

Late Night Noise Limitation Program Overview

Sea-Tac Stakeholder Advisory Roundtable, April 24

Late Night Noise Limitation Program Overview

- Focus on operations between the hours of 12am to 5am
- SEL noise thresholds established at 4 noise monitors locations for departures and arrivals
- Website reporting on operations that exceeded the thresholds will occur on a regular basis
- Airlines that have exceeded thresholds will be notified

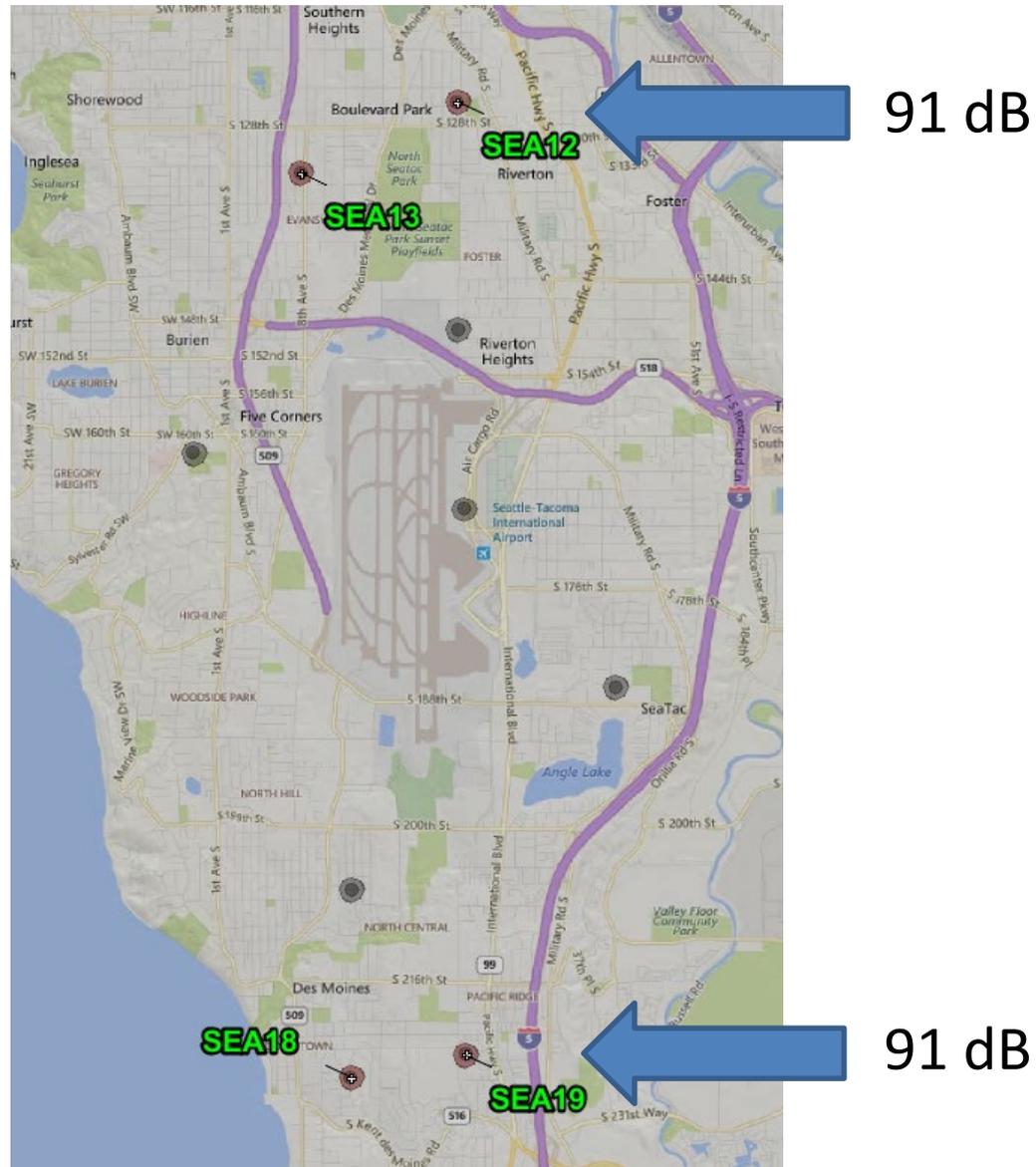
Late Night Noise Limitation Program Overview (cont.)

- Operations that exceed the thresholds will negatively effect the airline's Fly Quiet Award score
- All airlines will be briefed on the program and encouraged to limit late night operations or change to quieter aircraft

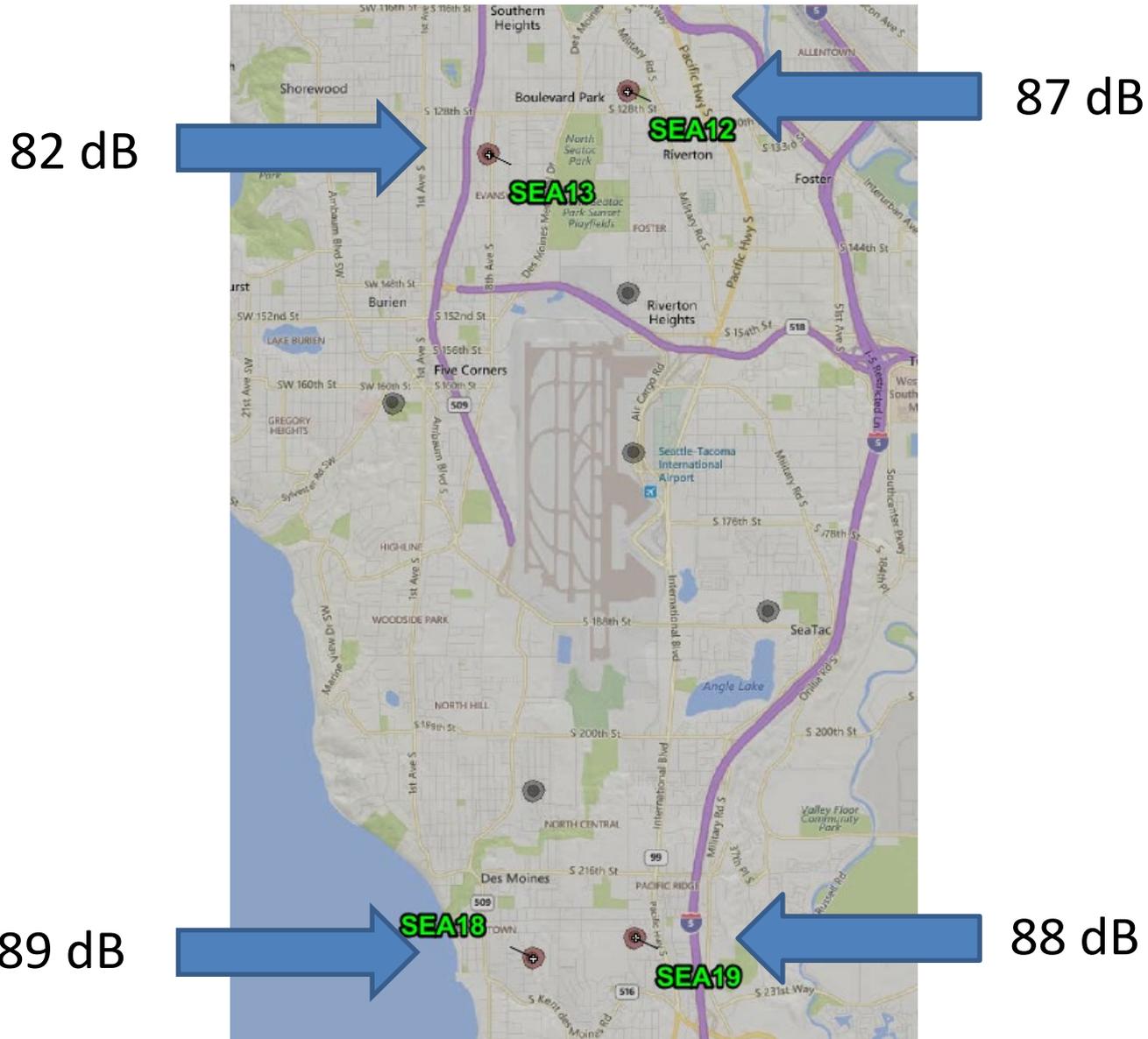
SEL Noise Metric

- Sound Exposure Level
- Single noise event metric
- Represents total sound energy from a noise event
- Measured in decibels

Departure Noise Thresholds



Arrival Noise Thresholds



January & February 2019 Sample Reports

- First draft of reports that are intended to be placed on the Port's website when program begins
- Noise thresholds may be adjusted as more data is studied

Late Night Departure Noise at Monitor 12*

*Departing aircraft that exceeded 91 dB SEL for January 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
EVA Air 025	777-300ER	1/1	92.3
EVA Air 025	777-300ER	1/8	91.8
China Airlines Cargo 5261	747-400	1/8	97.3
EVA Air 025	777-300ER	1/13	92.2
EVA Air 025	777-300ER	1/14	93.7
Asiana Airlines Cargo 2819	747-400	1/14	98.5
EVA Air 025	777-300ER	1/21	92.0
EVA Air 025	777-300ER	1/26	92.8
EVA Air 025	777-300ER	1/27	91.9
Cargolux 38	747-400	1/27	97.3

*Noise Monitor 12 is located north of the airport at South 126th Street in Buriem

Late Night Departure Noise at Monitor 12*

*Departing aircraft that exceeded 91 dB SEL for February 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
EVA Air	777-300ER	2/3	92.4
Asiana Airlines Cargo	747-400	2/5	95.4
China Airlines Cargo	747-400	2/5	93.1
Cargolux	747-400	2/5	92.4
China Airlines Cargo	747-400	2/14	96.7
EVA Air	777-300ER	2/21	91.6
Cargolux	747-8	2/21	95.1
China Airlines Cargo	747-400	2/27	96.4

*Noise Monitor 12 is located north of the airport at South 126th Street in Buriem

Late Night Arrival Noise at Monitor 12*

*Arriving aircraft that exceeded 88 dB SEL for January 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
FedEx 1885	MD11	1/3	89.5
FedEx 1885	MD11	1/4	92.7
Delta Airlines 112	757-300	1/4	88.8
FedEx 1885	MD11	1/5	91.0
Hawaiian Airlines 769	A330-200	1/6	89.0
FedEx 1885	MD11	1/9	90.8
Cargolux 38	747-8	1/10	89.9
FedEx 1885	MD11	1/10	91.9
FedEx 1885	MD11	1/11	88.7
FedEx 1885	MD11	1/12	90.6
FedEx 1885	MD11	1/15	89.9
Amerijet Intl. 420	767-300	1/16	89.6
FedEx 1885	MD11	1/16	88.7
FedEx 1885	MD11	1/18	91.6
FedEx 1885	MD11	1/19	91.8
Korean Air Cargo 233	747-8	1/19	88.3
FedEx 1885	MD11	1/22	88.8
FedEx 1885	MD11	1/23	90.3
FedEx 1885	MD11	1/24	89.7
FedEx 1885	MD11	1/25	88.0
Korean Air Cargo 233	747-8	1/26	88.3
Cargolux 38	747-8	1/31	88.0
FedEx 1885	MD11	1/31	88.4

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Late Night Arrival Noise at Monitor 12*

*Arriving aircraft that exceeded 88 dB SEL for February 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
FedEx	MD11	2/1	90.3
Asiana Airlines Cargo	747-400	2/2	93.1
Korean Air Cargo	747-8	2/2	88.9
FedEx	MD11	2/2	88.5
Asiana Airlines Cargo	747-400	2/6	88.6
FedEx	MD11	2/16	88.6
Cargolux	747-8	2/17	88.6
FedEx	MD11	2/22	88.7
Korean Air Cargo	747-8	2/23	89.5
FedEx	MD11	2/23	89.1

*Noise Monitor 12 is located north of the airport at South 126th Street in Burien

Above the Threshold by Aircraft Type

747 Departures – **33** out of **38** total

777 Departures – **40** out of **60** total

737 Departures – **1** out of **265** total

DC-9 Departures – **1** out of **1** total

747 Arrivals – **12** out of **36** total

MD11 Arrivals – **22** out of **43** total

A330 Arrivals – **1** out of **5** total

767 Arrivals – **1** out of **24** total

757 Arrivals – **1** out of **75** total

737 Arrivals – **5** out of **480** total

Only aircraft types that exceeded thresholds are shown

Airlines Included in Sample Data

- Eva Air – 40/59
- FedEx – 22/59
- China Air Cargo – 16/23
- Cargolux – 12/21
- Asiana Cargo – 8/12
- Alaska – 5/588
- Kallita Air – 2/2
- Korean Air Cargo – 4/17
- Delta – 1/190
- Sun Country – 1/1
- Hawaiian – 1/9
- Amerijet Intl' – 1/2
- USA Jet Airlines – 1/1

Departures or arrivals above the threshold / total ops

Status & Next Steps

- Have briefed airlines at AAAC and station manager meetings
- Upcoming cargo managers meeting
- Individual airline briefings about program as needed
- Develop refined reports for website
- Develop plan for communication to airlines that have exceeded thresholds

Questions?

Late Night Departure Noise at Monitor 19*

Departing aircraft that exceeded 91 dB SEL for January 2019

(sample report)

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
China Airlines Cargo 5261	747-400	1/1	98.1
EVA Air 025	777-300ER	1/2	92.5
China Airlines Cargo 5285	747-400	1/2	95.2
EVA Air 025	777-300ER	1/3	91.8
Cargolux 38	747-8	1/3	92.9
China Airlines Cargo 5235	747-400	1/4	95.1
EVA Air 025	777-300ER	1/5	92.1
China Airlines Cargo 5261	747-400	1/5	99.2
Kallita Air 366	747-400	1/5	96.8
Cargolux 38	747-400	1/6	94.1
Sun Country 694	737-800	1/6	91.4
EVA Air 025	777-300ER	1/7	91.8
EVA Air 025	777-300ER	1/9	92.7
China Airlines Cargo 5285	747-400	1/9	98.1
EVA Air 025	777-300ER	1/10	91.2
Cargolux 38	747-8	1/10	94.2
EVA Air 025	777-300ER	1/11	92.5
EVA Air 025	777-300ER	1/12	91.8
China Airlines Cargo 5261	747-400	1/12	97.6
China Airlines Cargo 5261	747-400	1/15	95.6
EVA Air 025	777-300ER	1/16	91.3

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
China Airlines Cargo 5285	747-400	1/16	98.3
EVA Air 025	777-300ER	1/17	91.9
Cargolux 38	747-8	1/17	93.8
EVA Air 025	777-300ER	1/18	91.4
EVA Air 025	777-300ER	1/19	91.5
EVA Air 025	777-300ER	1/20	92.3
EVA Air 025	777-300ER	1/22	91.7
China Airlines Cargo 5261	747-400	1/22	93.8
EVA Air 025	777-300ER	1/24	92.9
EVA Air 025	777-300ER	1/25	92.5
Kallita Air 962	747-400	1/26	94.4
China Airlines Cargo 5235	747-400	1/30	97.3
EVA Air 025	777-300ER	1/30	95.3
Asiana Airlines Cargo 561	747-400	1/30	92.7
EVA Air 025	777-300ER	1/31	95.8

*Noise Monitor 19 is located south of the airport at Midway Elementary in Des Moines

Late Night Departure Noise at Monitor 19*

*Departing aircraft that exceeded 91 dB SEL for February 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
EVA Air	777-300ER	2/1	91.1
EVA Air	777-300ER	2/2	93.3
China Airlines Cargo	747-400	2/2	95.9
Asiana Airlines Cargo	747-400	2/2	97.9
EVA Air	777-300ER	2/6	92.6
EVA Air	777-300ER	2/7	91.5
EVA Air	777-300ER	2/13	92.5
EVA Air	777-300ER	2/15	91.6
EVA Air	777-300ER	2/16	93.1
EVA Air	777-300ER	2/17	92.4
Cargolux	747-8	2/17	93.7
Asiana Airlines Cargo	747-400	2/18	98.3
EVA Air	777-300ER	2/18	93.0
EVA Air	777-300ER	2/19	93.0
EVA Air	777-300ER	2/22	91.5
USA Jet Airlines	DC-9-300	2/22	95.0
EVA Air	777-300ER	2/23	91.7
China Airlines Cargo	747-400	2/23	97.5
EVA Air	777-300ER	2/24	91.9
Cargolux	747-8	2/28	93.0

*Noise Monitor 19 is located south of the airport at Midway Elementary in Des Moines

Late Night Arrival Noise at Monitor 19*

*Arriving aircraft that exceeded 88 dB SEL for January 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
FedEx 1885	MD11	1/8	88.2
Asiana Airlines Cargo 2829	747-400	1/14	90.1
Cargolux 38	747-400	1/27	90.6
Asiana Airlines Cargo 2829	747-400	1/28	92.5

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Late Night Arrival Noise at Monitor 19*

*Arriving aircraft that exceeded 88 dB SEL for February 2019
(sample report)*

No aircraft exceeded limits

*Noise Monitor 19 is located south of the airport at Midway Elementary in Des Moines

Late Night Arrival Noise at Monitor 13*

*Arriving aircraft that exceeded 82 dB SEL for January 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
Alaska Airlines 447	737-900	1/6	83.3
Hawaiian Airlines 769	A330-200	1/6	82.2
Alaska Airlines 491	737-900	1/23	82.9

*Noise Monitor 13 is located north of the airport at Cedarhurst Elementary in Burien

Late Night Arrival Noise at Monitor 13*

*Arriving aircraft that exceeded 82 dB SEL for February 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
Alaska Airlines	737-900	2/12	82.1

*Noise Monitor 13 is located north of the airport at Cedarhurst Elementary in Burien

Late Night Arrival Noise at Monitor 18*

*Arriving aircraft that exceeded 89 dB SEL for January 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
Alaska Airlines 116	737-800	1/28	89.6

*Noise Monitor 18 is located south of the airport at 226th St South in Des Moines

Late Night Arrival Noise at Monitor 18*

*Arriving aircraft that exceeded 89 dB SEL for February 2019
(sample report)*

Airline & Flight	Aircraft Type	Date	SEL Noise Level (dB)
Alaska Airlines	737-900	2/4	90.4

*Noise Monitor 18 is located south of the airport at 226th St South in Des Moines