictions on the orientation and location of the aircraft during the run-ups and through airport restrictions on the time and duration that run-ups can occur. Airports in Europe and Asia have also utilized noise barriers and ground run-up enclosures to control run-up noise. These enclosures have had varying degrees of success, with the primary constraint being aerodynamics, not acoustics.

Military airports have also had to control aircraft run-up noise. Considerable technology has been developed for these military aircraft to control the noise from run-ups. The military primarily uses fully enclosed structures (hush houses) to mitigate the very high noise levels associated with fighter aircraft. These noise suppressor designs are built throughout the world. However, the use of this technology does not easily translate into applications for commercial aircraft. There are currently no fully enclosed hush houses for commercial aircraft.

Ground Run-up Enclosure vendors are now developing new designs to address the special challenges associated with conducting run-ups for commercial jet aircraft within structures. These enhancements are designed to allow proper airflow into the engine inlet and to reduce the potential for exhaust gas re-circulation, while still achieving the necessary noise reduction.

Ground Run-up Noise Control Options

Various vendors have proposed a number of alternative noise control options. Sample alternative technologies are presented in the following exhibit and are described below:

Run-up Operational Management: This method consists of utilizing noise control measures to mitigate the noise impacts from run-up operations. These measures include operational restrictions on run-ups as well as sitting and orienting the run-up location to minimize the noise impacts upon the community.

Aircraft Run-up Barrier/Berm: This system generally consists of a barrier or berm that is located on one side of the run-up location. Typically the barrier/berm is not located close enough to the aircraft, so that its effectiveness is reduced. This type of system is most effective when the required amount of noise reduction is low and the effected community is located on one side of the airport.

Aircraft Ground Run-up Enclosure: An aircraft run-up pen generally consists of a two, three or four-sided barrier that surrounds the aircraft. The barriers are located close to the aircraft and usually include noise absorption panels. A common term for these facilities is Ground Run-up Enclosures (GRE).

Noise Suppressor System (Trim Pad Suppressor): This system consists of a complete and operable facility capable of satisfying the operational requirements of the assigned aircraft during engine trim pad service operations. This system is commonly called a trim pad noise suppressor and consists of a fixed or movable structure that attenuates the exhaust noise. The exhaust gas is directed through a specially designed exhaust muffler.

Aircraft Acoustic Enclosure (Hush House): Aircraft acoustic enclosures, commonly referred to as hush houses, are engine exhaust muffler systems where the aircraft and the exhaust muffler are fully enclosed in a building. The buildings have movable entry doors to allow the aircraft to enter the building. They are generally designed for a specific type of military aircraft and have not previously been demonstrated to be practical for commercial aircraft use.

Active Noise Control: Active noise control reduces the noise through noise cancellation technology. Small-scale research studies have shown that this technology can provide reductions in aircraft run-up noise in the communities near the airport. However, this has not actually been applied at any airport and represents a future technology.

Noise Reduction Goals

An important step in a noise mitigation study is to identify the noise reduction goals for the program. Often noise standards developed by the local government dictate the standards or goals. One additional criterion would be based upon speech and sleep interference criteria and research.

Evaluation Criteria

A vast array of potential mitigation designs may be considered. Thus, it is important to identify criteria that would be used to evaluate the different alternative. This allows for a method of comparison under which a cost benefit analysis can be completed. This evaluation criterion includes not only the acoustic performance, but also aerodynamic performance, ease of use and cost.

Design Considerations

There are a number of important design considerations in evaluating ground run-up enclosure facilities. These are listed below and described in greater detail in the following paragraphs.

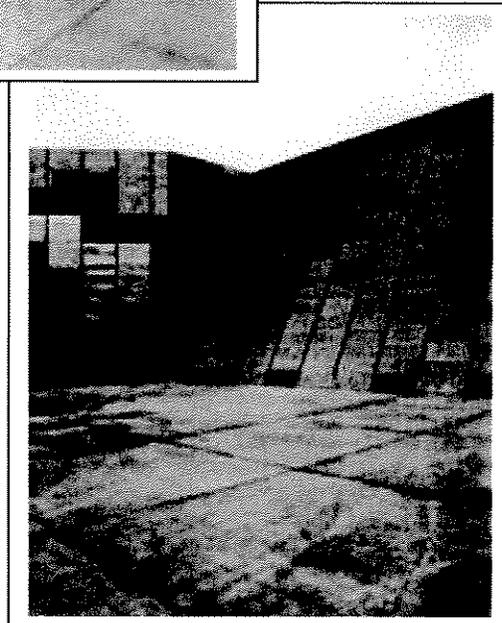
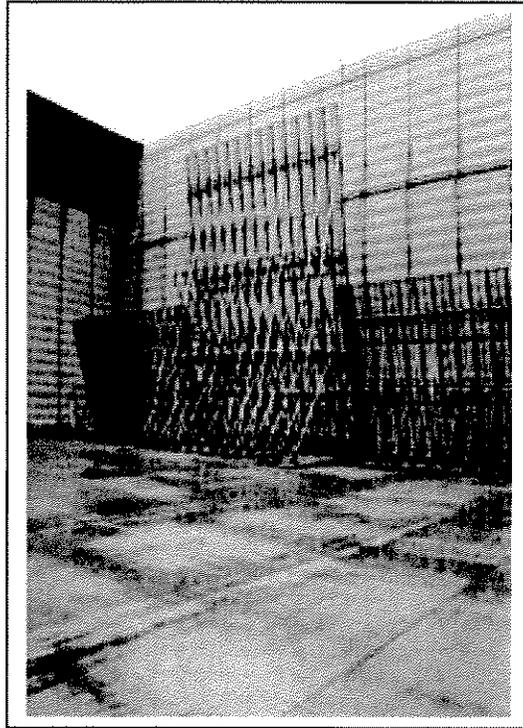
- Blast Wall Design
- Acoustic Panel Design
- Aerodynamic Design
- Door Design
- Meteorology

The most important point is that the design considerations include designs that effect both the acoustic and aerodynamic performance. Unfortunately many designs may be good for acoustics but poor for aerodynamics. Aerodynamics are important because if the airlines can not use the facility its value is diminished. Thus, the design must be a balance between two competing factors that are both equally important.



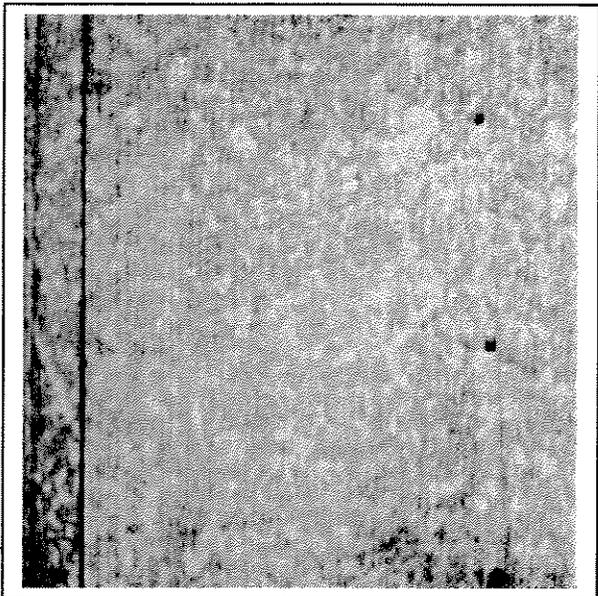
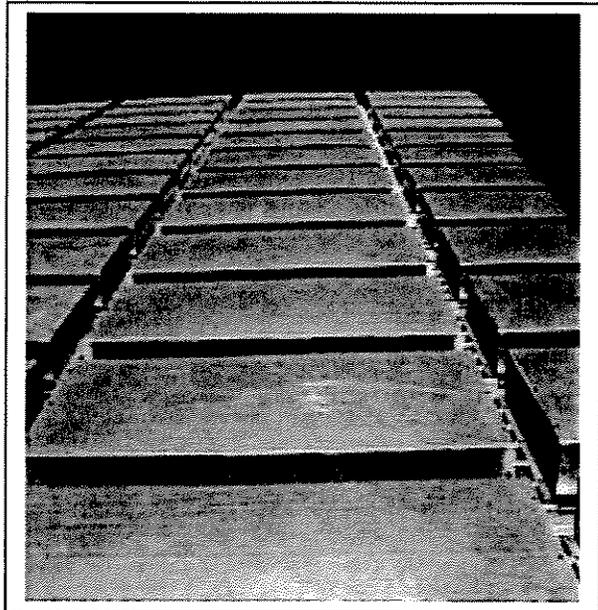
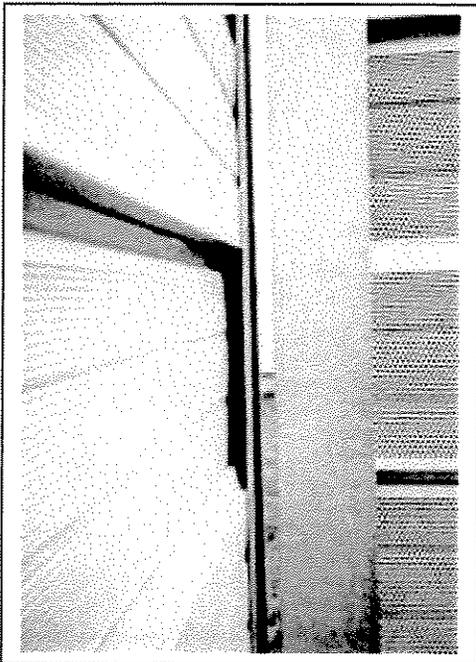
Blast Wall Design

The primary purpose of a blast wall is to redirect the jet exhaust gas upward and away from and out of the structure. Blast walls can be part of the rear wall, with an angled slope or be specially designed blast structure separate from the rear wall. Important factors in blast deflector design are the aerodynamic flow of the jet exhaust and the acoustic effects of the deflector. Below are illustrations of different types of blast deflectors.



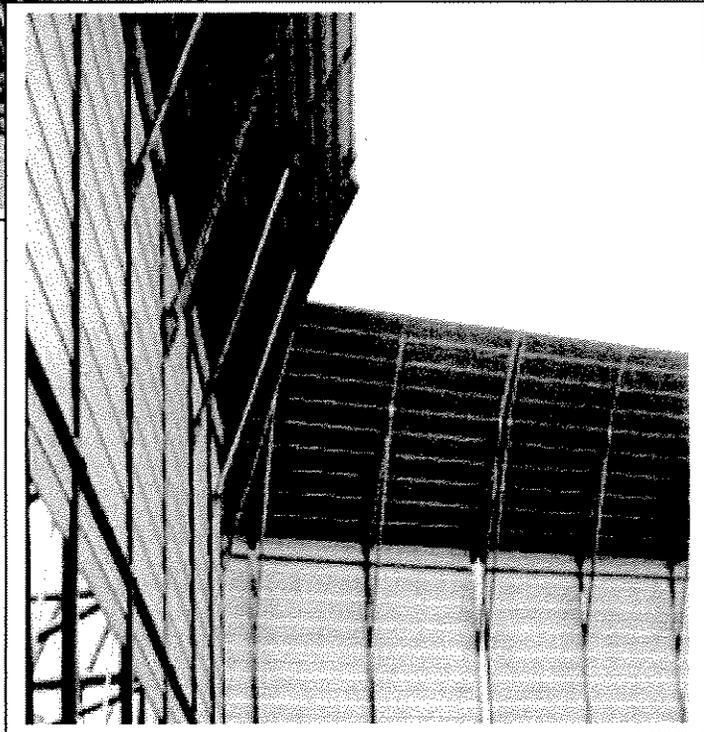
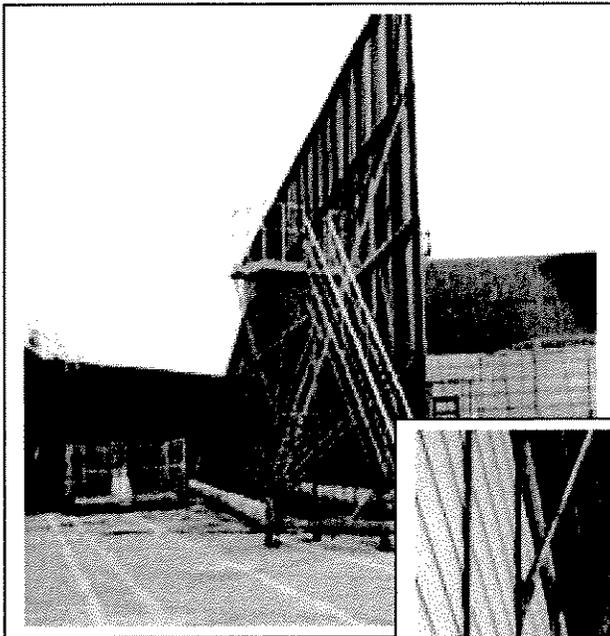
Acoustic Panel Design

Acoustic panels are designed to block sound from transmitting through the wall and to absorb the sound so that reflections are minimized. The panel must also be weather and blast resistant so that it can withstand usage over many years. Important measures of panel performance are the sound transmission, often measured in terms of STC, and the Sound Absorption Coefficient, often measured in terms of NRC. Good performance in terms of sound transmission and sound absorption in the low frequencies is important because of the low frequency nature of run-up noise. Manufacturers should be required to show the laboratory test results for the sound transmission and sound absorption performance of their panels. Below are illustrations of different types of acoustic panels.



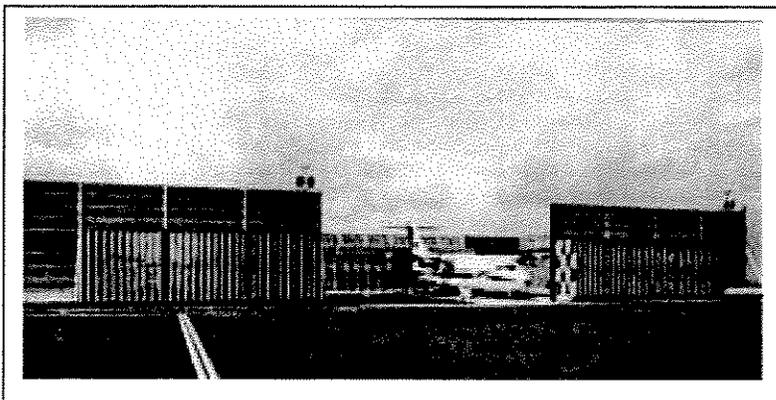
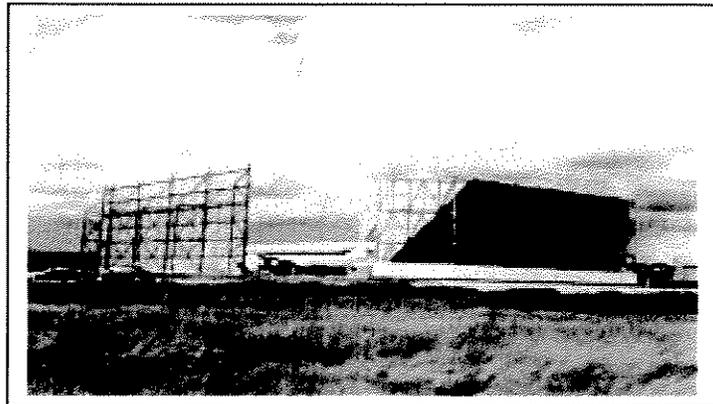
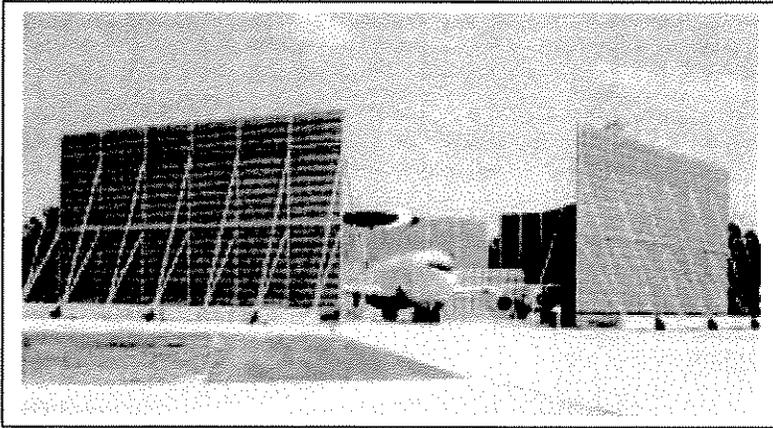
Aerodynamic Design

Modern ground run-up enclosure designs must be capable of operating in the variable wind and weather conditions that are present at the airport where they are being constructed. Some designs are better for acoustics yet are poor in terms of aerodynamics. The final design of the facility should represent a balance between the two so that the intended noise reduction goals are met and the facility can be used as often as possible. Aerodynamic enhancements are designed to allow for stable airflow under crosswind, tail wind and quartering headwind conditions. Examples of different designs of the noise wall are shown in the following exhibits. The walls range from a straight wall to a cantilever wall to a rounded top with vented sidewalls.



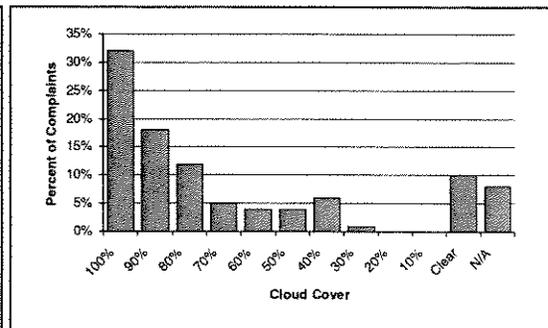
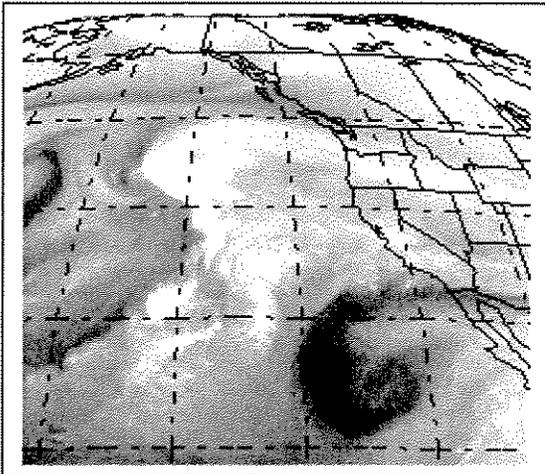
Door Design

Four sided run-up enclosures require a moving door to allow aircraft access and to provide noise reduction toward the front of the aircraft. The design of the door must provide for noise shielding, proper airflow and ease of use. Four sided enclosures are a much greater technical challenge in terms of aerodynamics and can require a greater use of time and manpower for the airlines. Examples of different door designs are shown below.



Meteorology

Meteorology plays a very critical role in aircraft run-up noise. Meteorology not only influences how noise propagates, but also affects the usability of any ground run-up facility. As a result, it is important to understand these influences and incorporate them into the mitigation alternative. In areas of high humidity conditions and cloud cover (as shown in the satellite image) the benefits of barriers can be reduced. As shown in the graph below right, studies at Vancouver International Airport have demonstrated that these are the types of conditions under which most noise complaints from run-ups occur. The wind rose below center also illustrates how wind speed and direction can affect the usability of a facility. This graph illustrates the usability of a specific aircraft type in the GRE at Chicago O'Hare.

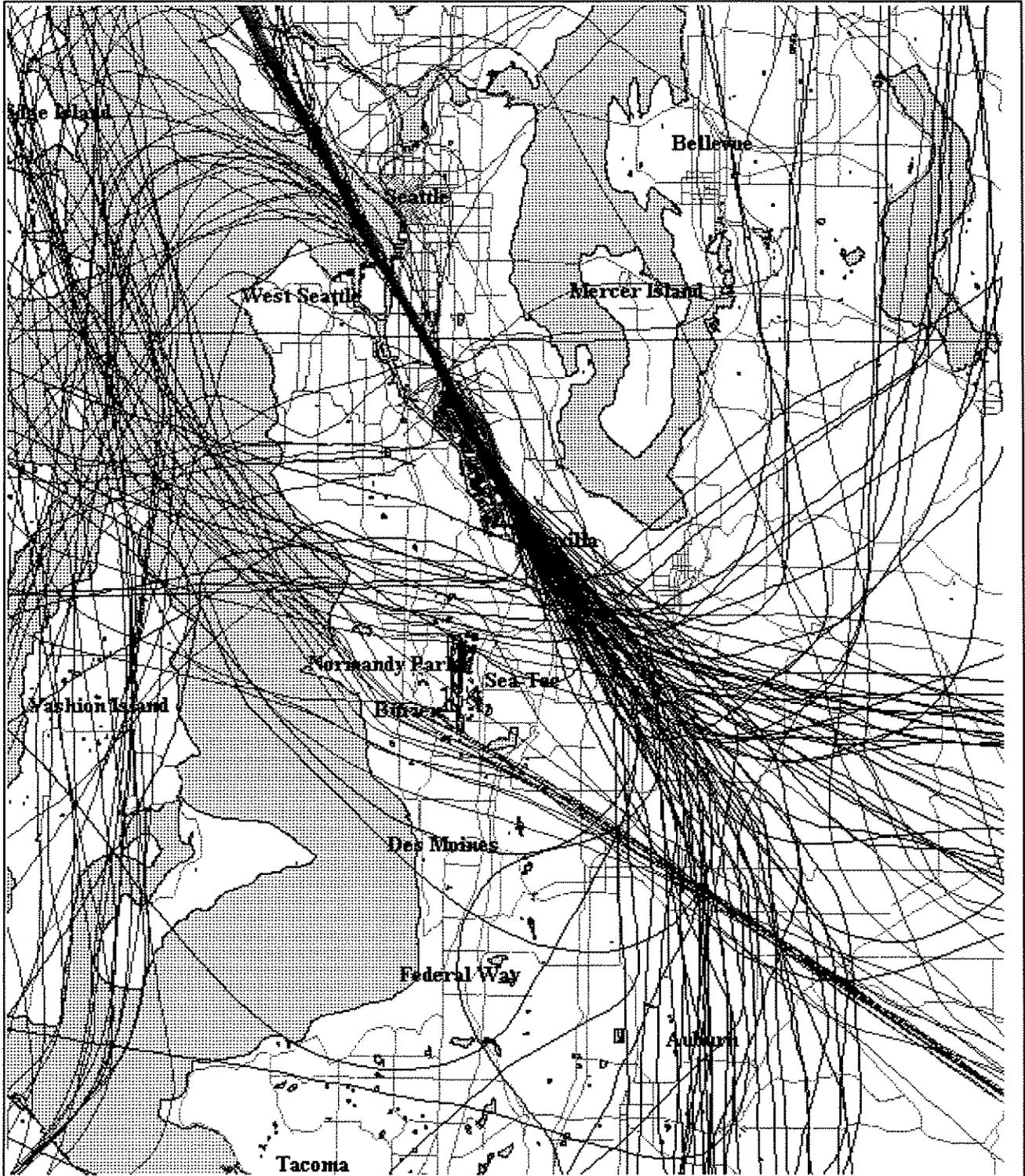


Flight Tracks

King County International Airport Part 150 Study

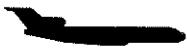
November 29, 1999

■ Arrivals ■ Departures



Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: BN2 - West Seattle
 Operations: ALL Runways: ALL Tracks: ALL



Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
	B722	2	1	78.1
	CL60	3	2	73.8
	DC8S	2	1	85.1
	DC9	2	1	82.7
	GLF2	2	1	85.5
	LJ35	3	1	75.8
	PA32		2	82.9
	TRIS		5	84.8
Other Aircraft			41	78.1

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: BN3 - Magnolia
 Operations: ALL Runways: ALL Tracks: ALL



Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
B722	2	9	80.7	
B738	3	9	77.9	
B73A	2	10	78.3	
B741	3	1	85.2	
B752	3	22	78.5	
B767	3	9	81.5	
C141		1	90.2	
C560	3	13	73.8	
CARJ		5	71.3	
CL60	3	7	75.5	
CVLT		8	79.7	
DC8	2	4	85.6	
DC8S	2	14	85.2	
DC9	2	3	82.0	
F900	3	2	72.2	
FA20	2	2	75.7	
FA50	3	5	73.6	
GLF2	2	11	82.0	
GLF4	3	8	75.3	
H25B	3	1	72.1	
L29B	2	1	77.4	
LJ25	2	3	80.4	
LJ35	3	12	77.0	
PA32		3	75.2	
SBR1	2	3	78.4	
T33		3	83.4	
WW24	3	5	72.8	
Other Aircraft		201	81.3	

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: BS1 - Tukwila - 3303 S. 132
 Operations: D Runways: 13L;13R Tracks: ALL



Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
	B722	2	3	85.3
	B73A	2	2	79.5
	B752	3	2	77.0
	B767	3	1	77.8
	DC8S	2	12	87.6
	DC9	2	2	85.2
	FA50	3	3	86.5
	GLF2	2	2	81.4
	MD80	3	1	83.1
	PA32		1	80.9
	TRIS		1	80.1
	WW24	3	1	78.2
Other Aircraft			27	82.0

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: BS2 - Skyway - 12646 60th Ave. S
 Operations: D Runways: 13L,13R Tracks: ALL



Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
B722	2	10	96.7	
B738	3	5	83.8	
B73A	2	7	83.4	
B752	3	15	84.4	
B767	3	11	87.2	
BE40	3	2	86.8	
C560	3	6	82.9	
CL60	3	1	78.7	
CVLT		2	83.7	
DC8	2	5	88.7	
DC8S	2	22	100.8	
DC9	2	5	98.4	
F900	3	3	84.2	
FA20	2	3	87.0	
FA50	3	12	87.3	
GLF2	2	8	94.7	
GLF4	3	4	83.1	
H25B	3	8	86.2	
L29B	2	1	87.0	
LJ25	2	1	100.6	
LJ35	3	13	82.6	
MD80	3	1	95.4	
PA32		1	82.4	
SBR1	2	2	87.1	
T33		2	87.9	
TRIS		1	85.1	
WW24	3	6	85.3	
Other Aircraft		139	89.0	

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: BS3 - Seattle - 3903 S. Burns St.
 Operations: D Runways: 13L;13R Tracks: ALL



Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
B722	2	10	98.8	
B738	3	1	88.6	
B73A	2	6	90.3	
B752	3	8	90.7	
B767	3	10	92.9	
C560	3	3	88.5	
DC8	2	4	93.9	
DC8S	2	21	101.9	
DC9	2	4	99.9	
F900	3	2	91.0	
FA50	3	6	91.8	
GLF2	2	8	94.9	
MD80	3	1	99.9	
SBR1	2	1	90.4	
T33		1	94.8	
Other Aircraft		58	96.6	

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: NMS02 - Skyway - 51th Ave. S.
 Operations: D Runways: 13L,13R Tracks: ALL



Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
B722	2	42	99.8	
B738	3	46	86.7	
B741	3	6	100.3	
B752	3	85	86.5	
B767	3	56	90.2	
BE40	3	11	87.9	
C560	3	172	85.3	
CL60	3	60	81.8	
CVLT		29	87.6	
DC8	2	20	98.4	
DC8S	2	108	103.2	
DC9	2	12	101.2	
F900	3	13	85.7	
FA20	2	18	91.4	
FA50	3	42	92.0	
GLF2	2	35	97.5	
GLF4	3	29	84.4	
H25B	3	71	88.1	
LJ25	2	14	97.9	
LJ35	3	209	85.3	
MD11	3	2	94.0	
MD80	3	3	97.7	
PA32		18	83.5	
SBR1	2	8	90.1	
T33		8	95.7	
TRIS		15	88.2	
WW24	3	60	88.7	
Other Aircraft		2861	87.6	

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

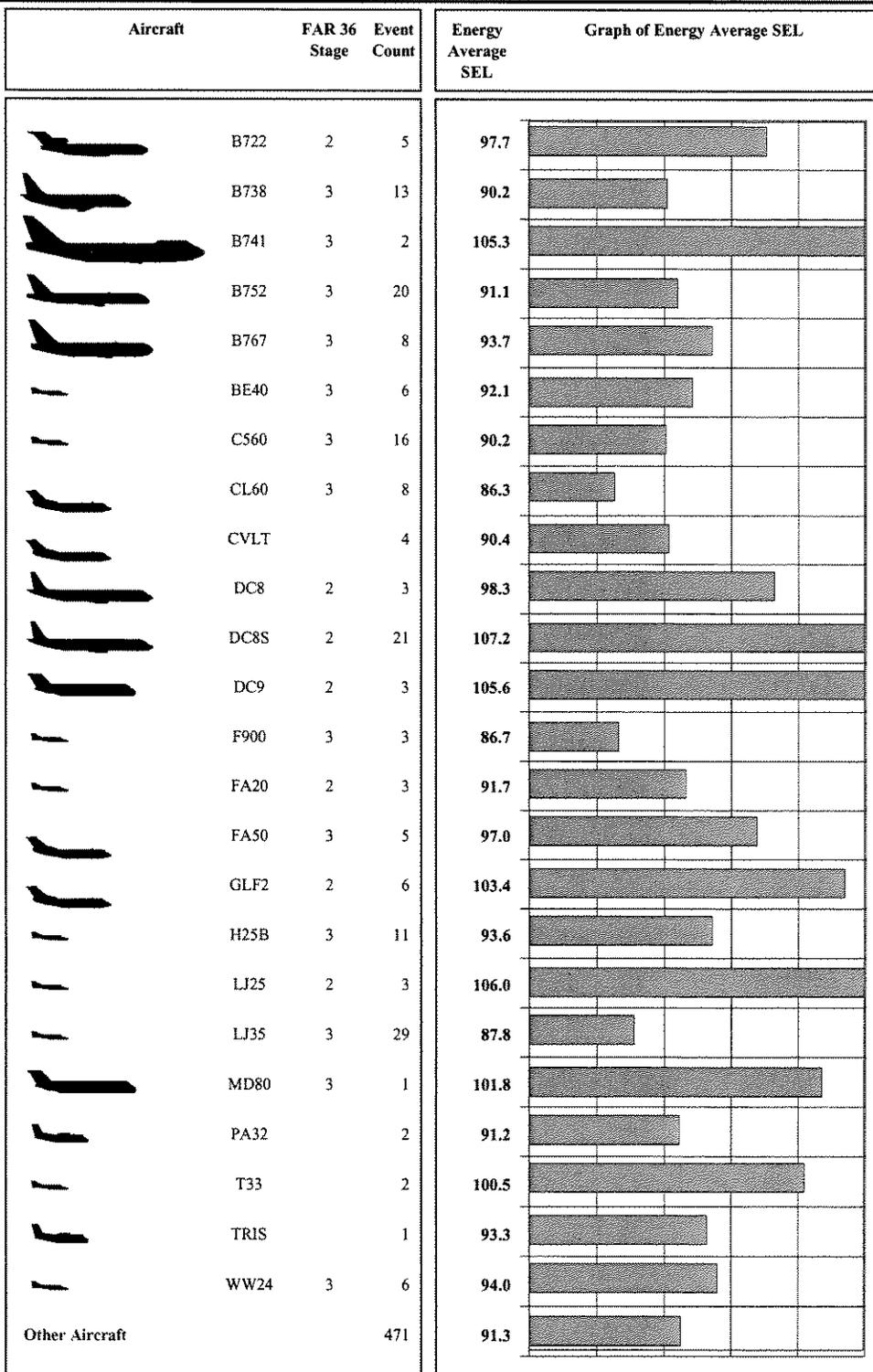
Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: NMS03 - Tukwila - 44th Ave. S. at 's. 118th St.
 Operations: D Runways: 13L;13R Tracks: ALL



Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
B722	2	42	89.7	
B738	3	53	84.7	
B741	3	4	86.3	
B752	3	72	84.0	
B767	3	59	83.4	
BE40	3	14	85.3	
C560	3	153	81.8	
CL60	3	44	80.1	
CVLT		20	80.9	
DC8	2	19	83.2	
DC8S	2	100	92.0	
DC9	2	14	90.0	
F900	3	13	84.6	
FA20	2	14	86.7	
FA50	3	42	84.9	
GLF2	2	39	93.6	
GLF4	3	20	83.2	
H25B	3	62	83.1	
LJ25	2	18	95.9	
LJ35	3	150	81.4	
MD11	3	2	89.1	
MD80	3	3	90.3	
PA32		9	79.9	
SBR1	2	10	84.2	
T33		7	90.1	
TRIS		14	83.4	
WW24	3	55	82.5	
Other Aircraft		1786	82.6	

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: NMS04 - Georgetown - Ruby Chow Park
 Operations: D Runways: 31L;31R Tracks: ALL



Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: NMS16 - Magnolia - POS Smith Cove Park
 Operations: A Runways: 13L;13R Tracks: ALL

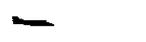
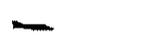
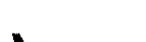


Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
B722	2	15	85.6	
B738	3	30	83.3	
B741	3	1	92.2	
B752	3	36	83.7	
B767	3	18	85.0	
BE40	3	8	79.8	
C560	3	72	80.6	
CL60	3	35	82.2	
CVLT		16	85.6	
DC8	2	8	87.7	
DC8S	2	44	88.5	
DC9	2	6	86.0	
EA30	3	1	87.6	
F900	3	9	82.3	
FA20	2	13	81.7	
FA50	3	17	82.7	
GLF2	2	22	85.1	
GLF4	3	26	81.8	
H25B	3	30	81.3	
LJ25	2	14	86.9	
LJ35	3	70	80.8	
MD80	3	1	81.4	
PA32		15	81.3	
SBR1	2	6	78.7	
T33		4	86.8	
TRIS		5	81.7	
WW24	3	24	83.4	
Other Aircraft		793	83.8	

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Single Event Noise Level by Aircraft Report
 King County International Airport Part 150 Study
 Period: November 1999 to December 1999
 Site: NMS17 - Beacon Hill - 3701 S. Kenyon
 Operations: D Runways: 31L;31R Tracks: ALL



Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
	B722	2	6	80.5
	B738	3	11	82.2
	B752	3	18	80.6
	B767	3	5	76.3
	BE40	3	5	81.9
	C560	3	9	83.3
	CL60	3	5	87.4
	CVLT		2	77.3
	DC8	2	2	81.7
	DC8S	2	24	82.3
	DC9	2	4	82.8
	F900	3	2	81.0
	FA20	2	2	82.6
	FA50	3	9	78.5
	GLF2	2	8	84.2
	H25B	3	8	79.1
	LJ25	2	8	85.4
	LJ35	3	13	79.3
	MD80	3	1	82.5
	PA32		2	79.5
	T33		3	80.7
	TRIS		2	76.4
	WW24	3	2	85.4
Other Aircraft			244	81.3

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Aircraft	FAR 36 Stage	Event Count	Energy Average SEL	Graph of Energy Average SEL
B722	2	8	83.7	
B738	3	9	81.0	
B73A	2	15	80.1	
B741	3	1	89.4	
B752	3	19	82.5	
B767	3	9	85.5	
BE40	3	1	76.6	
C141		1	95.8	
C560	3	15	76.4	
CARJ		7	75.9	
CL60	3	9	76.4	
CVLT		8	83.5	
DC8	2	3	88.3	
DC8S	2	13	86.9	
DC9	2	2	83.5	
EA30	3	1	84.4	
F900	3	5	76.8	
FA20	2	2	80.2	
FA50	3	6	85.8	
GLF2	2	11	83.5	
GLF4	3	12	78.7	
H25B	3	8	77.8	
L29B	2	1	77.3	
LJ25	2	2	81.9	
LJ35	3	15	74.7	
MD80	3	1	82.5	
PA32		3	76.4	
SBR1	2	3	80.5	
T33		1	80.3	
TRIS		1	73.3	
WW24	3	6	75.3	
Other Aircraft		271	85.6	

Note: Energy Average is average of all events on a noise energy basis.
 FAR36 Stage is for general categories and does not account for hushkitted aircraft.

Periodic Site Noise Report

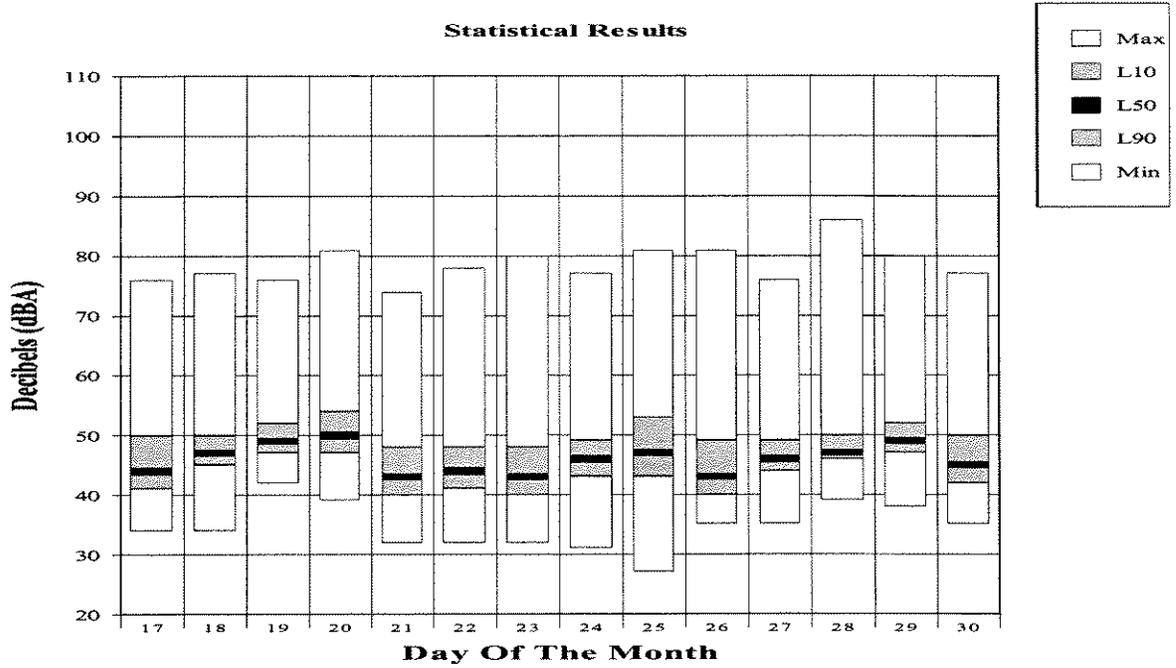
King County International Airport Part 150 Study

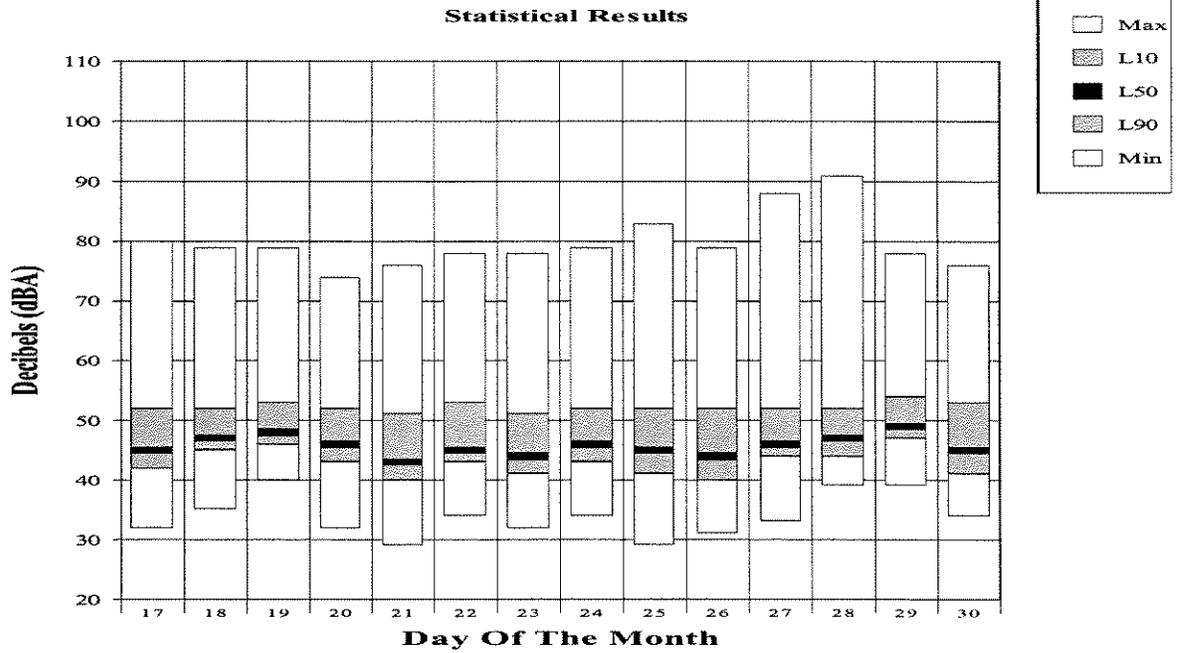
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Site: BN2 - West Seattle



Statistical Results



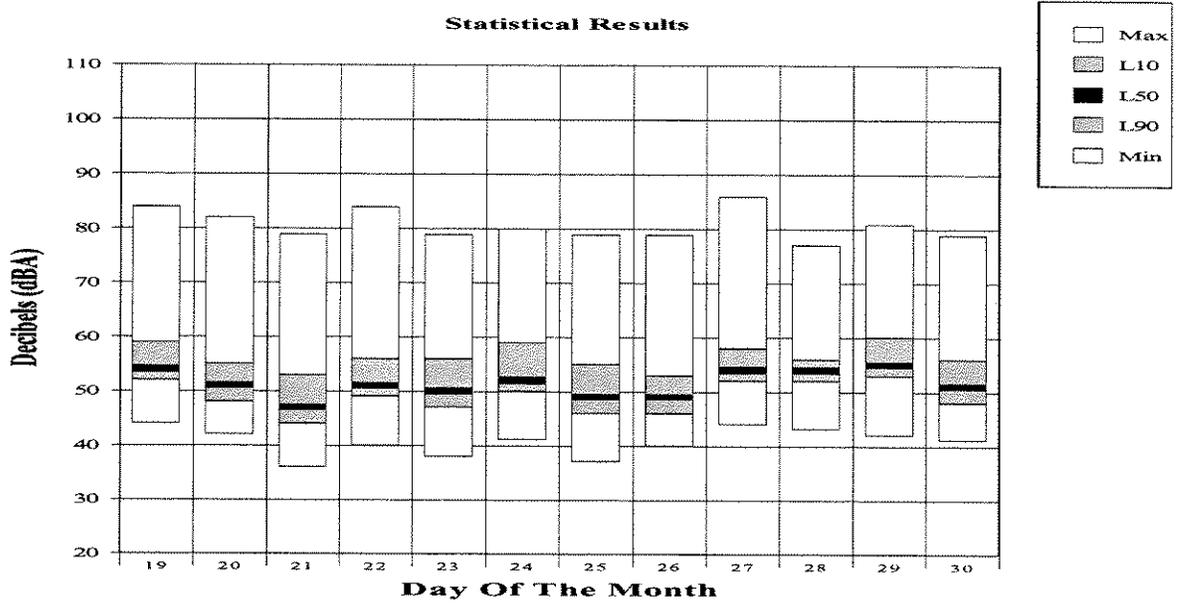


Periodic Site Noise Report

King County International Airport Part 150 Study
Period: November 19, 1999 to November 30, 1999
Site: BS1 - Tukwila



Statistical Results

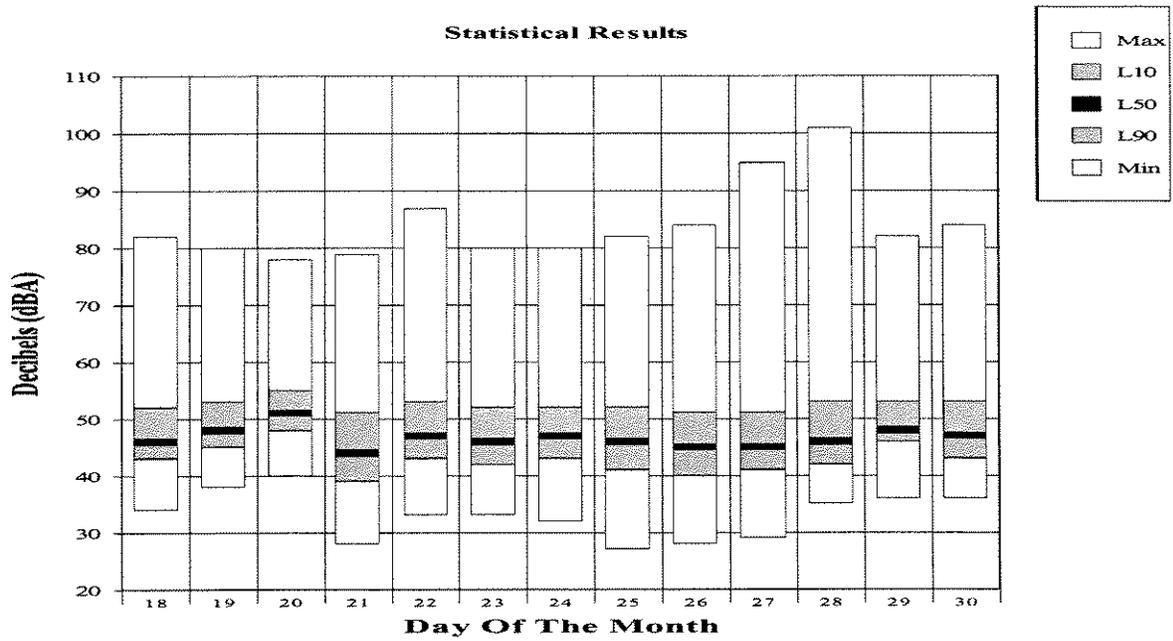


Periodic Site Noise Report

King County International Airport Part 150 Study
Period: November 18, 1999 to November 30, 1999
Site: BN1 - Magnolia

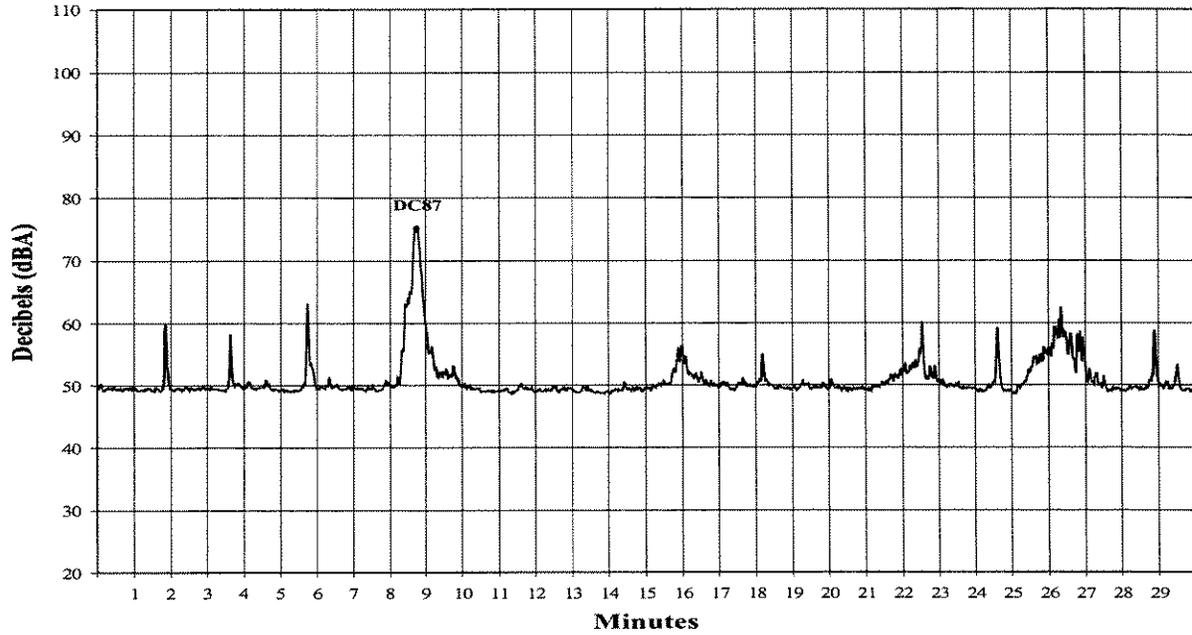


Statistical Results



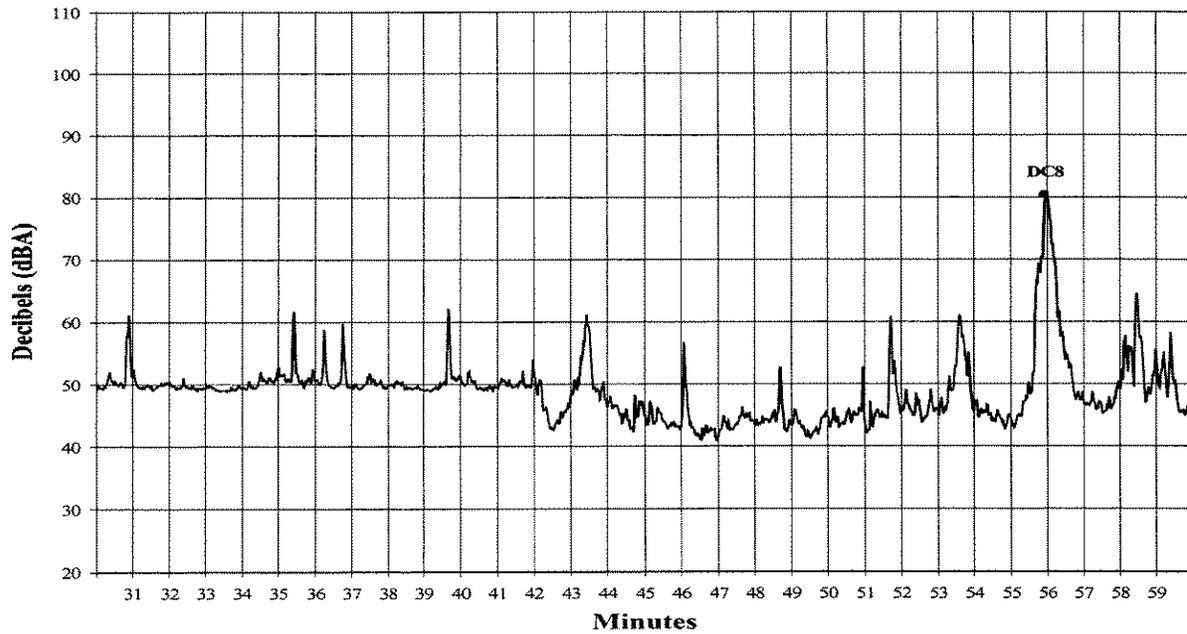
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One Second Data



Period: Nov 17 1999 06:30:00 to Nov 17 1999 07:00:00

One Second Data



Hourly Noise Graph by Site

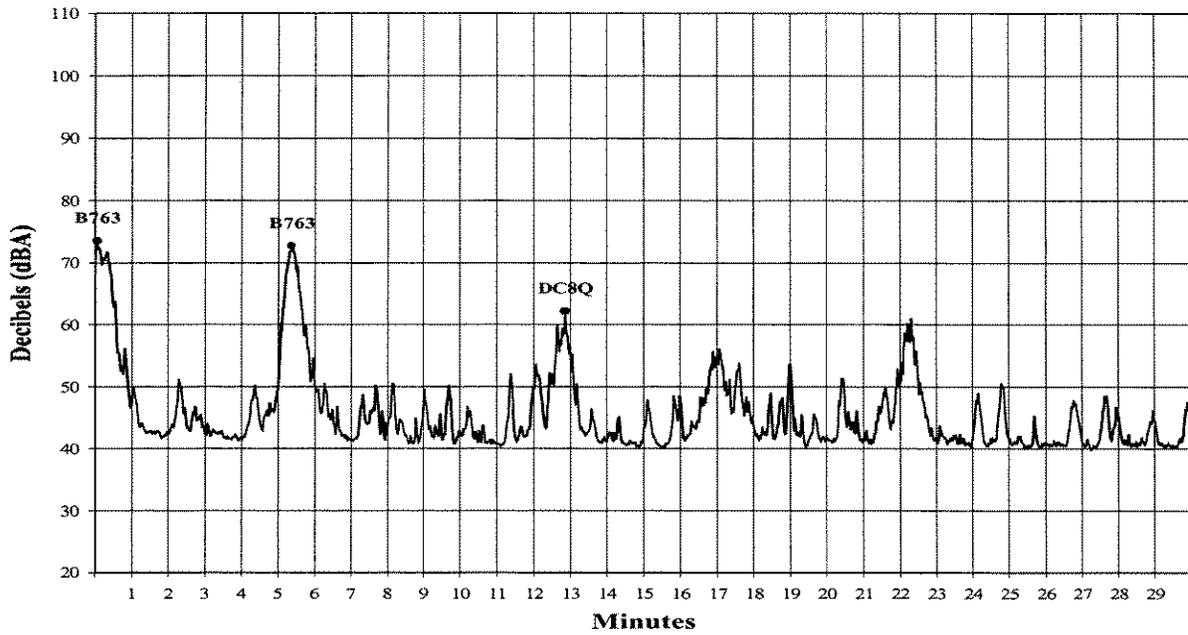
Boeing Field

Site: BNI - Magnolia



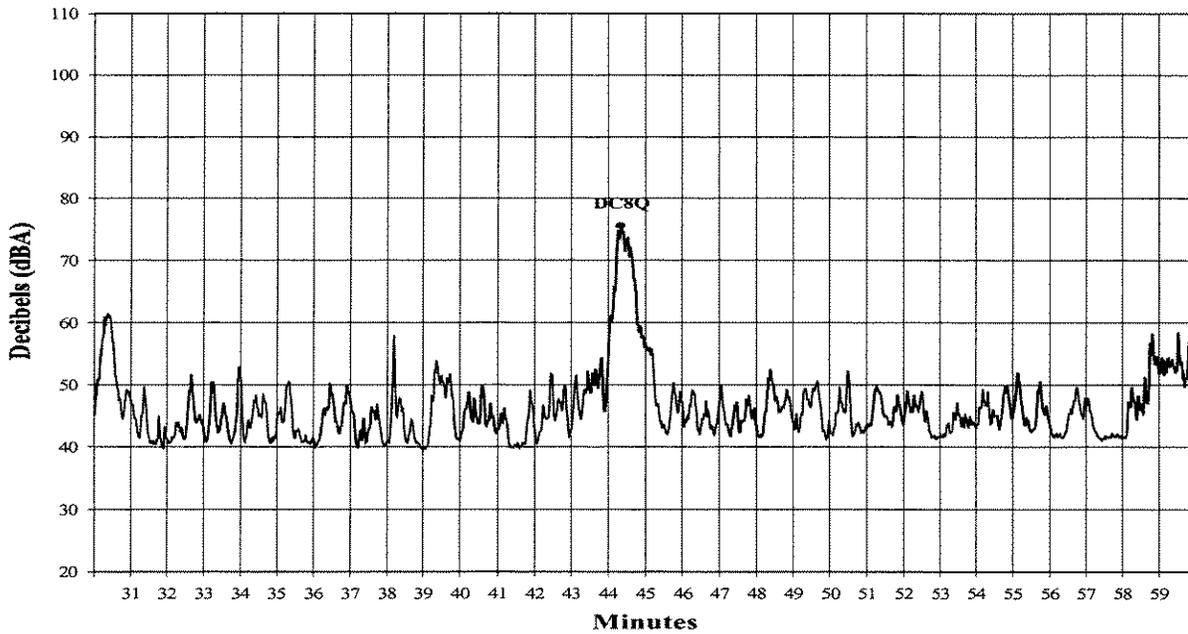
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One Second Data



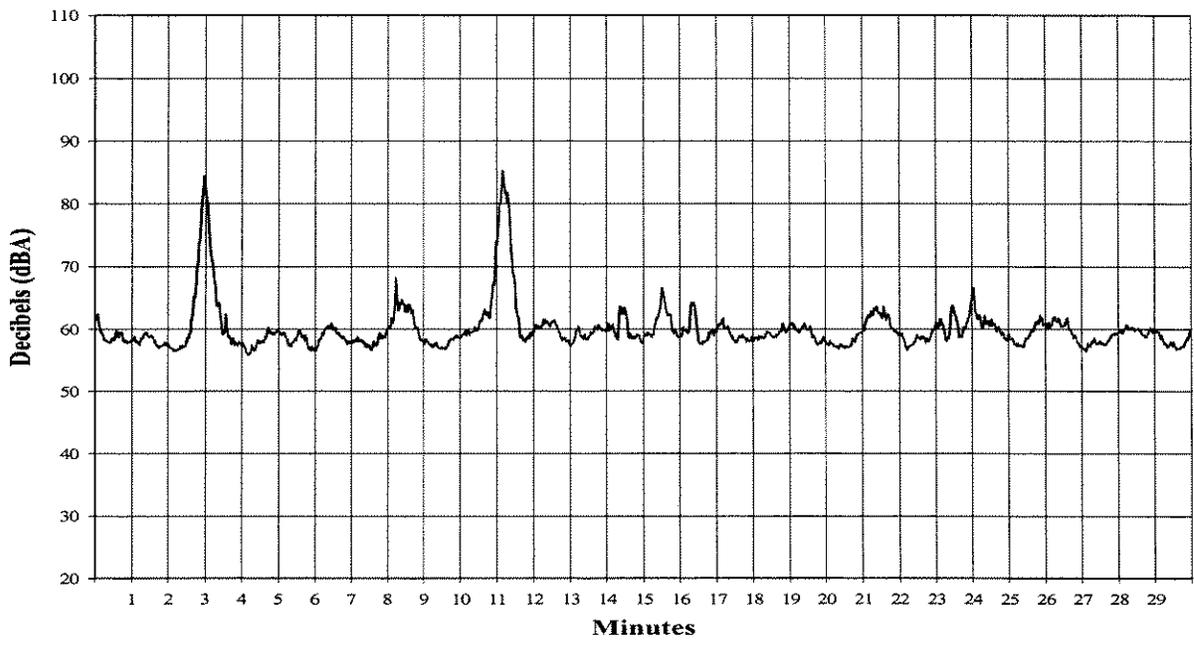
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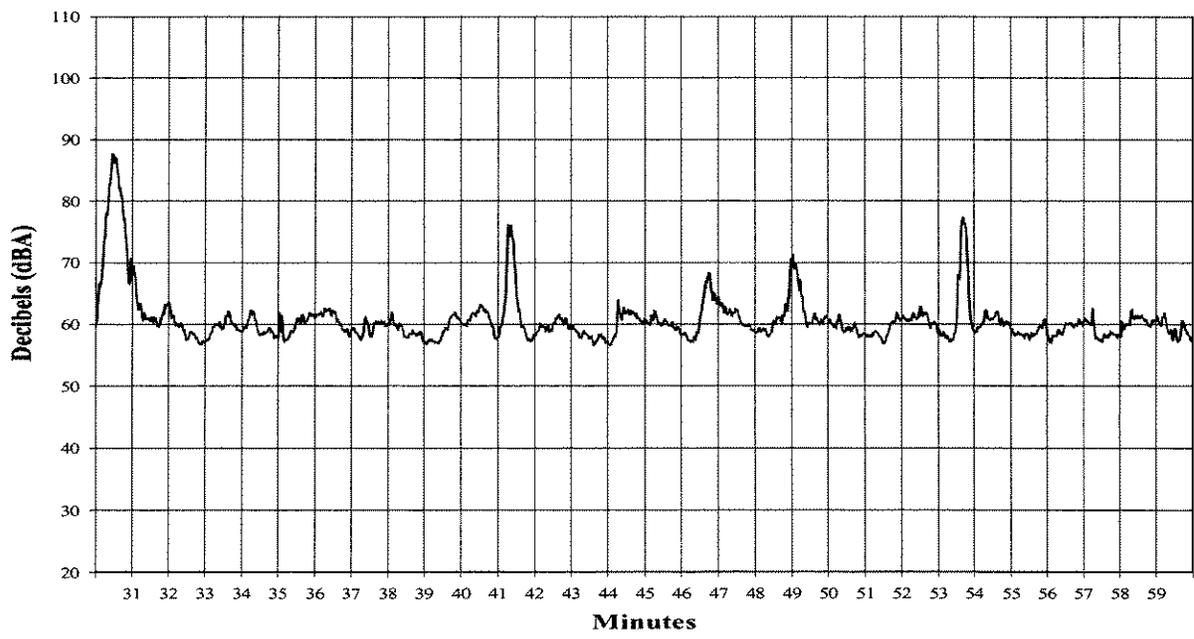
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One Second Data



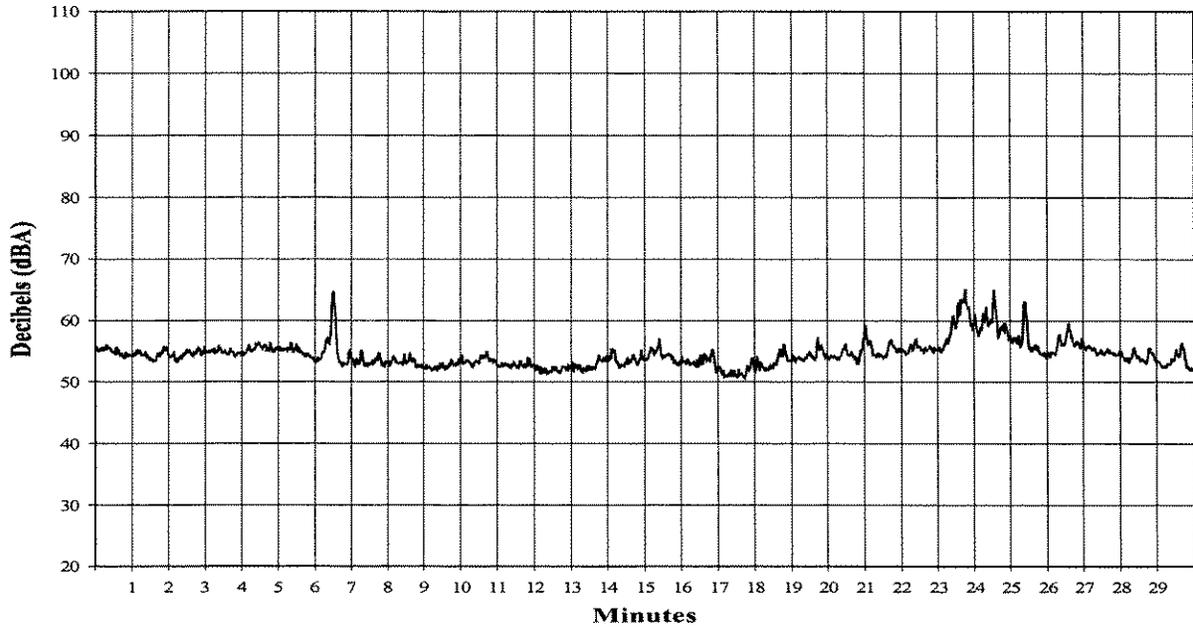
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One Second Data



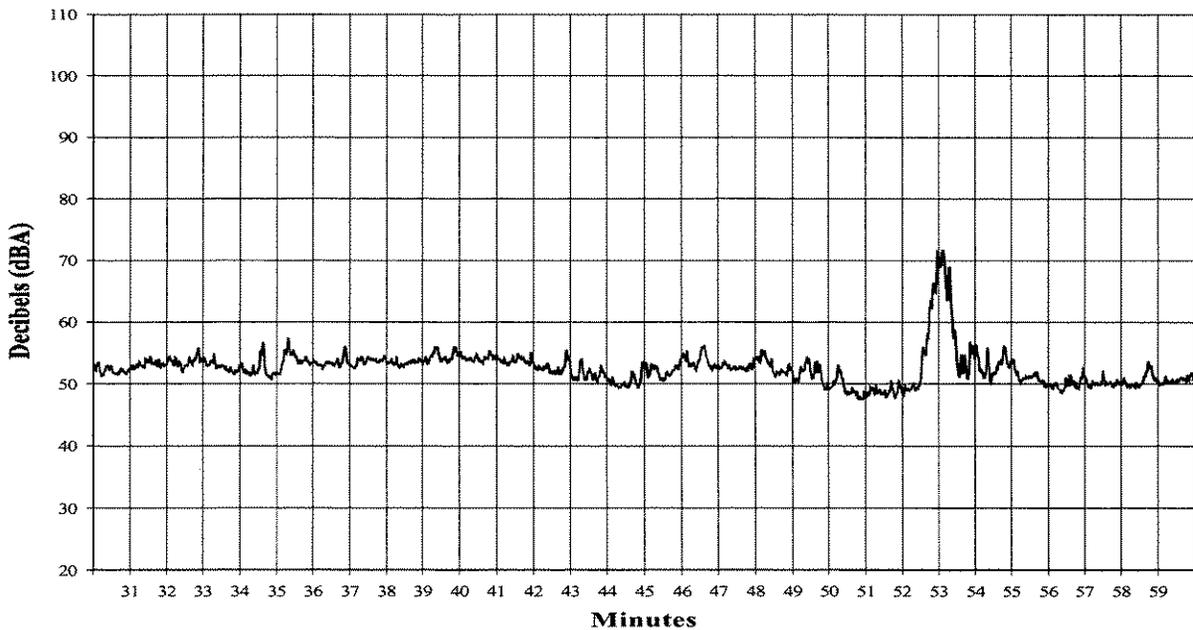
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One Second Data



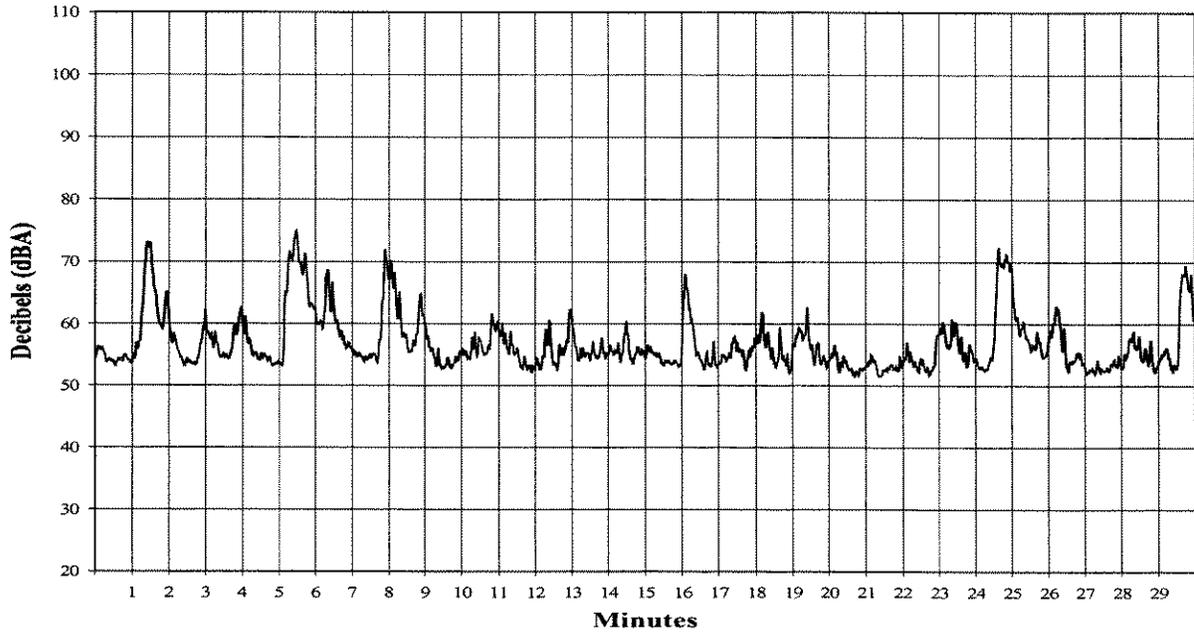
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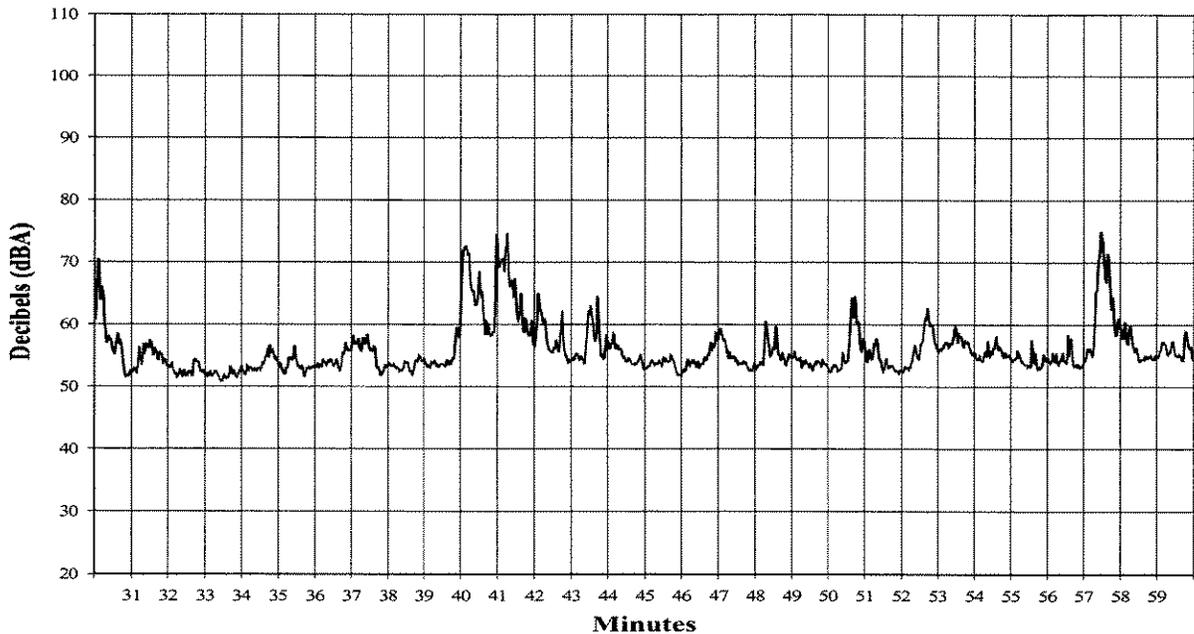
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One Second Data



Period: Nov 27 1999 07:30:00 to Nov 27 1999 08:00:00

One Second Data



Appendix Two

Public Involvement Plan

KCIA/Boeing Field

Part 150 Noise and Land Use Compatibility

Draft Public Involvement Plan

INTRODUCTION

As directed by the King County Council, the King County International Airport/Boeing Field is conducting a FAR Part 150 Noise and Land Use Compatibility Study in order to identify sources of existing noise and make recommendations to deal with existing and any potential noise. Because the areas around the airport are developed and because KCIA/Boeing Field is an increasingly important community and regional facility, the study is intended to establish guidelines for the development of both airport programs and compatible land use patterns and relationships. These recommendations will be based on aircraft operational characteristics and land use patterns.

Goals and Objectives

Because of the great interest by both the surrounding communities and businesses in reducing the noise impacts of the airport and maintaining the economic benefits derived from the airport, public involvement is a key component of the Noise Study. The main goals of the public involvement program are to create public awareness of the study and its purpose, to involve the public in identifying recommendations to reduce noise, and to gain public understanding, acceptance, and support for the final recommendations. Part of the public involvement plan development will be to provide a strategy that builds community trust in the process and provides channels and methods to communicate citizen concerns and opinions about the project. A second part is to be responsive to community input and be clear about the public and County's role in the process.

Specific objectives include:

- Increase citizen awareness of the Noise Study and the regulatory framework within which the study is conducted. Make sure the public understands what can and what can not be accomplished by the study.
- Inform organized groups and the public about the study process and opportunities for public involvement.
- Educate the public about the possible alternatives proposed to reduce noise.
- Offer opportunities for public comment on the alternatives and recommendations during the draft and final phases.
- Offer an opportunity for interested federal, state, and local agencies to comment on the alternatives and recommendations.
- Provide a summary of concerns expressed by the public and by agencies to the project team.

- Invite public support for King County's recommendations.

The public involvement plan is based on interviews with members of the Study Advisory Committee who represent communities, businesses, employees, and agencies dealing with the airport and airport staff. (See Appendix A, KCIA/Boeing Field Part 150 Noise Study Summary of Interview Issues and Concerns.) Those interviewed were asked to define key issues and concerns for the project, how people obtain information about airport issues, who would be interested in the project, and what approaches might work best for communicating with them. In addition, prior to the project start, the airport management had committed to conduct additional public outreach around the Noise Study that has been incorporated into this document.

The public involvement plan includes a variety of approaches to inform the public, gather ideas, and monitor citizen opinion on the KCIA Noise Study: community briefings, open houses/public meetings, a public hearing, news releases, project notebooks, and newsletters. A Study Advisory Committee has been established to review the study elements, explore and challenge the study assumptions, and ask hard questions prior to consultant and staff presentations of the information at the public meetings for general comment. The goal is to have better information and plans for public review prior to a decision by the County Executive and Council.

The public involvement plan is meant to be a working document. Over the course of the study, some techniques may prove more effective than others, or new ideas may be generated at the community or public meetings. Of course, all is subject to funding availability. Incorporated into the public involvement process will be a review after each key decision point of the effectiveness of the public involvement plan approach in meeting its goals and objectives.

THE STUDY ADVISORY COMMITTEE

An Advisory Committee of interested parties to review the development of the plan has been established. The purpose of the Study Advisory Committee is to provide a broad and balanced range of perspectives on the Part 150 Noise Study. The Committee will provide a forum for open dialogue in which to express the broad range of interests and points of view, explore and challenge the study assumptions, evaluate alternatives, help identify impacts and trade-offs of choices, and provide a base for testing responses to proposed solutions.

The role of the Committee will be one of working with the consultant team during the course of the study, reviewing the various findings and recommendations coming forth from the study effort, providing input, and generally providing review and comment on the study elements. Decision making will be the responsibility of King County with input from the Committee (which includes the Airport Roundtable) and the general public.

The Committee will help assure that the planning process is open, responsive to public concerns and technically sound. Members are encouraged to express

all points-of-view and perspectives on issues and alternatives and to seek to identify areas of agreement as well as reasons for differing points of view on the Part 150 Noise Study.

The Committee consists of 23 members:

- All 16 members of the Airport Roundtable. The Airport Roundtable was established by the King County Council in June 1997 to advise and make recommendations to the airport management, county executive and county council on the airport budget, programs, regulations, master plans and noise reduction strategies and other related matters.. The Roundtable operates by consensus. The 16 regular voting members include:
 - Eight representatives of communities directly affected by the airport, including one each from Georgetown, Magnolia/North Seattle, Tukwila, Renton/Kent/South King County, Beacon Hill/Rainier Valley, West Seattle, Unincorporated King County, and one at-large.
 - Four airport tenant representatives including one each from the cargo operation, small general aviation, corporate tenants, and the Boeing Company.
 - One representative from a pilots association
 - One representative from a commercial enterprise which is an off-site user or off-site provider of airport related services;
 - Two labor representatives
- A representative from the Puget Sound Regional Council
- A representative from the State Aeronautics Division
- A representatives from FAA planning staff
- A representative from FAA Air Traffic Control staff
- Representatives from the governments of the two affected jurisdictions, Seattle and Tukwila.
- A representative from SeaTac Airport

Members of the Roundtable were appointed by the King County Executive and confirmed by the Council. The agencies and the affected governments selected their own representatives.

Observers

Observers are welcome at all committee meetings but will not be seated at the table or participate in the discussions. A time will be set aside in the agenda of each meeting for comments or questions from observers.

Meeting Times and Location

The Committee will meet about eight times during the study in one of the airport conference rooms. Meetings generally will be scheduled on the same date as a regularly scheduled Roundtable meeting, the second Monday of the month.

Meetings

The Study Advisory Committee will meet to review and discuss issues and material before it is presented at a community briefing or a larger public

meeting held prior to the key planning and/or decision points. The purpose of the group is to reflect the interests and concerns of the KCIA community and others in the development of the Noise Study. It will assist the County/project team by providing review and comment on study elements including the review of existing conditions, noise monitoring procedures and models, existing and future noise contours, the identification and evaluation of noise compatibility and land use alternatives, and recommendations as they emerge.

Members will be encouraged to express all points-of-view and perspectives and issues and alternatives and to seek to identify areas of agreement as well as reasons for differing points of view on the development of alternatives and recommendations. The project team will receive and use feedback from the committee as a resource to them in developing the plan.

This process will take at least eight working sessions, each requiring staff preparation and response time, and each requiring committee members to do some reading and preparation outside the meetings. The project team is committed to listening and responding to the comments and information from the Study Advisory Committee.

The tentative purpose of each meeting is listed below. If the material can not be adequately covered in one meeting, a follow-up meeting will be scheduled.

- Meeting One: Kick-Off
- Meeting Two: Groundrules/Committee Operation
- Meeting Three: Inventory of Existing Conditions
- Meeting Four: Noise Analysis: Monitoring Data and Preliminary Noise Exposure Maps
- Meeting Five: Noise Impact Analysis; Finalize Noise Contours
- Meeting Six: Noise Compatibility Alternatives
- Meeting Seven: Land Use Alternatives
- Meeting Eight: Noise Compatibility Plan: Recommendations

Meeting Summaries

A meeting summary will be prepared after each meeting. The purpose of the summary is not to provide meeting minutes, but rather to record comments and questions raised by members of the committee. In this way, a record of discussion items is kept that can be referenced in the course of the project. Answers to questions raised may be included in italics.

Roles and Responsibilities

King County Airport

- Form the Study Advisory Committee.
- Make meeting arrangements.
- Attend each committee meeting and present information and answer questions as required.

- Complete all advance mailings to committee members prior to each meeting.
- Post meeting date and agenda on website prior to the meeting.
- Participate in a planning session for each meeting.
- Provide needed supplies for meetings.
- Post working papers and meeting summaries provided to committee members on the airport website.

Barnard Dunkelberg

- Develop concept, agenda, and content of each meeting with Triangle Associates.
- Participate in planning session for each meeting.
- Prepare handouts, background and display materials for committee meetings.
- Present technical information at committee meetings.
- Facilitate committee meetings.

Triangle Associates

- Provide advice and materials on committee organization, ground rules, and format.
- With Barnard Dunkelberg, develop concepts for agendas, format, and content of meetings and participate in the refinement of these concepts with King County.
- Prepare a summary of each meeting and advise project team members on follow-up activities based on the content of each meeting.
- Provide meeting summary to Airport staff for website posting.

PUBLIC INFORMATION MATERIALS/NEWSLETTERS

Introductory/Summary Brochures

At the start of the project, an introductory brochure will be developed to describe the study, its purpose, its intent, its goals, its direction and usage, general schedule and the reasons for its accomplishment. Similar brochures will be produced at the end of the project to document the general recommendations of the FAR Part 150 program. In addition, a Noise Abatement Brochure specific to Boeing Field for inclusion in the Jeppesen Manual for all pilots using the airport will be prepared.

Project Newsletter

A project newsletter will inform the public about the project and describe opportunities for public involvement. It will also announce information on public meetings. Up to four issues of a project newsletter will be produced during the study process. The newsletter will complement the informational and summary brochures. Anticipated newsletter topics are:

- Newsletter 1: Noise Impacts: Final Noise Contours, public meeting notice, public involvement
- Newsletter 2: Preliminary Alternatives and meeting notice
- Newsletter 3: Preliminary Recommendation, meeting notice

- Newsletter 4: Draft Recommendations, Hearing notice

Newsletter Updates

In addition to the project newsletters, news updates about the study process may be included in the regular airport newsletters, the KCIA noise newsletter *Noise Update*, which is distributed monthly to those who contact the airport with noise issues, and the quarterly *Skywriter*. In addition, news releases about upcoming meetings will be sent to county council members and other newsletters that have indicated an interest in receiving updates.

King County Airport Website

All working papers, newsletters, meeting announcements, meeting summaries and other materials as appropriate, will be available for review and downloading in a PDF format from the King County airport website. Because personal computers are increasingly common or available in public libraries, the website becomes a logical place with a minimal amount of effort to make materials available for review and downloading as well as advertising both meeting notices.

Project Notebooks

All brochures, newsletters, working papers, press releases, and other materials as appropriate, will be placed in the project notebooks. Project notebooks will be available for public perusal at 15 locations: the Airport Administration office; local Seattle Public Libraries, including Beacon Hill, High Point, Holly Park, Magnolia, Rainier Beach, Southwest and West Seattle; King County Libraries, including Burien, Boulevard Park, Foster, Skyway, Tukwila and White Center; and the Renton Public Library.

Publicity Materials

Prior to the public meetings and hearing, press releases, newsletter announcements, letters to elected officials, and agenda announcements will be prepared and mailed to announce the meetings and/or hearing to the public. Newspaper ads will be placed in the *Seattle Times*, *Post-Intelligencer* and other local papers. (See Appendix B, Media List for a comprehensive list of media contacts for news releases and newsletter announcements.)

Roles and Responsibilities

King County Airport

- Review and approve all public information materials prior to printing.
- Mail newsletters, press releases, letters to elected officials, and agenda announcements.
- Post public information materials and meeting notices on the airport website.
- Approve locations for project notebooks.
- Mail materials for project notebooks to additional locations as desired.
- If viable, update a recorded message on meeting dates and study progress.

Meeting Two: Preliminary Noise Contours

The purpose of this meeting is to introduce the data collected by the consultant about existing noise at the airport and what noise would look like in the future if no noise abatement were to occur. Explanations of the contours, what they mean, and how they will be used will be provided. Participants will be asked to identify what options they would like to have analyzed in the study for possible noise remedies. Comments received from these meetings will be provided to the consultant team prior to their preparation of the final noise contours and public open house.

Timing: Winter 2000

Meeting Three: Preliminary Noise Abatement Alternatives

The purpose of this meeting is to introduce the preliminary noise abatement alternatives resulting from analysis of the noise remedy options. Explanations of the remedies considered for each area and preliminary conclusions about each option will be provided. Participants will be asked to identify additional questions that need to be answered as well as provide any feedback on which alternatives are preferred.

Timing: Summer 2000

Community/Neighborhood Meetings

Additional community meetings will be held periodically in each of the eight areas represented by a Roundtable community member. The purpose of these meetings is to develop a relationship between the airport and the various communities and to allow community members to provide their specific perspectives to key elements of the noise study. The airport staff will work with the Community representative of each area to identify appropriate times, locations and publicity methods for each meeting. In general, meetings will be advertised on the airport website, in community newspapers, and via direct mailings to appropriate zip codes on the airport mailing list of those who have made noise complaints or indicated interest in airport issues.

Airport Tenant and Operator Meetings

Similar to the community meetings, airport staff will provide airport tenants and operators with information about the noise study and the opportunity to informally comment on the project at the regularly scheduled tenant and operator meetings. Meeting topics and timing will be the same as the community meetings.

Briefings

Community briefings get elected officials and key community groups into the information loop early so that there are no "surprises," so they can better coordinate their planning and accurately inform their own constituents. Airport staff will offer to make presentations to the Tukwila and Seattle City Councils and community councils in areas affected by aircraft using KCLIA. Editorial briefings on the project background and process may also be appropriate during the study process. Because of the political interest in the

future of the airport and sources of funding for noise abatement, county, state, and federal elected officials should also be briefed.

Cable TV/Video Community Briefing

Clearly presented information on what a Part 150 Study is designed to do, and what it is not designed to do, is needed in the community. To provide this education, the airport could videotape a presentation/question and answer session that provides the information needed in the community. Members of the Study Advisory Committee could participate by asking questions that they think their communities may have. Copies of this video could then be made available at local libraries and/or at the Airport so that residents could view it at their convenience. If feasible, this video could be made available for viewing on public access television; scheduled dates and times to view the video could be shared with community councils so they could publicize it to their members.

Advance preparation for this videotaping would include notifying Study Advisory Committee members that this topic is to be the focus of the meeting, so they can bring appropriate questions to the meeting. The consultant would be responsible for providing clear responses to Committee members' questions. Additionally, the consultant would be responsible for developing and having effective presentation graphics at the meeting.

If the format proves successful, additional videos could be prepared prior to key decision points to circulate around the community.

Radio Outreach

As the alternatives are developed prior to the public open houses, the Airport Manager could appear on some local radio talkshows such as KUOW's Weekday, KIRO's Dave Ross Show or other programs to present what the study is about and what decisions must be made.

Roles and Responsibilities

King County Airport

- Identify dates, times, and locations for community meetings, tenant and community briefings.
- Work with the appropriate Roundtable member to coordinate above.
- Invite community members to attend meetings through notices in community papers, direct mail, posting on website, and other means as identified.
- Contact community organizations, city and community councils about briefing opportunities.
- Present information on the Study to community members, airport tenants, and others identified.
- Collect comments from meetings and summarize for project team and Study Advisory Committee.

Barnard Dunkelberg

- Develop agenda, attend and present at one round of community meetings.

- Provide technical support (handouts, presentation materials) to airport staff in preparation for meetings and briefings, video taping.

Triangle Associates

- Provide meeting support (agenda preparation, planning meeting, suggested presentation materials) and summary of issues for one round of community meetings.

OPEN HOUSES/PUBLIC MEETINGS AND HEARING

Open Houses will be held at key decision points in the process to inform the public about the project and obtain their comments. In contrast to the community meetings, which are targeted to specific communities, the open houses are an opportunity for all communities and interested citizens to meet together and learn and comment on the project. Meetings will be held either at the airport or a location nearby. The project consultant team will be available to answer questions and present information.

The open house portion of the meetings provides an opportunity for the public to see displays about the project, visit with project staff, learn about the study process, and generally prepare for the commenting opportunity. The open house will be immediately followed by a brief presentation about the project with opportunity for questions and answers and comments. The meeting to discuss alternatives could be designed in a workshop format where the public is divided into small, facilitated discussion groups and then reconvened into the large group to summarize what was discussed. Depending on the project needs, opportunity may be provided for formal comments. Ready-to-use comment sheets will be provided at the meetings for the public to submit at the meeting or mail to the County.

Public Meeting One: Introduction to the Study Process

The first public open house was held July 17, 1999. The purpose of this first meeting was to introduce the purpose and methodology of the Part 150 Noise Study and to solicit suggestions for where noise monitors should be placed and any other suggestions about the process or possible noise remedies.

Public Meeting Two: Noise Analysis Results

The purpose of this public meeting will be to present the results of the noise monitoring and analysis based on 1999 data. The existing noise contours will be presented along with projections for what noise would look like in the next five years without any noise remedies in place. Participants will be asked to comment on the data and identify possible alternatives for noise solutions. The anticipated timing of this meeting will be Spring, 2000.

Public Meeting Three: Noise Abatement Alternatives

At this meeting, the project team will present the alternative strategies identified to reduce noise from the airport. The advantages and disadvantages of each, the potential for funding, and other information about the different alternatives will be provided for public review. The public will be asked to comment on the various alternatives, identify which alternatives they prefer or any additional ideas that should be considered. The project team will take this information back to the Study Advisory Committee as they look at specific recommendations for creating the Noise Compatibility Plan.

Expected Timing: Summer, 2000

Public Meeting Four: Preliminary Recommendations

Depending on the recommendations selected and the difficulty in implementation, a fourth public meeting may be scheduled prior to the formal hearing on the final recommendations. The purpose of this meeting would be to garner comment on the preliminary recommendations and whether the public supports the proposed plan. This would allow for making changes to the plan before going through the public hearing process.

Expected Timing: Winter 2000

Public Hearing

Once the plan is finalized, a formal public hearing will be held to receive public comment on the recommendations. The public hearing process provides an opportunity for the public at large to provide their comments on the plan prior to County Council and Executive approval. Prior to the hearing, an open house will be scheduled so the public can become familiar with the recommendations. After a brief presentation, the public will be able to comment verbally or in writing. A court reporter may transcribe verbal comments. The formal comment period will close about two weeks after the hearing.

Expected Timing: Spring, 2001

Roles and Responsibilities

King County Airport

- Review and approve meeting concept, agenda, format, displays, and materials and finalize dates for all open house/meetings and hearing.
- Attend planning session and dry run of meeting presentations.
- Present information and answer questions at open houses/meetings.
- Provide court reporter for public hearing.

Barnard Dunkelberg

- Plan meeting concept, agenda, format, displays, and materials for all open house/meetings.
- Attend planning session and dry run of meeting presentations.
- Prepare displays, presentation, and informational materials for all open houses/meetings/hearing.
- Present information and answer questions at open houses/meetings.

Triangle Associates

- Provide advice on meeting concept, agenda, format, displays, and materials.
- Conduct a planning session and dry run of meeting presentation.
- Provide meeting support for sign in.
- Facilitate public meetings.
- Provide meeting agendas and comment sheets.
- Prepare meeting summary.

Appendix A

KCIA/Boeing Field Part 150 Noise Study Summary of Interview Issues and Concerns

Background

As part of the initiation of the Part 150 Process for King County International Airport (Boeing Field), Triangle Associates was authorized to conduct a series of interviews with members of the Study Advisory Committee. After developing a set of interview questions, Triangle conducted 23 interviews between September and December, 1999.

Those interviewed were told that a summary of the results of the interviews would be provided to staff and the consultant team but that no names would be associated with any comments. This report briefly summarizes the overall themes that emerged from the study as well as the specific issues, concerns, and suggestions that were identified.

Overall Themes

- Desire across the spectrum to find common ground that will enable Boeing Field to remain a vibrant economic hub for the area and yet maintain acceptable quality of life for those who live and work at or near the airport and/or under its flight paths.
- Desire for a credible study that provides accurate, clearly-presented information that residents and all interested parties can readily understand.
- Request for a robust public information and public involvement effort so that interested parties will be aware of and can participate in the process. This approach will create confidence in the results.
- Suggestion that the process include education on 1) what the Part 150 Study is, and is not, intended to accomplish; 2) the rules pilots have to follow in approaching and departing airports, including the flexibility they have relative to flight tracks; 3) the relationship and implications of the respective Boeing Field and Sea-Tac air spaces; 4) the capacity of Puget Sound to absorb more over-water flights; and 5) the noise implications for other communities of revising current flight tracks.

The issues, concerns, and suggestions identified in the interviews are grouped into two main categories: comments that relate to the Part 150 Study and comments that relate to Boeing Field operations and impacts:

Part 150 Process Comments

- Participant Goals for the Part 150 Process
- Overall Process Suggestions/Concerns
- Suggestions for Technical Work
- Suggestions for Public Information
- Suggested Groups to Keep Informed

Comments about King County Airport Operations and Impacts

- Perceived Sources of Noise at KCIA/Boeing Field
- Other Concerns about Current KCIA/Boeing Field Operations
- Concerns about Anticipated/Planned Changes to KCIA Operations
- Suggestions for Improvements to KCIA/Boeing Field Operations
- Economic Issues and Concerns
- Other Issues/Concerns

Participant Goals for the Part 150 Process

Reduction of noise with maintenance of operations

- Cut noise at Boeing Field without cutting operations
- Resolve the conflict between noise and the operation of the airport, so Boeing Field remains economically strong
- Keep the airport open and viable and make it livable at the same time by having the Airport, County and FAA do everything possible to mitigate the noise impact, including changes to flight tracks, infrastructure improvements, voluntary take-off and landing procedures, insulation of homes – with limited disruption of flights
- As much as possible make the airport and its function and operations compatible with surrounding neighborhoods
- From whole region perspective: how to reduce noise impacts to the community to the greatest degree possible without destroying the economic benefit that Boeing brings to the region.
- Recognizing and balancing the unseen or non-obvious economic benefits the airport brings to total community against the negative impacts on a few selective communities.
- Create solid, empirical data that we can use to develop a long-range plan for the airport that would include the interests of the business and residential communities.

Operations can continue and airport remains flexible to respond to changing demands

- That we come out of this with no operating restrictions; can operate 24/7.
- A functioning airport that can respond to demand appropriately—with flexibility to respond to unforeseen demand. Greatest concern is the extent to which concessions are made that may get in the way of future flexibility for the future.

Desire for satisfaction with the overall process that results in a fair, do-able plan

- We're advocates for aviation but want sense of balance –respect, walking in each other's shoes.
- People to feel that as much had been achieved as was realistically possible
- That the members of the Advisory Committee and Roundtable and the community groups believe that their issues and concerns were heard and fairly considered and evaluated. That even if didn't get way, issues were fairly considered.
- At the end of the process, for the community to feel as though they learned more about what business takes place at Boeing Field and that they were a part of and had input into the final decision on land uses at the airport.
- Concrete measurable changes made to operating procedures of businesses at Boeing Field to be respectful of the human needs of the people here on the Hill and to be good neighbors.
- That we have a record of approval for a noise compatibility program and approved noise exposure maps.
- That citizens feel a valid attempt was made to come up with real solutions.
- That the process extends into the Part 161 process.
- Success will be an accurate and fair assessment of the situation and a doable plan, a practical plan for mitigating the noise and other environmental effects caused by KCIA.
- Hope that something can be worked out so people close in have been heard and that we can provide relief.
- Would like to see that the community or people with noise issues, that they have some level of satisfaction that there are remedies out there and that things worked for them.
- Have impacted homes to be part of a mitigation plan or bought out at reasonable, fair market value.

Improved relations between the airport and the community

- Establish a stronger working relationship between the airport, FAA, and the community.
- Give information so people work better with the airport
- Want the airport to be perceived as a better neighbor, that has listened to our concerns and actually decreased noise.
- Appreciate the cooperation among the airport staff and management, County Council and interested parties—desire to make some positive gains with the community.
- Concern about relationship between the community members and airport staff—airport staff needs to be honest with the communities.

Reduced noise

- To decrease the noise—flat out reduction of noise.
- Would like to see situation where final solution is not just an economic class solution where we solve the problems for the wealthy communities—fair to everyone.
- Decrease the impact noise has on our community by decreasing the noise, not by decreasing the community.

- Be on cutting edge of solving problems regarding noise.
- Noise will actually be decreased as a result of the study.
- Basically, to reduce the amount of noise and/or environmental degradation caused by the airport and reduce the number of people that it affects.
- How to minimize negative impacts of noise on those communities.
- Provide solutions that reflect the diversity of people and that some people are more sensitive to noise than others.

Study results to be based on accurate factual information that is clearly presented

- Very high quality, empirical data and defensible and explainable technical work; the information needs to be really good, transparent to the community. The public needs to understand it.
- Accurate information about the noise contours.
- Accurate and truthful info—don't skirt around the issues. Give un-sugar-coated information.
- Complete and understandable information.
- The County has to be honest that this is an airport, it's not a quiet zone. It will be noisy.

Safety and efficiency of operations is maintained

- Making sure safety and efficiency are not compromised.
- Who pays for it and how is this County resource most efficiently run –how much does it cost the taxpayer—how much revenue does it generate—maximum generation of revenues and most efficient revenues.

Zoning concerns

- Neighborhood plan reinforces our desire to be a residential community with affordable housing. There's resistance to zone us out of existence.
- Desire to keep in mind that Boeing Field is and always has been an airport; it is not time to change its use.
- Changing zoning will not change the existing noise levels.

Overall Process Suggestions/Concerns

Role of the consultant team

- The airport should allow the consultant to run the show, build rapport and believability with the community. Learn from Sea-Tac: let the consultant address the issues and build credibility.
- Have experienced consultant from the team at community meetings who can talk about noise, to answer questions.
- Provide expert advice through the Part 150 Process: "Have experts give us ideas; don't expect us to solve the problem."
- Be open to any wild idea that the public asks—don't dismiss them out-of-hand.
- Be as responsive as possible as process evolves and recommendations are put together.

Education about Part 150 needed

- Provide an extensive orientation by the FAA so they understand what the limitations are and what Part 150 is supposed to do. Create a better understanding of what is possible.
- Best thing we can do is get out to the people and let them understand the rules, what we can do, what we can't do.
- Provide seminars that people who are not part of the study can attend, as educational opportunities on how airports work, what happens when an airplane takes off and flies away; what a Part 150 study is, its goals, and restrictions we operate under. Also, explain what it means if a change is made, that other communities may be affected.
- Need information ahead of time to be able to get opinions about technical issues from Boeing's technical staff
- Community representatives need adequate time to review materials in their spare time.
- Need to be clear about the difference between the Part 150 and the Master Plan processes; potential for confusion about the separate studies and how they overlap.

Concerns about the Advisory Committee

- Concern that Committee is not evenly balanced between community needs and economic development; seems weighted toward commercial/business interests.
- Involvement has been reduced to a few representatives – “reduces the voice of many of the communities to a whisper.”

Community outreach essential for success

- Communicate information to everyone in the community.
- Make sure people do not feel left out of the process – really reach out and listen.
- Must reach out to non-English speaking residents who, culturally, are unlikely to speak out.
- Going to neighborhoods will help in the long run; it lets the communities know that the airport does care.
- Make sure public is welcome at all meetings, and allow public comment.
- Airport staff should get out into the community themselves.
- Healthier to work with existing groups. You'll need their buy-off in the end because they see themselves as representing areas that have vested interested.
- Suggestion: As folks come back with comments, create a matrix showing how original language was amended. When one person disagrees with an approach, note it, in a way that is positive (even if the language doesn't change). This makes people feel they have been heard and documented in a positive way. Don't stomp on efforts of people.
- Ensure that everyone feels that they have been heard—both the community people and airport. That people are open to both sides.
- Don't talk down to people who are affected by noise or make it seem as if they have a problem.

- Make sure the public feels welcome to ask questions and learn about airport issues.

Timeliness

- Stay on schedule.
- Don't schedule meetings and then change the time and/or location at the last minute.

Suggestions for Technical Work

Identify noise sources through monitoring

- Identify and segregate out Sea-Tac generated noise; don't penalize Boeing Field for it.
- Noise monitoring to separate Sea-Tac and Boeing Field noise. It should help the region define areas affected by both airports and may be eligible to be mitigated: Georgetown, Queen Anne, Magnolia; also sideline communities — like West Seattle, Beacon Hill, Tukwila—areas outside the noise contours but still impacted because of topography.
- Exclude military-generated noise because Boeing Field has no control over it.
- Segregate Boeing Field noise from Sea-Tac noise from train-generated noise.
- Trains and freeways should be considered in the noise footprint.

Options to be considered

- Transponder Landing System—committed to look at this within Part 150. Will get the planes over the bay earlier. Needs to be considered in the noise study—may throw noise into West Seattle.
- Address Elliott Bay's capacity for air traffic realistically.

On the ground concerns/suggestions

- Hush house—now calling them ground run-up enclosures. Little bit nervous to see how that develops. Doing one in Portland—haven't been able to determine how successful they are for the money that they cost.

Land use issues

- What happens with land use planning for Boeing Field in terms of reflecting growth management considerations relative to compatibility and appropriate types of uses around the airport?
- Multi-modal issues: need for connections, ground transportation—how do we ensure the proper connection—transportation system
- Leases and whether businesses are operating according to authorized use.

Study assumptions

- How you deal with forecasting and analysis related to cargo given the fact it could double tomorrow or be gone? How do you handle the noise?
- Sleeper issues: what if a commercial passenger service or additional cargo carriers want to come to Boeing Field because of overcrowding at Sea-Tac?
- Forecasts of cargo traffic are low given internet mail order business in Seattle.

Financial questions

- One of the existing revenue generating mechanisms is from a Passenger Facility Charge that is not available at Boeing Field. What will be the funding for mitigation?

Provide accurate information

- By giving people the data/facts, they can make their own decisions.
- Balance the marketing pitch with good data.
- Provide visual aids to the SAC and the community groups that are specific to the airport we are talking about—overlay with surrounding geography in place. Don't use generic map or sample airport. Maps need to be detailed enough that I can find my house and key landmarks.

Communications suggestions

- Clarity on the role and function of the study is important so folks don't expect it to be something that it's not.
- Encourage people to become clear about what their own needs are and others needs are and then better communicate with each other.
- Publish a written summary report and make it available to stakeholders and take it to meetings.
- Encourage clear communication.
- Make sure adequate notice for meetings—set meeting date for next meeting at the meeting.

Comments about the role of the FAA

- Regional Office of FAA can't speak for the agency as a whole; need buy-off at the federal level or have no commitment.

Other issues

- Air quality study
- Environmental justice

Suggested Ground Rules for the SAC

- Never go outside to the media without saying it first to the committee.
- Check dates on other meetings already scheduled in the community before scheduling meetings for this project – to avoid creating conflicts for interested citizens.

Suggestions for Public Information

Printed media

- Use Boeing's internal publications: SPEEA Spotlight weekly publication – goes to 30,000, The Aeromachinist (monthly); announcements via weekly newsletter to employees that reaches 84,000.
- Monthly mailer from the Airport to include what is being done about noise
- Inform labor unions, chambers of commerce, the WA State Labor council, UPS Teamsters and ask them to spread the word
- Local newspapers: West Seattle Herald, Magnolia News, Highline Times and Tukwila's city newsletter -- the "Hazelnut" that goes to all citizens and businesses.
- Add a rubber stamp on envelopes sent out by the airport: "Tell a friend."
- Direct mailings, fliers, newsletters sent out on a regular basis to reach those who don't come to meetings
- Get local newspaper to do a long, significant piece to get credible information into the hands of people. This would be a more trustworthy source than if airport were to provide it.

- Do some brochures, give examples, facts and figures; talk about the frequency of things and back it up with sound monitoring information; give people a chance to see whether it is increasing.
- Offer presentations or newsletter copy for existing publications. Need to explain why they should care first.
- Consider using outreach techniques that will bridge language and cultural barriers that currently exist in some communities impacted by the airport and its noise

Electronic media

- Special shows on TV; Local public access cable TV
- Radio; talk shows; interviews on the radio
- Websites
- Hotline that people who have concerns and questions can call.

Other

- Signs on buses
- Large-scale sign boards placed on prominent corners to announce community meetings
- Consider having a plane fly over with a banner announcing a meeting

Suggestions for Public Involvement

Public meetings

- Hold community meetings, even if the turnout is low, at key milestones; bring lots of visual aids and statistics that are meaningful to residents. Statistics of averaging aren't meaningful to residents —single events are the problem.
- When decision points are close, set up briefings to chambers of commerce, local governments, committees.
- Time meetings for the convenience of the community, such as evenings.

Community councils

- Have staff from King Co. airport put on their work agenda to visit community council groups on a rotating basis during their regular meeting times (2-3 times a year); this would give a presence of someone from the airport who could answer questions.
- Use the community councils; ask to be on their agendas.

Other groups

- Tap into the public schools to the fullest degree possible: ... a captive audience -- groups of people affected day to day. Reach the schools/school districts, PTAs, including the community colleges.
- Schedule tenant meetings.
- Plug the people who are on existing groups into the committee; get them involved in finding solutions. Where you feel there isn't adequate representation, find other venues where people have representation. For example, Sound Transit has a public review task force for getting input from the minority community. Where there are other things set up to deal with those issues, although marginal to Boeing Field, use them.

Suggested Groups to Keep Informed

- Seattle Council on Airport Affairs (SCAA) and Regional Commission on Airport Affairs (RCAA): suggestion to keep them involved every step of the way because they do a good job at getting information out to the interested parties.
- Duwamish Coalition; Duwamish Improvement Club
- King County Councilmembers, especially Larry Philips who represents the Magnolia district-very vocal about airport issues due to flight pattern and Greg Nickels who represents West Seattle and is afraid noise will be pushed to West Seattle.
- King County Labor Council
- Georgetown: Crime Prevention and Community Council has a monthly newsletter and website—Georgetown Gazeetter
- Friends of Discovery Park
- North Beacon Hill Community Council
- West Hill Community Council
- Filipino Community Association
- Samoan Community Association
- Tukwila City Council
- Tukwila School District
- Brad Wollen, General Manager at Flight Center
- Economic Development Councils
- Seattle/King County Chambers of Commerce (Jan Underwood)
- Business organizations, such as Rotary
- King County Economic Development Council
- Freight Mobility Roundtable (customers, rail, shipping, airplane, buses, government officials)
- WA Trucking Association
- WA Transportation Alliance
- Association of Washington Businesses
- Tenants assoc. group: Friends of King County Airport.
- Dwight Pells, (rep. 2 comm. Groups-Georgetown, Beacon Hill)
- CTED committee-Mike Alvine-staff person-most knowledgeable about airport issues
- Schools/School Districts
- Community Colleges
- Foster Improvement Club—Foster High school area; they have a newsletter in early January and would be happy to include information about the Boeing study in the newsletter.
- Sunwood Condominium Association--President has not been elected yet, but contact Mary Westhoff (she is likely to be the next president)
- South Ryan Way Hill Association (Tom Weber)
- Chambers of Commerce County wide —BIRV, Eastside chamber, Bellevue, Redmond, Kirkland.
- Services on the airport that are using King County field—UPS communicating with its customers.

- Contact the top ten clients of UPS, Weyerhaeuser, Galvin, Flightcraft -- folks who assume that the airport will continue as is.
- Transportation Policy Board—body of elected officials -- good mix of central, suburban cities in the region are reflected on 25-27 member board. Also have ex-officio members from the environmental community, business, industry, community groups. Its primary charge is to oversee the maintenance of the Regional Transportation Plan. Oversee funding decisions for fed funding opportunities, T21 legislation.
- FAST corridor group: group of public works staff, planners, industry and business concerned with freight movement in the region; streamline freight movement in region as well as through freight (destination elsewhere.)
- Growth Management Policy Board-GM implications of noise study. Law was changed in 1996, requires cities like Seattle, Tukwila to take action to discourage new and incompatible uses around the airport.

Perceived Sources of Noise at KCIA/Boeing Field

In the air

- Night-time/early morning cargo flights (arriving and departing), with noise exacerbated by weather conditions: (“10% of the operations and 80% of the noise;” they cause citizens “to leap out of bed at night.”)
- Commuter planes flying outside of established corridors.
- Aircraft that approach over land rather than over water.
- Noisy general aviation aircraft doing flyovers over communities.
- Low elevation of the Boeing Field air space that requires low-flying aircraft, relative to Sea-Tac jets.
- Planes that don't follow tower courtesy procedures.
- Aircraft that are not true stage 3 (hush kitted).
- Helicopters that fly too low and over unpredictable routes, including medical evacuations.
- Military aircraft that are exempt from noise standards, including Blue Angels that come in for servicing.
- Russian aircraft
- Sea-Tac Airport air traffic

On the ground or other

- Engine tests (on the ground), run ups, especially at night or in the early mornings
- Adjacent freeway traffic and trains/train yards
- Aircraft noise impacts on outdoor activities that can't be mitigated
- Multiple sources of noise in some communities like Allentown: airport, Burlington Northern, firing range

Other Concerns about Current KCIA/Boeing Field Operations

- Health related concerns – asthma, birth defects, lung problems -- due to jet fuel
- Air quality
- Cyanide facility just off one end of the runway

- Concerns about Boeing engine aircraft testing—emissions as well as noise.
- Flights of older aircraft that spew out brown smoke.

Concerns about Anticipated/Planned Changes to KCLIA/Boeing Field Operations

- Increased cargo traffic that will cause yet more noise because some of the old hush kits are noisy
- Changing flight tracks that will shift airport noise from Magnolia to West Seattle which already has serious noise problems from Sea-Tac Airport
- Lack of openness on the helicopter operation expansion and on the runway relocation

Suggestions for Improvements to KCLIA/Boeing Field Operations

Changes to night-time operations

- Establish noise curfews at night (not excluding emergency or medical flights or planes that fall under a threshold).
- Eliminate nighttime flights (person interviewed recognized this was not feasible).

Changes to flight tracks

- Reroute smaller aviation traffic over the water instead of over land.
- Change flight tracks to stay away from populated areas.
- Evaluate the use of the transponder system as strategy to reduce noise.
- Consider joint use of Sea-Tac and Boeing Field towers at night to allow Boeing traffic to fly at higher elevations; for example, if Sea-Tac and Boeing could integrate flights patterns, Boeing Field aircraft could take off at a steeper angle and get out of the area faster.

On the ground measures

- Consider building hush houses or noise reduction facilities.
- Reduce noise in area through architectural approaches (slanted rather than vertical walls that absorb energy).

Economic Issues and Concerns

- Concern that assembly jobs in Renton could be lost if Boeing Field operations were to be curtailed.
- Concerns about impacts to jobs and the local economy if Boeing operations were to leave the area: “Boeing generates more dollars into the economy than Sea-Tac Airport.”

Other Issues/Concerns

- Impacts of increased overall traffic when Sea-Tac’s third runway opens.
- Preference for Boeing Field to be under control of the County, without City interference.
- Preference for City of Seattle to be involved as proponent for the communities.
- Status of steam plant
- Impact of Sound Transit/RTA—noise or justice issue—who gets impacted

- Some communities already impacted by other sources of noise—Sea-Tac, Burlington Northern.
- General observation that as transportation and movement get worse in this area, there will be increasing dependence on air freight.
- Deadline is rapidly approaching when aircraft need to be compliant with federal [noise] standards.

Appendix Three

Proof of Publication

METROPOLITAN KING COUNTY COUNCIL
NOTICE OF PUBLIC HEARING
Proposed Motion 2002-0337

NOTICE IS HEREBY GIVEN, that a public hearing will be held before the Committee-of-the-Whole, Metropolitan King County Council, Room 1001, King County Courthouse, Seattle, Washington on the 16th day of September, 2002 at 9:30 a.m., to consider adoption of Proposed Motion No. 2002-0337 which would adopt the King County International Airport's Federal Aviation Regulation Part 150 Noise and Land Use Compatibility Study; and to accept and allocate federal government grants for implementing study recommended program and projects.

SUMMARY

Proposed Motion 2002-0337 contains the study and county executive's recommendations. These are: to develop combined noise contours with Sea-Tac International Airport; to work with the appropriate federal agencies, local jurisdictions, tenants, and community to implement a public instrument approach procedure over Elliott Bay to avoid over-flight of residential areas; to implement close-in departure procedures for North departures; to investigate the viability of undertaking a Part 161 Study for Stage 2 jets; to upgrade flight tracking and noise monitoring program (fly quiet program); to maintain the existing curfew on nighttime engine run-ups; to conduct a site selection and feasibility study for a ground run-up enclosure; to establish building design/placement standards to reduce off-airport noise effects from aircraft movements on the ground; to provide for a variety of sound attenuation for single-family residential, schools and public building, purchase of avigation easements and sales transaction assistance in the 65 and 70 DNL contours; to insulate schools and public buildings; to investigate voluntary purchase of homes with the 70 DNL using program that are not available through federal programs. The motion further directs airport staff to develop and accept Federal grants for implementing the recommendations.

A copy of Proposed Motion No. 2002-0337 will be mailed upon request of the Clerk of the Council, Room W-1025, King County Courthouse, 516 Third Avenue, Seattle, WA 98104. It is available on the Internet at <http://www.metrokc.gov/mkcc/clerk>.

DATED at Seattle, Washington, this 5th day of September, 2002.

METROPOLITAN KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

ANNE NORIS
Clerk of the Council

Cayla, per your email on the item 8 - notice of publication.

We conducted a three step process.

First, the Airport held an Open House and Comment Period on the draft document on March 12, 2002. This was published in the local press, email, and a community mailing.

Second, the King County Council process included the a public hearing before the Labor, Operations and Technology Committee on October 8, 2002. The hearing was published on the county web page.

Three, Full County Council held a public hearing on September 16, 2002. Per federal guidelines, the hearing was published in the Seattle Times on September 5, 2002. Final action was taken on the Motion to adopt on October 14, 2002. The Council provided another hearing opportunity before the final vote.

I hope this meet your needs, Gary

Appendix Four

Study Advisory Recommendations

INTRODUCTION

The following is a report from the Study Advisory Committee (SAC) for the King County International Airport's FAR Part 150 Noise Remedies and Land Use Compatibility Study (Part 150 Study).

This report and these recommendations are the products of one phase in a Study that formally began approximately two years ago, in 1999, following a series of other King County and community activities over a span of more than six years.

The report documents the Part 150 Study process, including public involvement leading up to the SAC recommendations, and describes the recommendations.

These recommendations will be the foundation of a subsequent Airport recommendation for a Noise Program, which will be transmitted to the King County Executive and Council and to the Federal Aviation Administration for approval. When the King County Council considers the recommendations from this Study, a public hearing will be held.

For more information, please contact:

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**STUDY ADVISORY COMMITTEE
MEMBERSHIP**

Jim Combs, Chair

Andrew Anderson¹
Tukwila

Duane Anderson
At-Large Communities

Peter Anderson
Corporate Tenant

Doug Baker
United Parcel Service (tenant)

Ron Beckerdite
FAA/Sea-Tac

Larry Brown
Labor Representative

Jim Combs
Pilots' Association

Larry Crim
Renton/Rainier Valley Communities

Oliver Dallas
Boeing ATCT - FAA

Randy Eatherton
Georgetown Community

Ron Fincher
FAA

Edwin Hanson
West Seattle Community

Daniel B. Hartley
SPEEA Labor

Lynae Jacobson
Port of Seattle

Pam Linder
City of Tukwila

Cayla Morgan
FAA - Airports District Office

Rocky Piro
Puget Sound Regional Council

Georgianne Ray
Unincorporated King County

Theresa Smith
WashDOT Aeronautics Division

Lynn Tucker
Beacon Hill/Rainier Valley

Eric Tweit
City of Seattle SPO

Karen Walling
Small GA - Classic Helicopters

Rick Lentz
Boeing Company

Ed Wojcek
Magnolia/North Seattle

Former Members²:

Rosemary Unterseher
Tukwila Community (former rep)

Randy Bannecker
Indirect Business Leader (former rep)

Liz Warman
Boeing Company

¹ Andrew Anderson joined the SAC near the end of the Study and did not participate in most of the SAC recommendations.

² These members resigned from the King County International Airport Roundtable and SAC just prior to completion of the SAC recommendations and should be acknowledged as participants.

Council, Sea-Tac Airport and FAA members were added) to create a Part 150 Study Advisory Committee (SAC). The function of the SAC was to assist the Airport in guiding the Part 150 Study process and to develop recommendations reflecting the members' interests.

Subsequently, the Airport conducted a variety of SAC and public meetings. The SAC met 18 times between June 1999 and June 2001. The SAC approved the Airport's public involvement plan for the Study. In addition, SAC members regularly attended the series of public meetings held in neighborhoods and at the Airport to share information and hear the public's concerns. A list of the public meetings held is included in this report as Attachment B.

In its meetings, the SAC was briefed extensively by the consultants, Barnard Dunkelberg and Company, on the feasibility, costs, and levels of noise reduction that could be achieved by implementing each alternative being studied (Attachment D details the data provided by the consultants regarding the alternatives.) Baseline noise contours, fleet mix, residential demographics, land use patterns, air space conflicts with traffic from other airports, and other data useful in analysis and decision making, were all provided and considered in the Study. Attachment C hereto contains the report prepared by Barnard Dunkelberg and Company to support the Study. The SAC was also provided with feedback from each of the community meetings that the KCIA staff held to explain the Part 150 Study and airport noise issues to the public and to obtain their preferences and concerns.

The SAC used an interest-based decision-making process, including the use of decision standards⁴ for evaluating noise reduction options and a consensus rule that allowed a majority/minority report from the group if consensus could not be achieved after three consecutive votes. The interest-based process allowed the committee to work toward meeting as many of the diverse interests represented in the group as possible. For example, tenants and aircraft operators might have different interests than community representatives; FAA representatives might express concerns not otherwise identified by any of the other committee members; etc. The SAC also discussed their collective interest in adopting operational noise reduction strategies to be implemented by aircraft operators as the first priority, with solutions to be implemented by the affected parties, such as land use remedies and insulation programs, to be considered only after all of the operational strategies had been employed.

In its final three meetings, the SAC arrived at decisions concerning its recommendations.

As noted in the report that follows, nearly all of the recommendations from SAC were adopted by consensus, and only a few required majority/minority reports. In those cases, the majority and minority viewpoints are described.

⁴ See Attachment A2 for a list of the decision standards used by the SAC.

RECOMMENDATIONS:

The following material sets forth the SAC recommendations for the Part 150 Study. Each SAC recommendation is prefaced with information about where to look up more details about the consultants' evaluation of the proposed topic, a statement identifying what the King County Council adopted Part 150 Study work plan called for, the consultants' recommendation and abbreviated discussion of what led to the consultants' recommendation, and the SAC recommendation with a brief description of the SAC's discussion of the topic.

(cont'd next page)

II. GROUND RUN-UP ENCLOSURE (GRE) OR "HUSH HOUSE"

(See page I.6 of Attachment C for detailed information)

COUNCIL WORK PLAN:

Research and design a noise containment facility, such as a "hush house," at the airport to reduce engine testing and maintenance noise for nearby residents

CONSULTANTS' RECOMMENDATION:

Initiate a Site Selection Feasibility Study for a Ground Run-up Enclosure, to address such issues as placement, actual use and projected use, and value of reduction vs. cost of GRE.

Consultant Discussion:

Aircraft maintenance run-ups are a continuing source of neighborhood irritation. However, whether construction of a GRE for an investment of \$3 to \$6 million is worthy of implementation rests on the answers to several technical and financial questions. To answer how well a GRE would work, where it could practically be located and how its benefits would compare to other possible actions, a Site Selection Feasibility Study is necessary. The scope of the Part 150 Study does not include actual site selection and feasibility analysis, rather, only the evaluation of whether such a facility might result in noise reduction.

The viability of a GRE at KCIA is dependent on locating a site that meets the following criteria at a minimum. A GRE must be:

- Accessible by aircraft via taxiway and/or apron sufficient for aircraft weight.
- Consistent with FAA safety criteria for airfield buildings. The structure must not act as an obstruction or hazard.
- Able to accommodate all or most of the aircraft types likely to be conducting run-ups at the airport.
- Oriented favorably towards the wind, so that the benefits of the facility are not counteracted by meteorological conditions.
- Designed to be effective in northwest high humidity conditions.

The cost of a GRE would be evaluated from the perspective of how many aircraft would use the facility on an annual basis, and what the resulting cost benefit would be compared to other actions the airport might take to reduce noise.

SAC RECOMMENDATION:

(Unanimous): Proceed with feasibility and siting study for construction of Noise Containment Facility.

SAC Discussion:

Noise containment facilities, or ground run-up enclosures, muffle the noise generated by engines running at high power for purposes other than takeoff, such as maintenance or repair testing. KCIA supports a diverse fleet mix, a wide range of aircraft types and sizes. Noise contours modeling the effectiveness of a noise containment facility that would be used by the Boeing Company showed a significant noise reduction benefit for residents adjacent to the north end of KCIA. A similar benefit would not exist for residents to the south, because of the placement of aircraft relative to prevailing winds, when engine run-ups are conducted.

However, the same facility might not serve well to address the noise impacts of the large number of smaller aircraft, which are the majority of KCIA users. To be effective, the baffle of the noise containment facility must be close to the engine, the source of noise. Accommodation would need to be made for small aircraft that would be separated from the walls of a noise containment facility designed for large aircraft. Additionally, a site for such a facility at the Airport is not apparent. All of the land is currently leased in long-term leases or is height restricted and cannot accommodate a structure the size of a noise containment facility.

Although the potential benefits of such a facility appeared to be clear, the design that would optimize its use has yet to be developed. In addition, some SAC members expressed concern that the noise containment facility could reduce the amount of land available to aviation businesses, thereby reducing the potential for jobs and economic benefits. However, the consensus was to proceed to determine the optimal design and site.

IV. MAINTAIN EXISTING RUN-UP RESTRICTIONS
(See page I.11 of Attachment C for detailed information)

COUNCIL WORK PLAN:

KCIA shall maintain its nighttime run-up curfew in its Conceptual Master Plan.

CONSULTANTS' RECOMMENDATION:
Maintain Existing Run-up Restrictions.

Consultant Discussion:

The major reason for this recommendation is to preserve the benefits of the existing regulation, especially at night. At present KCIA restricts run-ups between 10 PM and 7 AM. This nighttime restriction on run-ups would be continued for the future. If in the future a Ground Run-up Enclosure were constructed at KCIA, and, as a result, the surrounding communities were shielded from run-up noise, then this nighttime restriction might be revisited.

The two locations currently identified for maintenance run-ups would continue again until such time as a GRE might be constructed.

SAC RECOMMENDATION:
(Majority): Maintain existing nighttime curfew on maintenance run-ups.

SAC Discussion:

KCIA has had a curfew on engine run-ups performed for reasons other than takeoffs between 10:00 p.m. and 7:00 a.m. for over a decade. This curfew is contained in the King County code. However, pursuant to State law, the Airport cannot regulate manufacturing activities by the Boeing Company, and therefore Boeing is not affected by the KCIA curfew. Boeing has maintained a practice of voluntary curfew and generally does not perform engine runups at night. The KCIA curfew and Boeing voluntary curfew have reduced the impacts of aircraft noise at night on surrounding residential areas. A **majority** of the SAC concurs with maintaining that curfew. A **minority** prefers that restrictions be based on noise levels generated rather than a blanket curfew, stating that there is no reason to restrict business opportunities on the Airport if the level of noise is not impacting residential areas. This minority has proposed a method of granting exceptions to the nighttime curfew via noise compliance plan submittals including engine noise profiles for those operators wishing to be exempted from the night curfew.

V. SOUND ATTENUATE RESIDENCES (cont.)

Consultants' Discussion (cont.)

conduct the insulation themselves, but either delegate it to local municipalities or to the residents themselves to choose from a pre-selected group of approved contractors. In all cases, the FAA has established certain acoustic standards that must be met upon completion of the insulation. Insulation program contractors must certify that noise levels in the homes have been reduced to and achieve no more than 45 dB noise levels inside, including a 20 dB reduction in noise levels, following insulation, in order for the homeowner to qualify for airport-sponsored insulation.

One of the unusual, perhaps unique, features of KCIA is its close proximity to Sea-Tac International Airport to the south. The two facilities are so close that their noise contours actually overlap. This Part 150 Study has taken the unusual analytical step of creating a combined contour for both airports. The purpose of this exercise is to define areas, which would not fall into either airport's individual 65 DNL and above contour, but which are exposed to 65 DNL when the noise levels from both airports are considered together.

This is an important analysis, because the two airports are orchestrated together from an air traffic standpoint; that is they are operated in tandem – both either in north or south flow. Thus, from a "real world" perspective, people on the ground are exposed to the combined noise levels of both airports simultaneously. As a result, the combined noise contour is a reflection of noise levels as they are actually experienced.

For this reason, the area within the combined KCIA/Sea-Tac 65 DNL and above contour should be eligible for federal noise attenuation funds. However, applying for federal sound insulation program funds using a combined contour would be a precedent setting action. Generally grants are given to a single airport for mitigation of its own impacts. The nature of a federal application, if this recommendation were adopted, would need to be determined. In all probability, some cooperative effort with the Port of Seattle (owner and operator of Sea-Tac) would be required.

For estimation purposes, this program would be expected to include 2,642 homes at a cost of \$30,000 each for a total of about \$79 Million.

SAC Discussion:

There will continue to be noise impacts on the community even if some of the other recommendations are implemented. Therefore, the community should be offered the opportunity to obtain home insulation to mitigate noise impacts. At an average cost of \$30,000 per home, the cost of insulating homes within the 65 DNL and above contour would be approximately \$59 million. The FAA may participate in funding this project at 90% (the Airport pays 10%), typically up to a maximum of \$5 million annually, making this program affordable for the Airport over a period of about 10 years. The SAC members assumed the FAA participation would be at this level.

Since KCIA air space overlaps with Sea-Tac Airport's airspace, some communities are heavily impacted by both airports; others are affected more by one airport than the other. In those areas where the KCIA effects alone do not result in exposure to 65 DNL or greater, but where the cumulative impacts of both airports would result in at least 65 DNL, the Committee felt that the cumulative impact should be addressed using the same standard as if either airport individually had created the impact. Thus, any home within the combined 65 DNL and above contour would qualify for residential soundproofing if this recommendation is adopted. Sea-Tac Airport has concurred with the use of this combined contour and has agreed to participate financially in insulation programs within the combined contours, subject to the order of priorities in the Sea-Tac Airport's own Part 150 Study.

The combined contour would add approximately one (1) additional square mile, including 367 housing units and 844 residents, to the KCIA 65 DNL and above contour.

A majority of SAC members agreed that single family residences and multi family residences should be treated equally for eligibility for home insulation programs. A minority felt that preference should be given to single family residences, and that relief should be provided to the resident (tenant and/or owner) and not just to the owner, if the owner does not reside in the building.

VII. ESTABLISH SALES TRANSACTION PROGRAM FOR HOMEOWNERS IN KCIA 65 DNL AND ABOVE CONTOUR

(See page I.5 of Attachment C for detailed information)

COUNCIL WORK PLAN:

Not addressed.

CONSULTANTS' RECOMMENDATION:

Establish a Sales Transaction program for residents whose homes have been insulated and residents who nevertheless wish to sell their homes within the KCIA 65 DNL and above contour.

Consultant Discussion:

Some residents within the airport environs may not wish to take advantage of the sound attenuation program and may desire to sell their homes. The Sales Assistance program is intended to provide those homeowners with an opportunity to sell their homes at fair market value.

The program would work as follows. An appraisal of the home is performed by the Airport. If the home does not sell within the average time limit for homes in the immediate area, then the selling price is reduced incrementally until the home sells. The Airport makes up the difference between the "fair market value" sales price based on the appraisal and the actual sale price. Prior to closing, an avigation easement is placed on the property.

This program has several advantages. It keeps neighborhoods intact, does not force people to sell who do not desire to; the Airport never takes title to the property; the seller receives fair market value for the home, and buyers purchase the property with full knowledge of the airport and the avigation easement.

The estimated cost of this Recommendation is not known, as it is impossible to determine how many homeowners would want to take advantage of this program. An additional consideration is that FAA funding will not be available for sales assistance programs when the assistance is offered prior to home insulation. The FAA has indicated a preference that the sound attenuation program consist of the following steps: insulate the home first, then if the owner still wants to sell, then initiate sales assistance. This would ensure that the new owner, who would not be eligible for sales assistance in the future, moves into a home that is sound attenuated and therefore less impacted by noise.

SAC RECOMMENDATION:

(Majority) Implement Sales Assistance Program in combined 65 DNL and above contour for homeowners who want to move.

(Minority) Do not Implement Sales Assistance Program in 70 DNL contour.

SAC Discussion:

A **majority** of SAC members supports providing financial assistance to homeowners within the 65 DNL and above who prefer to move away from the airport. As part of this assistance program, an avigation easement would be added to the deed of the home. Some SAC members, a **minority**, opposed this recommendation because they believed that the airport should not encourage new residents in an area where noise may significantly impact them.

IX. IMPLEMENT A HOME BUYOUT PROGRAM FOR HOMEOWNERS

COUNCIL WORK PLAN:
Not addressed.

CONSULTANTS' RECOMMENDATION:
No recommendation.

SAC RECOMMENDATION:

(Majority) Do not institute a mandatory home buyout program within any DNL contour.

(Majority) The Airport should investigate alternatives for voluntary buyout of homes within the 70 DNL contour using programs that are not available through the federal government.

(Minority) Do not institute any voluntary home buyout program within any DNL contour.

SAC Discussion:

All of the programs and procedural changes recommended by SAC within the 65 DNL contour and greater will leave areas of residential use, inside the 70 DNL contour. Given FAA's requirement that homes be brought up to building codes at the time of insulating, it is possible that some of the older homes located in Georgetown can not be sufficiently mitigated at a typical cost to reduce the noise levels to a range that is compatible with residential use according to FAA guidelines (i.e., attain a level of no more than 45 dB inside the home).

SAC discussed their concerns about the impacts on the residents of that area (and adjacent contiguous neighborhood areas, recognizing that contours are ranges and that contiguous areas have nearly the same noise levels). Several SAC members were concerned that programs such as aviation easements or sales assistance will not reduce the number of residents affected by the noise; rather, the same or new residents will remain in homes that sustain a great deal of noise exposure. It was also discussed that the overall character of the Georgetown area is industrial/commercial in nature. The recent Seattle community planning process has resulted in the Georgetown community remaining designated as residential.

X. FLY QUIET PROGRAM

(See page I.9 of Attachment C for detailed information)

COUNCIL WORK PLAN:

Several items that could be contained in a Fly Quiet Program are recommended for review, including:

- Policy to promote flying over non-residential areas by means of monitoring flight tracks and pilot education
- Strategy to keep nighttime flights away from residential areas through monitoring of flight tracks and pilot education
- Employ data from all aspects of the noise monitoring system to identify and respond to complaints
- Use noise monitoring data to differentiate KCIA flights from those at Sea-Tac

CONSULTANTS' RECOMMENDATION:

Develop a Fly Quiet Program with Enhanced Noise and Compliance Monitoring.

Consultant Discussion:

KCIA staff has changed the character of its Complaint Response System from reaction to specific incidents to a community resource program providing regular information on a variety of noise abatement topics. Using the data gathered by the noise monitoring system, which may be supplemented from time to time by information from portable noise monitors and/or from the Sea-Tac Noise Monitoring System, KCIA would regularly report on compliance with some of the recommendations resulting from this study.

Regular quarterly reports could describe airport activity and overall trends including:

- Operations Summary
- Noise Level Report
- Adherence to flight tracks through Elliott Bay
- Use of the Charted Visual Approach
- Effective implementation of the close-in noise abatement departure procedure for north bound flights
- Special Reports such as:
 - Noise levels in a particular community or at a specific residence
 - Analysis of flight tracks over a residential area such as Magnolia or West Seattle
 - Analysis of nighttime run-up noise

SAC RECOMMENDATION:

(Unanimous): Implement Fly Quiet and Operator Education Programs.

SAC Discussion:

A variety of enhancements to the KCIA noise monitoring and flight tracking systems could be used to improve pilot education. These include the following:

- Noise Information Line to report loud and low aircraft and add online noise incident reporting feature.
- Airport advisories.
- Aircraft operating procedures (Fly Quiet).
- Deliver training about noise sensitive areas to Air Traffic Control personnel to facilitate compliance with Fly Quiet procedures.
- Encourage FAA to promote flight routes away from noise sensitive areas.
- Noise mitigation program descriptions.
- National Weather Service link.
- Responsible Operator reports.
- Custom reports of flight deviations.
- Real-time airport gate and land closure conditions.
- FAA aircraft registry link.
- Links to Airport tenants and museums.
- Public outreach updates
- Instructional program featuring Fly Quiet flight procedures.
- Interactive public presentation software system featuring flight track and noise monitoring data/analysis. Incentives program to reinforce voluntary compliance.

XII. DEVELOP AN FMS DEPARTURE PROCEDURE OVER ELLIOTT BAY

(See page I.8 of Attachment C for detailed information)

COUNCIL WORK PLAN:

Pursue GPS or similar alternatives for instrument landing over Elliott Bay.

CONSULTANTS' RECOMMENDATION:

Develop an FMS Departure Route through Elliot Bay.

Consultant Discussion:

Developing an FMS/GPS departure through Elliott Bay has the potential to direct aircraft more accurately over the center of the water thus avoiding residential areas in West Seattle and Magnolia. Analysis shows that just over 600 people within 65 DNL and above would be expected to benefit from this procedure, and many more would benefit at lower annual average noise levels. FAA approval would be necessary for this procedure to be implemented.

It is unclear how many aircraft operating at KCIA are equipped with the necessary cockpit avionics to fly an FMS departure. Newer aircraft will be GPS/FMS equipped, but the availability on other aircraft would require some research. Part of the implementation of this alternative would be to ascertain what percentage of flights operating here could take advantage of the procedure.

SAC RECOMMENDATION:

(Unanimous): The Airport should work with FAA and operators to obtain an alternative instrument approach that will allow curved approach through Elliott Bay and avoid residential areas.

SAC Discussion:

A curved or segmented instrumentation approach over Elliot Bay would allow aircraft to avoid crossing Magnolia, which is under the existing Instrument Flight Rules (IFR) approach. Although the Charted Visual Approach is available to those flying under VFR, there is currently no instrumentation approach available that would assist pilots in avoiding residential areas, notably the Magnolia neighborhood.

Although there is currently no IFR technology approved by FAA that allows a curved or segmented approach, the FAA is currently developing procedures for curved or segmented approaches using the Transponder Landing System (TLS) technology. The FAA has indicated they need approximately two more years to complete these procedures. The Airport has an appropriation to install TLS technology. Other technology, such as GPS, is likewise unavailable on a widespread basis at this time.

The SAC specifically recommended that technology that allows for more precise approach over the water be implemented as it becomes available, and that KCIA strive to be designated as a pilot site for the development of such technology and any air traffic procedures necessary to support the new approach technology, if that would aid in making such technology available sooner. The SAC further recommended that the FAA develop an FMS departure route through Elliot Bay.

XIV. DEVELOP AND IMPLEMENT BUILDING DESIGN STANDARDS TO REDUCE AND/OR CONTAIN NOISE ON THE AIRPORT

(See page I.11 of Attachment C for detailed information)

COUNCIL WORK PLAN:

Not addressed.

CONSULTANTS' RECOMMENDATION:

Develop and implement Building Design Standards/Placement to Reduce/Contain Noise on the airport.

Consultant Discussion:

If noise abatement is a consideration during design, certain perimeter airport buildings can act as noise barriers between aircraft operations and surrounding neighborhoods. Similar to the discussion in alternative A3, a noise barrier on the north side of the airport, buildings can act as a shield if they are properly situated, the height is sufficient, and there are no gaps through which noise can pass. This alternative would allow KCIA to develop the proper standards, so that any new construction on the airport would be designed to maximize noise abatement potential.

SAC RECOMMENDATION:

(Unanimous) Develop Building Design Standards to reduce or contain noise on Airport.

SAC Discussion:

The committee felt that if consideration is given to noise abatement principles during design, the Airport buildings themselves could serve to reduce off-airport noise.

XVI. USE OF GROUND LEASES TO INFLUENCE OPERATIONS

(See page G.69 of Attachment D for detailed information)

COUNCIL WORK PLAN:

- 1) Incorporate use of FAA-approved charted visual flight paths in operating agreements
- 2) Incorporate noise reduction commitments by operators in long-term leases

CONSULTANTS' RECOMMENDATION:

No recommendation.

Consultant Discussion:

Pilot procedures are directed by the FAA and/or pilot choices for safety reasons. FAA uses the Part 150 Study to arrive at procedural changes that can be used to mitigate noise impacts. The Airport cannot use leases for this purpose. However, KCIA will pursue noise abatement agreements with all new tenants and lease extensions. These agreements reflect tenant intent but cannot be mandatory. Inserting specific noise abatement language in operating leases may require a Part 161 Study.

SAC RECOMMENDATION:

No recommendation.

SAC Discussion:

Pilot procedures are directed by the FAA and/or pilot choices for safety reasons. FAA uses the Part 150 process to arrive at approved noise mitigation programs. Any regulation, which amounts to a "use restriction" is subject to a Part 161 process as well. The Airport cannot unilaterally use leases as noise regulation mechanisms.

However, KCIA will pursue noise abatement agreements with all new tenants and lease extensions. These agreements reflect tenant intent but cannot be mandatory.

XVIII. SEEK COMMITMENTS FROM PILOTS AND OPERATORS ON USE OF 10,000' RUNWAY

COUNCIL WORK PLAN:

Seek commitments to restrict use of the proposed take-off threshold 800 feet north of the existing threshold when conditions permit, should the threshold shift be approved in the final Master Plan.

CONSULTANTS' RECOMMENDATION:

No recommendation.

SAC RECOMMENDATION:

(Unanimous) Implement procedures for limited use of runway shift, if implemented following approval of Airport Master Plan.

SAC Discussion:

The Airport Draft Master Plan proposes that use of the 880-foot shift to the 10,000-foot main runway, which is needed to sustain 10,000 feet of runway length after the runway is shortened on the south end for safety area compliance, be limited to a very small number of users. The Airport developed a set of procedures that include prior permission with special marking and lighting, so that most cases will not involve use of that added pavement. If the Master Plan is approved, these requirements will restrict the use of the runway shift area to a maximum of about 320 flights per year during major Boeing Company flight activities. Most times would see considerably less than this. If the Master Plan is not approved, the runway shift will not be constructed, and therefore use of it will not be an issue.

The SAC supported this limitation on use of the proposed runway shift.

XX. CITY ZONING CHANGES

COUNCIL WORK PLAN:
Not addressed.

CONSULTANTS' RECOMMENDATION:
Not addressed.

SAC RECOMMENDATION:
(Majority): King County should work with the Cities of Tukwila and Seattle to identify what can be done to improve land use compatibility with the airport when new development occurs within the 65 and higher DNL contours.

SAC Discussion:

The SAC discussed the fact that even in the last couple of years, while noise issues have been broadly discussed, and during the Part 150 Study, there has been new housing development occurring in both the City of Seattle and the City of Tukwila in areas known to be affected by noise from KCIA operations. It was also noted that there are areas near the Duwamish in the City of Tukwila in which sewers are planned, which will increase the density in those areas. The State of Washington Growth Management Act considers airports to be essential public facilities, and there are provisions within the Act for each jurisdiction's land use plans to be reviewed for zoning and mitigation needed for residential areas affected by airports. Although noise contour information has not been readily available to the cities until this Part 150 Study was conducted, they are now available for consideration when cities make zoning and other land use decisions.

A **majority** of the SAC recommended that King County initiate discussions with each city adjacent to the boundaries of KCIA regarding how to assure that land uses in areas affected by KCIA are compatible with the airport.

A **minority** of the SAC did not recommend these discussions take place.

Appendix Five

Study Advisory Recommendation Clarification to King County Council Motion

January 10, 2003

**KCIA/BFI Part 150
 Study Advisory
 Committee**

Duane Anderson
 At-Large Communities
Peter Anderson
 Corporate Tenant
Doug Baker
 Cargo Tenant
Ron Beckerdite
 FAA – TRACON
Pam Berger
 FAA – BFI Tower
Larry Brown
 Labor – IAM
Jim Combs
 Pilots Associations
Larry Crim
 Renton/Rainier Valley
 Communities
Randy Eatherton
 Georgetown Community
Ron Fincher
 FAA- Air Traffic
Edwin Hanson
 West Seattle
 Community
Daniel Hartley
 Labor – SPEEA
Joe Jacobson
 Port of Seattle
Rick Lentz
 The Boeing Company
Pam Linder
 City of Tukwila
Cayla Morgan
 FAA – Airports District
 Office
Rocky Piro
 Puget Sound Regional
 Council
Georgeanne Ray
 Unincorporated
 Communities
Theresa Smith
 WSDOT – Aviation
Lynn Tucker
 Beacon Hill/Rainier
 Valley Communities
Eric Tweit
 City of Seattle
Karen Walling
 Small General Aviation
 Tenant
Ed Wojcek
 Magnolia/North Seattle
 Communities
 Vacant
 Indirect Business Users
 Vacant
 Tukwila Community

Cynthia Sullivan, Council Chairperson
 King County Council
 King County Courthouse
 516 Third Avenue
 Seattle, WA 98104

Dear Council Chairperson Sullivan:

On October 14, 2002, the King County Council approved Motion 11600 which adopted the King County International Airport's Federal Aviation Regulation Part 150 Noise and Land Use Compatibility Study. The Motion also contained the following provision:

BE IT FURTHER MOVED, that the document entitled, "SPEEA Concerns and Recommendations for Part 150 Noise Study Recommendations", dated October 8, 2002, be added as attachment B to the motion and referred to the Study Advisory Committee for consideration and possible adoption as a minority report. The Study Advisory Committee is also requested to review the concerns raised in the attachment for substantive issues that may result in modifications to the part 150 recommendations and to report back to the county council within sixty days with the results of its review including any such modifications that it recommends.

SUMMARY

As requested by the County Council, SAC offers the following clarifications to its recommendations. The SAC review did not identify any substantive changes to the original recommendations. The results of the review of the four issues are summarized as follows:

- o Instrument approaches to KCIA/BFI from both the north and south should be located over non-residential areas to the greatest extent possible in an effort to minimize the noise impact from aircraft on those areas. KCIA should work with the FAA and aviation businesses to be a national pilot site for the testing of new procedures and technologies that will minimize the noise impact of aircraft approaches and departures on residential neighborhoods. This is essentially a restatement of SAC's original recommendation.
- o KCIA should investigate the viability of undertaking a Part 161 Study designed to restrict the operation of Stage 2 jet aircraft weighing less than 75,000 pounds at KCIA. This is an endorsement of Council's adopted recommendation with some clarification of terminology.
- o KCIA should maintain the existing policies regarding nighttime engine runs for testing, manufacturing, and maintenance purposes. This is a more accurate and clearer statement of SAC's original recommendation.

- KCIA should implement a sound attenuation program for residents in the 65 and 70 DNL combined KCIA/BFI – SEATAC contours. KCIA also should investigate a voluntary sales transaction assistance program for residents in those contours that want to sell their homes and relocate. This is essentially a restatement of SAC's original recommendation.

These clarifications do not constitute a substantial or significant departure from SAC's original recommendations or the recommendations adopted by the County Council.

As of January 8, 2003, one minority report and six comments were been received. They are included as Attachment A and Attachment F1 – Attachment F6.

MINORITY REPORT from SPEEA

SPEEA was offered an opportunity to attach a minority report to this letter and has chosen to do so. That report appears at Attachment A. SAC members were provided the SPEEA report as part of the draft response to Council. No SAC member offered comments in support or rebuttal to the SPEEA minority report.

SPEEA also offered additional comments about the process and results of the SAC review that are contained in Attachments F4 and F6.

COMMENTS from SAC MEMBERS

Following the December 2, 2002, SAC meeting, a couple of members raised some concerns statements regarding how the Part 150 recommendations will be financed. These statements appear in the original SAC recommendations and have been carried through to the final recommendations adopted by Council.

The Port of Seattle representative clarified the point that while the idea of the Port and King County sharing the noise mitigation costs in the areas of the combined 65 DNL contours has been raised by the former KCIA Airport Manager to Port staff and during the KCIA Part 150 SAC discussions; the Port, through the Port Commission, has not yet formally agreed to such cost sharing nor has it made any funding commitments for the combined contour areas. [Attachment F2] This matter will need further discussion between County and Port representatives once the FAA has ruled on the practicality of using a combined noise contour for the two airports and the scope of the mitigation costs in the combined contour areas is better known.

On two occasions, The Boeing Company representative raised the question of using County general fund revenues to pay for some or all of the Part 150 mitigation measures. [Attachments F1 and F5] He points out that the preamble to Motion 11600 declares the value of KCIA to the County as a whole and its importance as an economic engine for the County, yet the County's full costs of mitigating noise from the airport and airport operations is to be borne by KCIA's tenants. The argument goes that if the airport is truly a County or regional asset and resource, that the costs of mitigating the negative impacts of the airport should be borne by the greater population. Given that this issue was raised following the SAC meeting, SAC has not discussed it or taken a position on it. At its January 13, 2003, meeting the KCIA Roundtable will initiate a discussion of this matter. If the Roundtable develops a consensus position regarding an alternative funding strategy, the Roundtable will communicate that at a later date to the County Executive and County Council for consideration.

REVIEW PROCESS

Shortly after the Council adopted Motion 11600, SAC Chair, Jim Combs, worked out the following review process and schedule. Prior to sending it to all of the members of SAC, the schedule and process were reviewed and approved in concept via email by Mr Daniel Hartley, SPEEA Representative on SAC. [Attachment B1]

- SPEEA to provide written materials explaining their concerns and positions to SAC via Airport Staff 7 to 10 days prior to the SAC meeting
- At the SAC meeting, the SPEEA representative presented SPEEA's concerns and alternative recommendations. The representative was authorized to bring a reasonable number of people to the meeting to assist in making the presentation. Following the SPEEA presentation on each recommendation, SAC members would discuss the issue and attempt to reach a group consensus about each recommendation.
- Following the SAC meeting, the Chair prepared a letter to the King County Council stating what SAC did in response to the Council ordinance. The letter includes all written material presented by SPEEA and others; a summary of the discussion at the December 2, 2002, meeting; a summary of SAC's conclusions; and any minority statements or reports received by the time the letter was signed and sent to Council.

The initial and actual timeline for conducting the various parts of the review are [Attachment B2]:

- SPEEA written materials to KCIA Staff – November 8, 2002 (actually submitted to the SAC Chair on November 21, 2002)
- SPEEA written materials copied by KCIA Staff and sent to SAC – November 12, 2002 (actually forwarded by email from SAC Chair on November 22, 2002, and sent via USPS mail by Staff on November 22, 2002) [Attachment C]
- SAC Meeting – sometime between November 18, 2002 and December 13, 2002 (actually held on December 2, 2002)
- Draft Letter to Council for SAC member review via email – December 20, 2002 (actually send December 18, 2002)
- SAC Review Completed – January 2, 2003 (comments actually accepted through January 7, 2003)
- Letter and Attachments Submitted to Council – January 10, 2003

The SPEEA representative indicated that he would need additional data from the Airport Staff in order to conduct the analyses and prepare the materials he thought appropriate for each of the recommendations in question. On November 5, 2002, Mr Hartley; Michael Colmant, Acting Airport Manager; Gary Molyneaux, Airport Planning Manager; and I met to agree upon a general methodology for the analyses and determine SPEEA's data needs that Airport Staff could meet.

- Mr Hartley agreed that there were no data needs for the instrument approaches and Part 161 Study recommendations.
- Mr Molyneaux provided SPEEA with copies of several business-specific agreements between the airport and several tenants regarding nighttime noise.
- Prior to the November 5, meeting, Mr Molyneaux provided SPEEA with the Assessor's data for all of King County and several maps showing the location of the 65 and 70 DNL contours through Beacon Hill and Georgetown at a scale that made it possible to

determine which properties were in and out of the contours. An additional map showing which properties were included in the analysis conducted by the consultants in accord with FAA rules about not dividing neighborhoods was provided during the meeting. A large scale aerial photo of the neighborhoods south of the airport was provided following the meeting. Mr Molyneaux also provided contact information and introductory calls to persons with the Port of Seattle and County Assessor's Office as resources in interpreting and analyzing the data.

SAC CLARIFICATIONS

SAC unanimously agreed to submit clarifications to its original recommendations in response to Council's directed reconsideration of the four issues raised by SPEEA. SAC took this approach in the hopes that it would not result in a requirement to resubmit the Part 150 recommendations through the entire review process of public hearings, County Executive review, and County Council review and action.

For ease of reference, all comments are based on the County Council's recommendations as contained in Motion 11600. SPEEA's documents reference the parallel recommendations contained in the County Executive's Airport Proposal.

Council Recommendation B: The airport is to work with the appropriate federal agencies, local jurisdictions, tenants, and community to implement a public *[published]* instrument approach procedure over Elliott Bay to avoid over-flight of residential areas.

SPEEA Concern: SPEEA does not think this recommendation goes far enough. SPEEA wants the recommendation to include changing the visual approaches to BFI, elected official support for FAA certification of new technologies (some developed at Boeing in Seattle), and inclusion of BFI approaches from the south as a means of providing relief to residents of many communities surrounding Boeing Field, not just the Magnolia community.

SAC Clarification: SAC members prefer the language contained in its original recommendation and discussion found at page 21 of KCIA FAR Part 150 Noise Study – Final SAC Recommendations. SAC offers further clarification that its philosophy is to locate the flight tracks and instrument approaches for both the north and south approaches to the airport such that they impact residential communities the least. SAC intentionally did not reference any particular procedure or technology in its recommendation because it did not have the expertise to select the best and most promising ones and because it did not know what new procedures and technologies might be developed in the near term. SAC is very supportive of KCIA being a test and pilot facility for procedures and technologies that would further the goal of reducing the negative impacts of aircraft operations on residential areas.

Council Recommendation D: To investigate the viability of undertaking a Part 161 Study for Stage 2 jets.

SPEEA Concern: SPEEA is concerned that just the process of undertaking a Part 161 Study will send a message to the aviation community that Seattle is not aviation friendly. SPEEA also is concerned that such a study will be very costly and is not likely to be approved by the FAA once completed.

SAC Clarification: By a vote of 10-1, SAC endorsed the Council's language to investigate the viability of undertaking a Part 161 Study. By a vote of 9-2, SAC opposed SPEEA's recommendation to remove the Part 161 Study recommendation from the package.

Council Recommendation F: To maintain the existing curfew on nighttime engine run-ups.

SPEEA Concern: SPEEA is concerned that the existing policies regarding nighttime engine runs have the potential of damaging the competitiveness of The Boeing Company in its testing and delivery of new aircraft. SPEEA is concerned that even though The Boeing Company states that the existing policies are not a problem for them, The Boeing Company will ultimately use those policies as one of the factors in making a decision to move the commercial aircraft flight test operations to a location outside of Seattle and Puget Sound.

SAC Clarification: After considerable discussion, SAC unanimously agreed that it recommends the Airport maintain the existing policy regarding nighttime engine runs. The Boeing Company submitted a letter to SAC on November 27, 2002, stating among other things that it believes that the current policy regarding nighttime engine runs should be maintained. [Attachment D]

Much of the discussion centered on the question of whether or not there currently is a "curfew" affecting nighttime engine runs. A quick review of State, County, and City statutes and ordinances governing aircraft noise showed that aircraft testing and maintenance activities at King County International Airport/Boeing Field are generally exempt from noise statutes and ordinances. Thus, there is no government-imposed "curfew" on nighttime engine runs at KCIA/BFI.

The use of the term "curfew" in the SAC, County Executive, and County Council recommendations should be interpreted for what it is: a short-hand way of referencing existing statutes, ordinances, and policies.

Council Recommendations I and K:

To provide for a variety of sound attenuation for single-family residential, schools and public building, purchase of aviation easements and sales transaction assistance in the 65 and 70 DNL contours.

To investigate the voluntary purchase of homes with the 70 DNL using programs that are not available through the federal government.

SPEEA Concerns: SPEEA's concerns regarding these recommendations were not clarified beyond the statements contained in the Attachment to Motion 11600. What SPEEA seemed to want was a cost-benefit comparison of buying the residential property in the 65 and 70 DNL contours with non-FAA funds and then converting it to

manufacturing or industrial uses as opposed to the adopted recommendations of sound attenuation and voluntary sales assistance. They questioned whether there would be a greater economic and tax benefit to the County to convert the property to compatible uses vs mitigating the impact of aircraft operations on current and future residents.

SAC Clarification: SAC clarified that it made its initial decision to not consider forced buy-out of the affected neighborhoods based on primarily social values. The majority of SAC members did not want to recommend any sort of program that would attenuate aviation noise by forcing people out of their homes and destroying neighborhoods.

While members understood the value of the type of economic analysis that SPEEA was proposing, they found the need to conduct that analysis in detail not to have cost benefit because the FAA will shoulder 90% of the sound attenuation program costs and, further, to be moot once the majority determined that they did not want to recommend a mandatory buy-out program.

MINORITY REPORT(S)

The SAC's practice (as well as that of the King County International Airport/Boeing Field Roundtable) is not to formally adopt minority reports. Members wishing to express a minority opinion are given a specified amount of time in which to submit written comments regarding their opinion. Those comments are appended to relevant formal documents describing SAC's majority and official position on an issue.

Once SAC completed its initial review of Part 150 issues in November 2001, it agreed to the following process to review the final recommendations report (see unnumbered page 4 unnumbered paragraph 4 of King County International Airport/Boeing Field Part 150 Study Advisory Committee Meeting Summary for November 5, 2001):

"All agreed to a compromise where each member would send comments to airport staff by November 19. The report would then be revised and sent back out to the committee. Two weeks after distribution of the revised report, committee members would respond if the report were acceptable or not. If any points remain in dispute, the committee would meet again to discuss only those disputed points. Once the SAC Recommendations are finalized, the airport manager will submit the airport recommendations including budget information to the County Council along with the SAC and consultant's recommendations."

The question of minority reports was specifically discussed at the January 14, 2002, Roundtable meeting (see unnumbered page 3 unnumbered paragraph 9 of King County International Airport Roundtable Meeting Notes for January 14, 2002). The question was asked "if the minority will have an opportunity to write a report for attachment to the final report." All members were "advised that if the minority wants their report to be part of the normal transmittal, they need to submit it to Airport Staff by the end of the month [January]."

As stated in the section describing the process SAC used for the current Council-directed review of SPEEA concerns, SAC members were asked at the December 2, 2002, meeting to submit any minority statements or reports to the Chair by December 13, 2002, so that they could be included in the draft letter to Council. The draft letter to Council with any received minority statements or reports was distributed to SAC members on December 20, 2002, for

review and comment. All comments received by the Chair from SAC members by January 2, 2003, are included as Attachment F, whether or not the comments were incorporated into the final letter. SAC members understand that they can also submit comments directly to Council although that is discouraged in order to maintain the viability of SAC and the Roundtable.

SAC adjourned on December 2, 2002, believing that it has fulfilled the County Council's direction in Motion 11600 to review SPEEA's concerns and report the results of that review to Council within 60 days.

Respectfully submitted on behalf of the Study Advisory Committee,

Jim Combs, Chair
King County International Airport Part 150 Study Advisory Committee

cc: King County Council
Ron Sims, King County Executive
Harold Taniguchi, Director – King County Department of Transportation
Michael Colmant, Acting Airport Manager – King County International Airport
Michael Alvine, King County Council Staff
King County International Airport Part 150 Study Advisory Committee

Attachments:

- A: Email from Dan Hartley, SPEEA Representative, containing SPEEA Minority Report dated December 13, 2002.
- B: Emails from Jim Combs, SAC Chair, to SAC outlining Council action, SAC review process, and schedule
 - B1: Agreement by Dan Hartley to review process and schedule dated October 10, 2002
 - B2: Email from Jim Combs to SAC outlining review process dated October 10, 2002
- C: Email from Jim Combs, SAC Chair, to SAC members containing SPEEA Concerns and Recommendations for Part 150 Noise Study Recommendations dated November 22, 2002
- D: Letter from Rich White, Manager – Local Government Relations, The Boeing Company, dated November 27, 2002
- E: Meeting Notes – Part 150 Study Advisory Committee meeting of December 2, 2002, prepared by Jennifer Howell, Triangle Associates
- F: Comments received from Study Advisory Committee members following December 2, 2002, meeting.
 - F1: Email from Rick Lentz, Boeing Representative, dated December 12, 2002
 - F2: Email from Lynae Jacobson, Port of Seattle Representative, dated December 19, 2002.
 - F3: Email from Ed Hanson, West Seattle Community Representative, dated January 2, 2003.
 - F4: Email from Dan Hartley, SPEEA Representative, dated January 7, 2003.
 - F5: Email from Rick Lentz, Boeing Representative, dated January 7, 2003.
 - F6: Email from Dan Hartley, SPEEA Representative, dated January 7, 2003.

Note: Body text changed from 16pt bold to 12pt in order to reduce size of document by Jim Combs

From: Hartley, Daniel B [daniel.b.hartley@boeing.com]
Sent: Friday, December 13, 2002 3:02 PM
To: 'jim@combs.net'
Cc: 'mbhart99@aol.com'
Subject: Response to County Council 150 direction
Introduction:

These pages are being provided as points to offer in an attempt to try to get a mutual understanding of the noise mitigation issues recommendation that was referred back to the SAC by the County Council. I am listing the concerns SPEEA had when we went to the Council and met with individual members and staff. I read the SeaTac Part 150 Noise Study and also talked with Port people on the issues that raised red flags to us. I have also had regular discussions with SPEEA members who are noise experts. I have reported back to SPEEA at least monthly bringing my concerns about progress of the Boeing Field study...and the over emphasis on politics and short changing of "data". I am well aware that there are some who are "dissing" me. This is not a concern of mine because, in the beginning, labor was left out of the list of affected parties. It was only by Council amendment that the labor voice was included. The Council knew full well that labor was a third voice and not the voice of business as the community representatives tried to portray. Realistically, there is not an airport in the country that has access to as much technical and operational understanding of aviation as is represented by SPEEA. It is our nature to bring up such matters and the Council knew it with two closely associated with the Council having been SPEEA officials in previous lives.

The SeaTac report is in four volumes and must weigh 10 or 20 pounds. In reading it many places referred to other places. It is easy to miss a certain reference that may negate some of the understandings I have of what it said. I also have read the FAA regulations that affect our SAC report several times. I have also read information from other airports around the country.

I don't feel that proper consideration has been given to several areas mentioned below. I brought up concerns in the meetings on many occasions. To my mind we spent a lot of time on matters of lesser importance and ignored the most important considerations for Boeing Field. Time allocation for the SAC was not in my control and I strongly resent the current attempt to label my bringing up these concerns now as sour grapes and as waiting until the last minute to say anything. I think I have been sandbagged but not intentionally or with malice.

My hope is that the general subjects will be openly considered and not dismissed as taking too much time. I've brought up issue after issue and had them discounted...maybe community representatives and others haven't meant to give me such an impression but there is a way an engineer and labor person thinks and I will not apologize for it.

Having brought up this unpleasantness I do believe that everyone on the committee is honorable and of good intention. As the old timers may remember I was the person who fought for having

a minority report and this was while the community representatives were calling me a part of business.

Remember that I really can't understand where the "majority" is coming from any more that the "majority" is hearing where I am coming from.

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Electronically copying from the Federal Register"

- (e) Except as provided in (f) below, the noise exposure maps must also contain and identify:
- (1) Runway locations.
 - (2) Flight tracks.
 - (3) Noise contours of L<INF>dn</INF> 65, 70, and 75 dB resulting from aircraft operations.
 - (4) Outline of the airport boundaries.
 - (5) Noncompatible land uses within the noise contours, including those within the L<INF>dn</INF> 65 dB contours. (No land use has to be identified as noncompatible if the self-generated noise from that use and/or the ambient noise from other non-aircraft and non-airport uses is equal to or greater than the noise from aircraft and airport sources.)

Table 1, about a half page after the quote above shows that residential uses of land in a noise level of 65DNL or louder is not a compatible use. By FAA Part 150 and other Federal rules and legislation, if the noise is caused by airplanes, then the noise must be mitigated. This is done by reducing the noise contribution of the airplane, noise insulating the housing and/or purchasing the property and keeping it vacant or allowing it to be converted to a conforming use.

I was given a noise report generated by the noise office concerning the unique opportunity afforded by the shutdown of all but public safety flying for several days after the tragic events on 9/11. This report clearly showed that the noise contribution of airplanes alone was about half of the community variable noise before 9/11 (this means that for several noise monitoring stations along the flight path of Boeing Field there was twice as much noise from trucks, trains and such as there was from airplanes). In the quieter days after 9/11 the airplane noise was about 9db less meaning only an eighth as much.

NMS	Averag e SELs	LEQ Total	LEQ Aircraft	LEQ Community
NMS02 Skyway	80.2	60.7	56.3	58.8
NMS03 Tukwila	79.6	59.4	54.8	57.6
NMS04 Georgetown	82.9	66.4	62.9	63.7
NMS14 West Seattle	73.3	49.2	0.0	49.2
NMS16 Magnolia	78.7	59.1	49.9	58.5

These figures strongly suggest that several of the neighborhoods marked for noise mitigation may not qualify for mitigation. This was clearly not an exhaustive study but it should be studied in more depth since most of the noise monitor sites are in close proximity to Boeing Field. Given the great expense of noise mitigation of the number of residences provided in the SAC report to the County Council it is imperative that a more detailed study be conducted before the County commits the citizens to buy into this very expensive mitigation program. This is particularly true when we are faced in the budget crunch area economics is visiting on all of us.

Who Pays?

When the subject of where the money for a noise mitigation program comes from was brought up several questions were asked that beg to be answered.

SeaTac Airport has just done their Part 150 study...and the FAA has accepted a majority of their Study. The same firm, Bernard Dunkelberg, was the consultant for both Boeing Field's and SeaTac's. There were differences in each study that recognized more than the obvious geographic differences.

The Port of Seattle pays 20% of the noise and safety mitigating costs. The SAC was told that at Boeing Field, King County would pay 10% and the FAA would pay 90%. Part of the reasoning seemed to be that SeaTac, with millions of passengers a year, parking and other charges has more flexibility on the money they can raise to pay their levy. There was no mention of this in the SAC report because, frankly, the 90% FAA figure was supposedly locked in concrete. Clearly this is not so...and it behooves the SAC to tell the Council that this figure needs to be locked in...else there is no way for the Council to understand the financial impact, clearly something the Council needs to be told. It would not be unreasonable to ask this question to someone in the FAA who has the authority to answer this question and is willing to do so in writing.

At the SeaTac SAC there were discussions about who pays. One leaseholder, maybe more, were complaining that they could not stand any more costs being passed on to them. A participant (one also on the Boeing Field SAC) asked about who would pay the Port's share and would it increase taxes. The response was that any tax increase would require the approval of the Port of Seattle Commissioners. With this understanding and with the ability of the Port Commissioners to raise taxes on every resident in the county they would have more liberty to handle unexpected and undefined future costs...Boeing Field needs this liberty, too and the question deserves and answer. This seemed to be related to SeaTac being a regional asset, benefiting everyone in the Port's jurisdiction. It was clearly brought up in the Boeing Field SAC that Boeing Field is also an area asset. SeaTac collects fuel tax, passenger fees and air cargo fees for the FAA Aviation Trust Fund. These same taxes are also collected at Boeing Field. This trust fund money can only be spent for aviation expenses and is the main source of the Airport Improvement Program

funds...but not the sole source since the General Fund also pays FAA expenses over and above those from these "user taxes". The Federal government and the Port of Seattle both understand the integral part air transportation plays in the good of our economy. There is an inconsistency between King County and the Port in saying that our economically vital airport must be supported solely by the direct users on the airport. It must also be recognized that the close proximity of Boeing Field to SeaTac and its 400 feet lower elevation allows it to be used as an alternate for SeaTac when the clouds come down to engross SeaTac while Boeing Field's 400 feet lower elevation still keep it operational. This is a big benefit to every piece of mail, air cargo and passenger using SeaTac. While a handful of major airports have a major alternate airport located in close proximity there are arguably only two or three who have the elevation difference that exists here. In effect, the geographical relationship and FAA rules are effectively causing Boeing Field to subsidize the users of SeaTac and other County citizens. To blindly state that Boeing Field users and then qualify users to be leaseholders and purchasers of fuel and some landing fees is ignoring reality.

The basis for the Council being told that Boeing Field generates some \$1.5 billion and 10,000 jobs for the County is a 2000 report generated at the Department of Geography at The University of Washington. The report is fairly descent but it downplays several factors that would cause it to greatly underestimate the importance of Boeing Field. I would observe that the relationship of Boeing Field and SeaTac is mostly one way. SeaTac gets a lot more value from Boeing Field than Boeing Field does for SeaTac. Even if this were not true there is still a basic unfairness in saying that the direct users of Boeing Field are responsible for all of the expenses while SeaTac recognizes that SeaTac is a regional asset and of value to all in the jurisdiction of the Port of Seattle...and we should realize that the jurisdiction of the Port of Seattle and King County are exactly the same, the boundaries of King County.

Much is made of the FAA requirements that money collected from users as a result of having availability of a runway can only be used for purposes of supporting that runway. Federal regulations do not permit this money that was collected as a result of the runway being available can only be used for runway supporting purposes.

A question that should have been asked and that wasn't, concerns the economic health of those who pay all the non-FAA costs for Boeing Field. On one hand the comparable worth rental/lease appraisals that are carried out periodically have resulted in rates much higher than for other airports in the area. Part of the justification is based on the scarcity of land at the airport. To then turn around and say that land values of other properties abutting the airport is not comparably high is a bit misleading. A case could be made that to force the whole costs of the airport on the direct user group is faulty economics and bad governmental policy.

The SAC study was started several years ago back in an idyllic time when Boeing was still selling airplanes like crazy and when airlines were making a lot of money and when terrorists had not attacked our country. The status of the airport has changed considerably since the 9/11 attack. Boeing Field was placed under far more restrictions than was SeaTac. Flying was curtailed for many months and the Puget Sound area still has more restrictions than any other

place in the country. This was even before the massive restrictions and costs that will be visited on our airport users when the bureaucracy of the Department of Homeland Security gets its empire in place. These factors cast a big question mark in the future and a Part 150 noise study should have recognized this. The process was locked up so slavishly that when such questions were asked they were ruled as being out of order or otherwise ignored. It should be clear to even the most casual of observers that the future is much more murky that the SAC majority wants to admit. Clearly, these are considerations that should have been addressed when presenting recommendations even though they cannot be qualified or quantified. Who doubts that there will be major changes in the next 20 years that the SAC report needs to address. Prudence dictates that the Council not allow Boeing Field funds to be spent for any purpose that is not absolutely required until both shoes drop on homeland security regulations. It is a fair bet that these costs will be visited disproportionately on airports.

What Defines a Neighborhood

There are no clear definitions as to what defines a neighborhood. Maps have been drawn, perhaps for internal purposes that define about 10 neighborhoods. Some of these “neighborhoods” only have 3 or 4 houses and are isolated from other “neighborhoods”. One apparent “neighborhood” looks to be about 90% industrial with only a handful of houses, 6 or so. One is perhaps a mile long and fairly narrow with parts of the “neighborhood” being separated from others. “Rules” for defining a neighborhood for residence purposes do not appear to have any consistency. Noise mitigation is the major part of the SAC recommendations.

House counts and the associated costs as presented to the County Council were high extreme estimates. Even though a couple of tables of counts were provided to the Council the data was not clearly identified and there were major discrepancies between them. When this was brought up again at the latest SAC meeting the justifications was then made that the high estimate was given so the Council would not find out later that the count was low. The trouble is that the data did not state that it was high balled. Since there is a great deal of controversy about costs and who will pay them, the data presented should state these assumptions. The Council deserves to hear all sides of this issue, certainly the action the Council takes does depend on cost exposure and it is not up to the SAC to edit data for the Council, especially on such an important consideration of interests of all of our County residences.

House Count Difficulties

Given the number of potential houses that may qualify for expensive noise mitigation costs the counts should have been more careful...maybe not so much careful as methodical. How many houses were build, bought and sold since airport noise considerations were required by law? How does this affect the financial exposure? The report did say that certain houses just cannot be insulated for noise. What is going to be done about these...certainly is does not make sense to try to insulate them and then go through some voluntary selling program. Why through good

money after bad. If the County now commits to buy them, then what will happen to these uninhabitable structures. Will the County now clear the parcels and sell them to private people so they can build complying structures...certainly this reality has not been answered. What if they are in the ATZ? What about the building codes and zoning considerations and what about the future ability of those buying them to bring suit against the County and airport?

The rationalization that "these questions will be answered once the FAA approves the report", begs the question. A clear understanding on these issues is necessary and planned course of action is necessary to understand the total package of the report. All parts do tie together and such gaping holes should not be left to chance.

Land Use Problems

In certain cases the FAA has other rules for dealing with persons who build homes in high noise areas after 1990. There were other restrictions on the noise mitigation they would pay for homes built after 1998, essentially, they wouldn't pay for the noise insulation mitigation for them. Washington law also placed conditions on homes built around airports since the 1996 state law went into effect. For Boeing Field there has been a fair number of such residences built since these dates. Most, if not all of them were granted building permits by local governments. Since it is clear that SAC wants airport users to pay the County costs for all types of noise mitigation the gist is that the users of the airport would probably have to pay the cost of mitigating noise for these residences built contrary to higher law. This certainly smacks of unfairness.

Another facet of this is the appraisal of all of the properties on the airport a few years ago. It was determined and stated to the Roundtable, all of whose members were also on the SAC, that there was such a shortage of runway-accessible land that it was bring a premium price. Because of this the lease rates were increased 30% or so in one fell swoop. There was a lot of complaints from our leaseholders. Now, the story is being floated that such land in of lower value than residential usage. The conclusion is that uses of the land for non-residential purposes is a lower value use and the County would be a net tax loser. This begs the question of what the comparable value differential is based on Assessor valuation. When the question was asked it was stated that residences in areas near the airport were deliberately assessed at lower rates than in other areas because of state-mandated rules on the requirement for low cost housing. Who knows if this is true? If it is then all the other taxpayers of our county should be told so. It would seem that a comparison of assessments for residences and industrial properties in the same neighborhood should show that industrial properties assessments are lower.

A hue and cry is raised about forcing people out of their homes and how cruel this is. Indeed, some people have a very strong emotional tie to a home. Clearly, this is a major problem for some and a Godsend for others. Federal tax laws are such that many owners would acquire or build new residences in other areas. It was stated the 55% of the residences in Georgetown were owner-occupied and the other 45% were renters. FAA rules do differentiate between owner-

occupied properties and rented property. This was brought up in the SAC particularly in the discussion about aviagation easements.

It belies the facts to try to say that purchase of residences is heartless when the whole of the community has not been surveyed. Saying that community meetings have much basis for determining true feelings in a community smacks in the face of sound sampling. The number of non-complying properties involved and the ease of identifying the owners is not a difficult problem in this digital age. Do so and let them tell them their true, private desires.

A year or two ago a very controversial lease on a runway accessible property came up for renewal. Even though state law talks about an open competition for leases and even though the two groups wanted to present their case the lease was negotiated non-competitively. There were hard feelings. Certainly no business interest would go to the expense of making such costly presentations if the value of the property were low to them. One group was not even allowed to make their presentation even though they had spent big bucks on putting it together.

Reasonable people should have doubts about the validity of some information presented as justifications for the SAC and Executive's recommendation...and nothing in this whole discussion is to imply that any involved were not of good faith.

It is clear that the governments in our county will have to wake up to the economic potential of our area if we are to survive this critical downturn we are in. There was a very insightful article in the 12/12 PI titled, "Seattle is Nation's Most Competitive City, Survey Says". It says that because of the highly skilled workforce, high tech infrastructure, exports and availability of capital that we are the most competitive area in the country. However, it goes on to say that this was balanced against our very low rating in our governmental and fiscal policy as it affects competitiveness. It also lists other problems that voted heavily against us. The important point is that we had such great potential of attracting new companies that this more than offset the negatives. Certainly, the furor surrounding the land use issues and Boeing Field is a clear example of just how much of an asset airport property is if handled properly.

The Council should also be aware that any properties that are not compatible and must be purchased will remain mostly the property of the until such time that the County may wish to purchase them for the acquisition cost for conversion to a compatible use. Holding costs for such prized properties would be very low for the County...remembering that the Executive is promising that the leaseholders and other users of Boeing Field would be paying the tab.

SeaTac's 3rd Runway Exclusion

Another subject came up that should raise red flags for the Council. When asked what the communities would do if the noise mitigation after completion was not deemed to be enough what would they do. They said that they would start complaining about the noise again. As long as residents who have rightful concern about high noise levels are allowed to remain in these

areas the problem will never go away...and the airport users who have paid the bill would have gotten nothing for their money.

The third runway at SeaTac also has a potentially high impact on residents on the north end of Boeing Field. This, when combined with the Boeing Field airplane noise, could trigger the FAA 1.5db noise threshold that would force all of the noise mitigation recommendations that the SAC made to be thrown out the window. At that time everything that had been done would be up for grabs again, with the County and airport users holding the bag. SeaTac's FAA-approved Part 150 discusses this. For the most part the SAC has not paid any attention to this frightening possibility.

Given the cautious attitude at SeaTac about participating in any combined noise mitigations and given the great controversy surrounding the 3rd runway it is now hard to see why SeaTac is non-committal. In this litigious age is in the realm of possibility that somehow King County could say one thing and the Port of Seattle another...the result being that we were held responsible for paying for problems triggered by them. It is not clear just how this noise increase would affect the North Boeing Field area and its residents.

Alternate Land Uses

We had a golden opportunity to weigh our decisions on noise mitigation against SeaTac Airport's quarter-century experience with them. The bottom line of their experience is that they have purchased some 2000 residences and properties. Of this total only 20 cases went to arbitration and only 2 went to court condemnation. This is a strong indication that the owners, by and large, agreed that outright purchase was fair. I heard general figures that most owners received offers considerably higher than the appraised value of the property as it sat in high noise areas. The comparable value they were offered was based on the value of the same type of property if it were located in a typical non-impacted area of our county. This ended up being several tens of percent higher than the property where it sat. Additionally, the costs of the transaction were paid...closing costs, relocation expense, taxes and such. This even went so far as paying for differences in interest rates for those who were still paying off their property.

In fairness there were probably some who looked at this as a windfall and some who decided that the hassle of fighting government was just not worth the agony of resistance.

Because of a handful of outspoken people who did not want to relocate the unsupported assumption of the majority of the SAC was that no one wanted to. Other voices were not heard. It is certainly understandable that residents who wanted to leave would not express the desire because it would bring a strong impression of some animosity would be directed toward them by those who didn't. Several residents at community meetings I attended told me this and wanted me to know that not everyone in the community agreed with their representatives on the SAC.

Social Decision Difficulties:

It is alarming that, at the first SAC meeting after the Council sent the four controversial recommendations back for additional study, the statement was made that the items having to do with noise mitigation were based on social considerations. Essentially, any attempt to ask facts and data type questions were taken off the table and declared to be outside of the scope of the SAC. Part of the basis for this seemed to be that the vast majority of the participants were either neighborhood activists, people whose business depended on having a good relationship with airport staff and FAA and other governmental people. In such an atmosphere the types of questions on noise mitigation were short changed. Part of the reason given was that the vast majority had neither the inclination nor time to go into these matters. It was also mentioned that the recommendations were going to the County Executive and he would be making changes before submission to the Council. In this kind of atmosphere it was very difficult for the minority (minority being defined as raw votes in the committee, not the numbers of people actually being represented) to have a voice. Also, the Executive's office had the recommendations perhaps 5 months before submission to the Council. The SAC did not receive these recommendations until several days later. These recommendations already had summaries of the "minority" positions and appeared to discount them. The actual concerns were in the words of others and did not accurately reflect the real concerns in several cases. This effectively short circuited any minority statement.

Social decisions should not be the basis of any recommendation to elected Councilmen without clearly stating so. These kinds of decisions are why Councilmen are elected by all the population and why they, alone, should have the authority to make them. The SAC should clearly state that social decision were the driving factor in these noise mitigation recommendations.

Before we leap into the unknown there is one social consideration that is important but that has been relegated to the fine print. One retired resident who lives almost directly under the flight path fairly close to the airport and whose property would be affected by noise mitigation attended several meetings. He had a strong emotional tie to his residence because he family had lived in the fine old residence for three generations. He was rightfully proud of his home. As I understood him noise was not a problem and, understandably, he didn't want anyone messing up his house. If "social" considerations are behind the majority recommendation to the Executive and his recommendation to the Council then it is fair to expect that the Council would be given data on how such matters would be resolved.

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Approach Transition Zone

Quoting from a press release from the Port of Seattle while they were developing their Part 150 Noise study (since accepted by the FAA):

“The recommendation includes several new initiatives in the Port's Noise Remedy Program:

- The buyout of mobile home parks in the 70-decibel day/night noise level (DNL.) Because of their construction, it is impossible to add significant sound insulation to mobile homes.
- Port-funded insulation of owner-occupied multi-family homes.
- Airline testing of engines at hours that will be less disruptive to the community.
- Purchase of residential properties in the Approach Transition Zone (ATZ) for the new third runway. The Port owns the properties in this area for the existing runways. The ATZ is an area located directly off the ends of the runway where aircraft pass overhead at low altitude.”

The Port of Seattle, governing and taxing the same citizens as King County is saying that they will buy the residences in the ATZ. Obviously they don't have the same concerns about residences there currently in their ATZ because they already own them. Significantly, Boeing Field has the identical type of area with airplane operations and resulting noise that is identical. The Boeing Field SAC Noise group was not aware of and did not discuss this.

While not in the direct charter of the SAC it would still be reasonable for the Committee recommendations to at least mention this major inconsistency. Yes, SeaTac is owned by the Port of Seattle and Boeing Field is owned by King County. They are still governing and taxing the same set of citizens. As a matter of public policy it is reasonable to expect that these citizens should be treated fairly. Fairness would suggest that the same citizen should be treated identically in the same set of circumstances. This is not the case. The SAC is recommending these citizens be treated under very different policy than they would if they live in the ATZ at SeaTac and if they live in and if they live in an identical area at Boeing Field.

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SeaTac's Wavering on Combined Noise Contours

This matter was addressed in the non-controversial noise mitigation recommendation to the Council. There is a major point that must be mentioned because it now has a bearing on the costs to the County.

SeaTac's Part 150 Study was occurring concurrently with Boeing Field's. Theirs was a little ahead and it was submitted and then approved by the FAA about June, 2002. Their report was nearly a foot thick and many issues are addressed clearly. One of them was about combined SeaTac and Boeing Field noise contours as being the standard that would establish noise mitigation. In the SeaTac report the statement was made that they weren't going to participate in any joint program where the combined noise of the two airports brought noise levels up to a non-conforming residential use that had to be addressed by noise mitigation, either insulation or buy-out. This matter needs to be checked out as to what they are really saying and if it is just a misreading on my part.

This brings up another of the traps that has not been addressed. If the house count and associated cost is based on having some kind of combined arrangement then this should have been stated. The financial impact of failure of this should have been footnoted as a minimum. If we find ourselves as having to go this expense alone then we find the Boeing Field users having to subsidize SeaTac, essentially. One would be hard pressed to give a reason why a citizen of the same King-Port of Seattle political entity would not get the same treatment as some other citizen.

SeaTac's 3rd Runway Exclusion

The SeaTac's Part 150 mentions Boeing Field. It also talks about the third runway. This is even though, technically, the third runway will not be in operation within the time period the FAA requires for a noise study. From what I read the third runway will have an impact on Boeing Field, operationally and noise both. We may be signing up for something here that leaves us in the lurch. Given the FAA's favoritism for SeaTac it behooves us to make sure they are not setting us up for something. At least we had better mention the third runway to make sure the FAA understands that we have concerns. Certainly Boeing Field's traffic patterns and operations and this could force changes that would trigger other problems for us.

SeaTac's History on Buy Out and Later Land Use

I had a discussion about SeaTac about their history with home buyouts. They have a long corporate history. I was told about their early experience and how they had changed over the years. They appear to be using different criteria that we do. They have had several types of buyouts. The differences may have to do with funding. They have buyout programs akin to the proposed "voluntary" program but they seem to be based on a property that was first noise insulated. If the resident is still not satisfied the Port will assist to some degree in the sale. There were several mentions of "owner occupied" properties with the implication that these were treated differently than renter occupied property. We have a high number of renters and if it becomes necessary to vacate their abodes then what sort of program do we have for them? What are our criteria? They also are in a declining noise situation. This means that some considerations that apply to us do not apply to them and vice versa. They are buying out mobile home parks in lower noise areas because they cannot be noise insulated. It would appear to me

that this would be akin to the houses in our 65dnl contours that cannot be satisfactorily insulated. They do a good job of making these residents whole. If we are going to base decisions on “social” considerations then the Council deserves to have a table that compares SeaTac policies with Boeing Field’s. I know of cases around the country where federal buyouts had a consideration for the age of the occupants. There is some mention of apartment houses. We have some so the treatment should be the same for both airports. Certainly all of these factors should be written up and mailed to all of our affected residents and owners so they could have a say. If someone living in, say, Tucson owns a rental property in a high noise area near Boeing Field it is most unrealistic to say that this person will be an active participant in neighborhood noise groups and airport presentations. With so many absentee landlords these kinds of questions need to be asked.

Having been told that social considerations for the immediate residents was the basis of the report it strikes me as being inconsistent by not providing the guidelines that the SAC would recommend.

These kinds of questions need to be asked given the close proximity of SeaTac and the social implication of disparate treatment.

Commission On Future of Aerospace in the United States Report

If we are to look at the next 20 years and compare it with what has occurred over the last 20 we could see similarities. There was a very comprehensive study on aerospace and its future. One of the interesting observations is that it recognized that noise was the major environmental problem with airplanes. It went on to say that in the past years the number of people living in high noise impact areas had decreased from some 10 million to well under a million. This was even though the number of operations was up considerably. SeaTac’s experience recognizes this and because they started noise mitigation a quarter century ago have experience that the Boeing Field SAC should have heard. Financial consideration of this trend should, at least, be mentioned as something recognized but not considered.

The report, while released after the Boeing Field SAC recommendations, still is applicable. Many things the commission points out have a big potential impact on us. We should put this caveat in the SAC report as amended and sent to the FAA. This may avoid problems with having an audience with the FAA if major changes come because of this report.

Concerns not politically correct:

Although I have only mentioned it tangentially, human nature plays a big part in group decisions. I clearly remember several comments by some community activists and local governmental SAC members where the message I read was that the smaller business on Boeing Field had better cool it because the county had life and death authority over what they were charged and if their leases

would be renewed. While it was not necessarily meant to be a warning to them from the county a major bit of unpleasantness occurred. This had to do with the 7777 lease. It was clear to several that state law may have been broken. When this discussion was taken off the table at the Roundtable and with all of the Roundtable members also being on the SAC it would not be unreasonable to expect that these business members would be reluctant to vote against anything the county administration wanted and vice versa. Similar considerations would apply for neighborhood groups where intimidation of peer pressure would easily override common sense decisions. We should also realize that the FAA is funded mostly by aviation trust fund money, already a direct tax on our users, and to a lesser extent general federal tax dollars. The people we deal with are comfortable with their jobs only if the programs continue. Economic security for them dictates a strong trend to spend money, with little or no incentive to not spend money up to the limit of their budget. It is still our money.

There was a time when such concerns could be ignored but the present economic climate demands that we get our act together in King County and we haven't. A lot has changed over the course of these years of study. Duty to our posterity can no longer afford to leave these types of questions unanswered. This is a valid concern for labor.

Conclusions:

In expressing these concerns I realize engineers do look at "things" differently. We take a lot of razzing because we do. It is easy for us to rationalize that people have a lot more faith in us when they are willing to ride in our airplanes and cross our bridges than they have in the ability for our government to come up with answers. This lack of trust should have been clearly.

My concern with the noise mitigation parts of the SAC are summarized as saying that factors that will likely have a big future impact on Boeing Field were intentionally ignored because of the headstrong push for some in neighborhood groups to have access to noise mitigating money.

Perhaps the social considerations of those living near Boeing Field should prevail over the social considerations of those who will lose their jobs due to job loss and other economic considerations that were ignored. If so then I want this brought out for the Council...and it is clear that these people who really don't have a vehicle to speak up need to be considered. It's the Council's decision on which tact to take and not the SAC's.

We have one chance to get these kinds of recommendations right...and it is a lot easier to do it at the outset than it is down the line during major problems. To say that the pressing consideration is that a lot of time has been spent so we don't have time to discuss these items now really doesn't have much sympathy for those other citizens on the low end of the economic scale who are losing their jobs and homes.

I want a caveat in the noise mitigation recommendation to allow the types of concerns mentioned above, to be addressed later. A mention of priority needs to be included with promptness but not

to hold up the submission to the FAA because there are so many good recommendations. These non-controversial parts need to be forwarded so the FAA can address them at the earliest date.

I want my elected County Council to make decisions on whether social considerations override economic considerations.

I want my elected County Council to make decisions on who has to pay.

I want my elected County Council to have a clear understanding that there may be a valid concern when a SAC member has a different viewpoint, to have all sides of a story.

If the SAC says to heck with looking into these matters or to try to say they have already been discussed or if the majority on the SAC decline to discuss them then I want the response to the Council to say so.

Attachment B1 – Agreement of SPEEA Representative to Review Process and Schedule

From: Hartley, Daniel B [daniel.b.hartley@boeing.com]
Sent: Thursday, October 10, 2002 10:33 AM
To: 'jim@combs.net'
Cc: Funfar, Joel W
Subject: RE: Part 150 Recommendations
Dear Jim,

This looks acceptable to me...realizing that the devil is in the details. It is my understanding that the SPEEA position will also be sent if it is different from what the "majority" on the SAC decides. There are some specifics that will have to be fleshed out...and it is likely that investigating the general issues may lead to an additional concern or two but your framework sets the tone as I understand it.

Dan

-----Original Message-----

From: Jim Combs [mailto:jcombs31@attbi.com]
Sent: Wednesday, October 09, 2002 5:01 PM
To: Hartley, Daniel B
Cc: Michael Colmant
Subject: Part 150 Recommendations

Dan ...

Tomorrow morning I will notify the members of the Study Advisory Committee of the Council's pending action on the Part 150 recommendations and the need for the SAC to reconvene to consider four of the recommendations. I plan to send that message out about 1030 because I will be out for the rest of the day. As I agreed in our phone conversation today, I will wait as long as possible for you to read and respond to this message before I send the message to SAC members.

In order to meet the Council's 60-day response time and provide an opportunity for complete consideration of SPEEA's concerns about the four recommendations, I am proposing the following process.

- Have you as the SPEEA representative to the Study Advisory Committee coordinate the preparation of written materials that will be provided to SAC members 7 to 10 days prior to the meeting.
 - I understand that you have several questions for the Consultant regarding the data that was included in the original report. Please provide those questions to me as soon as possible so that I can forward them to Ryk for preparation of a response in time to be included with the SPEEA materials to be mailed to SAC.
 - I also understand that you will need some data sets from the County in order to complete SPEEA's analysis and presentation to SAC. Again, please provide the list of data needs to me as soon as possible so that County staff can assemble the data and provide it to you in time for SPEEA to complete the materials for SAC. Please keep the request of a

size that staff can reasonably assemble the data in the time available without causing delay to the 60-day response time.

- Hold a SAC meeting at which time you as the SPEEA representative will present SPEEA's concerns on each recommendation. Following your presentation on each recommendation, SAC members will discuss your concerns and their positions and we will attempt to reach a group conclusion regarding each recommendation. Within reason, you may bring additional people to assist you in making the presentation to SAC.
- Based upon the discussions and conclusions, I will prepare a letter to the King County Council with copies to the Airport Manager and King County Executive stating what SAC did in response to the Council ordinance. I will include all written material that SPEEA provides to the SAC, a summary of the discussions, and a summary of SAC's conclusions.

Given your pending vacation and the need to have time to prepare any written materials, I am suggesting the following approximate schedule:

- SPEEA written materials submitted to KCIA Staff – November 8, 2002 (that gives you about 30 days to prepare them) ... you will need to provide your list of questions for the Consultant and data needs from the County much earlier than that if you are to have them in time to meet the November 8 date.
- SPEEA written materials copied by KCIA Staff and send to SAC – November 12, 2002
- SAC Meeting – sometime between November 18 and December 13, 2002
- Draft Letter to Council for SAC member review via email – December 20, 2002
- SAC Review Completed – January 2, 2003
- Letter and Attachments Submitted to Council – January 10, 2003

We will be doing this review with very little involvement by KCIA Staff although they will be present at the meeting if Mike Colmant deems that appropriate. I will ask that Ryk Dunkelberg be present as a expert resource for the SAC members during the discussions of SPEEA's concerns.

In that SPEEA has raised the concerns about the recommendations and caused them to be returned to SAC for further consideration, I believe that it is incumbent on SPEEA to clearly articulate those concerns in a manner that SAC members can timely evaluate and consider. And, given the disagreement over whether or not all SAC members were given adequate time to submit "minority opinions" to be included in the original SAC Part 150 Report, I think that we need to reduce as much of the concerns and discussion as possible to writing.

I hope that this process is acceptable to you and provides the opportunity for SPEEA to clearly explain its concerns regarding the recommendations.

Jim Combs
Chair, KCIA Roundtable/Part 150 Study Advisory Committee

Attachment B2 – Email to SAC Members Outlining Review Process

From: Jim Combs [jcombs31@attbi.com]

Sent: Thursday, October 10, 2002 10:44 AM

To: Daniel Hartley (daniel.b.hartley@boeing.com); Randy Eatherton (randy.eatherton@weyerhauser.com); Lynn Tucker (LTucker@foxinternet.net); Peter Anderson (peter@galvinflying.com); Doug Baker (sealdab@is.ups.com); Karen Walling (kwalling@classichelicoptercorp.com); Richard Lentz (richard.a.lentz@boeing.com); Ed Hanson (ehanson6@juno.com); Ed Wojeck (sources1@mindspring.com); Eric Tweit (eric.tweit@ci.seattle.wa.us); Theresa Smith (SmithTL@wsdot.wa.gov); Duane Anderson (duanea@wa.freei.net); Larry Brown (E-mail); Georgianne Ray (E-mail); Larry Crim (E-mail); 'welinders@aol.com'; 'jacobson.l@portseattle.org'; 'ron.beckerdite@faa.gov'; 'pam.berge@faa.gov'; 'ron.fincher@faa.gov'; Cayla Morgan (Cayla.Morgan@faa.gov); 'rpiro@psrc.org'

Cc: Michael Colmant (michael.colmant@metrokc.gov); Michael Alvine (michael.alvine@metrokc.gov); Ryk Dunkelberg (ryk@bd-c.com); Rich White (richard.a.white7@boeing.com)

Subject: KC Council Actions on Part 150 Study

And you thought you were done with this issue ...

Wednesday, the Council's Labor, Operations and Technology Committee [Constantine, Chair; Gossett; Sullivan; Pullen; Hague] with Councilmember McKenna in attendance sent the County Executive's recommendations from the Part 150 Study to full Council with a "do pass" recommendation. However, they included five amendments to the ordinance for Council's consideration prior to passing it. Three of the five amendments added to the "whereas" section of the ordinance; one amendment corrected a minor error in the Executive's recommendations; and one amendment directed the Study Advisory Committee to reconsider four recommendations and report back to the Council within 60 days. A copy of the proposed final motion is attached as 2002-0337.2 and the attachment to the motion is attached as SPEEA Recommendations (Attachment B). Mike Alvine's staff report to Council also is attached. **The final motion is scheduled for consideration by the full Council at 1:30pm October 14, 2002.** I will provide you all with a more detailed briefing on the Council deliberations and actions on Monday, October 14, 2002.

The specific wording of the amendment that sends the four recommendations back to SAC is as follows:

On page four, line 55 insert "BE IT FURTHER MOVED, that Attachment A to this amendment be added as Attachment B to the motion and referred to the Study Advisory Committee for consideration and possible adoption as a minority report. The Study Advisory Committee is also requested to review the concerns raised in the attachment for substantive issues that may result in modifications to the part 150 recommendations and to report back to the county council within sixty days with the results of its review including any such modifications that it recommends."

SPEEA raised concerns about the following recommendations:

- Implement ban on Stage 2 jets at night (Rec 4)
- Maintain existing curfew on nighttime engine run-ups (Rec 6)

- Provide a variety of options for people living in the 65 and 70 DNL KCIA contours, including purchase of avigation (noise) easements, sound attenuation and sales transaction assistance. [This recommendation is intended to prioritize residents who are within the KCIA noise contours only for early/first implementation.] (Rec 9a)
Provide a variety of options for people living in the 65 and 70 DNL combined KCIA/Sea-Tac contours including purchase of avigation (noise) easements, sound attenuation and sales transaction assistance. [This recommendation is intended to address residences in the combined Sea-Tac/KCIA noise contours after those in the KCIA contours.] (Rec 9b)
- Implement a public [published] instrument approach procedure with an Elliott Bay ground track to avoid over-flight of residential areas.

What this means for the Study Advisory Committee is that we will need to reconvene for one or more meetings sometime in November or December and reach agreement on a response to the Council. We will discuss possible dates for the initial SAC meeting on this topic at the October 14, 2002, Roundtable meeting.

In the meantime, I have asked Dan Hartley as the SPEEA representative to the Study Advisory Committee and prime mover behind the amendment that returned the recommendations to SAC to prepare materials that fully explain SPEEA's objections and proposed solutions so that those can be sent to each SAC member a week or so prior to the meeting. Hopefully, that will allow each SAC member time to become familiar with SPEEA's concerns and come to the meeting prepared to discuss them and other positions. I am hopeful that this approach to the matter will allow us as a group to use our time most effectively and efficiently.

Schedule-wise, I am proposing the following (depending on the date of the SAC meeting, the last three items could happen earlier):

- SPEEA written materials submitted to KCIA Staff – November 8, 2002
- SPEEA written materials copied by KCIA Staff and send to SAC – November 12, 2002
- SAC Meeting – sometime between November 18 and December 13, 2002
- Draft Letter to Council for SAC member review via email – December 20, 2002
- SAC Review Completed – January 2, 2003
- Letter and Attachments Submitted to Council – January 10, 2003

If you have questions or concerns about this process, please email or call me (206 282-7166 or 206 612-1273 cell) ... or we can discuss at the October 14, 2002, Roundtable meeting (I do not want to get into the content of SPEEA's concerns ... just briefly discuss the process for handling the Council's directive to SAC).

Jim Combs
Chair, KCIA Roundtable/Part 150 Study Advisory Committee

From: Jim Combs [jcombs31@attbi.com]
Sent: Friday, November 22, 2002 9:29 AM
To: 'Hartley, Daniel B'; 'Larry Brown'; 'Larry Crim (E-mail)'; Lynn Tucker (LTucker@foxiinternet.net); 'Randy.eatherton@weyerhaeuser.com'; 'Peter Anderson (peter@galvinflying.com)'; Doug Baker (sea1dab@is.ups.com); Karen Walling (kwalling@classichelicoptercorp.com); 'Georgianne Ray (E-mail)'; 'Ed Hanson (ehanson6@juno.com)'; Ed Wojeck (edwojeck@attbi.com); 'Duane Anderson'; Lynae Jacobson <jacobson.l@portseattle.org>; Theresa Smith (SmithTL@wsdot.wa.gov); 'Pam Linder'; 'Pam Burger'; 'Cayla Morgan'; 'Lentz, Richard A'; 'Eric Tweit'
Cc: 'Colmant, Michael'; 'Molyneaux, Gary'; 'Creighton, Rita'; 'Ryk Dunkelberg'; 'michael.alvine@metrokc.gov'; 'Rich White (richard.a.white7@boeing.com)'
Subject: SPEEA Material for SAC Meeting
Folks ...

Below is the first set of material from SPEEA regarding three of the four issues that the County Council asked SAC to review again.

Dan's comment about the schedule for the review of Recommendation 9 refers to a conversation that he and I have had to the effect that it will be up to SAC to request more time for completing the review if there is not enough information presented on December 2 to reach a decision or if SAC wants additional time to review the material presented on December 2.

Jim

Gary ... would you please have staff mail this material to all SAC members so that we are sure they receive it.

-----Original Message-----

From: Hartley, Daniel B [mailto:daniel.b.hartley@boeing.com]
Sent: Thursday, November 21, 2002 12:53 PM
To: 'jim@combs.net'
Subject: First three recommendations for December SAC meeting

The italicized comments are my response to the County Council's direction. I am including the actual comments I presented to the Council as a basis for understanding what transpired that caused the Council to return these items for review. I do not have any comments yet on Recommendation 9, the buyout options because I am still awaiting some data and because of additional data and meetings I must have. I doubt I will have all of the data needed until about the time of the next SAC meeting or shortly after that. I send the comments on the other three recommendations now with the understanding that the Recommendation 9 comments may not be completed before the December meeting as we have discussed and as I have discussed with the Council.

These three recommendations here do not appear to stand alone and aren't directly associated with recommendation 9.

Dan

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**Society of Professional Engineering Employees in Aerospace
Concerns and Recommendations for Part 150 Noise Study Recommendations**

While SPEEA leadership and members endorse the majority of the Executive's recommendations, they are strongly opposed to four recommendations. It is SPEEA's view that these recommendations are likely to have a subtle but very negative effect on The Boeing Company and give further impetus to moving family-wage jobs out of the Puget Sound area. The comments below state SPEEA's concerns and recommendations. Overall, SPEEA recommends that these items be referred back to the Study Advisory Committee (SAC) for further review, study and reconsideration, prior to Council action.

EXECUTIVE RECOMMENDATION FOUR: Implement ban on Stage 2 jets at night.

Just to clarify what is under consideration, this recommendation needs to be restated to clarify that it relates to business jets below 75,000 pounds. It should also refer to "stage two-type" technology since there is technically no classification of stage two business jet.

Comments/Observations

- A Part 161 study to attempt to implement such a restriction at Boeing Field would be expensive, costing from \$1-2 million, take a long time and have virtually no chance of succeeding.
- In the last 20 attempts to put similar bans in effect at airports in other communities, none have been approved by the FAA and one part of one study was partially implemented by court order based on a grandfathered ordinance not applicable at KCIA.
- Any such attempt will be viewed in the aviation and business community as an anti-aviation attitude and have a negative impact on future plans to attract business, particularly given the reality that Boeing is moving significant activity out of this area.
- In the very unlikely event that a 161 would be successful, only one or two flights per night would be banned.
- As the major tenant at King County International Airport (KCIA), The Boeing Company would end up providing the majority of funding for an expensive, useless study, taking valuable funding away from much needed airport improvements that benefit all aviation interests. Limited cash flow has forced the airport to bond for capital improvements in recent years, where this practice was never needed in the past.

SPEEA Recommendation: Delete Recommendation Four

Rationale: There is no chance that the recommendation will pass FAA muster...and it will alienate important decision makers who will be key to recommendations who hold the purse strings there for programs that will actually lessen noise. It will cost a bunch and that money will be passed on to the users of the airport at a time when the "war on terror" is already causing so much financial hardship. Our whole county cannot afford to put any more restrictions on the economic health of our area. To keep this recommendation will lessen the chances of real noise reduction.

EXECUTIVE RECOMMENDATION SIX: Maintain existing curfew on nighttime engine run-ups.

Comments/Observations

- Running of engines at moderate levels above idle is often required for maintenance, new airplane delivery and testing purposes. The economic impacts of restricting this activity hurts the economic competitiveness of The Boeing Company and other aviation interests. It is essential to what we do.
- King County ARFF officers have in the past issued noise citations to The Boeing Company and caused managers to issue restrictive internal procedures that limit engine run-ups and cause inefficiencies in operations.
- The Boeing Company is reluctant to admit that "voluntary restrictions" do affect flight test operations since they want to be a good neighbor and minimize community impacts. The unfortunate outcome may be to move flight test operations to a less densely populated area, depriving this region of much needed jobs.
- Noise levels of engines have dropped considerably over the last few years and are continuing to drop.
- Technology now exists to establish the amount of noise levels at any distance and direction from any site on Boeing Field for any power setting.

SPEEA Recommendation: Allow engine run-ups at night based on specific "reasonable" noise levels that have minimal community impacts. Work with KCIA to quantify "reasonable" noise levels.

While the county does not currently have monitoring capability to enforce restrictions they soon will have. When the equipment is in place then maintenance run standards can be implemented. The recommendation should be changed to keep the present program in place and implement noise based standards when the new capability is available. The reality is that few businesses and individuals will do maintenance runs at night anyway. As a rule nighttime and week end maintenance is not available. The users who are schedule driven, primarily Boeing and UPS and the other scheduled operators. The air freight operators rarely have engine problems that would require any maintenance runs. Boeing does because of the nature of new and test airplanes. With such a high percentage of airport charges being paid by Boeing and with the current employment reductions it makes no sense for the County to impose restrictions or to give

the perception of imposing impressions of restrictions. As a matter of English it is makes little sense to say "voluntary curfew" and then say there is no curfew. Everyone who uses the airport should have equal access and the rules for engine runs can be established in the future and should be.

EXECUTIVE RECOMMENDATION TWO: Implement a public [published] instrument approach procedure with an Elliot Bay ground track to avoid over-flight of residential areas.

Overview/Discussion

SPEEA supports this recommendation, but would like to see it go further. The FAA is steadfastly refusing to approve a Boeing Field visual approach that approximates the SeaTac Elliot Bay visual over water, instead of over neighborhoods. The SeaTac approach has a cloud base limit of 3,100 feet, while the Boeing Field visual approach is 5000 feet. Given Seattle's inclement weather, this means SeaTac planes can approach over water, while Boeing Field traffic is forced onto the ILS at ~2,200 feet over Magnolia. The FAA's actions create a constant effort for SeaTac to take over Boeing Field for traffic control purposes and by doing so they want to impose restrictions on Boeing for the benefit of SeaTac. Luckily, a few years ago SPEEA was able to keep SeaTac from such a takeover, which would have been a large threat to SPEEA members jobs.

Furthermore, certified "off-the-shelf" technology (for instance, TLS) now exists that could cut the residential noise pattern of most commercial airports by up to 90 percent. There is a mention of TLS in the report. However, the FAA has been very slow to approve this technology. The national FAA expert on this system resides and works in our community. It is time that knowledgeable County airport officials hear what he has to say. Boeing has a technology that is likely the most important advancement in aviation in the past 40 years and it is certifiable if only the FAA would not be so reticent to change. An internal-to-Boeing announcement of this was made recently about technology that could achieve an Elliott Bay approach and solve noise problems at other airports in the U.S.[1]). The County needs a briefing on this. Jobs will be created in King County if the first applications of these technologies occurs at Boeing Field. This is an unusual opportunity that should not be missed.

SPEEA Recommendation: Add the following sentences to recommendation two: "County elected officials will work with their counterparts at the City of Seattle, State of Washington and Congress to send a joint letter to the FAA urging their prompt but

737 Technology Demonstrator Wins Award: Our 737 Technology Demonstrator (YD501) has been chosen to receive a "2002 Best of What's New Award" from Popular Science magazine in the Aviation & Space category. Each year the publication reviews thousands of new products/innovations and chooses just 100 winners in 10 categories. To win, a product or technology must represent a significant step forward in its category. A statuette will commemorate the achievement, to be publicly announced in early November.

thorough review and certification of new technologies that can provide alternative flight paths that reduce noise on residential neighborhoods. In addition, lowering of the minimums and FAA approach control procedures to accommodate Boeing Field's needs must also be addressed.”

Rationale: The SAC has focused a lot of energy on the Magnolia area, almost to the exclusion of other areas. The FAA is now considering lowering the weather conditions that would allow visual operations over Elliot Bay from 5000 feet cloud base to 3100 feet, like it is in the same area for SeaTac. This would allow the quieter over-water “Bay Visual” or whatever they decide to call it, to Boeing Field also. This is good but it is not a done deal...and one should never presuppose what the FAA will do. This is only part of the answer. The more modern airplanes, including virtually every jet, have the capability to fly precision approaches using satellite guidance, computer guidance and various combinations. This means that they would no longer be required to fly the noisier ILS approach over Magnolia nor over Kent and Tukwila when the weather dictates landing from that area. Those citizens deserve noise relief also. We have chosen to ignore noise reduction on a “Valley Approach” that could fly over the less populated areas there except in the worst of weather. There is no reason why Boeing Field should not have high priority for implementation of these approaches. The SAC should press hard for such approaches, and we should open the door for political pressure to be applied if our concerns are treated casually. Furthermore, the updated Transponder Landing System is in the final stages of Certification. It requires no special equipment on any of the airplanes that is not already required for flights to and from Boeing Field. What we are talking about is the ability to fly precision approaches to weather minimums of 300 or 400 feet. This would mean that the minimums would drop from 3100 feet. This would cover virtually all but the worst weather we encounter and would have the effect of allowing virtually every approach and departure to be flown over areas with minimal population. Even though the final segment would still require the final path of the approach to be flown over Georgetown and Allentown, capabilities are now within sight that would allow precision approaches to be flown at a lower power setting and reduce noise somewhat in these communities, too. The SAC should take a strong stand that we expect priority in implementing these technologies immediately since we at Boeing Field have not been availed other noise reduction mitigation as is being implemented in the hundred or so other high-traffic airports around the company. The out-of-pocket cost for the FAA to implement these capabilities are minimal, mainly in overhead of their approval process. Early on in our deliberations one of the aims was that Boeing Field would be on the cutting edge of new aviation technologies as they affected airports. This is a very new technology and if we can get these technologies implemented for initial testing here we will be the first airport to get the advantages without having to wait for all of the FAA efforts to be spent on major passenger airports before we are put in the list for ours. This modification should not be controversial.

Conclusion

There are other communities who are actively courting The Boeing Company to get family-wage jobs. The company’s move to Chicago was a very strong statement that they view themselves as an international company. This also implies that they are becoming less of a Washington State, Puget Sound and King County company. Our workers compete against foreign countries to keep

our jobs. As a community, King County must recognize that it too must compete to keep the facilities and the jobs.

The current environment makes it easier to take aerospace jobs out of King County, and for The Boeing Company to entertain potential "suitors". On a daily basis, SPEEA members are aware of this. Major decisions on off-loading our work to other communities are now being made in Chicago. Bottom line, SPEEA doesn't want to see Boeing leave, and neither does the County.

November 27, 2002

Jim Combs
Chair, King County Airport Roundtable
7233 Perimeter Road
P.O. Box 80245, MS/1B
Seattle, WA 98108

Dear Chair Combs:

On behalf of The Boeing Company, I would like to provide our comments regarding the four Part 150 recommendations that were returned to the Study Advisory Committee by the King County Council. To begin with, we would like to commend the Study Advisory Committee for their hard work in crafting recommendations that both the residential and business communities could support. This is was no easy task.

The Boeing Company supports the King County International Airport investigating the feasibility of a Part 161 Study as directed by the County Council.

We believe the current policy on nighttime engine run-ups should be kept in place. While state law cannot regulate our manufacturing activities, The Boeing Company is committed to being a good neighbor so we have voluntarily complied with this policy. This restriction in no way restricts our ability to grow business at North Boeing Field.

People living in the 65 and 70 DNL noise contours, we believe, should be provided options for reducing the impact of noise where they live on a voluntary basis. These options could include the purchase of an avigation easement, sound attenuation and sales transaction assistance. This will make a significant positive impact on people's daily lives.

Lastly, we believe that the King County International Airport should work with the FAA and operators to obtain an alternative approach through Elliott Bay and avoid residential areas. In the future, we believe that new technology, like our 737-900 Technology Demonstrator, will enable operators to significantly reduce the level of noise experienced by residential communities around airports all over the world.

Thank you for taking our comments into consideration. Please feel free to contact me at (206) 655-3640 if you have any questions.

Sincerely,

Rich White
Manager, Local Government Relations

cc: Metropolitan King County Council



**King County International Airport/Boeing Field
Part 150 Study Advisory Committee
December 2, 2002
Meeting Summary**

A special meeting of the King County International Airport (KCIA) Part 150 Study Advisory Committee was held on December 2, 2002 as requested by the King County Council to review comments received at the public hearing on the study.

Members Present (√):

- | | |
|--|---|
| √ Vacant, <i>Tukwila Community</i> | √ Lynae Jacobson, <i>Port of Seattle</i> |
| √ Duane Anderson, <i>At-Large Community</i> | √ Richard Lentz, <i>Boeing</i> |
| √ Peter Anderson, <i>Corporate Tenant</i> | √ Pam Linder, <i>City of Tukwila</i> |
| √ Doug Baker, <i>Cargo Tenant</i> | √ Cayla Morgan, <i>FAA Ex-Officio Member</i> |
| √ Ron Beckerdite, <i>FAA</i> | Rocky Piro, <i>PSRC</i> |
| √ Larry Brown, <i>Labor - IAM</i> | Georgianne Ray, <i>Unincorporated King Co.</i> |
| √ Jim Combs, <i>Pilots Association</i> | Theresa Smith, <i>WashDOT</i> |
| √ Larry Crim, <i>Renton/Kent</i> | √ Lynn Tucker, <i>Beacon Hill Community</i> |
| √ Jerry Leonard for Pam Burger, <i>FAA Tower</i> | Kenny Pitman for Eric Tweit, <i>City of Seattle</i> |
| √ Randy Eatherton, <i>Georgetown Community</i> | √ Karen Walling, <i>Small GA Tenant</i> |
| √ Ron Fincher, <i>FAA</i> | Ed Wojeck, <i>Magnolia/North Seattle</i> |
| √ Edwin Hanson, <i>West Seattle Community</i> | Vacant, <i>Indirect Business Leader</i> |
| √ Dan Hartley, <i>Labor - SPEEA</i> | |

Others Present

Ryk Dunkelberg, *Barnard Dunkelberg Company*
Jennifer Howell, *Triangle Associates*
Mike Colmant, *Acting Airport Manager*
Gary Molyneaux, *Airport Staff*
Rita Creighton, *Airport Staff*
Sharyn Parker, *Airport Staff*
Richard White, *Boeing-Government Relations*

Purpose of meeting:

- To review the SPEEA Concerns and Recommendations for Part 150 Noise Study Recommendations as directed by the King County Council.

Introduction

Jim Combs, chair, opened the meeting shortly after 5 PM. He noted that the County Council had directed the SAC to review the SPEEA document submitted to the Council and included as part of its motion and address the items directed by County Council (see motion). He noted that these were four issues: the flight path recommendation, the Part 161 recommendation, engine run curfew, and the residential noise mitigation. He suggested that the meeting should be run as follows. Dan Hartley, representing SPEEA, would have ten minutes to present its concerns on each issue; the SAC would then discuss the issue and make a decision in twenty minutes. All agreed that this was an appropriate format and asked Jim to monitor the time in order to cover all the items. There was no public comment prior to the discussion. Jim Combs, however, did pass out copies of a letter received from Richard White, Manager, Local Government Relations, The Boeing Company. The letter presented the Boeing Company position on the four items addressed by SPEEA.

A process issue was raised concerning the any substantial change rather than a clarification of the recommendations as adopted by the County Council by the SAC. The FAA representative affirmed that if the SAC decided in its deliberations to substantially change a recommendation it would have to go through both the public hearing and adoption processes again. This could potentially delay the study for up to 10 months. It was also noted that the Council's motion had legal precedence over the SAC and Executive proposed recommendations.

At the end of the meeting, when all issues were discussed and resolved, Jim Combs would draft a letter to the County Council describing the decisions of the SAC. He would circulate this letter, along with the meeting summary and any material provided by Dan Hartley or other SAC members, for comment by SAC members by December 20, 2002. He would expect any comments on specific wording changes and additional materials back by January 10, 2003. He would then revise the letter if needed and send the original to the County Council and copies to SAC members. SAC members dissenting with the final letter would then have the opportunity to send additional comments directly to the County Council.

After much discussion, the majority of the SAC members agreed on the approach for each of these four issues. Each issue is summarized below along with the final decision. Comments and questions are bulleted below the summary of the discussion for reference purposes. Answers to questions are included in italics.

Flight Path Recommendation

Dan Hartley presented the SPEEA position on the Flight Path recommendation. He first noted that the instrument approach should be amended to "published" instrument approach for accuracy. He then referred SAC members to language provided in an email that recommended that stronger language be included to encourage the use of new technologies that address noise and that LDA shifts noise rather than reduces it. His concern is that this would shift noise from Magnolia to West Seattle. Rich White, from the Boeing Company explained that 737 has some abilities allowed Boeing to fly variable paths independent of the airport because it is GPS based. New technology is available that would be beneficial if SAC would be stronger in its

recommendation to use these technologies. Required Navigation Precision is another technology that would reduce noise. SPEEA's position was that the language that promotes new technologies in the Part 150 recommendation is not strong enough and that it limits the use of new technology to the shift over Elliott Bay. SAC members discussed the different technologies available and that the specific wording of the recommendation had changed as it moved from the SAC report to the Executive's proposal and Council's motion. It was noted that the intent of the SAC was not to shift noise to other residential neighborhoods, but over water or non-residential areas. Concern was raised that the Council language was not specific enough so that noise could end up over West Seattle. All agreed that the original SAC language provided more clarity.

Decision (unanimous): SAC members agreed that the Council and FAA should reference the SAC original language (p. 21 of the 3/7/02 Final SAC Recommendations report) that encourages the use of KCIA as a pilot site for new technology and that its use is not just restricted to Elliott Bay.

Part 161 Study Recommendation

Mr. Hartley presented the SPEEA position, based on his understanding that the idea of entering into a Part 161 as a recommendation of the Part 150 Study, sends a message to aviation that is less than friendly. If there is no gain in mentioning it, why bring it up? SPEEA's proposal is to drop this recommendation completely. Discussion ensued on what was happening with Part 161 studies in the country, as well as on the use of Stage 2 aircraft. A point was made that by the time KCIA started a Part 161, some decisions at other airports might be made whichy we could learn from. Another point raised was that while there are not that many Stage 2 jets at night currently, as regional service or cargo grows, this could change in the future and be a more serious noise issue. By including this language, the airport sends a message that noise at night is a concern. Also, by including it in the Part 150, this allows it to be funded by FAA in the future whereas if it is removed, the possibility is lost. SAC members noted that the Council language specifically addressed investigating the viability or feasibility of undertaking a Part 161 study and that this was sufficient to keep the door open on this possibility. Some discussion also centered around the definition of Stage 2 Jets as reference by the County Council since all jets over 75,000 are required by law to be Stage 3.

Decision: All but one member of the SAC agreed to endorse the County Council language which states, "to investigate the viability of undertaking a Part 161 Study for Stage 2 jets." All but two members further clarified that they were in support of a ban of Stage 2 jets at night, which would instigate a Part 161 study.

Engine Run Curfew Recommendation

Dan Hartley presented that the airport cannot put mandatory restrictions on engine runs, but can have voluntary restrictions to avoid engine runs at night. The existing airport policy was discussed and airport staff noted that right now there is a voluntary curfew in existence that is attached to tenants' leases. Because it is a voluntary agreement, if tenants require engine run-ups, the airport asks for notification for the purpose of communicating with the community. It was clarified that state, county, and city codes all agree that airport operations and manufacturing

are exempt from noise restrictions. The Boeing representative noted that their company policy also voluntarily and attempts to comply with the KCIA, but also at Renton, Paine Field, and Long Beach airports. After a brief discussion, all agreed that the issue was more of language than intent. The Council language states to “maintain the existing curfew on nighttime engine run-ups,” and the existing curfew is voluntary.

Decision (unanimous): Language should reference to maintain the existing policy on noise at night.

Residential Noise Mitigation Recommendations

Dan Hartley presented his concerns regarding the residential noise mitigation recommendations. His major point was that the committee did not have enough data or information to clearly understand the ramifications of this recommendation. He had specific questions that were outlined in SPEEA’s letter to the County Council. These questions and concerns included:

- No land use had been identified as noncompatible.
- Background or ambient noise may be higher than airport noise and houses may then not be eligible for insulation.
- Sea-Tac pays 20 percent of the cost and KCIA might have a similar share.
- The cost of the mitigation program will be born by the airport tenants and this may affect jobs.
- Members might be confused with the approach used at Sea-Tac (Airport Transition Zone) that used a different methodology to determine eligibility.
- Many residents would prefer a buy out program, but were not comfortable making their position known to the SAC or Council and a survey of homes should be made.

Some of these concerns had been addressed by airport staff and SAC representatives. Ryk Dunkelberg, consultant, acknowledged that during implementation of the mitigation program, ambient noise is considered. The concern about the ambient noise level was based on the noise monitoring done during the airport closure after 9/11. However, it was noted that this monitoring was not done in accordance with FAA policy for noise monitoring for a Part 150 study. Also, concern was raised on the accuracy of the airport noise monitors and how they are set. Ryk Dunkelberg and Cayla Morgan, FAA, indicated that Sea-Tac Airport pays a larger share for noise mitigation due to the size of the airport, and that general aviation airports are only required to pay 10 percent of the costs; FAA provides 90 percent. Mike Colmant, Acting Airport Manager, noted that KCIA had already budgeted its 10 percent share and that this would not affect tenant leases. Those knowledgeable about the use of the Airport Transition Zone (ATZ) at Sea-Tac noted that this resulted as a mitigation measure as part of the third runway EIS and was not a Part 150 element. Several SAC members did not agree with Mr. Hartley’s assessment that many people preferred to be bought out and noted that the Sales Transaction program would give them this option. SAC members agreed that this recommendation was based on a “social” value that allowed communities to stay intact without homes being torn down and not on a strictly “economic” value. The intent was to provide flexibility and not force people, who did not want to move, out of their communities. After much discussion, most members agreed that SPEEA’s concerns were already addressed in the documents provided to the SAC members. Clarification

that this recommendation was based on more of a “social” rather than “economic” value would suffice and that most of the questions raised by SPEEA could be answered.

Decision: A majority of SAC members agreed that the Council should be informed that this recommendation was based on more of a “social” value to preserve homes and communities, while answers to the questions raised by SPEEA could be attached to the letter.

Comments and Questions on Flight Path Recommendation

- Technologies are out there that could address noise and urge the FAA to adopt these types of technologies.
- The objective is not to shift noise, but to reduce noise. If you look at an LDA, you are shifting noise.
- Shifting noise over water is ok, although noise travels further over water..
- Concern that this would shift noise from Magnolia to West Seattle.
- Want this to be inclusive to use these new technologies.
- Other than TLS, what else is happening?
- Not an authority, two major things allow heavier aircraft to have advanced technology, Required Navigation Precision. New equipment included in new aircraft. Can define any approach path within the limits of the aircraft. Don't have to follow linear pathway as GPS and other tech. Available potential there that could result in noise reduction if interest is shown in doing that.
- Boeing did noise study in Pittsburgh and flew 767s and compared them with others flying other paths and was huge reduction in noise. Only one isolated example, but encouraging environment. Set up to look at this, would benefit.
- New tech would be continuous GPS?
- Flying curved approaches at Moses Lake—illustrates that curved paths, variable descent strategies cut in on noise. Question is how you implement them.
- Look at letter from Boeing and on page 21, recap of recommendations, tell me why this doesn't allow what they are asking for? Technology to be implemented as available. Sounds like this is what you want.
- Just wanted to tie down and make sure that this is what it is. Didn't see it firmly. Want to open it up to other alternatives and a place that makes this where pilots can be tried.
- Document you are quoting is the SAC recommendations; the Executive's recommendation is slightly different. Point was that there was an amendment at the Council that put the LDA in it. The County Council wanted to reference the LDA, but not specify the technology.
- LDA—shifts noise to other neighborhood.
- Recommendation does not preclude using other specific technology.
- Important not to reference specific technology. Intent of the recommendation is most important.
- Intent not to have it over residential –ok over water or non-residential.
- We may be in agreement, but what does the recommendation say?
- Point of view of those who live on Alki, what came out of KC Executive recommendation, leaves a lot of doubt with regard to what the result might be if FAA adopted this. Ground track to avoid residential areas, it doesn't talk about line of center, etc. Recommendation

does need to be more specific, but this is only a clarification. Executive's recommendation doesn't say what we had agreed to. Goal is to reduce noise on both sides of the track.

- Refer to SPEEA's actual recommendation, which deals with language.
- Rich White's letter next to last paragraph brings this out. "will enable operators to significantly reduce the level of noise"
- What additional language might trigger a full-blown review?
- SPEEA letter urging review of recommendation and also new tech but also the minimums. Is this enough to trigger a review?
- Minimums were not brought up in SAC process. Would be beyond what was looked at in the process.
- SAC's words say it a whole lot better than the Executive's Recommendation.
- Take them back to page 21 and highlight the discussion provided by the SAC.
- Does anyone have any problem with that? No changes to our original recommendation and highlight the discussion in the original discussion.
- Clarification: does not mean that the only way to avoid Elliott Bay is
- Philosophy applies both ends. FAA does not have a problem with applying this to both ends.
- Lets be sure to put that in—that doesn't only include Elliott Bay.

Comments and Questions on the Part 161 Study

- Dan Hartley spent two days to collect information on the Part 150 for Sea-Tac Airport, a very good report. Looked at several of the FAA letters and discussions on other airports in the country. Nothing that we are likely to do will get around the federal act. Problem when we enter a Part 161, this sends message to aviation that you are less than friendly. Concern that this is an issue with the aviation community. If there's no gain in mentioning it, why bring it up? Would like to drop the recommendation.
- Do we have any chance of getting a Part 161 through?
Ryk: I have no idea whether it is feasible.
- When we started this process, no one has completed a 161. Read in FAA that someone in Southeast did one?
FAA: Naples has done 161. We concur with the methodology of the cost/benefit analysis but state in nice way, concerned that if you do pursue this, you may be in violation of the grant assurance. No 161 analysis has passed 100 percent muster and been approved. The compliance side is saying be on notice, may be a problem with violation of federal law. It's on the website and does show that where this is at.
- When will this be resolved?
FAA: Don't know. Was supposed to be resolved this fall but has not.
Ryk: Working on 161 with another airport. Going just like Naples. Approved on the airport side, but compliance side is saying restriction on stage 2/stage 3 is discriminatory and not in compliance. Reading a stage 2 discrimination b/c some stage 3 jets make more noise than some stage 2 aircraft.
- Looking at the aircraft on its stage rating. Is it possible to look at the noise level of each aircraft rather than stage rating?
Ryk: look at certificated level instead of stage rating.

- Will it be possible that a decision will have been made and we can move forward or not, based on these other airports?
- If the tower is closed at night, does that mean the airport is closed to IFR operations?
No, you can operate under IFR with or without a tower.
- Concern that there is an inconsistency on what is recommended by the Executive and what the motion says. Not only doesn't just say don't do it, but stage 2 aircraft is illegal already.
- Council motion says: look at viability of study before going ahead with it. Does this conflict with what the Executive says?
- Should we endorse what Council says over the Executive says?
- Law says must agree with what Council says.
- Other interest in having it mentioned is to allow some material for the 150 to be included in the 161 process. Easy to say not viable, it's dead. But one of these pragmatic, semantic things to get on paper what people can agree on. Sandbagged a couple of years ago on this issue. Only 2-3 operations a night now, but could be 20-30 in the future. Shows that we don't want this type of business at night.
- Part 161 jurisdiction. Is it possible that will be the law of the land nationally or a local decision?
Ryk: minimum discussion in Congress on amending Part 161 and Part 91 to phase out certain aircraft. Not gone anywhere since 9/11. A number of hush kits available for business jets. Don't know where this is going.
- Problem with our wording and executive wording. We talked about stage 2 aircraft below 75,000 lbs b/c no aircraft under this weight.
- There are stage 2 jets.
- Clarification: stage 2 jets under 75,000 lbs. All jets over 75,000 lbs are stage 3. No such thing as stage 2 Business jets. Fokker 28 are under 75,000 and not restricted. Can have a Lear Jet that is stage 2.
- Should say Stage 2 jet.
- Recommend on page 8 of the SAC report. Not totally happy with the discussion here on pursuing the Part 161. It does say stage 2 aircraft under 75,000 should suffice. Would like to take Boeing letter on studying the feasibility of the 161. Send something back, not changing recommendation but here's our clarification.
- Starting the 161 was not something we were going to do right away. More off in the future so does give time for other two airports to clarify the FAA position. By keeping it here, keeps it alive and supported by Council.
- Didn't know the weight of those Horizon jets and given that regional aircraft is the next big bubble that will happen. Concern that air cargo and passenger service might come here. Would like to send message that we do not want these operators here.
- If the Regional Jets are allowed to fly same routes that turbo props did, we would have a real problem. Are they allowed to fly over West Seattle?
FAA: as a rule, they do not turn and need to fly the twin jet pattern.
- Don't believe any stage 2 jets in production. Canada Airs, etc are all stage 3. Not looking at an influx of older jets b/c not efficient.
Ryk: correct. Plan to phase out the older jets because they can't reinforce the cockpit doors.
- What will happen to those aircraft?

Probably not commercial service.

- Could be used for cargo and this would be a concern.
- Is there interest in a feasibility study for a Part 161 study?
- Wise course b/c so expensive.
- Let's look at the Council recommendation which trumps the executive.
- Council recommends that a viability study be done for a Part 161.
- Is it feasible to change language to address specific needs that Part 161 be conducted? The language is watered down.
- The other alternative is to take the language out completely--not to recommend it.
- Does law allow if the conditions of use of an airport change, can a 161 be undertaken in the future?

Ryk: If a Part 150 contains a recommendation to do a Part 161 study and FAA approves it, funding can come from FAA. If not in the recommendation, then funding not available from FAA. Don't know how you determine if a 161 is feasible and whether that is fundable.

FAA: in general, whether it's written or not, need to ask before anything else has been done: Can you reduce the noise levels without doing a 161?

- SPEEA recommends not adopting the council's recommendation. The letter from Boeing indicates support of investigating the feasibility of the Part 161—different than viability.
- Council uses viability. Want to follow council.
- Rich White clarified that, in terms of his letter, feasibility and viability mean the same thing.
- Clarification: can we also recommend yes, we want a stage ban?
- Clarification from Dan: look at his memo to see why brought back.

Comments and Questions on Engine Curfew Recommendation

- Sea-Tac Airport says you can't put mandatory restrictions on engine runs but can ask them to have voluntary conditions to avoid noise at night.
- Is there a curfew existing now?
Voluntary right now and attached with tenant's lease.
- Problem with the language here. Would like to clarify the language.
- Council language says "maintain existing curfew" which is voluntary.
- Curfew versus curfew policy.
- Are you ok with changing language to say, "Maintain existing policy regarding night time engine runs.
- Our original recommendation was that in different words.
- Language says maintain existing policy.
- Language references curfew at airport except Boeing is voluntary. (P 11 SAC report)
- County codes don't affect airport operations.
- Whatever Boeing has done in the past is not completely accurate. Noise codes do not apply to aircraft production or manufacturing and aircraft operation. Our own practices are more restrictive than what is required by the County. Have clear procedures on what we do at various times of night at every location.
Regulations: no touch and go operations permitted between 11 PM and 7 AM. Flight operations.
- Exemptions for flight operations and maintenance reflected in state code.

- State law prohibits regulating noise from manufacturing and in operation.
- Propose that we go back that we use language that says maintain existing policy on noise at night.

Comments and Questions on Residential Noise Mitigation

- Don't think we have enough data. Would not be profitable to raise 100 questions. For example, Looked at what we proposed vs. what Sea-Tac proposed. Sea-Tac's has been approved and can look at that and compare what we have recommended. Sea-Tac's is a very good report. Concern that no land use has to be identified as noncompatible.
- Got info on background noise around airport and looked at the data. Several of these areas that we are considering addressing in this recommendation, have higher background noise than aircraft noise generated. If that is the case, those areas do not qualify for mitigation. *Ryk: if noise from freeway is greater than noise from aircraft, may not be eligible for funding. Determination made when preacoustical survey is made.* *FAA: something is the discussion under the ambient noise level, FAA will look to see if there is an adequate discussion and analysis of ambient noise. Then don't get involved in splitting hairs. After the policy is made to sound attenuate, then do a pre and post audit.*
- Are we talking about program policy or program implementation issues?
- Concerned getting into implementation issues.
- Looked at noise levels before, during, and after 9/11 when operations decreased significantly. Shows that community noise levels are greater than aircraft noise. What does this mean? Was this discussed during our meetings?
- Question about how that number was generated on background noise. *Just a snapshot in time, not a comprehensive study. Looked at situation when national airspace was closed. Do not want to consider it a comprehensive study as approved by FAA. It's interesting but not conclusive. Just says that there is a high level of noise in urban setting.*
- Concern that noise monitors in their operating mode are not continuous. There's a rise rate, a fall rate before a noise is registered. Artificial set points deciding what background level of noise is. May artificially raise what the background noise is. Concern that this is biased. I know when I'm in my backyard, it's very quiet when no aviation activity. When I see a number that's 50 or 60 as background noise, must be biased.
- Comments about ambient noise can be correct. Concerns me that there are questions about the data. If going to go to the expense of any of these programs and it is clear that the language states there's something to be concerned about, I want to know whether we are following the intent of Part 150.
- From my perspective, SAC made a recommendation on what to recommend based on societal not economic value. Not concerned about the cost of the decision, but that we didn't want to take people's homes away.
- Will the cost of our recommend be a burden on the tenants and operators at the KCIA? *If the 150 is approved, FAA pays 90 percent of cost. KCIA pays 10 percent. Airport has already budgeted the 10 percent.*
- We talked about the cost being born by the tenants of the airport in previous meetings. What is it at Sea-Tac?

80/20

- Concern that Sea-Tac is paying more.
FAA: depends on the size of the airport.
- Where does the money come from?
- Concern that may impact the representatives of SPEEA. Want to be able to go back to my people that this was done according to the regulations.
- What's different at KCIA that is done at Sea-Tac?
- Think that things that were addressed in both places.
FAA: not every 150 is going to be the same, but procedure, analysis, etc. has been done according to regulations. May need to go back and get questions answered. Fundamentally do not believe that this is not flawed b/c this SAC has not made a decision not to recommend mandatory buy out. I believe this study in terms of procedure is not flawed.
- Mandatory buy out would not be cheaper?
- Your asking what it would cost the tenants. This is less costly than buyout.
- Estimate is 10 percent and is budgeted.
Ryk agrees that it is 10 percent. The cut off is if you are a medium or large hub commercial service airport. Then it's 80/20. If you are less than that (general aviation), its 90/10.
FAA: will not cut out people; we want to get the study to us. Don't want to see you flip flop then you are back 10 months. FAA would like to have this come to us at some point.
- Concern that may also delay assistance to residents.
- Maybe a delay now, but what about the several thousand of the engineers who have lost their jobs. We are fighting for these people and need to do this. We do have standing at the FAA. Would like to have these questions answered by the SAC, not by the FAA. Spend this extra time and avoid these hard feelings.
- What are hoping to accomplish? What would change?
- We have several people here hit hard by 9/11. I don't know what else is coming on for this airport. Are we collecting too much money from these businesses? Need to have businesses to keep people employed. Want data to be good.
- Discussion at Sea-Tac re ATZ. Did we discuss these?
- What change are you expecting in the residential noise mitigation?
- Would like to see level of cost and impact that is satisfactory. The way the residences are mitigated has a big economic impact. Don't have the exact cost. The way you mitigate noise in an ATZ could affect this.
FAA: ATZ is part of the third runway process. Not something the SAC wanted to focus on. It was more appropriate for the legal record of decision for the EIS for the 3rd runway. Was not for specific impact of a noise level. This is the first Part 150 for KCIA. Right now looks balanced. At this late date, to look at new recommendations when the consultant did bring a lot of recommendations to the committee and the SAC has made its recommendations. Council did bring up 4 questions—stick to these.
- ATZ concept been trotted out so government can condemn land we live on. We already discussed that and discarded that and agreed we did not want to do this. For those of us who are not aviation experts, please say it frankly.
- I have members who live in Des Moines and Tukwila. This is a unique situation. Why should people in one entity live in one condition and some other have one condition?

Ryk: ATZ. Airport Transition Zone. Twice the runway protection zone and same width as that zone. Mitigation as part of the EIS process, not part of the 150 process but asked to evaluate noise in the ATZ areas. Has different pot of money. It's not noise mitigation funding eligible. Not based on noise contour. In a Part 150, based on noise contours.

- Concern that members will be confused about the ATZ. Want to be able to say that I represented my committee.
- Can you show how this would cost Boeing? Boeing pays land cost to King County airport.
- Nothing in the Part 150 identifies increasing ground rent.
- Might be helpful to go back to SPEEA on page 3.
- First, it's 10 percent of the costs. Tenants may have some impact but won't go up b/c of that reason (noise mitigation).
- How can noise abatement affect SPEEA's jobs?
- FAA will spend money to insulate. Cheaper to insulate than to do a buyout.
- Property could be an industrial property.
- If we buy the property and turn it into industrial and sell it, the cost could be more or less.
- We made the decision not based on economic but on social values. So this isn't a issue.
- Where do we talk about the person who wants to leave and get market value?
- How many houses have voluntarily sold in the Georgetown section? People buying and selling houses in this area. What's keeping them from doing it in the future if we insulate some house?
- We had members of the public come to the meeting to move. We did base it on social basis.
- Does it say it in the recommendation?
- Once we get this program settled, we will get the avigation easements, and it will cost more if we delay the program. More homes are being built and will cost more in the future. Excellent selling point. Also think KC Council will be mortified to say buy them all out.
- That is the elected officials decision to make. How many homes have been built since 1996, 98? Etc.
- My understanding that we selected the biggest number of eligible homes and gave them the high number.
- Never was clear to me.
- What do we want to do?
- Dan is requesting that we get more time and get more data and analyzed this further.
- Council gave us 60 days to review this and look at the concerns that SPEEA raised.
- I recommend that we say that we did look at this, and yes, this is what we want, what we recommended.
- I don't know what the alternative would be.
- These options were chosen from a menu of options that other 150s have done. They are what other programs have decided are reasonable and acceptable. I don't know any other recommendations we can come up, regardless of social or economic basis.
- Only other recommendation is mandatory buy out. We aren't going to go there.
- You'll report that this is a social decision not an economic and that you didn't consider the economics?
- We used social values to make the decision instead of strictly economic values t.
- This does happen to be the least expensive cost—right?

- Dan's argument is that if you buy the houses, tear them down, sell the property, will be possibly cheaper than insulating the houses.
- The Council said I was asking valid questions and that these questions would be answered. If that's your answer, if I'm not satisfied, then I can write my answers separately. Don't want to do that, but can do that.
- We agreed a year ago that you could submit a minority report.
- Will someone answer the questions?
- Some answers in the report already.
- We could answer the questions but not change our recommendations.
- We are saying to council that we did not do a detailed economic analysis to make a recommendation but are basing it on social recommendation. But will answer the questions.
- Do not agree to the statement that people want to buyout.
- Heard from people at meetings say they did not agree with position stated by others re buyout.
- What is the percent that once they are insulated, don't want to stay at Sea-Tac?
- It's less than 10 percent and only in the 70 contour.
- Also have heard that people who want to sell but they don't want to wait for sound insulation.
- Roughly 2000 residences have been bought out, only 2 resulted in condemnation at Sea-Tac. In this limited area, not unreasonable to survey the people who would be affected.
- Mailers were sent out to the communities and airport staff went to community meetings. We did not have a groundswell of support for buyout. Where are all the people who are claiming this? Has been an advertised process. Those who care about it, people have supported sales transaction or insulation, not condemnation. We already debated this already and decided we did not want a program that supports razing property. The public comment has been "fix the noise."

Attachment F1

From: Lentz, Richard A [richard.a.lentz@boeing.com]
Sent: Thursday, December 12, 2002 3:19 PM
To: Combs, Jim
Subject: SAC comments

Jim,

I don't have material to refer to yet (I assume we will to tender any "verbatim" suggestions) but a thought or two crosses my mind that I think SAC should either be aware of or adopt when we send the package back to council.

First, awareness - I haven't read it but Dan has talked to me about the SeaTac Part 150 study adopted by FAA in June 2002. One item from that report in particular concerns me, namely that SeaTac refers to Boeing Field in their report and states they do not plan to use or participate in programs using combined noise profiles. I think this has significant implication for us at BFI since one of our recommendations (item A. in the adopted council motion 11600) is to develop combined noise contours with SeaTac. From that motion item one would infer that we expect a change in cost or impact due to the combined effect, compared to an isolated noise contour. I don't know just how much of our package would be affected by this assumption but I think the SAC should be aware it and should pass that awareness back to the council with an attached statement of some kind. Within the scope of our SAC charter I don't know what else we should do nor am I suggesting anything.

Second, as I said at the last meeting, I'm very disappointed that the council gave lip service to the greatness of KCIA and then turned right around to make its tenants pay the part 150 bills. Several others on the committee agreed. Interestingly, SeaTac passed their mitigation costs to regional taxpayers through a levy from the Port, which covers exactly the same geography as King County. I would bet that the regional or national economic benefit from KCIA is at least comparable to SeaTac (certainly, less from commercial carriers but more from employment and business activity.) With that in mind I think SAC should give notice to the council that the county should pay for our Part 150 work through taxes instead of airport tenants. I recognize that the county budget now won't support it and we don't want to delay movement on this. But, if the economy won't support county general fund payment then it surely doesn't make it any easier on the tenants to pay - they're struggling too after 9/11 and with a major slump ongoing. So, a suggestion - pay initially as planned from the airport nest egg fund. Give the county time to set up a tax package and then have general tax revenues repay the airport. Clearly, airport money paid out for mitigation is not available for airport improvements that otherwise would occur, so it's not "free" or without impact to the airport even if tenant fees don't change. If the county is going to sing praises about KCIA with at least five "whereas" paragraphs in motion 11600 I think it's only fair that the entire region pays, not the few airport businesses. I think SAC should say so with an attached statement.

Regards,

Rick

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Attachment F2

From: Jacobson, Lynae [jacobson.l@portseattle.org]
Sent: Thursday, December 19, 2002 1:47 PM
To: 'jim@combs.net'
Subject: RE: Draft SAC Letter to Council re Part 150 Review
Hi Jim -

I read the attached document and offer the following:

There seems to be quite a few comments about the Port of Seattle's possible participation regarding a King County sound insulation program within the 65DNL combined noise contours. To date, the Port has not made any funding commitments toward such a program. The Port of Seattle has been implementing noise abatement programs for more than 20 years. During our recent FAR Part 150 Study Update, we developed new noise programs and priorities, however, we did not include sound insulation in the KCIA/SEA combined contours as one of our recommendations. The Port Commission approved moving forward with our new noise programs, and we have programmed funds for these priorities through 2011. We have supported King County in their Part 150 Study and will continue to work with them as they analyze options, including evaluating funding mechanisms. If the County is seeking involvement by the Port with King County on the Boeing Field new noise abatement programs, the Port Commission would need to make that decision.

Lynae

Attachment F3

From: ehanson6@juno.com
Sent: Thursday, January 02, 2003 10:21 PM
To: jim@combs.net
Subject: Re: Draft SAC Letter to Council re Part 150 Review

Jim, I complement you on a fine piece of work. The whole package is impressive, and I only have a couple of comments concerning the Council's likely response to SPEEA's second attempt in your Attachment A to influence their final recommendations to the FAA. 1. SPEEA has made a strong case for setting aside the SAC's recommendation for the sound attenuation program in their discussion about who pays for the noise and safety mitigating costs and the "social" versus "economic" rationale for the SAC's recommendation. It seems to me that the SAC's response to the Council should at least address these issues in the SAC Clarification section for Council Recommendation I and K, primarily because SPEEA recommends that the Council "...make the decision on whether social considerations override economic considerations." I believe they will do so, and we should say a bit more about this issue since we feel strongly about it. (I also believe SPEEA has a good point about not requiring the tenants to pay for that portion of costs not picked up by the FAA, but we need not address this issue further.)

For this reason I would add the following phrase to the second paragraph of Clarification (p. 5) after the word detail: "...not to have cost benefit since the FAA will shoulder 90% of the sound attenuation program and, further, to be moot...."

2. SPEEA has obviously put a lot of work on their December 13 Minority Report (Att. A). They make some good points, and I believe the Council will give it a lot attention since it goes beyond the Council's Attachment B to Motion 11600. To avoid giving the Council the impression that we (i.e., SAC) have neither read this latest version nor discussed its contents, and thus further strengthen SPEEA's case in some instances, I believe it prudent to say something more about it. Suggest adding the following sentence to the last paragraph in the Summary section (p. 2). "SAC acknowledges the subjective nature of the minority report and has given its many good points serious consideration in the response to Council Motion 11600." This is somewhat innocuous and not a falsehood since all SAC members have had the opportunity to review the report and comment on it in their response to your draft letter.

Trust you are getting some constructive comments from the committee and will find some psychic reward for all your hard work on the Roundtable/SAC. Ed

Attachment F4

From: Hartley, Daniel B [daniel.b.hartley@boeing.com]
Sent: Tuesday, January 07, 2003 11:02 AM
To: Jim Combs
Subject: minority report

Dear Jim,

Here's where we are reference Council direction, as I understand it:

Of the 4 issues that were sent back three were resolved after clarification and change. I agreed to these changes and so did the SAC. Therefore, if the changes actually go forward to the Council, I am not now in the minority on them.

The issue about noise mitigation has still not been resolved as I understand it, except to say that we won't discuss it anymore. I disagree with that and am in the minority. I don't know how many others are in any minority position on any of the other issues.

Since I am in the minority on noise mitigation (recommendation 9) I am charged with writing my minority position. I do not expect the recommendation the majority sends forward to have anything to say about my minority position nor will I tolerate anyone else having final edit authority over what I provide, criticism always being welcomed, of course.

I do not know if any more action on these specific matters will be taken on the next SAC meeting. Since it may I will need a reasonable amount of time to prepare my minority position.

What do you see as the final time I must have my minority position prepared for the package that goes to the Council?

Dan

Attachment F5

From: Lentz, Richard A [richard.a.lentz@boeing.com]
Sent: Tuesday, January 07, 2003 11:10 AM
To: jim@combs.net
Subject: Suggested SAC letter concept

Jim,

Here's some words I would offer as core for a draft letter from SAC concerning financing the recommendations.

To the King County Council-

"The KCIA Part 150 Study Advisory Committee is pleased that the council has adopted motion 11600 which begins the complex process under the latest master plan to make the King County airport a more community-conscious facility and continue its role as an anchor for economic vitality in the region. The motion quite appropriately recognizes several attributes of the airport which make its continued health and competitive attractiveness to aviation activities a matter of utmost importance. The council has recognized that KCIA is of great importance and value to the entire region and, indeed, to the nation.

"In light of this significance, SAC urges the council to consider means by which the cost of airport remedies and mitigations recommended in the master plan may be financed by the greater region rather than by charges to the businesses and tenants at the airport. We recognize that, under present economic adversity, this may not be feasible. We also recognize that provisions of the master plan should not be delayed until circumstances seem more supportive of general tax financing. We would propose that the provisions of the master plan be started using airport funds already earmarked for such work. This would get them going but does so at the expense of other airport projects to which the funds could more properly be spent. As this work begins, the council could plan a tax program that would recover the master plan costs relatively painlessly in an orderly manner, and return those funds to the airport in future years. In this way the citizens of the entire region would pay for remedies that benefit the region, airport funds would remain available to pay for airport needs that directly impact its safety and operating capabilities, and airport businesses would not shoulder additional costs that might otherwise cause them to relocate away from our area or deter use of KCIA."

Feel free to adjust or comment as you see fit or as proper form might require, but I think our group certainly has reason and charter basis to offer this suggestion.

Regards,

Rick
Richard A. Lentz
Flight Test Operations, M/S 14-KA
(206) 655-0222 voice
(206) 662-0837 PC Fax
(206) 797-6696 alpha pager
richard.a.lentz@boeing.com

Attachment F6

MessageFrom: Hartley, Daniel B [daniel.b.hartley@boeing.com]
Sent: Tuesday, January 07, 2003 12:40 PM
To: jim@combs.net
Subject: RE: Draft SAC Letter to Council re Part 150 Review

Dear Jim,

I am not at all happy with the tone of your letter, a tone that puts down the legitimate concerns SPEEA raised. The Council agreed with SPEEA that these matters should be addressed bringing up SPEEA's concerns. The very essence of these concerns are the changes that were made on these first three recommendations. Clarifications of terms are important, very important and I do not consider them to be inconsequential. In my mind, when the SAC was finally forced to look at these first three issues, the terms were sorted out. It is just a shame that the time to do this was not taken during the interminably long negotiations of the SAC. The draft letter goes on to say that these issues were discussed and imply that somehow I am the bad guy. It is also significant that our recommendations differ from the Executive's recommendations in several important ways.

As for recommendation 9, I feel that important information that is pertinent was deliberately withheld from us. Jim, I did read the SeaTac report...and you and others on the BFI SAC sat on SeaTac's. The only conclusion that I can reach is that the common members were asleep at the wheel, that key information was withheld or that the deliberations as discussed in the report were unclear.

King County is more than a half-dozen community groups representing a mere handful of residents...and doubtfully even a substantial majority in any of them. The process was faulted because of the predetermined agenda of these people. It is not an important point now that, say, Magnolia really didn't have any community interest that was being served by engine runs at night on Boeing Field...but they voted with their compadres anyway because of the politics.

As I read the slanted letter it is a litany of why I don't know what I'm talking about or that I am trying to distort the "facts". How about putting in some sort of statement that these very substantial points that I brought up were not considered and that there is a case that they should be. Jim, 9/11 occurred during our deliberations and it started to have and is still having a significant impact on Boeing Field and King County much beyond what is being visited on areas not so dependent on aviation in their economy. The draft letter, far from recognizing that important changes have occurred, fails to mention anything about this. So much of the tone of the letter majors on process and not results. Why?...what's the point, if not to discredit SPEEA concerns.

What is so hard about admitting that economics is a very important factor on any such report...and that it was taken off the table because of "social considerations". What are the "social considerations" of so many of us losing our jobs? Where is anything that argues for our competitiveness.

Jim, I need not continue...no one will pay any attention anyway...except to say that the draft letter response to the Council's concerns could be Exhibit A on what is wrong with the business/jobs climate in King County. What should have been a good opportunity for understanding and affirmative action has been flushed down the drain.

I want to state that I don't think there are any "bad" people on the SAC, only that different people evaluate things differently. Everyone is trying to do a good job...and I, at least, have put in a good many hours on these issues, in the thousands of hours probably. Sure I have uncovered things others have not. Why should I feel guilty about this? Why should I be made to feel dishonest because I fight for my fellow union (and non-union) members' jobs?

Now, where are we on this? It seems to be a bit unsettling to submit a final report by Jan 10 and then have a meeting three days later...for what if not to have a last look? I cannot imagine that the schedule is so sacred that asking for another week or so for final touches would upset the Council or the FAA.

Dan

Appendix Six

Recommendations and Comments from Society of Professional Engineering Employees in Aerospace

Attachment B
Dated October 8, 2002

Society of Professional Engineering Employees in Aerospace
Concerns and Recommendations for Part 150 Noise Study Recommendations

While SPEEA leadership and members endorse the majority of the Executive's recommendations, they are strongly opposed to four recommendations. It is SPEEA's view that these recommendations are likely to have a subtle but very negative effect on The Boeing Company and give further impetus to moving family-wage jobs out of the Puget Sound area. The comments below state SPEEA's concerns and recommendations. Overall, SPEEA recommends that these items be referred back to the Study Advisory Committee (SAC) for further review, study and reconsideration, prior to Council action.

EXECUTIVE RECOMMENDATION FOUR: Implement ban on Stage 2 jets at night.

Just to clarify what is under consideration, this recommendation needs to be restated to clarify that it relates to business jets below 75,000 pounds. It should also refer to "stage two-type" technology since there is technically no classification of stage two business jet.

Comments/Observations

- A Part 161 study to attempt to implement such a restriction at Boeing Field would be expensive, costing from \$1-2 million, take a long time and have virtually no chance of succeeding.
- In the last 20 attempts to put similar bans in effect at airports in other communities, none have been approved by the FAA and one part of one study was partially implemented by court order based on a grandfathered ordinance not applicable at KCIA.
- Any such attempt will be viewed in the aviation and business community as an anti-aviation attitude and have a negative impact on future plans to attract business, particularly given the reality that Boeing is moving significant activity out of this area.
- In the very unlikely event that a 161 would be successful, only one or two flights per night would be banned.
- As the major tenant at King County International Airport (KCIA), The Boeing Company would end up providing the majority of funding for an expensive, useless study, taking valuable funding away from much needed airport improvements that benefit all aviation interests. Limited cash flow has forced the airport to bond for capital improvements in recent years, where this practice was never needed in the past.

SPEEA Recommendation: Delete Recommendation Four

EXECUTIVE RECOMMENDATION SIX: Maintain existing curfew on nighttime engine run-ups.

Comments/Observations

- Running of engines at moderate levels above idle is often required for maintenance, new airplane delivery and testing purposes. The economic impacts of restricting this activity hurts the economic competitiveness of The Boeing Company and other aviation interests. It is essential to what we do.
- King County ARFF officers have in the past issued noise citations to The Boeing Company and caused managers to issue restrictive internal procedures that limit engine run-ups and cause inefficiencies in operations.
- The Boeing Company is reluctant to admit that “voluntary restrictions” do affect flight test operations since they want to be a good neighbor and minimize community impacts. The unfortunate outcome may be to move flight test operations to a less densely populated area, depriving this region of much needed jobs.
- Noise levels of engines have dropped considerably over the last few years and are continuing to drop.
- Technology now exists to establish the amount of noise levels at any distance and direction from any site on Boeing Field for any power setting.

SPEEA Recommendation: Allow engine run-ups at night based on specific “reasonable” noise levels that have minimal community impacts. Work with KCIA to quantify “reasonable” noise levels.

EXECUTIVE RECOMMENDATION NINE A: Provide a variety of options for people living in the 65 and 70 DNL KCIA contours, including purchase of avigation (noise) easements, sound attenuation and sales transaction assistance. [This recommendation is intended to prioritize residents who are within the KCIA noise contours only for early/first implementation.]

EXECUTIVE RECOMMENDATION NINE B: Provide variety of options for people living in the 65 and 70 DNL combined KCIA/Sea-Tac contours including purchase of avigation (noise) easements, sound attenuation and sales transaction assistance. [This recommendation is intended to address residences in the combined SeaTac/KCIA noise contours after those in the KCIA contours.]

Comments/Observations

- SPEEA is in agreement to insulate for noise between 65 and 70db contours.
- A clear understanding of what the recommendation means should be broken down to address such questions as:
 - What is to be done about noise above 70DNL?
 - What is the financial exposure to the County and airport users to insulate/purchase avigation easements/provide sales assistance for residences built after 1998? These residences are specifically excluded from FAA funding for any required noise remedy, so the County is assuming an unusual obligation.
 - What is the true number of resident owners?
 - What formal surveys (anonymous, confidential and statistically valid) have been conducted to find out the true preference of the residents and owners for the various options? Many residents would like to sell out, but are afraid to say so in public meetings.

- What constitutes “neighborhood disruption”, per FAA definition?
 - What are the overall economic impacts on the County of the alternative land use options (including possible economic benefits for industrial use)?
- The costs of these actions in Georgetown will also be borne by the tenants at Boeing Field.
 - The business tenants at Boeing Field (including KCIA) are already under severe financial pressure from the effects of Federal restrictions imposed after 9/11.
 - Thousands of SPEEA members’ jobs will be affected by whatever the County recommends to the FAA for their approval. SPEEA hopes an attempt to answer these questions will be made before the County approves the recommendations.

SPEEA Recommendation: Send these two recommendations back to the SAC, airport staff and the consultant to answer the questions so that more informed recommendations can be made.

EXECUTIVE RECOMMENDATION TWO: Implement a public [published] instrument approach procedure with an Elliot Bay ground track to avoid over-flight of residential areas.

Overview/Discussion

SPEEA supports this recommendation, but would like to see it go further. The FAA is steadfastly refusing to approve a Boeing Field visual approach that approximates the SeaTac Elliot Bay visual over water, instead of over neighborhoods. The SeaTac approach has a cloud base limit of 3,100 feet, while the Boeing Field visual approach is 5000 feet. Given Seattle’s inclement weather, this means SeaTac planes can approach over water, while Boeing Field traffic is forced onto the ILS at ~2,200 feet over Magnolia. The FAA’s actions create a constant effort for SeaTac to take over Boeing Field for traffic control purposes and by doing so they want to impose restrictions on Boeing for the benefit of SeaTac. Luckily, a few years ago SPEEA was able to keep SeaTac from such a takeover, which would have been a large threat to SPEEA members jobs.

Furthermore, certified “off-the-shelf” technology (for instance, TLS) now exists that could cut the residential noise pattern of most commercial airports by up to 90 percent. There is a mention of TLS in the report. However, the FAA has been very slow to approve this technology. The national FAA expert on this system resides and works in our community. It is time that knowledgeable County airport officials hear what he has to say. Boeing has a technology that is likely the most important advancement in aviation in the past 40 years and it is certifiable if only the FAA would not be so reticent to change. An internal-to-Boeing announcement of this was made recently about technology that could achieve an Elliott Bay approach and solve noise problems at other

airports in the U.S.¹ The County needs a briefing on this. Jobs will be created in King County if the first applications of these technologies occurs at Boeing Field. This is an unusual opportunity that should not be missed.

SPEEA Recommendation: Add the following sentences to recommendation two: "County elected officials will work with their counterparts at the City of Seattle, State of Washington and Congress to send a joint letter to the FAA urging their prompt but thorough review and certification of new technologies that can provide alternative flight paths that reduce noise on residential neighborhoods. In addition, lowering of the minimums and FAA approach control procedures to accommodate Boeing Field's needs must also be addressed."

Conclusion

There are other communities who are actively courting The Boeing Company to get family-wage jobs. The company's move to Chicago was a very strong statement that they view themselves as an international company. This also implies that they are becoming less of a Washington State, Puget Sound and King County company. Our workers compete against foreign countries to keep our jobs. As a community, King County must recognize that it too must compete to keep the facilities and the jobs.

The current environment makes it easier to take aerospace jobs out of King County, and for The Boeing Company to entertain potential "suitors". On a daily basis, SPEEA members are aware of this. Major decisions on off-loading our work to other communities are now being made in Chicago. Bottom line, SPEEA doesn't want to see Boeing leave, and neither does the County.

¹ The Boeing Company's 737 Technology Demonstrator Wins Award: Our Demonstrator (YD501) been chosen to receive a "2002 Best of What's New Award" from Popular Science magazine in the Aviation and Space Category. Each year the publication reviews thousands of products and selects just 100 winners in 10 categories. To win, a product or technology must represent a significant step forward in its category. A statuette will commemorate the achievement, to be publicly announced in November.



**King County
International Airport
Boeing Field**

King County Meeting Proceedings

Labor, Operations and Technology

October 8, 2002

Proposed Motion No. 2002-0337

A MOTION to adopt the King County International Airport's Federal Aviation Regulation Part 150 Noise and Land Use Compatibility Study; and to accept and allocate federal governments grants for implementing study recommended program and projects.

Mike Alvine, Council Staff, briefed the committee and reviewed the proposed amendments: Motion No. 2002-0337 if adopted would forward recommendations to the Federal Aviation Administration regarding operations at Boeing Field / King County International Airport. It contains a series of operational actions as well as land use actions such as insulation to reduce noise in surrounding communities. We did consider this Motion at our September 26th meeting, and even though it was very popular, I'm not going to read my staff report again.

I will cover two paragraphs to update member on what happened at that meeting. Public testimony was taken at that meeting, and while many of the competing interest groups support the Executive recommendations, it became clear the public testimony that Society of Professional Engineer Employees in Aerospace (SPEEA) strongly disagreed with four recommendations. Their concerns are articulated in Attachment One of the Staff Report. I did work with SPEEA members to put on paper their specific concerns as well as recommendations they would have. Fundamentally they are requesting that that some of the recommendations be returned back to the Study Advisory Committee for reconsideration.

We now have four amendments.

Mr. Chair opened the floor to public questions for Mr. Alvine.

Mr. Pullen thanked Mr. Alvine and the rest of his committee for all their hard work.

Mr. Constantine:

I guess I would observe as just a point of philosophy on this that this is not a zero sum game. I think the committee who forwarded these recommendations to the county recognizes that there are ways that we can accomplish important goals for the communities the neighbors in the flight path and also enhance the business climate at the airport. We need through these actions and through our future actions to continue to pursue those goals, those twin goals. Would folks in the audience like to get up and say a word?

The following people appeared before the committee to offer public comment: Daniel B. Hartley, SPEEA Representative, Study Advisory Committee, Part 150 Study Bill Dugovich, Communications Director, SPEEA

Dan Hartley:

The process that we have gone through on this – and I have been meeting with the noise people at the airport - for six years I believe it is now.

Mr. Chair asks Dan to introduce himself and his affiliation. Dan Hartley, SPEEA representative on the airport Roundtable and the noise study advisory committee. SPEEA has 19 to 20,000 members and we make our job by doing the engineering on the Boeing airplanes and different kinds of things like that.

Dan Harley continues:

A number of things have changed at the airport since we started this process. At that time the airport was a direct responsibility under the county executive, and then it was moved into the Department of Transportation and there has been several things that have happened and have changed it considerably. Technology has changed, because when we started this thing we had the go-go aerospace industry of selling every airplane we could make, we hadn't had 9/11 [terrorism attacks], and we hadn't had the economic downturns that have occurred since then. The stock of Boeing has gone from something like \$71 to \$32 and there are lots of pressures on us. We have lost in the course of this time about 10,000 engineers.

Let me tell you how that translates, in WWII, at the height of Boeing's production during WWII, there were 1,100 engineers at Boeing. We are taking it left and right. We are seeing what is happening around the world and we also clearly understand that King County has the largest aerospace base in the whole of our earth. We are in a very critical position here. Boeing have talked with varies people in governments and the county for the last ten years has started talking about the kinds of problems of chasing jobs and we are seeing that those are not idle threats. Frankly it alarms me, and I think most people in our Union that we don't have an office in government that we can identify anyone as being concerned with the economics of what we face and the effects of it on our government and our whole area. We contrast that to what we run into in other cities and regional areas, for example Dallas / Fort Worth, around our own country and also what's happening to our government subsidized competitors, not only in Europe with Airbus, but also in Brazil's Embra Air, and Canada's Bombardier. Both of which make airplanes, are offering on airplanes markets that are competitive with 737's. We see that right now we still have a structure here that can support back filling for the Boeing jobs. We also know there are other programs that Boeing is working on that would be very difficult for them to move from here. But there are also some that are on the edge. We are concerned because the thing the really keep Boeing here, the hardest thing for them to come by is the airports and the factories and the way they are located at this time. This report is not something that stands in a vacuum; it's stands in relation to what happening in our community, our country and the world. That has been forced on us in the last four years. We are quite concerned about these four issues you all

have in your report. We are not trying to force our opinions and our desires or grievances on someone else. What we are asking for is a fair, honest, open discussion on these issues, we think that you deserve it, everyone of you, and we think that your constituents deserve it. We think there are ways we can cut noise at the same time keep our economic competitiveness base here. We don't see this in this report, you have to understand that we engineers are pencil-necked geeks - were nerds. Some things that might not satisfy someone else or they might be willing to glaze over it we'll sit there and look at them because that's our bread and butter. Everyday we have to work really hard on what we do and there are lots of trade-offs. Our issues have not been address in this report in these four major areas, what we want is a fair treatment, an honest treatment, the good and the bad and we want that to be incorporated.

Council member Pullen asks:

I do think it is important that County officials who are concerned about economic issues coordinate closely with you and there are two people I'm going to suggest you get in touch with. One is George Northcroft, Deputy Chief of Staff in charge of Business Affairs, and Ray Mossure who's Manager of the Economic Development Program. Both of those people are one's you certainly should be coordinating with in addition to the one's that are here today and the audience. The other comment I had is that I also share your concern about the importance of having at least some attention on economic development, jobs, protecting existing jobs, continuing to seek prosperity. I do have a draft amendment, which I will distribute now. I haven't decided for sure whether to offer it, I might look some feedback from the Chair of the committee and other members of the committee. It simply makes a generic statement that we on the County Council are concerned about creating new jobs, protecting existing jobs and strengthening our economy and seeking prosperity. I just think that if we had a generic statement in here, that the County Council believes in that, and that those implementing the programs should keep those goals in mind whenever possible. I believe that would be constructive. I'll pass out copies of the amendment in case any of the people in the audience wanted to refer to it or know it might be coming.

Mr. Constantine announces that Mr. McKenna is present, and explained that he has an interest in this as well.

Dan Hartley:

I have meet with George Northcroft on many occasions; I'm going to guess a half a dozen or ten meetings - something like that. We've talked about the issue, and he's trying to get a grip on this issue - he's a very capable individual. I have a high regard for him. But, there are a lot of things he has to have. He needs to be supportive and encouraged and that is a step in the right direction. I think the thing that's missing is that we have to have more of a sense of urgency because these things are hitting us daily now. The other gentleman I have (Mr. Mossure) have been in meetings when he has been there, but we have not had [inaudible], so thank you Councilman Pullen.

Mr. Constantine offers Bill Dugovich a chance to speak.

Bill Dugovich, Communications director at SPEEA:

I am here on behalf of the organization and I am also a resident in council member Pullen's district. I wanted to thank the council and particularly the committee members for the extra effort that they certainly and obviously put into this issue. As Dan said we are very concerned about the loss of jobs, not only in our membership, but in our communities. In the last year alone there have been 3,000 engineers and technical workers – because we do represent more than just engineers, who have lost their jobs in the Puget Sound region. 3,000 jobs, 3,000 families, probably 9,000 people directly affected by the loss of jobs. These jobs aren't just going away from our community to another state they are going out of the country in many instances. So this is a real concern of our organization that restrictions, undo restrictions not be placed on King County International Airport that would be the Boeing Company one more reason or one more rationale to move something out of the area. We do understand and do appreciate the fact that our concerns must be weighed against the Counties, the community of Georgetown and the other businesses in the area and we thank the council members and we trust that this process will work for everyone.

Return to order and the presentation of five amendments for proposed Motion No. 2002-0337. Some required some attention before presenting to the group.

Council member Hague:

Yes Mr. Chair would offer a de-pass recommendation on 2002-0337 and offer some amendments as well.

Mr. Constantine indicates that the motion was moved and seconded. It is requested that Mr. Alvine present Amendment #1, and then the council will look for a Motion on it.

Mr. Alvine:

Mr. Chair Amendment #1 can be found on hand-numbered page 85 of your packet. It's an amendment, Mr. Chair, you're offering and what it does is list a series of findings that the council and the executive made that help frame the discussion. There was a concern that the motion as stated did not really reflect some of the important economic activities that are out there. Recognizing the family wage jobs, the industries, and then balancing that of course against the interests of citizens to have some peace in their neighborhood. There is a series of findings, 10 findings, and I have been advised by the clerk's office that the correct form for this rather than findings would be in the form of "where as." So, each one would start, for instance, the first one would read "Where as King County International Airport" and so on. This is a fairly straightforward amendment Mr. Chair.

Mr. Constantine as council member Hague if he could move that, and then they would accept a friendly amendment. It was so moved and seconded.

Mr. Constantine calls on himself:

We thought it was important to emphasize this, Mr. Alvine said the importance of the economic activity that takes place around King County International Airport / Boeing Field. And that (economic activity) should be always in the forefront of our minds as we are working to reconcile the different interests around that very important facility. If there is no further discussion, all those in favor say I.

Amendment #1 was unanimously adopted.

Mr. Alvine:

Amendment #2 Mr. Chair on hand-numbered page 87 is offered by yourself and council member Mr. Phillips. It reads "Where as the County Council recognizes that the studies recommendations predict an increase in the overall noise level from KCIA operations, and where as the County Council supports continued efforts to reduce noise levels from the KCIA operations." The effect of this, Mr. Chair is to address the fact that at least in the short term this study actually predicts noise to go up. Now the communities find that distressing, they would like to see the County commit itself to ongoing levels of effort to reduce noise beyond the status quo that we are at today. So, this amendment does commit the County to continue to explore options that would reduce the absolute level of noise in neighborhoods.

It was so moved to adopt Amendment #2. It was moved and seconded. Mr. Constantine goes on to say:

This (amendment) was brought to us by a citizen from Magnolia who is very articulate about the impact of noise on the neighborhoods. I and council member Phillips, thought that it was a very good point that the committee that brought these recommendations to us recognizes the short-term reality that noise levels may not be able to be decreased. It is never-the-less the goal of this county that we reduce noise levels in ways that are compatible with economic activity and that help promote healthy neighborhoods throughout the region. I think this is good language and I ask for your acceptance of it. All those in favor please say I.

Amendment # 2 is adopted.

Mr. Alvine explains that Amendment #3 is a technical amendment.

Council member Hague offers technical Amendment #3; it is moved and seconded. Amendment #3 is adopted unanimously.

Mr. Alvine:

Amendment #4 is offered by yourself Mr. Chair. On page 4, line 55, insert the following: "be it further moved that Attachment A to this amendment be added as Attachment B to the Motion, and referred to the Study Advisory Committee for consideration and possible adoption as a minority report. The Study Advisory Committee is also requested to review the concerns raised in the attachment for substitute issues that result in modifications to the Part 150 recommendations." Now that is the basis amendment Mr. Chair that you've offered. Mr. McKenna has added just before the period of the last sentence of this amendment, "and to report back to the County Council, get the results of this review including, to report back to the county within sixty days the results of review, including any such modifications that it recommends."

Council member Hague moves on Amendment #4, and it is so moved and seconded. Amendment #4 is adopted unanimously.

Council member Hague offers Amendment #5 it is so moved and seconded.

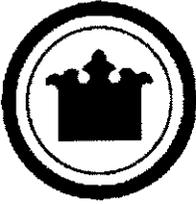
Mr. Alvine presents the content of Amendment #5, which supports a focus on economic growth, and the protection of jobs in this community as it relates to Motion No. 2002-0337.

Amendment #5 is adopted unanimously.

Clerk calls role.

Appendix Seven

Airport Staff Recommendations to King County Council



Signature Report

October 10, 2002

Motion

Proposed No. 2002-0337.2

Sponsors Phillips

1 A MOTION to adopt the King County International
2 Airport's Federal Aviation Regulation Part 150 Noise and
3 Land Use Compatibility Study; and to accept and allocate
4 federal government grants for implementing study
5 recommended program and projects.

6
7
8 WHEREAS, King County International Airport (KCIA) was designated by the
9 National Air Transportation Association as one of America's "100 Most Needed" airports
10 in January 2001 because of its strategic proximity to competitive markets nationally and
11 globally, and

12 WHEREAS, KCIA is a vital general aviation resource within the regional and
13 national airport system that enhances the productivity of King County businesses through
14 the speed and flexibility which air transportation offers in a fast-paced global economy,
15 and

16 WHEREAS, KCIA is a major employer and contributor to the regional economy,
17 with an impact in excess of \$1 billion annually. Employment attributable to KCIA

Motion

18 businesses include thousands of engineers, machinists, and other professionals who
19 contribute significantly to the state and regional economies, and

20 WHEREAS, It is essential to the well being of the entire community that aviation
21 industry operations be welcomed and supported by public policy and, at the same time,
22 that every effort is made to address the noise impacts on residents due to operations at
23 KCIA, and

24 WHEREAS, KCIA, commonly known as “Boeing Field”, serves The Boeing
25 Company and its employees as a delivery or flight test center for the 737, 747, 757, 767
26 and its newest 777 model aircraft, and is also a potential site for testing new generations
27 of aircraft, and

28 WHEREAS, KCIA aviation companies and Federal Aviation Administration are
29 researching an innovative air navigation concept called Required Navigation
30 Performance (RNP) that will significantly increase efficiency in the airways and allow
31 airplanes to more precisely fly noise abatement paths, and

32 WHEREAS, KCIA tenants will participate in the Fly Quiet Program that includes
33 pilot education and incentive programs which will improve flight performance and
34 reduce noise, and

35 WHEREAS, it is a high priority of King County to demonstrate the feasibility and
36 appropriate siting of a Ground Run-up enclosure (hush house) because of its potential to
37 enhance efficient aircraft testing while securing aviation related jobs and reducing noise
38 for residents of Georgetown and Beacon Hill, and

Motion

39 WHEREAS, KCIA, through an FAA-funded sound insulation program for homes,
40 schools, and public buildings, will reduce the effect of noise on a large number of people
41 living and working near the airport, and

42 WHEREAS, KCIA tenants have been cooperative and support the
43 recommendations as being consistent with the promotion of aviation jobs while being
44 “good neighbors to the community”, and

45 WHEREAS, in 1995 the King County council adopted Motion 9709 to request the
46 county executive to develop night noise restrictions at King County International Airport,
47 and

48 WHEREAS, in July 1997 the county council established the King County
49 International Airport roundtable advisory committee, including community members to
50 advise on the development of master plans and noise studies, and

51 WHEREAS, in October 1998 the county council adopted a noise reduction work
52 pan to guide the airport’s Federal Aviation Regulation Part 150 Noise and Land Use
53 Compatibility Study, and

54 WHEREAS, King County International Airport initiated the Part 150 in June
55 1999 and expanded the Roundtable to include local jurisdictions, Puget Sound Regional
56 Council, Sea-Tac International Airport and Federal Aviation Administration members as
57 part of a study advisory committee, and

58 WHEREAS, the strategic advisory committee completed its work in January 2002
59 and the county executive’s report was completed in July 2002, and

60 WHEREAS, the study and county executive’s recommendations are:

61 A. To develop combined noise contours with Sea-Tac International Airport;

Motion

- 62 B. The airport is to work with the appropriate federal agencies, local
63 jurisdictions, tenants, and community to implement a public instrument approach
64 procedure over Elliott Bay to avoid over-flight of residential areas;
- 65 C. To implement close-in departure procedures for North departures;
- 66 D. To investigate the viability of undertaking a Part 161 Study for Stage 2 jets;
- 67 E. To upgrade flight tracking and noise monitoring program (fly quiet program);
- 68 F. To maintain the existing curfew on nighttime engine run-ups;
- 69 G. To conduct a site selection and feasibility study for a ground run-up enclosure;
- 70 H. To establish building design/placement standards to reduce off-airport noise
71 effects from aircraft movements on the ground;
- 72 I. To provide for a variety of sound attenuation for single-family residential,
73 schools and public building, purchase of aviation easements and sales transaction
74 assistance in the 65 and 70 DNL contours;
- 75 J. To insulate schools and public buildings; and
- 76 K. To investigate voluntary purchase of homes with the 70 DNL using program
77 that are not available through federal programs, and

78 WHEREAS, the strategic advisory committee recommendations are parallel with
79 the county executive's recommendations with the exception of a capital improvement
80 project for a north field sound wall, and

81 WHEREAS, the county executive's and strategic advisory committee's
82 recommendations are in compliance with county council direction to develop a noise
83 reduction work plan; and

Motion

84 WHEREAS, the county council recognizes that the study’s recommendations
85 predict an increase in the overall noise levels from King County International Airport
86 operations, and

87 WHEREAS, the county council supports continued efforts to reduce noise levels
88 from King County International Airport operations;

89 NOW, THEREFORE, BE IT MOVED, by the Council of King County:

90 A. The King County International Airport Federal Aviation Regulation Part 150
91 Noise and Land Use Compatibility Study, and county executive’s recommendations be
92 adopted;

93 B. The King County International Airport/Boeing Field Noise Compatibility
94 Program be implemented;

95 C. The county council strongly supports the importance of protecting existing
96 jobs, creating new family-wage jobs, strengthening our economy, and seeking prosperity.
97 The county council urges that all persons implementing the recommendations of this
98 motion do so in such a way as to keep attention on the goals of protecting jobs, creating
99 jobs, strengthening our economy, and seeking prosperity; and

100

Motion

100 D. The airport shall develop and accept Federal grants for program
101 implementation.

102 BE IT FURTHER MOVED, that the document entitled, "SPEEA Concerns and
103 Recommendations for Part 150 Noise Study Recommendations", dated October 8, 2002,
104 be added as attachment B to the motion and referred to the Study Advisory Committee
105 for consideration and possible adoption as a minority report. The Study Advisory
106 Committee is also requested to review the concerns raised in the attachment for
107 substantive issues that may result in modifications to the part 150 recommendations and
108 to report back to the county council within sixty days with the results of its review
109 including any such modifications that it recommends.

110

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

ATTEST:

Motion

Attachments

A. King County International Airport Part 150 Noise Study Binder, B. SPEEA Concerns and Recommendations for Part 150 Noise Study Recommendations, dated October 8, 2002



**METROPOLITAN KING COUNTY COUNCIL
LABOR, OPERATIONS AND TECHNOLOGY COMMITTEE**

Revised STAFF REPORT

AGENDA ITEM: 6

DATE: October 8, 2002

PROPOSED NO: 2002-0337

PREPARED BY: Mike Alvine

SUBJECT: A MOTION to adopt the King County International Airport's Federal Aviation Regulation Part 150 Noise and Land Use Compatibility Study; and to accept and allocate federal government grants for implementing study recommended program and projects.

Labor, Operations and Technology Committee Meeting - October 8, 2002

At its October 8, 2002 meeting, the LOT committee took public comment on the subject motion and approved five amendments. One amendment sent a document (Attachment 1) containing concerns raised by the Society of Professional Engineering Employees in Aerospace (SPEEA) back to the Study Advisory Committee (SAC) to be considered for adoption as a minority report and to be considered for substantive issues that could result in modifications to the Part 150 recommendations. The SAC is to report back to the council within 60 days. The committee forwarded the motion to the full council with a do pass recommendation. There were five ayes, no nos and no excused.

SUMMARY:

Overview – The Part 150 study and recommendations contained in the subject legislation are the product of long history of concern and response by citizens, elected officials, County staff, airport interests and regulators. The most immediate link to the present body of work is Council motion 10565 (Attachment 4) that laid out an extensive menu of possible noise reduction actions, and directed the Executive to examine the feasibility of each action, and pursue as many as possible. One of the items on the list was a Part 150 study. It was understood at the time of passage that the study would be one of the major actions that could reduce noise in the long term.

Given the discordant starting point of the study, it is remarkable to find the current degree of consensus that has developed. It reflects the hard work, good will and respect the

Study Advisory Committee (SAC) members displayed in the process, excellent communication between SAC members and their constituents, the solid grounding in facts and analysis that airport staff, the consultant and the FAA consistently provided, and it reflects a balancing of interests arrived at by affected communities and airport interests. Having made these observations, there remain some differences between interest groups and this report will attempt to briefly characterize the perspectives.

Staff Report Organization – For ease of review, the Executive recommendations are provided verbatim, followed by short staff comments. Council and airport staff are available to answer questions in more detail, or on a more technical basis. With one exception, the Executive concurred with the SAC recommendations. The exception (noise wall) will be discussed later in this document.

Next Steps – If adopted by Council, the Part 150 recommendations and background materials will be forwarded to the Federal Aviation Administration for review and approval. The FAA can accept, reject or modify recommendations, and may act within 180 days. The airport has already begun implementation of actions that do not require FAA approval, such as the Fly Quiet pilot education program. Other actions require not only FAA approval, but funding. The noise insulation program is an example can be very expensive, but the FAA will pay up to 90 percent of the costs.

COUNTY EXECUTIVE RECOMMENDATIONS

Noise Exposure Map Contours

The aircraft-generated noise contours used to identify areas eligible for various mitigation programs are the Future Base Case Noise Contours. These contours represent the aircraft activity forecast for the next five years and include the assumption that the Airport Master Plan will be adopted, and the proposed runway shift implemented. Although there are several recommendations that will reduce the size of the noise contours if they are implemented, the Future Base Case contours reflect the largest number of structures eligible for noise mitigation programs, thus providing various options to the largest number of people. The following table presents the number of people, the number of residential units and other noise sensitive structures within the King County International Airport Future Base Case noise contours, that will be the Future Noise Exposure Map.

Table 1
EXISTING LAND USE WITHIN FUTURE NOISE EXPOSURE MAP CONTOURS, 2006
King County International Airport FAR Part 150 Study

Land Use	DNL 55	DNL 60	DNL 65**	DNL 70**	DNL 75**
	Contour	Contour	Contour	Contour	Contour
Residential*	NA Ac	NA Ac	459 Ac	66 Ac	0 Ac

People	50,807		15,594		4,255		672		0	
House. Units	20,490		6,484		1,882		328		0	
Schools	NA		NA		1		0		0	
Historical Sites	NA		NA		2		2		0	
Fire Stations	NA		NA		2		2		1	
Com/Retail	NA	Ac	NA	Ac	186	Ac	83	Ac	2	Ac
Manufacture	NA	Ac	NA	Ac	863	Ac	322	Ac	79	Ac
Other	NA	Ac	NA	Ac	1,357	Ac	689	Ac	418	Ac
Total	17,100	Ac	6,833	Ac	2,865	Ac	1,160	Ac	499	Ac

*Based on FAA Part 150 Land Use Compatibility Guidelines, residential land uses and schools are considered compatible with sound attenuation. Cleveland School is within the Future KCIA 65 DNL noise contour.

**It should also be noted that only those non-compatible land uses within the 65 and greater DNL contours are eligible for FAA funding participation.

The total figures for each contour are cumulative. The figures for the larger contours contain the area -within all smaller contours.
SOURCE: Aerial Photography, 2000 Census Data, Field Survey, BDC Analysis

The following recommendations are ordered in the priority established by the SAC: first make all of the feasible operational changes, to assure that operators are doing what they can to reduce noise, given the economic and regulatory environment; next, make as many airport facility changes as possible to abate noise impacts; and only then work on adjustments by residents (such as home insulation programs).

Operational Recommendations

RECOMMENDATION ONE: Develop combined noise contour with Sea-Tac Airport.

COMMENT: A combined noise contour will allow mitigation programs to be extended to residents who are impacted by both Sea-Tac Airport and KCIA but who would not be eligible for mitigation programs under either airport's contours alone.

Action:

- No action required, contours have been developed.

Timeframe:

- Completed.

Cost:

- No additional cost.

Staff Comment: This was an innovative approach, very new at the national level. It is more realistic and recognizes the cumulative impact on resident of proximity to two airports. It remains to be seen how costs to remedy will be shared with the Port of Seattle as more homes are eligible for mitigation. Unanimous recommendation by SAC.

RECOMMENDATION TWO: Implement a public instrument approach procedure with an Elliot Bay ground track to avoid over-flight of residential areas.

COMMENT: The implementation of an alternative instrumentation system for approaches from the north would enable aircraft to approach over Elliott Bay and avoid over-flights of residential areas, especially Magnolia. This would have negligible effect on the size of the 65 DNL but it would provide substantial relief from single-event flyovers to the residential areas avoided by use of the alternative instrumentation approach and would be especially effective in reducing noise intrusion during nighttime hours.

In order to accomplish this goal, utilize technology such as the offset localizer directional aid (LDA) and/or become a site for pilot program use of technology being tested by FAA.

Action:

- Meet with the FAA regarding instituting program, (LDA approach and/or KCIA pilot project at a minimum)
- Formal Motion from County Council supporting program
- Utilize a Technical Committee, including pilots and FBOs, to help move program forward by supporting the efforts made with FAA.

Timeframe:

- Shall initiate the discussions and dialog with FAA concerning such an approach immediately upon submittal of the Noise Program to the FAA. Implementation of the approach will depend upon FAA developing and publishing such an approach, purchasing of equipment, aircraft instrumentation and testing. This is not contingent upon other Recommendations.

Cost:

- No additional Cost to initiate the discussion with FAA. Purchase and implementation of ground equipment could be close to \$1 million.
- Appropriation in place if Transponder Landing System can be used.

Staff Comment: There is a small error in the wording of the recommendation. It should read “published instrument approach” not “public instrument approach”. An amendment will be prepared to remedy the wording. Various technologies are undergoing testing by the FAA at this time. Boeing and the SPEEA members have been very helpful in urging the FAA to evaluate and certify promising technologies. This was a unanimous recommendation by SAC.

RECOMMENDATION THREE: Implement Close-in departure procedure for North departures.

COMMENT: This Recommendation would reduce the number of people within the 65 and greater DNL noise contours north of the Airport. The FAA has approved specific Close-in Noise Abatement Departure Procedures for all aircraft types over 75,000 pounds and each aircraft operator has such a procedure for their specific aircraft types. The Airport Sponsor can request that each operator utilize this

particular procedure when departing north from King County International Airport. FAA has previously approved the procedures for specific aircraft types, but will require some airspace review to ensure safety.

Action:

- Prepare request for FAA Airspace review and continue dialog with the Agency to ensure timely completion of review.
- Write request letters to users to implement close-in departure procedure (voluntary) for each type of aircraft they fly. Work with the FBOs and pilots to explain the reasoning behind the request.
- Formal Motion from County Council

Timeframe:

- Can initiate immediately upon approval; approximately six months to fully implement after approval by the FAA. Airport users will have to notify pilots and modify procedure manuals.

Cost:

- No additional cost other than direct notification to users of the Airport and publication in Airman's Manuals. A Noise Abatement Brochure explaining the Recommendations will be prepared as part of the Part 150 Study implementation.

Staff Comment: It is very helpful to have FAA approval of this action, however, like most operational actions in the study, individual pilots must choose to use it. Weather, safety and other specific circumstances come into play. Unanimous recommendation by SAC.

RECOMMENDATION FOUR: Implement ban on Stage 2 jets at night.

COMMENT: This Recommendation can reduce the night impacts of noise levels associated with the louder, older Stage 2 business jet aircraft. These aircraft are most intrusive during the nighttime hours, and this Recommendation would result in eliminating their use during those hours. However, the implementation of this Recommendation would require an additional study to be prepared and approved by the FAA. FAA approval of Recommendation Four would result in the required additional study being eligible for Federal funding.

Action:

- Prepare FAR Part 161 Study
- Formal Motion from County Council
- Airport select consultant, prepare scope of work, submit grant application to the FAA
- Accept Grant from the FAA or prepare Study without FAA funding

Timeframe:

- FAA funding contingent upon approval of Recommendation in the Part 150 Study, approximately 9 months from submittal of Part 150 Study to approval. Consultant selection, scope preparation and grant application submittal would take approximately six months.

- Without FAA funding, can initiate process using County funding which will require a special appropriation
- Study preparation approximately two to three years

Cost:

- Approximately \$850,000 plus \$500,000 legal fees (based on experience of Naples, Florida)
- FAA could grant 90% of Study costs, local share 10%

Staff Comment: This is a very difficult and expensive recommendation to implement. Of the 21 Part 161 studies completed in recent years, only one recommendation has been partially approved by the FAA. Studies typically cost \$300,000 to \$400,000 to complete, followed by about \$700,000 in legal fees to defend against airport users who would be restricted.

The consultant and SAC found that if the FAA did approve such a restriction for KCIA, one to two flights per night would be restricted. It would not affect the air cargo flights that wake so many residents. This was not a unanimous recommendation by the SAC. The minority felt that the restriction would harm future business activity at KCIA.

RECOMMENDATION FIVE: Upgrade flight tracking and noise monitoring program (Fly Quiet Program) to achieve voluntary compliance and accountability with noise program. The Fly Quiet Program will consist of several distinct features: Operator Education Program, a Pilot's Incentive Program and Advanced Technology to Improve Noise Monitoring and Reporting.

COMMENT: This Recommendation includes upgrading the existing noise monitoring system to support voluntary Fly Quiet procedures, providing accountability in evaluating the success of the Program and conducting public outreach so that improvements can be made to the recommended noise abatement programs and procedures. The Fly Quiet Program advances the existing noise monitoring system from a reporting/investigative system into a compliance/reward monitoring system.

Flight track and other operational changes are difficult to achieve without sufficient data to analyze compliance with best flight procedures for noise abatement. Introduction of interactive flight tracking system equipment for use at community meetings and as part of an operator education program are important technological features of this Recommendation. An improved aircraft identification system is critical to track operators who do not fly the preferred procedures.

Action:

- Define program objectives and evaluation measures, timelines, equipment specifications, and potential technical services required to accomplish program objectives.
- Procure equipment and software for enhanced noise incident and flight track monitoring. This includes converting existing portable monitors and computer hardware, update software and Web capabilities.

- Analyze strategic sites for new permanent monitors that are located to validate the accuracy of noise modeling and also placed in various communities to assess accountability of noise abatement procedures.
- Utilize Technical Resource Working Group to assist refining flight procedures to compliment Fly Quiet Program.
- Engage pilots in discussion and training about best flight practices and methods to encourage pilots adopting Fly Quiet flight procedures such as increase use of Charted Visual Path, use of close-in departure procedure, avoidance of residential areas, etc.
- Obtain FAA Airspace review of voluntary procedures
- Promote incentives for pilot compliance with voluntary procedures
- Produce Fly Quiet program collateral materials and manuals for distribution to pilots and FBOs
- Publish Fly Quiet Program elements in Airman's Manual, Web site, etc.
- Use data to engage pilot involvement (ongoing).
- Conduct public outreach about Fly Quiet Program implementation to neighborhood communities.

Timeframe:

- Approximately one year to acquire equipment and become operational.
- Voluntary procedures can be implemented immediately upon approval and design of the program.
- FAA airspace review could take approximately 7 months
- Produce collateral materials and add to Web site upon development of the Program through the Technical Resource Working Group. Fly Quiet Program development could take approximately six months to accomplish using the Working Group.
- Publish Fly Quiet flight procedures in Airman's Manual, which takes approximately four months

Cost:

- Total cost would range from \$150,000 to \$400,000.
- The minimum estimate for consultant time and equipment includes: conversion of four portable monitors to permanent monitors at \$19,000 each; interactive public presentation/education software and projector at \$10,000; \$6,000 for printed operator education materials; \$24,000 for design and development of virtual pilot information materials for Web site; compatibility conversion of Sea-Tac software at \$6000; replacement of obsolete flight recorder, ancillary software and hardware, installation and training at \$20,000; development of Web pages with capacity for publication of Noise Office TAMIS reports on Web site at \$4,400.

Staff Comment: Multiple strategies and additional technology are being used to implement what may be the most effective recommendation in the study. Unanimous recommendation by SAC.

RECOMMENDATION SIX: Maintain existing curfew on nighttime engine run-ups.

COMMENT: The Airport has an existing nighttime curfew for engine run-ups. This reduces the ground generated noise intrusion to nearby residences during critical nighttime hours. It is recommended that the curfew be maintained as it is currently written.

A minority of SAC Members has recommended the Airport use engine specifications as an alternative approach to this night curfew. Under this proposal, run-ups would be allowed by aircraft with engines whose specifications describe noise levels below a certain level. However, the Airport is not currently equipped to enforce this variable approach to a curfew. This could be investigated and reconsidered in the Airport's next Part 150 Study.

Action:

- No Action required

Timeframe:

- In place currently

Cost:

- No additional cost

Staff Comment: A majority of the SAC supported this recommendation, but a minority objected. The minority preferred that any restrictions be based on noise levels, not a blanket ban. They also feared that such pressure could result in lost business opportunities.

Facility Recommendations

The following Recommendations are intended to reduce ground generated noise intrusion to noise sensitive uses through the appropriate and creative use of on-airport facilities or buildings.

RECOMMENDATION SEVEN: Conduct site selection and feasibility study for Ground Run-up Enclosure (GRE).

COMMENT: The SAC evaluated the noise reduction potential associated with a Ground Run-up Enclosure and determined that significant noise reduction could be achieved through the use of such a facility. The amount of reduction is dependent upon the number and type of run-ups conducted on the Airport. Because the Boeing Company provides the largest group of aircraft of the most homogeneous type, the number and type of run-ups that could be effectively mitigated varies with the specific aircraft program that the Boeing Company is undertaking. Based on the existing uses on Airport property, it is difficult to determine a feasible site for such a facility at this time. Therefore, it is recommended that a more detailed site selection and feasibility study be undertaken.

If a Ground Run-up Enclosure is sited and constructed, this facility would be more effective in mitigating noise impacts than a noise wall would; therefore, this Recommendation replaces the noise wall recommendation made by SAC.

Action:

- Draft Request for Proposals

- Hire consultant to conduct study
- Submit Grant application to FAA for funding (90%)

Timeframe:

- Approximately 9-12 months to complete the study after consultant has been selected

Cost:

- Approximately \$100,000

Staff Comment: A GRE facility has been built in Portland and is viewed as very effective. This was a unanimous recommendation by SAC.

RECOMMENDATION EIGHT: Establish building design/placement standards to reduce off-airport noise effects from aircraft movements on the ground.

COMMENT: Proper placement and design of future landside facilities can be useful in reducing ground generated noise intrusion to adjacent residences. Proper acoustical treatment and placement of buildings can act as barriers to sound transmission, and such considerations should be incorporated, if feasible, in future landside development.

Action:

- Develop Request for Proposals
- Hire consultant to develop building/placement standards to reduce off-airport noise
- Identify design and noise standards for new or remodeled construction

Timeframe:

- Approximately 6-9 months to complete the study after consultant selection

Cost:

- Approximately \$80,000

Staff Comment: This was one of a number of ideas that originated with the SAC. In this case it was again Boeing SPEEA engineers who provided the insight. Unanimous recommendation by SAC.

Land Use/Administrative Recommendations

The following Recommendations do not reduce the size of the noise contours but are intended to address the noise sensitive uses that would remain within the noise contours.

RECOMMENDATION NINE A: Provide a variety of options for people living in the 65 and 70 DNL KCIA contours, including purchase of avigation (noise) easements, sound attenuation and sales transaction assistance.

COMMENT: Even if all feasible noise abatement measures are implemented, there will still be residences within the significant noise contours associated with aircraft operations occurring at the Airport. As such, there are several land use options that can be offered to residents in an effort to reduce inside noise levels or provide some type of relief. The following options are intended to be voluntary at the option of the homeowner.

Action:

- Prepare Request for Proposals to provide technical assistance and implement the avigation easement, sound attenuation and sales transaction assistance programs
- Prepare FAA Grant application
- Hire consultant
- Create policy and procedures manual and obtain FAA approval
- Develop priority system as it applies to actual structures
- Notify eligible homeowners of options
- Implement programs

Timeframe:

- After FAA approval, program could start in 2004

Costs:

- If all eligible structures take advantage of programs, could be \$56 million for all housing units within the 65 and greater contours. If just the 70 DNL contour is attenuated, then projected costs are \$10 million (2001 dollars)
- FAA funding eligibility of \$5 million per year
- Budget one new (FTE) employee to manage program

Staff Comment: This recommendation combines several discrete recommendations of the SAC. A majority supported a home sale transaction assistance program for those who wanted to move away from airport noise. (An avigation easement would then be placed on the home to limit future liability by KCIA.) A minority opposed home sales assistance as it would still allow new residents to move in and be affected by noise.

Regarding avigation easements, a majority of the SAC supported them (at 65 DNL and above) for owner-occupied residences only. A minority opposed them since people would still be able to live in the noise-impacted homes.

Sound attenuation was unanimously recommended for homes in the 65 DNL and above.

Recommendation Nine B: Provide variety of options for people living in the 65 and 70 DNL combined KCIA/Sea-Tac contours including purchase of avigation (noise) easements, sound attenuation and sales transaction assistance.

COMMENT: The Study Committee recommended that sound attenuation of single-family residences (FAA definition of 4-plex or smaller) and schools are a shared first priority, with multi-family attenuation second. These are the same options presented for the KCIA noise contours but would be extended to include residents living in the combined contours that are not within either the KCIA or Sea-Tac individual contours. This Recommendation would provide relief to those residents

that are not currently eligible under existing noise programs or existing FAA Policy. The intent of this Recommendation is to implement within the KCIA contours first and then address those noise sensitive uses within the Combined Contours. This would ensure that the residents closest to the airport, in the loudest noise contours, would be provided assistance first.

Action:

- Meet with FAA and Port of Seattle representatives to develop criteria, guidelines and standards for implementing the avigation easement, sound attenuation and sales transaction assistance programs in the combined contours
- Work with FAA and Port of Seattle representatives to design program
- Adoption of Intergovernmental Agreement between County and Port of Seattle
- Meet with FAA to determine funding ratio for such properties and which airport would be the Sponsor of the funds
- Utilize KCIA and Port of Seattle consultant services to implement and perform the combined work
- Create policy and procedures manual for implementation of the programs
- Develop a priority system addressing the loudest contours first
- Notify eligible homeowners of options
- Implement programs

Timeframe:

- After FAA approval, program could start in early 2004

Costs:

- If all eligible structures in the combined contours take advantage of program, cost could be \$67 million
- FAA funding limitations unknown, funding ratio unknown. The Port of Seattle receives FAA funding for such programs on an 80 percent/20 percent ratio, with the Port being responsible for 20 percent of the overall project cost and 80 percent being eligible for FAA participation. King County International Airport is eligible to receive such funds based on a 90 percent/10 percent ratio, with the County being responsible for 10 percent and 90 percent being eligible for FAA participation. The FAA has no policy addressing how to provide funds for homes affected by noise contours generated from two separate airports with different funding ratios. Additionally, the FAA would have to rule on which airport actually received the funds and was therefore responsible for the sound attenuation program. In addition, security issues may impact funding.

Staff Comment: SAC recommendations were the same as stated above for Nine A.

Recommendation Ten: Insulate schools and public buildings in the KCIA and combined contours. Sound attenuation of schools and single-family residences (FAA definition of 4-plex or smaller) are a shared first priority, with multi-family

attenuation second after schools and single-family residences have been attenuated. Sleeping portions of fire stations are last priority.

COMMENT: This Recommendation is similar to the previous Recommendation that addressed these uses and structures within the KCIA contours only. This Recommendation applies to the combined contours. Subsequent to the completion of these programs inside the KCIA contours, then they should be extended to the combined contours. This Recommendation raises the same funding issues as the sound attenuation of residences within the combined contours.

Action:

- Meet with FAA, schools and Port of Seattle representatives to develop criteria, guidelines and standards for implementing the programs in the combined contours
- Work with FAA and Port of Seattle representatives to identify program boundaries
- Formal Resolution and Intergovernmental Agreement between County, Port of Seattle, jurisdictions and schools
- Meet with FAA to determine funding ratio for such properties and which airport would be the Sponsor of the funds
- Hire consultant or utilize experienced Port of Seattle personnel to manage and perform the work
- Create policy and procedures manual for implementation of the programs
- Develop a priority system addressing loudest contours first
- Notify jurisdictions of eligible structures
- Implement programs

Timeframe:

- After FAA approval, program could start in 2005 or 2006, after all work within the KCIA contours has been completed. This is also consistent with the timeframe that the school district has identified for its remodeling efforts.

Costs:

- If all eligible structures take advantage of program, could be \$20 million
- FAA funding limitations unknown, funding ratio unknown. The Port of Seattle receives FAA funding for such programs on an 80 percent/20 percent ratio, with the Port being responsible for 20 percent of the overall project cost and 80 percent being eligible for FAA participation. King County International Airport is eligible to receive such funds based on a 90 percent/10 percent ratio, with the County being responsible for 10 percent and 90 percent being eligible for FAA participation. The FAA has no policy addressing how to provide funds for homes affected by noise contours generated from two separate airports with different funding ratios. Additionally, the FAA would have to rule on which airport should receive the funds and hold responsibility for the sound attenuation program. Security issues could impact funding.
- If KCIA only, funding of 90% by FAA and 10% by County

Staff Comment: Unanimous support from SAC. Three school would qualify using the combined noise contours.

Recommendation Eleven: Investigate alternatives for voluntary purchase of homes within the 70 DNL contour using programs that are not available through the federal government.

COMMENT: All of the recommended programs and procedural changes within the 65 DNL contour and greater will leave areas of residential use inside the 70 DNL contour. Given the normal requirement that homes be brought up to building codes at the time of insulating, it's possible that some of the older homes cannot be sufficiently mitigated at a typical cost to reduce the noise levels to a range compatible with residential use under FAA guidelines (i.e., attain a level of no more than 45 dB inside the home). A mandatory purchase program applied to entire neighborhoods would require residents to leave who are not troubled by the noise level and do not wish to live in other areas of the City. A voluntary program funded by the FAA could lead to degradation of the remaining neighborhoods because FAA funding requires either maintaining the purchased site in a cleared, unused state or changing the land use, both of which lead to neighborhood deterioration. On the other hand, it was felt that some relief should be provided to those who currently reside in an area of such high noise levels, if the residents would like relief that would not lead to neighborhood deterioration.

Action:

- Prepare Request for Proposals for a consultant to evaluate possible programs to achieve an acceptable voluntary purchase program.
- Hire consultant
- Work with affected City to develop guidelines for alternative uses of land
- Create policy and procedures manual for such a program
- Develop priority system as it applies to actual structures
- Notify eligible homeowners of options
- Implement programs

Timeframe:

- Approximately 12-18 months to complete the study

Costs:

- Approximately \$50,000 for the study

Staff Comment: A majority of the SAC supported this recommendation to explore non-federal funding because of the degrading effect on neighborhoods of "holes" from demolished homes. A minority felt that no home buyout should be offered for any DNL level.

Missing SAC Recommendation: Construct a noise wall or barrier at the north end of the airfield.

Staff Comment: The Executive believes that construction of a Ground Run-up Enclosure would eliminate the need for such a barrier. The consultant found that once a plane is in flight, the barrier has no effect. A majority of the SAC supported the recommendation. A minority felt that the wall would be ineffective and take away scarce airport land that could be used to create jobs and economic benefits.

Additional background material – The large study binder has extensive background and analytical information, however, the document that has been of most use to me has been the SAC report. It synthesizes technical information from the consultant, airport staff and FAA with community concerns.

ATTENDING:

Gary Molyneaux, Planning Manager, King County International Airport, DOT
Sharyn Parker, Senior Noise Officer, King County International Airport, DOT
Jim Combs, Chair, Study Advisory Committee, Part 150 Study

ATTACHMENTS:

1. SPEEA Recommendations
2. Motion 2002-0337 with binder
3. Study Advisory Committee Report, Dated March 7, 2002
4. Motion 10565 (Noise Reduction Work Plan) approved Oct. 12, 1998
5. Noise Reduction Work Plan – Review Checklist
6. Financial Plan for Part 150 Budgeting

Appendix Eight

Record of Approval for King County International Airport Recommendations



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

October 15, 2002

Motion 11600

RECEIVED

FEB - 6 2003

Barnard Dunkelberg

Proposed No. 2002-0337.3

Sponsors Phillips

1 A MOTION to adopt the King County International
2 Airport's Federal Aviation Regulation Part 150 Noise and
3 Land Use Compatibility Study; and to accept and allocate
4 federal government grants for implementing study
5 recommended program and projects.

6
7
8 WHEREAS, King County International Airport (KCIA) was designated by the
9 National Air Transportation Association as one of America's "100 Most Needed" airports
10 in January 2001 because of its strategic proximity to competitive markets nationally and
11 globally, and

12 WHEREAS, KCIA is a vital general aviation resource within the regional and
13 national airport system that enhances the productivity of King County businesses through
14 the speed and flexibility which air transportation offers in a fast-paced global economy,
15 and

16 WHEREAS, KCIA is a major employer and contributor to the regional economy,
17 with an impact in excess of \$1 billion annually. Employment attributable to KCIA

18 businesses include thousands of engineers, machinists, and other professionals who
19 contribute significantly to the state and regional economies, and

20 WHEREAS, It is essential to the well being of the entire community that aviation
21 industry operations be welcomed and supported by public policy and, at the same time,
22 that every effort is made to address the noise impacts on residents due to operations at
23 KCIA, and

24 WHEREAS, KCIA, commonly known as "Boeing Field," serves The Boeing
25 Company and its employees as a delivery or flight test center for the 737, 747, 757, 767
26 and its newest 777 model aircraft, and is also a potential site for testing new generations
27 of aircraft, and

28 WHEREAS, KCIA aviation companies and Federal Aviation Administration are
29 researching an innovative air navigation concept called Required Navigation
30 Performance (RNP) that will significantly increase efficiency in the airways and allow
31 airplanes to more precisely fly noise abatement paths, and

32 WHEREAS, KCIA tenants will participate in the Fly Quiet Program that includes
33 pilot education and incentive programs which will improve flight performance and
34 reduce noise, and

35 WHEREAS, it is a high priority of King County to demonstrate the feasibility and
36 appropriate siting of a Ground Run-up enclosure (hush house) because of its potential to
37 enhance efficient aircraft testing while securing aviation related jobs and reducing noise
38 for residents of Georgetown and Beacon Hill, and

39 WHEREAS, KCIA, through an FAA-funded sound insulation program for homes,
40 schools, and public buildings, will reduce the effect of noise on a large number of people
41 living and working near the airport, and

42 WHEREAS, KCIA tenants have been cooperative and support the
43 recommendations as being consistent with the promotion of aviation jobs while being
44 “good neighbors to the community,” and

45 WHEREAS, in 1995 the King County council adopted Motion 9709 to request the
46 county executive to develop night noise restrictions at King County International Airport,
47 and

48 WHEREAS, in July 1997 the county council established the King County
49 International Airport roundtable advisory committee, including community members to
50 advise on the development of master plans and noise studies, and

51 WHEREAS, in October 1998 the county council adopted a noise reduction work
52 pan to guide the airport’s Federal Aviation Regulation Part 150 Noise and Land Use
53 Compatibility Study, and

54 WHEREAS, King County International Airport initiated the Part 150 in June
55 1999 and expanded the Roundtable to include local jurisdictions, Puget Sound Regional
56 Council, Sea-Tac International Airport and Federal Aviation Administration members as
57 part of a study advisory committee, and

58 WHEREAS, the study advisory committee completed its work in January 2002
59 and the county executive’s report was completed in July 2002, and

60 WHEREAS, the study and county executive’s recommendations are:

61 A. To develop combined noise contours with Sea-Tac International Airport;

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- ✓ B. The airport is to work with the appropriate federal agencies, local jurisdictions, tenants, and community to implement a public instrument approach procedure over Elliott Bay to avoid over-flight of residential areas;
- ✓ C. To implement close-in departure procedures for North departures;
- ✓ D. To investigate the viability of undertaking a Part 161 Study for Stage 2 jets;
- ✓ E. To upgrade flight tracking and noise monitoring program (fly quiet program);
- ✓ F. To maintain the existing curfew on nighttime engine run-ups;
- ✓ G. To conduct a site selection and feasibility study for a ground run-up enclosure;
- ✓ H. To establish building design/placement standards to reduce off-airport noise effects from aircraft movements on the ground;
- ✓ I. To provide for a variety of sound attenuation for single-family residential, schools and public building, purchase of avigation easements and sales transaction assistance in the 65 and 70 DNL contours;
- ✓ J. To insulate schools and public buildings; and
- K. To investigate voluntary purchase of homes with the 70 DNL using program that are not available through federal programs, and

} COMPLIANCE

WHEREAS, the study advisory committee recommendations are parallel with the county executive's recommendations with the exception of a capital improvement project for a north field sound wall, and

WHEREAS, the county executive's and study advisory committee's recommendations are in compliance with county council direction to develop a noise reduction work plan; and

34 WHEREAS, the county council recognizes that the study's recommendations
85 predict an increase in the overall noise levels from King County International Airport
86 operations, and

87 WHEREAS, the county council supports continued efforts to reduce noise levels
88 from King County International Airport operations;

89 NOW, THEREFORE, BE IT MOVED, by the Council of King County:

90 A. The King County International Airport Federal Aviation Regulation Part 150
91 Noise and Land Use Compatibility Study, and county executive's recommendations be
92 adopted;

93 B. The King County International Airport/Boeing Field Noise Compatibility
94 Program be implemented;

95 C. The county council strongly supports the importance of protecting existing
96 jobs, creating new family-wage jobs, strengthening our economy, and seeking prosperity.
97 The county council urges that all persons implementing the recommendations of this
98 motion do so in such a way as to keep attention on the goals of protecting jobs, creating
99 jobs, strengthening our economy, and seeking prosperity; and

100 D. The airport shall develop and accept Federal grants for program
101 implementation.

102 BE IT FURTHER MOVED, that the document entitled, "SPEEA Concerns and
103 Recommendations for Part 150 Noise Study Recommendations," dated October 8, 2002,
104 be added as attachment B to the motion and referred to the Study Advisory Committee
105 for consideration and possible adoption as a minority report. The Study Advisory
106 Committee is also requested to review the concerns raised in the attachment for

Motion 11600

.07 substantive issues that may result in modifications to the part 150 recommendations and
108 to report back to the county council within sixty days with the results of its review
109 including any such modifications that it recommends.
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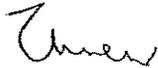
Motion 11600 was introduced on 7/29/2002 and passed as amended by the Metropolitan King County Council on 10/14/2002, by the following vote:

Yes: 12 - Ms. Sullivan, Ms. Edmonds, Mr. von Reichbauer, Ms. Lambert, Mr. Phillips, Mr. Pelz, Mr. McKenna, Mr. Constantine, Mr. Pullen, Mr. Gossett, Ms. Hague and Ms. Patterson
No: 0
Excused: 1 - Mr. Irons

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON


Cynthia Sullivan, Chair

ATTEST:



Anne Noris, Clerk of the Council

Attachments A. King County International Airport Part 150 Noise Study Binder, B. SPEEA Concerns and Recommendations for Part 150 Noise Study Recommendations, dated October 8, 2002

**Attachment A. Available in
the Clerk's Office.**

**Attachment B
Dated October 8, 2002**

**Society of Professional Engineering Employees in Aerospace
Concerns and Recommendations for Part 150 Noise Study Recommendations**

While SPEEA leadership and members endorse the majority of the Executive's recommendations, they are strongly opposed to four recommendations. It is SPEEA's view that these recommendations are likely to have a subtle but very negative effect on The Boeing Company and give further impetus to moving family-wage jobs out of the Puget Sound area. The comments below state SPEEA's concerns and recommendations. Overall, SPEEA recommends that these items be referred back to the Study Advisory Committee (SAC) for further review, study and reconsideration, prior to Council action.

EXECUTIVE RECOMMENDATION FOUR: Implement ban on Stage 2 jets at night.

Just to clarify what is under consideration, this recommendation needs to be restated to clarify that it relates to business jets below 75,000 pounds. It should also refer to "stage two-type" technology since there is technically no classification of stage two business jet.

Comments/Observations

- A Part 161 study to attempt to implement such a restriction at Boeing Field would be expensive, costing from \$1-2 million, take a long time and have virtually no chance of succeeding.
- In the last 20 attempts to put similar bans in effect at airports in other communities, none have been approved by the FAA and one part of one study was partially implemented by court order based on a grandfathered ordinance not applicable at KCLIA.
- Any such attempt will be viewed in the aviation and business community as an anti-aviation attitude and have a negative impact on future plans to attract business, particularly given the reality that Boeing is moving significant activity out of this area.
- In the very unlikely event that a 161 would be successful, only one or two flights per night would be banned.
- As the major tenant at King County International Airport (KCLIA), The Boeing Company would end up providing the majority of funding for an expensive, useless study, taking valuable funding away from much needed airport improvements that benefit all aviation interests. Limited cash flow has forced the airport to bond for capital improvements in recent years, where this practice was never needed in the past.

SPEEA Recommendation: Delete Recommendation Four

EXECUTIVE RECOMMENDATION SIX: Maintain existing curfew on nighttime engine run-ups.

Comments/Observations

- Running of engines at moderate levels above idle is often required for maintenance, new airplane delivery and testing purposes. The economic impacts of restricting this activity hurts the economic competitiveness of The Boeing Company and other aviation interests. It is essential to what we do.
- King County ARFF officers have in the past issued noise citations to The Boeing Company and caused managers to issue restrictive internal procedures that limit engine run-ups and cause inefficiencies in operations.
- The Boeing Company is reluctant to admit that “voluntary restrictions” do affect flight test operations since they want to be a good neighbor and minimize community impacts. The unfortunate outcome may be to move flight test operations to a less densely populated area, depriving this region of much needed jobs.
- Noise levels of engines have dropped considerably over the last few years and are continuing to drop.
- Technology now exists to establish the amount of noise levels at any distance and direction from any site on Boeing Field for any power setting.

SPEEA Recommendation: Allow engine run-ups at night based on specific “reasonable” noise levels that have minimal community impacts. Work with KCIA to quantify “reasonable” noise levels.

EXECUTIVE RECOMMENDATION NINE A: Provide a variety of options for people living in the 65 and 70 DNL KCIA contours, including purchase of avigation (noise) easements, sound attenuation and sales transaction assistance. [This recommendation is intended to prioritize residents who are within the KCIA noise contours only for early/first implementation.]

EXECUTIVE RECOMMENDATION NINE B: Provide variety of options for people living in the 65 and 70 DNL combined KCIA/Sea-Tac contours including purchase of avigation (noise) easements, sound attenuation and sales transaction assistance. [This recommendation is intended to address residences in the combined SeaTac/KCIA noise contours after those in the KCIA contours.]

Comments/Observations

- SPEEA is in agreement to insulate for noise between 65 and 70db contours.
- A clear understanding of what the recommendation means should be broken down to address such questions as:
 - What is to be done about noise above 70DNL?
 - What is the financial exposure to the County and airport users to insulate/purchase avigation easements/provide sales assistance for residences built after 1998? These residences are specifically excluded from FAA funding for any required noise remedy, so the County is assuming an unusual obligation.
 - What is the true number of resident owners?
 - What formal surveys (anonymous, confidential and statistically valid) have been conducted to find out the true preference of the residents and owners for the various options? Many residents would like to sell out, but are afraid to say so in public meetings.

- What constitutes “neighborhood disruption”, per FAA definition?
 - What are the overall economic impacts on the County of the alternative land use options (including possible economic benefits for industrial use)?
- The costs of these actions in Georgetown will also be borne by the tenants at Boeing Field.
 - The business tenants at Boeing Field (including KCIA) are already under severe financial pressure from the effects of Federal restrictions imposed after 9/11.
 - Thousands of SPEEA members’ jobs will be affected by whatever the County recommends to the FAA for their approval. SPEEA hopes an attempt to answer these questions will be made before the County approves the recommendations.

SPEEA Recommendation: Send these two recommendations back to the SAC, airport staff and the consultant to answer the questions so that more informed recommendations can be made.

EXECUTIVE RECOMMENDATION TWO: Implement a public [published] instrument approach procedure with an Elliot Bay ground track to avoid over-flight of residential areas.

Overview/Discussion

SPEEA supports this recommendation, but would like to see it go further. The FAA is steadfastly refusing to approve a Boeing Field visual approach that approximates the SeaTac Elliot Bay visual over water, instead of over neighborhoods. The SeaTac approach has a cloud base limit of 3,100 feet, while the Boeing Field visual approach is 5000 feet. Given Seattle’s inclement weather, this means SeaTac planes can approach over water, while Boeing Field traffic is forced onto the ILS at ~2,200 feet over Magnolia. The FAA’s actions create a constant effort for SeaTac to take over Boeing Field for traffic control purposes and by doing so they want to impose restrictions on Boeing for the benefit of SeaTac. Luckily, a few years ago SPEEA was able to keep SeaTac from such a takeover, which would have been a large threat to SPEEA members jobs.

Furthermore, certified “off-the-shelf” technology (for instance, TLS) now exists that could cut the residential noise pattern of most commercial airports by up to 90 percent. There is a mention of TLS in the report. However, the FAA has been very slow to approve this technology. The national FAA expert on this system resides and works in our community. It is time that knowledgeable County airport officials hear what he has to say. Boeing has a technology that is likely the most important advancement in aviation in the past 40 years and it is certifiable if only the FAA would not be so reticent to change. An internal-to-Boeing announcement of this was made recently about technology that could achieve an Elliott Bay approach and solve noise problems at other

airports in the U.S.¹ The County needs a briefing on this. Jobs will be created in King County if the first applications of these technologies occurs at Boeing Field. This is an unusual opportunity that should not be missed.

SPEEA Recommendation: Add the following sentences to recommendation two: "County elected officials will work with their counterparts at the City of Seattle, State of Washington and Congress to send a joint letter to the FAA urging their prompt but thorough review and certification of new technologies that can provide alternative flight paths that reduce noise on residential neighborhoods. In addition, lowering of the minimums and FAA approach control procedures to accommodate Boeing Field's needs must also be addressed."

Conclusion

There are other communities who are actively courting The Boeing Company to get family-wage jobs. The company's move to Chicago was a very strong statement that they view themselves as an international company. This also implies that they are becoming less of a Washington State, Puget Sound and King County company. Our workers compete against foreign countries to keep our jobs. As a community, King County must recognize that it too must compete to keep the facilities and the jobs.

The current environment makes it easier to take aerospace jobs out of King County, and for The Boeing Company to entertain potential "suitors". On a daily basis, SPEEA members are aware of this. Major decisions on off-loading our work to other communities are now being made in Chicago. Bottom line, SPEEA doesn't want to see Boeing leave, and neither does the County.

¹ The Boeing Company's 737 Technology Demonstrator Wins Award: Our Demonstrator (YD501) been chosen to receive a "2002 Best of What's New Award" from Popular Science magazine in the Aviation and Space Category. Each year the publication reviews thousands of products and selects just 100 winners in 10 categories. To win, a product or technology must represent a significant step forward in its category. A statuette will commemorate the achievement, to be publicly announced in November.

King County Meeting Proceedings

Labor, Operations and Technology

October 8, 2002

Proposed Motion No. 2002-0337

A MOTION to adopt the King County International Airport's Federal Aviation Regulation Part 150 Noise and Land Use Compatibility Study; and to accept and allocate federal governments grants for implementing study recommended program and projects.

Mike Alvine, Council Staff, briefed the committee and reviewed the proposed amendments: Motion No. 2002-0337 if adopted would forward recommendations to the Federal Aviation Administration regarding operations at Boeing Field / King County International Airport. It contains a series of operational actions as well as land use actions such as insulation to reduce noise in surrounding communities. We did consider this Motion at our September 26th meeting, and even though it was very popular, I'm not going to read my staff report again.

I will cover two paragraphs to update member on what happened at that meeting. Public testimony was taken at that meeting, and while many of the competing interest groups support the Executive recommendations, it became clear the public testimony that Society of Professional Engineer Employees in Aerospace (SPEEA) strongly disagreed with four recommendations. Their concerns are articulated in Attachment One of the Staff Report. I did work with SPEEA members to put on paper their specific concerns as well as recommendations they would have. Fundamentally they are requesting that that some of the recommendations be returned back to the Study Advisory Committee for reconsideration.

We now have four amendments.

Mr. Chair opened the floor to public questions for Mr. Alvine.

Mr. Pullen thanked Mr. Alvine and the rest of his committee for all their hard work.

Mr. Constantine:

I guess I would observe as just a point of philosophy on this that this is not a zero sum game. I think the committee who forwarded these recommendations to the county recognizes that there are ways that we can accomplish important goals for the communities the neighbors in the flight path and also enhance the business climate at the airport. We need through these actions and through our future actions to continue to pursue those goals, those twin goals. Would folks in the audience like to get up and say a word?

The following people appeared before the committee to offer public comment: Daniel B. Hartley, SPEEA Representative, Study Advisory Committee, Part 150 Study Bill Dugovich, Communications Director, SPEEA

Dan Hartley:

The process that we have gone through on this – and I have been meeting with the noise people at the airport - for six years I believe it is now.

Mr. Chair asks Dan to introduce himself and his affiliation. Dan Hartley, SPEEA representative on the airport Roundtable and the noise study advisory committee. SPEEA has 19 to 20,000 members and we make our job by doing the engineering on the Boeing airplanes and different kinds of things like that.

Dan Harley continues:

A number of things have changed at the airport since we started this process. At that time the airport was a direct responsibility under the county executive, and then it was moved into the Department of Transportation and there has been several things that have happened and have changed it considerably. Technology has changed, because when we started this thing we had the go-go aerospace industry of selling every airplane we could make, we hadn't had 9/11 [terrorism attacks], and we hadn't had the economic downturns that have occurred since then. The stock of Boeing has gone from something like \$71 to \$32 and there are lots of pressures on us. We have lost in the course of this time about 10,000 engineers.

Let me tell you how that translates, in WWII, at the height of Boeing's production during WWII, there were 1,100 engineers at Boeing. We are taking it left and right. We are seeing what is happening around the world and we also clearly understand that King County has the largest aerospace base in the whole of our earth. We are in a very critical position here. Boeing have talked with varies people in governments and the county for the last ten years has started talking about the kinds of problems of chasing jobs and we are seeing that those are not idle threats. Frankly it alarms me, and I think most people in our Union that we don't have an office in government that we can identify anyone as being concerned with the economics of what we face and the effects of it on our government and our whole area. We contrast that to what we run into in other cities and regional areas, for example Dallas / Fort Worth, around our own country and also what's happening to our government subsidized competitors, not only in Europe with Airbus, but also in Brazil's Embra Air, and Canada's Bombardier. Both of which make airplanes, are offering on airplanes markets that are competitive with 737's. We see that right now we still have a structure here that can support back filling for the Boeing jobs. We also know there are other programs that Boeing is working on that would be very difficult for them to move from here. But there are also some that are on the edge. We are concerned because the thing the really keep Boeing here, the hardest thing for them to come by is the airports and the factories and the way they are located at this time. This report is not something that stands in a vacuum; it's stands in relation to what happening in our community, our country and the world. That has been forced on us in the last four years. We are quite concerned about these four issues you all

have in your report. We are not trying to force our opinions and our desires or grievances on someone else. What we are asking for is a fair, honest, open discussion on these issues, we think that you deserve it, everyone of you, and we think that your constituents deserve it. We think there are ways we can cut noise at the same time keep our economic competitiveness base here. We don't see this in this report, you have to understand that we engineers are pencil-necked geeks - were nerds. Some things that might not satisfy someone else or they might be willing to glaze over it we'll sit there and look at them because that's our bread and butter. Everyday we have to work really hard on what we do and there are lots of trade-offs. Our issues have not been address in this report in these four major areas, what we want is a fair treatment, an honest treatment, the good and the bad and we want that to be incorporated.

Council member Pullen asks:

I do think it is important that County officials who are concerned about economic issues coordinate closely with you and there are two people I'm going to suggest you get in touch with. One is George Northcroft, Deputy Chief of Staff in charge of Business Affairs, and Ray Mossure who's Manager of the Economic Development Program. Both of those people are one's you certainly should be coordinating with in addition to the one's that are here today and the audience. The other comment I had is that I also share your concern about the importance of having at least some attention on economic development, jobs, protecting existing jobs, continuing to seek prosperity. I do have a draft amendment, which I will distribute now. I haven't decided for sure whether to offer it, I might look some feedback from the Chair of the committee and other members of the committee. It simply makes a generic statement that we on the County Council are concerned about creating new jobs, protecting existing jobs and strengthening our economy and seeking prosperity. I just think that if we had a generic statement in here, that the County Council believes in that, and that those implementing the programs should keep those goals in mind whenever possible. I believe that would be constructive. I'll pass out copies of the amendment in case any of the people in the audience wanted to refer to it or know it might be coming.

Mr. Constantine announces that Mr. McKenna is present, and explained that he has an interest in this as well.

Dan Hartley:

I have meet with George Northcroft on many occasions; I'm going to guess a half a dozen or ten meetings - something like that. We've talked about the issue, and he's trying to get a grip on this issue - he's a very capable individual. I have a high regard for him. But, there are a lot of things he has to have. He needs to be supportive and encouraged and that is a step in the right direction. I think the thing that's missing is that we have to have more of a sense of urgency because these things are hitting us daily now. The other gentleman I have (Mr. Mossure) have been in meetings when he has been there, but we have not had [inaudible], so thank you Councilman Pullen.

Mr. Constantine offers Bill Dugovich a chance to speak.

Bill Dugovich, Communications director at SPEEA:

I am here on behalf of the organization and I am also a resident in council member Pullen's district. I wanted to thank the council and particularly the committee members for the extra effort that they certainly and obviously put into this issue. As Dan said we are very concerned about the loss of jobs, not only in our membership, but in our communities. In the last year alone there have been 3,000 engineers and technical workers – because we do represent more than just engineers, who have lost their jobs in the Puget Sound region. 3,000 jobs, 3,000 families, probably 9,000 people directly affected by the loss of jobs. These jobs aren't just going away from our community to another state they are going out of the country in many instances. So this is a real concern of our organization that restrictions, undo restrictions not be placed on King County Airport that would the Boeing Company one more reason or one more rational to move something out of the area. We do understand and do appreciate the fact that our concerns must be weighted against the Counties, the community of Georgetown and the other businesses in the area and we thank the council members and we trust that this process will work for everyone.

Return to order and the presentation of five amendments for proposed Motion No. 2002-0337. Some required some attention before presenting to the group.

Council member Hague:

Yes Mr. Chair would offer a de-pass recommendation on 2002-0337 and offer some amendments as well.

Mr. Constantine indicates that the motion was moved and seconded. It is requested that Mr. Alvine present Amendment #1, and then the council will look for a Motion on it.

Mr. Alvine:

Mr. Chair Amendment #1 can be found on hand-numbered page 85 of your packet. It's an amendment, Mr. Chair, you're offering and what it does is list a series of findings that the council and the executive made that help frame the discussion. There was a concern that the motion as stated did not really reflect some of the important economic activities that are out there. Recognizing the family wage jobs, the industries, and then balancing that of course against the interests of citizens to have some peace in their neighborhood. There is series of findings, 10 findings, and I have been advised by the clerk's office that the correct form for this rather than findings would be in the form of "where as." So, each one would start, for instance, the first one would read "Where as King County International Airport" and so on. This is a fairly straightforward amendment Mr. Chair.

Mr. Constantine as council member Hague if he could move that, and then they would accept a friendly amendment. It was so moved and seconded.

Mr. Constantine calls on himself:

We thought it was important to emphasize this, Mr. Alvine said the importance of the economic activity that takes place around King County International Airport / Boeing Field. And that (economic activity) should be always in the forefront of our minds as we are working to reconcile the different interests around that very important facility. If there is no further discussion, all those in favor say I.

Amendment #1 was unanimously adopted.

Mr. Alvine:

Amendment #2 Mr. Chair on hand-numbered page 87 is offered by yourself and council member Mr. Phillips. It reads "Where as the County Council recognizes that the studies recommendations predict an increase in the overall noise level from KCIA operations, and where as the County Council supports continued efforts to reduce noise levels from the KCIA operations." The effect of this, Mr. Chair is to address the fact that at least in the short term this study actually predicts noise to go up. Now the communities find that distressing, they would like to see the County commit itself to ongoing levels of effort to reduce noise beyond the status quo that we are at today. So, this amendment does commit the County to continue to explore options that would reduce the absolute level of noise in neighborhoods.

It was so moved to adopt Amendment #2. It was moved and seconded. Mr. Constantine goes on to say:

This (amendment) was brought to us by a citizen from Magnolia who is very articulate about the impact of noise on the neighborhoods. I and council member Phillips, thought that it was a very good point that the committee that brought these recommendations to us recognizes the short-term reality that noise levels may not be able to be decreased. It is never-the-less the goal of this county that we reduce noise levels in ways that are compatible with economic activity and that help promote healthy neighborhoods throughout the region. I think this is good language and I ask for your acceptance of it. All those in favor please say I.

Amendment # 2 is adopted.

Mr. Alvine explains that Amendment #3 is a technical amendment.

Council member Hague offers technical Amendment #3; it is moved and seconded. Amendment #3 is adopted unanimously.

Mr. Alvine:

Amendment #4 is offered by yourself Mr. Chair. On page 4, line 55, insert the following: "be it further moved that Attachment A to this amendment be added as Attachment B to the Motion, and referred to the Study Advisory Committee for consideration and possible adoption as a minority report. The Study Advisory Committee is also requested to review the concerns raised in the attachment for substitute issues that result in modifications to the Part 150 recommendations." Now that is the basis amendment Mr. Chair that you've offered. Mr. McKenna has added just before the period of the last sentence of this amendment, "and to report back to the County Council, get the results of this review including, to report back to the county within sixty days the results of review, including any such modifications that it recommends."

Council member Hague moves on Amendment #4, and it is so moved and seconded. Amendment #4 is adopted unanimously.

Council member Hague offers Amendment #5 it is so moved and seconded.

Mr. Alvine presents the content of Amendment #5, which supports a focus on economic growth, and the protection of jobs in this community as it relates to Motion No. 2002-0337.

Amendment #5 is adopted unanimously.

Clerk calls role.

Appendix Nine

Public Comment Responses



**King County
International Airport
Boeing Field**

Memorandum

February 22, 2005

TO: Cayla Morgan, FAA
FR: Gary Molyneaux, KCIA
RE: Supplemental Part 150 Materials – Public Hearing Comment/Response Update

Attached are the additional requested materials in support of the Airport's Part 150 Noise and Land Use Compatibility Study which was submitted to the FAA for review. Three additional written comments were identified in the public record.

**King County Part 150 Noise and Land Use Compatibility Study
Public Hearings Comment/Response**

The following Comment/Response is provided for inclusion in the KCIA documentation. The following Comment/Response refers to the Recommendation(s) that addresses the issue or issues raised during the public hearing which was conducted as part of the King County Council Part 150 adoption process.

**September 16, 2002, King County Council, Committee of the Whole -
Public Hearing**

Comment from Betty and Bill Eidle:

"Please include these comments as part of the public testimony in support of the Proposed Motion...I am addressing the recommendation to implement a public instrument approach procedure over Elliott Bay to avoid over-flights of residential areas."

Response to Betty and Bill Eidle:

The following adopted Part 150 program recommendations respond to the comment:

- Recommendation 2 – The Airport is to work with the Appropriate Federal Agencies, Local Jurisdictions, Tenants, and Community to Implement a Public Instrument Approach Procedure over Elliot Bay to avoid Over-Flight of Residential Areas
- Recommendation 3 –Implement Close-In Departure Procedure for North Departures
- Recommendation 5 – Upgrade Flight Tracking and Noise Monitoring Program – Fly Quite Program

**Comment from Meredith Van Ry and Carol Vincent, Co-Chairs, Southwest District
Council**

"Currently neither SeaTac Airport nor Boeing Field has a "hush house" specifically designed for the testing of aircraft engines following their maintenance, and this has created an unnecessary and growing impact on residential areas....There is substantial noise impact on West Seattle.... This impact needs to be studied and addressed."

Response to Meredith Van Ry and Carol Vincent, Co-Chairs, Southwest District Council

The following adopted Part 150 program recommendations respond to the comment:

- Recommendation 2 – The Airport is to work with the Appropriate Federal Agencies, Local Jurisdictions, Tenants, and Community to Implement a Public Instrument Approach Procedure over Elliot Bay to avoid Over-Flight of Residential Areas
- Recommendation 3 –Implement Close-In Departure Procedure for North Departures
- Recommendation 4 – Investigate the Viability of Undertaking a Part 161 Study for Stage 2 Jets and Maintain the Existing Curfew on Nighttime Engine Run-ups
- Recommendation 5 – Upgrade Flight Tracking and Noise Monitoring Program – Fly Quite Program
- Recommendation 6 – Conduct a Site Selection and Feasibility Study for Ground Run-up Enclosure (GRE – Hush House))
- Recommendation 8 - Provide a Variety of Sound Attenuation for Single-Family Residential, Schools and Public Buildings, Purchase of Avigation Easements and Sales Transaction Assistance in the 65 and 70 DNL Contours

Comment from Linda S. Cox, Fautleroy Community Association and Southwest District Council

“I urge the Council to adopt all the recommendations of the FAR 150 Study and particularly The Fly Quiet Program. The Council must direct KCIA to act aggressively on the issue of voluntary compliance by pilots.”

Response to Linda S. Cox, Fautleroy Community Association and Southwest District Council

The following adopted Part 150 program recommendations respond to the comment:

- Recommendation 2 – The Airport is to work with the Appropriate Federal Agencies, Local Jurisdictions, Tenants, and Community to Implement a Public Instrument Approach Procedure over Elliot Bay to avoid Over-Flight of Residential Areas
- Recommendation 3 –Implement Close-In Departure Procedure for North Departures
- Recommendation 5 – Upgrade Flight Tracking and Noise Monitoring Program – Fly Quite Program
- Sales Transaction Assistance in the 65 and 70 DNL Contours
- The final County Council motion to adopt the Part 150 recommendations is amended to recognize continued efforts to reduce noise levels from KCIA operations