

October 12, 1998
clerk 10/13/98
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Introduced By:

Greg Nickels
Maggi Fimia
Larry Phillips
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Proposed No.:

98-514

MOTION NO. **10565**

1
2 A MOTION approving the executive's King County
3 International Airport Noise Reduction Work Plan, and
4 rescinding Motion 9709.
5

6 WHEREAS, on November 20, 1995, the King County Council adopted Motion
7 9709 regarding King County International Airport (KCIA), and

8 WHEREAS, King County Ordinances 13238 and 13237 established the policy basis
9 and procedures for the master plan process for KCIA, and

10 WHEREAS, King County Ordinance 13237 required the executive to submit a
11 Noise Reduction Work Plan for KCIA, and

12 WHEREAS, the executive has submitted a proposed Noise Reduction Work Plan
13 and the council has reviewed said Work Plan, which requires additional study and
14 environmental review, and

15 WHEREAS, the Noise Reduction Work Plan and the master plan environmental
16 review process now underway may identify possible environmental mitigation measures
17 which can be considered and adopted by the council in the future, and

1 WHEREAS, many of the plans, policies, or programs outlined in the Noise
2 Reduction Work Plan will require approval from the Federal Aviation Administration
3 (FAA) prior to implementation, and

4 WHEREAS, any action proposed as a result of the completion of the Noise
5 Reduction Work Plan will be subject to applicable federal and state review processes, and

6 WHEREAS, the council recognizes that there may be methods to reduce noise not
7 expressed in this Noise Reduction Work Plan, and it encourages the executive to pursue all
8 reasonable means to achieve meaningful noise reduction;

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

10 That the Council of King County approves the KCIA Noise Reduction Work Plan
11 (Attachment 1, hereto dated October 12, 1998) and KCIA Noise Reduction Work Plan
12 Project Task Timeline (Attachment 2, hereto dated October 9, 1998); and

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BE IT FURTHER MOVED:

That the Council of King County hereby rescinds Motion 9709. This motion does not in and of itself authorize a particular lease or sublease at KCIA.

PASSED by a vote of 12 to 0 this 12th day of October, 1998.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Louise Miller
Chair

ATTEST:

Janet Masus
Deputy Clerk of the Council

Attachments:

- 1. KCIA Noise Reduction Work Plan, dated October 12, 1998
- 2. KCIA Noise Reduction Work Plan Project Task Timeline, dated October 9, 1998

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Timeline ID	Goals and Narrative	Tasks and Descriptions
1	<p>CONDUCT PART 150 STUDY</p> <p><i>KCIA is beginning its Part 150 Noise Remedy and Land Use Compatibility Study in fall of 1998. Study time is expected to be 18-24 months and will produce noise exposure maps and a noise remedy program proposal to FAA.</i></p> <p><i>The study brings together all interested parties including tenants, operators, community representatives and neighboring jurisdictions to discuss operational changes and land use compatibility measures to help reduce noise impacts from the airport. There will be working groups participating for the length of the study, which will include standard study items such as noise monitoring to develop noise contours around the airport, evaluating airport procedures and approach/departure tracks, working with neighboring jurisdictions regarding land use compatibility, and evaluating a home insulation program and other structures to reduce noise. KCIA's study will also consider other remedies which are not typical for every Part 150 Study.</i></p> <p><i>A Part 150 Study requires that an advisory committee be established to help oversee the work.</i></p> <p><i>Airport management shall, by December 15th of each year, provide annual reports to the County Council on the status of the Noise Reduction Work Plan, and shall forward significant work products, when</i></p>	<ul style="list-style-type: none"> • Conduct Part 150 Study, which develops a program of noise abatement and land use compatibility measures • Study and evaluate noise reduction and abatement measures such as airport operational changes, flight track evaluation, home insulation and structures to reduce noise off-airport • Study and evaluate feasibility of pursuing Part 161 Study restrictions to further reduce noise • Submit maps and Part 150 Study to FAA • Roundtable members, airport users and other interested parties should be prepared to contact our Washington State Congressional delegation and the FAA to gain their support for KCIA's proposals • Airport staff work with Council staff to identify a list of significant work products

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	<i>completed, to the Chair of the Commerce, Trade and Economic Development Committee and any interested Councilmember.</i>	
3	<p>FAA-APPROVED STANDARD HOME INSULATION PROGRAM</p> <p><i>King County believes that residents adversely impacted by significant noise from KCLIA may mitigate that noise with a Home Insulation program similar to the FAA-approved home insulation program in place at the Port of Seattle. KCLIA will analyze a home insulation program through its upcoming Part 150 Noise Remedy Study. The study will include work to determine eligibility criteria and boundaries for communities nearer the airport and funding priorities within contours. KCLIA shall request that the FAA agree to pay its maximum share for such a program following the conclusion of the Part 150 Study.</i></p>	<ul style="list-style-type: none"> • Conduct Part 150 Study • Submit Home Insulation program to FAA • Subject to applicable state/federal environmental review, and subject to FAA approval and funding, initiate a program for insulation (no. of homes/month) • Apply for FAA funding
9	<p>ANALYSIS OF CAPITAL IMPROVEMENTS TO REDUCE NOISE</p>	<ul style="list-style-type: none"> • Research existing noise containment facilities and other engineering data to model the noise reduction benefits of such facilities
10	<p>NOISE CONTAINMENT FACILITY, SUCH AS A HUSH HOUSE</p> <p><i>KCLIA will begin work in 1998 to research and design a noise containment facility, such as a "hush house," at the airport to reduce noise from engine testing and maintenance for nearby residents in Georgetown and Beacon Hill, Tukwila, and West</i></p>	<ul style="list-style-type: none"> • Identify site • Develop design • Submit as part of Part 150 remedies package to FAA for its consideration • Recommend FAA support and funding • Subject to applicable state/federal

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Seattle, particularly at night. This research will include determining the users of such a facility, establishing parameters of use, identifying a site and determining the extent of noise reduction. The Part 150 Study, among other issues, shall study the science of such a structure and request FAA support and maximum funding of the noise containment facility. Construction of the structure could begin after the conclusion of the Part 150 Study and will be subject to applicable state/federal environmental review when a specific proposal is identified. The KCIA share of construction funds shall be appropriated from the Airport reserve account established for a noise containment facility, by a future vote of the King County Council.

environmental review, appropriate airport funds for construction

17, 22

NOISE WALL ON NORTH END, OTHER BERMS AND/OR BARRIERS AS APPROPRIATE

KCIA will gather community input from impacted residents on the need for and the desirability of building a wall/berm/barrier on Ellis Avenue, and gather their input on design for such noise wall/berm/barrier. When a specific proposal is identified it will be subject to applicable state/federal environmental review. Depending on the outcome of such review, King County Council will allocate funds for the approved facility. Additional berms or barriers will also be evaluated as part of the Part 150 Study.

- Submit to Part 150 Study
- Model noise reduction benefits
- Subject to applicable state/federal environmental review, propose a wall or other alternative to Council for authorization and funding; if sufficient benefits are shown, construct approved facility
- Seek FAA support and funding

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Timeline ID	Goals and Narrative	Tasks and Descriptions
27	<p>FLIGHT TRACKS</p> <p>EVALUATE INTEGRATION OF FLIGHT PATHS WITH SEA-TAC AIRPORT</p> <p><i>KCIA will work with Sea-Tac Airport and FAA to evaluate flight path changes which could reduce noise in residential areas. KCIA will work with the FAA to determine how Sea-Tac and KCIA flight paths may be integrated or altered. Roundtable members, airport users and other interested parties should be prepared to contact our Washington State Congressional delegation and the FAA to gain their support for such a proposal.</i></p>	<ul style="list-style-type: none"> • Collaborate with Sea-Tac and KCIA • Design, review, test and approval by FAA. • Subject to applicable state/federal environmental review, move flight paths as approved by FAA
28	<p>REQUEST FAA APPROVAL OF CHARTED VISUAL FLIGHT PATH</p> <p><i>KCIA has submitted to the FAA for review and approval a charted visual flight path for traffic over Elliott Bay. The intent is to gain approval of an Elliott Bay flight path for KCIA traffic when conditions allow a visual path. This path reduces noise impacts to Magnolia by routing traffic from the Instrument Landing System, which flies over Pier 91, to Elliott Bay. The flight path is currently being reviewed by the FAA. If it receives preliminary approval, a flight check will be scheduled, and the noise impacts on affected communities will be evaluated, including communities (e.g., West Seattle) that may experience significant adverse impacts from increased noise resulting from flight paths over</i></p>	<ul style="list-style-type: none"> • KCIA has developed charted visual path and submitted it to the FAA • FAA reviews flight path, schedules a flight check and approves it. • Subject to applicable state/federal environmental reviews, and if proposed modifications are approved, implement charted visual flight path

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	<p><i>Elliott Bay. If approved and adopted by FAA, KCIA will then develop airport policies to promote its use among KCIA tenants and operators. The County requests the FAA to focus its efforts on this issue. Roundtable members, airport users and other interested parties should be prepared to contact our Washington State Congressional delegation and the FAA to gain their support for KCIA's proposal.</i></p>	
36	<p>INCORPORATE USE OF FAA-APPROVED CHARTED VISUAL FLIGHT PATHS IN OPERATING AGREEMENTS</p> <p><i>KCIA will pursue commitments from operators and pilots to use the published charted visual flight path. If approved by FAA, KCIA will pursue operating agreements with tenants to reflect these commitments.</i></p>	<ul style="list-style-type: none"> • Discuss use of the charted visual flight path during Part 150 Study • Get commitment from operators • Negotiate new operating agreements with operators who commit to preferred use of published charted visual flight path if FAA approval is obtained
39	<p>PURSUE GPS OR ALTERNATIVE TECHNOLOGIES FOR INSTRUMENT LANDING OVER ELLIOTT BAY</p> <p><i>The current instrument landing system takes air traffic directly over Magnolia whenever it is in use. If approved by FAA, then KCIA will pursue acquisition of alternative navigational technologies such as a global positioning satellite (GPS) system which uses navigation by satellite to identify 'waypoints' (reference points) over the water for aircraft to follow. Using GPS or other alternative</i></p>	<ul style="list-style-type: none"> • Discuss use and impacts of instrument flight path with FAA, operators and communities • Submit proposal with Part 150 Noise Remedies Study • FAA evaluates, tests, approves • Subject to appropriate state/federal environmental review, KCIA purchases approved equipment

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	<p><i>technologies could create an instrument flight path over Elliott Bay rather than using reference points over land. This would reduce aircraft flights and noise over Magnolia, and will be evaluated during the Part 150 Study so that noise impacts can be modeled and discussed with affected communities, including communities (e.g., West Seattle) that may experience significant adverse impacts from increased noise resulting from flight paths over Elliott Bay. The recommendation for use of new over-the-water flight path technologies will be included in the noise remedies program. If approved by the FAA and subject to appropriate state/federal environmental review, King County will implement new flight paths. This may include capital purchase of GPS or other advanced navigational equipment. Roundtable members, airport users and other interested parties should be prepared to contact our Washington State Congressional delegation and the FAA to gain their support for KCIA's proposal.</i></p>	
43	<p>POLICY TO PROMOTE FLYING OVER NON-RESIDENTIAL AREAS</p> <p><i>KCIA will conduct educational meetings with and pursue commitments from pilots and operators to maximize use of noise abatement routes over non-residential areas. KCIA will seek FAA approval of the chartered visual flight path over Elliott Bay and future development of an instrument flight path over Elliott Bay.</i></p>	<ul style="list-style-type: none"> • Discuss use with operators, residents and FAA • Pursue a commitment by pilots and operators in the short term. In Part 150 Study, pursue mandatory use of this policy with the FAA for the long-term. Commitments will be included as part of a remedies program • Also pursue outside the Part 150

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46	<p>EVALUATE ALTERING ANGLE OF CLIMB AND DESCENT</p> <p><i>In the Part 150 Study, KCIA will evaluate altering departure and arrival procedures such as increasing the angle of climb and descent, as a way of reducing noise in residential areas. This measure will require testing by FAA and evaluation of community impacts. Roundtable members, airport users and other interested parties should be prepared to contact our Washington State Congressional delegation and the FAA to gain their support for KCIA's proposal.</i></p>	<p>Study as Elliott Bay flight paths are developed and link to operating agreements</p> <ul style="list-style-type: none">• Evaluate during Part 150 Study; model different noise impacts on the ground plus potential airspace conflicts with Sea-Tac• If feasible, submit to FAA as part of remedies package
50	<p>EXAMINATION OF A NON-STANDARD HOME INSULATION PROGRAM</p> <p><i>The Part 150 Study will include the examination of a program to insulate homes inordinately impacted by KCIA single event levels and/or nighttime noise. This will include the study of insulation for qualifying homes whereby homeowners and the government share the cost.</i></p>	<ul style="list-style-type: none">• Evaluate during Part 150 Study using noise contours developed during study• Analyze potential benefits• Develop cost estimate• Determine funding mechanism• Determine whether to proceed, based on feasibility and cost
58	<p>USE GROUND LEASES TO INFLUENCE OPERATIONS</p>	<ul style="list-style-type: none">• Review lease language with prosecuting attorney• Pursue commitments from operators with standing leases to include in
59	<p>INCORPORATE NOISE REDUCTION COMMITMENTS BY OPERATORS IN LONG-</p>	

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68	<p>TERM LEASES</p> <p><i>Leases signed after 7/1/98 shall include a provision to ensure that tenants abide by KCIA and FAA-approved noise abatement regulations applicable to KCIA. Every 5 years, these leases shall be reviewed for compliance with KCIA and FAA noise abatement regulations where authorized by law. KCIA shall move to void leases of tenants with a consistent pattern of non-compliance.</i></p> <p>REVIEW LANDING FEE SCHEDULE AND LEASE RATES</p> <p><i>KCIA will review landing fees and other revenue during the master planning process as part of the development of the financial plan. KCIA will evaluate the use of financial incentives to achieve compliance by pilots and operators with noise abatement procedures as examined in the Part 150 Study and approved by the FAA.</i></p>	<p>operating agreements attached to leases</p> <ul style="list-style-type: none">• Include FAA-approved noise rules and regulations into all operating agreements attached to leases signed after 7/1/98 <p>• Review fee schedule and rates during Master Planning process</p> <ul style="list-style-type: none">• Examine the use of fees as an incentive for noise abatement during Part 150 Study• Pursue FAA approval of an incentive program
72	<p>PLAN FOR GROWTH</p> <p>PURSUE NIGHTTIME CURFEW OR RESTRICTION ALTERNATIVES</p> <p><i>KCIA will pursue commitments from operators to cease or restrict nighttime operations and such nighttime curfews or restrictions will be examined in the Part 150 and Part 161 studies. Both negotiated and FAA-approved nighttime noise curfews or restrictions will be incorporated into operating agreements and reviewed at least every five years.</i></p>	<ul style="list-style-type: none">• Pursue curfew or restriction during Part 150 and Part 161 studies• Once curfew or restriction is negotiated with operators or agreed to by the FAA, it will be submitted as part of a remedies program• Individual operators who agree to curfew or restriction, will have such agreement incorporated into their operating agreements

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76	<p>STRATEGY TO KEEP NIGHTTIME FLIGHTS AWAY FROM RESIDENTIAL AREAS</p> <p><i>KCIA will continue to pursue this in conjunction with items no. 32, 36, 39, 43 and 59, all of which deal with moving flight paths away from residential areas and securing operator compliance. In the Part 150 study, KCIA will pursue commitments by pilots and operators to minimize flights over residential areas at night and will also review flight tracks as part of the Part 150 Study. Proposed flight track revisions would be submitted for FAA evaluation, testing and approval. Commitments by operators and pilots will be incorporated into operating agreements.</i></p>	<ul style="list-style-type: none">• Pursue commitments to use non-residential flight paths at night• Work with FAA to review any other possible flight track changes or flight approach/departure procedures for noise abatement purposes• Submit feasible proposals in a noise remedies package
82	<p>PROMOTE QUIET FLYING</p>	<ul style="list-style-type: none">• Runway shift impact evaluated through the master planning process and EIS
83	<p>SEEK COMMITMENTS BY PILOTS AND OPERATORS ON USE OF 10,000 FOOT RUNWAY</p> <p><i>Within its authority, KCIA will 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.</i></p>	<ul style="list-style-type: none">• Enact written agreements with operators to restrict full runway use when conditions permit
89	<p>ENACT "QUIET FLYING" PILOT/OPERATOR EDUCATION PROGRAMS</p> <p><i>King County will pursue commitments from all</i></p>	<ul style="list-style-type: none">• Pursue in Part 150 Study with operators• Develop policies supporting quiet-flying programs at KCIA

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94	<p>airport users to participate in this noise abatement program. KCLIA will pursue this in conjunction with other quiet-flying actions discussed in work plan items no. 32, 36, 39, 43, 46, 73 and any other item where noise abatement on the ground is explored.</p>	<ul style="list-style-type: none">• Add tenant program review to operating agreements
95	<p>CONTROL GROUND NOISE</p> <p>MAINTAIN A NIGHTTIME ENGINE RUN-UP CURFEW</p> <p><i>KCLIA shall maintain its nighttime run-up curfew in its Conceptual Master Plan. It shall be reviewed during the Part 150 Study with operators and nearby community residents.</i></p>	<ul style="list-style-type: none">• Review during Part 150 Study• Identify approved run-up areas for aircraft• Include compliance in operating agreements
99	<p>LIMIT DAYTIME MAINTENANCE AND RUNUPS TO CERTAIN AREAS</p> <p><i>KCLIA will designate a daytime engine run-up area in coordination with the planning of a noise containment facility, such as a hush house, as part of the current Master Plan update process. The designated area(s) will be reviewed again during the Part 150 Study for best use and operator compliance will be included in operating agreements.</i></p>	<ul style="list-style-type: none">• Complete proposal in master planning process• Review in Part 150 Study• Submit area(s) and policy for compliance in remedies program
105	<p>NOISE MONITORING</p>	<ul style="list-style-type: none">• Finalize placement of permanent monitors and rotation system for portable monitors
106	<p>MONITOR NOISE IMPACTS WITH NOISE MONITORS AND FLIGHT TRACKING</p>	<ul style="list-style-type: none">• Receive approval from FAA to add flight tracking

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	<p><i>KCIA currently has a portable noise monitoring system in place. Permanent monitor locations and the addition of flight tracking will be completed in 1998. If flight tracking is not installed in 1998, the Executive shall report to the Council in writing when it will be completed. The combination of permanent and portable monitors will allow noise data to be regularly collected and compared from a variety of areas around the airport and under flight paths. Flight tracking will show where aircraft flew, altitude and identification. This information will come from FAA radar to: help identify aircraft and their flight tracks, thereby reducing the number of complaints that cannot be traced to specific flights; differentiate KCIA traffic from Sea-Tac traffic; help with compliance when noise abatement flight corridors and policies are established.</i></p> <p><i>This is being done outside the Part 150 Study, and will provide new data and resources for effective use in the Part 150 Study.</i></p>	<ul style="list-style-type: none"> • Upgrade existing system • Portable noise monitors shall be used to test noise levels at the following schools during 1999: <ul style="list-style-type: none"> Tukwila School District Foster High School Showalter Middle School Tukwila Elementary Thorndyke Elementary Seattle School District Cleveland High School Van Asselt Elementary Wing Luke Elementary Maple Elementary School
110	<p><i>Test noise levels at eight schools.</i></p> <p>LOCATE MONITORS TO IDENTIFY C-WEIGHTED SOUND WAVES</p> <p><i>KCIA will evaluate using data from c-weighted sound measurements to understand vibration impacts and possible mitigations from KCIA operations on nearby communities, especially Georgetown and Beacon Hill. The technical development and feasibility of this action will be</i></p>	<ul style="list-style-type: none"> • Discuss feasibility, develop possible program during Part 150 Study

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112	<p>conducted through the Part 150 Study, which will use the Airport's current noise monitoring system supplemented with additional monitoring.</p> <p>DEVELOP COMBINED NOISE CONTOURS WITH SEA-TAC AIRPORT AND EVALUATE DIFFERENT METRICS</p> <p><i>KCIA will develop combined noise contours with Sea-Tac Airport. The KCIA Part 150 Study scope of work will evaluate some other recognized measurement systems or units of noise, that better measure the impact of single events, in addition to db Dnl (currently the only system/unit accepted by the FAA). The intent of this effort is to recognize and measure the impact of single event noise on communities.</i></p>	<ul style="list-style-type: none">• Pursue specifics of noise monitoring activity in Part 150 Study
114	<p>INSTALL NOISE/VIBRATION MONITORING SYSTEMS</p> <p><i>Based on work performed in No. 110, KCIA will evaluate the feasibility of measuring C-weighted noise and its use in noise abatement and reduction. KCIA will develop a program to add additional noise monitoring to the current system, and include in the upcoming capital budget.</i></p>	<ul style="list-style-type: none">• Evaluate feasibility• Develop possible program for capital expenditure

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125	<p>CONDUCT PART 150/161 TO BAN STAGE 2 AIRCRAFT BELOW 75,000 LBS</p> <p><i>Review banning Stage 2 aircraft under 75,000 lbs through the Part 150 Study. If demonstrated as practical and legal in the Part 150 Study process, it would be evaluated as part of the Part 161 development of regulations.</i></p>	<ul style="list-style-type: none">• Propose a restriction as part of the Part 150 Study of remedies• Begin developing restriction methodology and compliance with process outlined in Part 161 Study• FAA will review methodology and process compliance• Submit restriction in accordance with the requirements outlined in Part 161 Study to FAA for its review and approval prior to implementation
128	<p>EXPLORE FEASIBILITY OF CAP ON ACCEPTED NOISE IMPACTS</p> <p><i>KCIA will evaluate the feasibility of noise caps. A cap would function as a noise restriction and must be evaluated and approved by the FAA through a Part 161 Study prior to its implementation. The proposed justification for the restriction would be made through a Part 150 Study; any restriction on Stage 3 will require FAA approval.</i></p>	<ul style="list-style-type: none">• Demonstrate noise reduction benefit in Part 150 Study• Submit as part of remedies program• Begin work to comply with Part 161 regulations• Submit for approval to FAA
134 135, 136	<p>AIR QUALITY STUDY</p> <p><i>Working with an interagency team which includes EPA, PSAPCA, Department of Ecology, FAA and King County Health Department, KCIA will perform an air quality assessment study beginning in 1998. The results of the study will be reported back to the Council, for consideration of any recommendations. A committee of citizens shall advise KCIA on the air</i></p>	<ul style="list-style-type: none">• Begin air quality assessment study• Review analysis; develop program recommendations• Develop capital program for approved recommendations• Develop standards language in leases and procedures to ensure that tenants test their leasehold property for contamination and perform

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Timeline ID	Goals and Narrative	Tasks and Descriptions
125	<p>CONDUCT PART 150/161 TO BAN STAGE 2 AIRCRAFT BELOW 75,000 LBS</p> <p><i>Review banning Stage 2 aircraft under 75,000 lbs through the Part 150 Study. If demonstrated as practical and legal in the Part 150 Study process, it would be evaluated as part of the Part 161 development of regulations.</i></p>	<ul style="list-style-type: none">• Propose a restriction as part of the Part 150 Study of remedies• Begin developing restriction methodology and compliance with process outlined in Part 161 Study• FAA will review methodology and process compliance• Submit restriction in accordance with the requirements outlined in Part 161 Study to FAA for its review and approval prior to implementation
128	<p>EXPLORE FEASIBILITY OF CAP ON ACCEPTED NOISE IMPACTS</p> <p><i>KCIA will evaluate the feasibility of noise caps. A cap would function as a noise restriction and must be evaluated and approved by the FAA through a Part 161 Study prior to its implementation. The proposed justification for the restriction would be made through a Part 150 Study; any restriction on Stage 3 will require FAA approval.</i></p>	<ul style="list-style-type: none">• Demonstrate noise reduction benefit in Part 150 Study• Submit as part of remedies program• Begin work to comply with Part 161 regulations• Submit for approval to FAA
134 135, 136	<p>AIR QUALITY STUDY</p> <p><i>Working with an interagency team which includes EPA, PSAPCA, Department of Ecology, FAA and King County Health Department, KCIA will perform an air quality assessment study beginning in 1998. The results of the study will be reported back to the Council, for consideration of any recommendations. A committee of citizens shall advise KCIA on the air</i></p>	<ul style="list-style-type: none">• Begin air quality assessment study• Review analysis; develop program recommendations• Develop capital program for approved recommendations• Develop standard language in leases and procedures to ensure that tenants test their leasehold property for contamination and perform

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138	<p>quality study.</p> <p><i>Continue to require tenants to test their leasehold property for contamination when leases are near the end of their term, or earlier if there is reason to suspect contamination.</i></p>	<p>remediation if necessary in accordance with state and federal law, when their leases are near the end of the term</p>




10-12-98



105651



Attachment 2

KING COUNTY INTERNATIONAL AIRPORT
NOISE REDUCTION WORKPLAN: PROJECT TASK TIMELINE

ID	Task Name	Duration	Start	Finish	Q1 '98	Q2 '98
					Qtr 1	Qtr 2
1	CONDUCT PART 150 NOISE REMEDY AND LAND USE COMPATIBILITY STUDY	523d	Thu 10/15/98	Sun 10/15/00		
2						
3	FAA-APPROVED STANDARD HOME INSULATION PROGRAM	893d	Thu 10/15/98	Fri 3/15/02		
4	Analyze program through Part 150 study	104.6w	Thu 10/15/98	Sun 10/15/00		
5	If approved, submit to FAA in remedies package	24.2w	Sun 10/15/00	Fri 3/30/01		
6	Apply for FAA funding	26.4w	Mon 4/16/01	Tue 10/16/01		
7	Depending on funding, develop program and schedule for insulation (# homes/m	26w	Mon 9/17/01	Fri 3/15/02		
8						
9	ANALYSIS OF CAPITAL IMPROVEMENTS TO REDUCE NOISE	819d	Thu 10/15/98	Mon 12/3/01		
10	Noise Containment Facility	795d	Thu 10/15/98	Tue 10/30/01		
11	Research existing data/determine users and establish parameters	15.4w	Thu 10/15/98	Fri 1/29/99		
12	Identify site	21.6w	Fri 1/1/99	Tue 6/1/99		
13	Develop design/model noise reduction benefits	35.2w	Tue 6/1/99	Tue 2/1/00		
14	If feasible and approved, submit in Part 150 remedies package	77d	Fri 6/30/00	Sun 10/15/00		
15	Conduct appropriate state/federal environmental review	26.2w	Mon 10/2/00	Fri 3/30/01		
16	Secure funding/schedule construction	28.4w	Mon 4/16/01	Tue 10/30/01		
17	Noise Wall on Airport North Boundary	523d	Thu 10/15/98	Sun 10/15/00		
18	Evaluate in Part 150	523d	Thu 10/15/98	Sun 10/15/00		
19	Design/Model noise reduction benefits	88d	Mon 3/1/99	Wed 6/30/99		
20	Conduct appropriate environmental review	131d	Thu 7/1/99	Thu 12/30/99		

Task  Summary  Rolled Up Progress 

Progress  Rolled Up Task 

Milestone  Rolled Up Milestone 

KING COUNTY INTERNATIONAL AIRPORT NOISE REDUCTION WORKPLAN: PROJECT TASK TIMEL

ID	Task Name	Duration	Start	Finish	Q1 '98	Q2 '98
					Qtr 1	Qtr 2
21	Authorize wall if sufficient benefits shown	45d	Mon 4/3/00	Fri 6/2/00		
22	Additional Berms and Barrlers as Appropriate	741d	Tue 2/2/99	Mon 12/3/01		
23	Evaluate during design of noise wall	86d	Tue 2/2/99	Tue 6/1/99		
24	Seek approval/funding support	131d	Mon 10/2/00	Fri 3/30/01		
25	Design and Construct	175d	Tue 4/3/01	Mon 12/3/01		
26						
27	FLIGHT TRACKS	946d	Mon 3/2/98	Fri 10/12/01		
28	Evaluate Integrated Flight Paths with Sea-Tac Airport	643d	Thu 10/15/98	Fri 3/30/01		
29	Evaluate during Sea-Tac and KCIA P 150 studies	523d	Thu 10/15/98	Sun 10/15/00		
30	Submit any recommendations in P150 Noise Remedy Programs	164d	Wed 3/1/00	Sun 10/15/00		
31	FAA design changes, review, test and conduct applicable environmental re	121d	Sun 10/15/00	Fri 3/30/01		
32	FAA-approved charted visual	370d	Mon 3/2/98	Fri 7/30/99		
33	FAA review visual; schedule flight check	132d	Mon 3/2/98	Tue 9/1/98		
34	If feasible, FAA conducts appropriate environmental review	87d	Tue 12/1/98	Wed 3/31/99		
35	Publish visual approach/develop policies to promote use	110d	Mon 3/1/99	Fri 7/30/99		
36	Use of charted visual in tenant leases	783d	Thu 10/15/98	Fri 10/12/01		
37	Analyze pursuit of voluntary commitments during P150	523d	Thu 10/15/98	Sun 10/15/00		
38	Negotiate operating agreements with tenants	261d	Sun 10/15/00	Fri 10/12/01		
39	GPS or other technology for instrument landing through Bay	729d	Thu 10/15/98	Mon 7/30/01		
40	Evaluate during P150	523d	Thu 10/15/98	Sun 10/15/00		

Task

Progress

Milestone

Summary

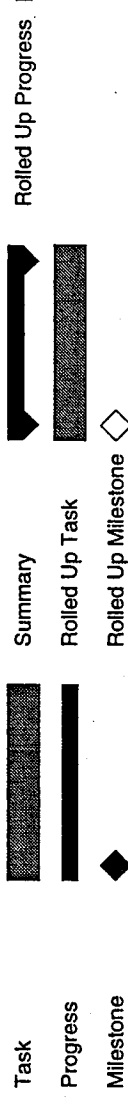
Rolled Up Task

Rolled Up Milestone

Rolled Up Progress

KING COUNTY INTERNATIONAL AIRPORT NOISE REDUCTION WORKPLAN: PROJECT TASK TIMELINE

ID	Task Name	Duration	Start	Finish	Q1 '98	Q2 '98
					Qtr 1	Qtr
41	FAA reviews, tests and approves	110d	Wed 11/1/00	Tue 4/3/01		
42	Equipment purchase by KCIA	66d	Mon 4/30/01	Mon 7/30/01		
43	Policy to promote flying over non-residential areas	523d	Thu 10/15/98	Sun 10/15/00		
44	Pursue voluntary commitments	402d	Thu 10/15/98	Fri 4/28/00		
45	If approved, adopt policy in P150 noise remedy program	122d	Fri 4/28/00	Sun 10/15/00		
46	Evaluate altering angle of climb and descent	643d	Thu 10/15/98	Fri 3/30/01		
47	Evaluate during Part 150, including modeling impacts	523d	Thu 10/15/98	Sun 10/15/00		
48	If approved, submit to FAA for review, testing and approval	121d	Sun 10/15/00	Fri 3/30/01		
49						
50	EXAMINATION OF NON-STANDARD HOME INSULATION PROGRAM	698d	Thu 10/15/98	Fri 6/15/01		
51	Develop new noise contours from Part 150	523d	Thu 10/15/98	Sun 10/15/00		
52	Analyze potential benefits	197d	Thu 7/15/99	Fri 4/14/00		
53	Develop plan proposal and cost estimate	88d	Fri 9/15/00	Mon 1/15/01		
54	Determine whether to proceed, based on feasibility and cost	45d	Mon 4/16/01	Fri 6/15/01		
55						
56						
57						
58	GROUND LEASES TO INFLUENCE OPERATIONS	926d	Thu 10/15/98	Wed 5/1/02		
59	Incorporating operators' noise reduction commitments in long-term leases	926d	Thu 10/15/98	Wed 5/1/02		
60	Evaluate during Part 150	523d	Thu 10/15/98	Sun 10/15/00		



Rollled Up Progress

KING COUNTY INTERNATIONAL AIRPORT NOISE REDUCTION WORKPLAN: PROJECT TASK TIMELINE

ID	Task Name	Duration	Start	Finish	Q1 '98	Q2 '98
					Qtr 1	Qtr 2
61	Review by prosecuting attorney	43d	Mon 1/3/00	Wed 3/1/00		
62	Pursue voluntary commitments to include in operating agreements	346d	Sun 10/15/00	Fri 2/8/02		
63	Evaluate feasibility of pursuing P161 restrictions for operators	523d	Thu 10/15/98	Sun 10/15/00		
64	Include noise rules and regs from P150 into operating agreements	404d	Sun 10/15/00	Wed 5/1/02		
65	Land use compatibility between airport, County and cities	578d	Thu 10/15/98	Fri 12/29/00		
66	In P150, review county and city comp plans for compatible land use	523d	Thu 10/15/98	Sun 10/15/00		
67	Pursue compatible land use measures with County and cities	77d	Fri 9/15/00	Fri 12/29/00		
68	Landing fee schedule and lease rates	718d	Thu 10/15/98	Fri 7/13/01		
69	Reviewed as part of Master Plan financial plan	142d	Thu 10/15/98	Fri 4/30/99		
70	Evaluate as part of noise incentives in Part 150	523d	Thu 10/15/98	Sun 10/15/00		
71	Pursue FAA support for any approved incentive program	196d	Sun 10/15/00	Fri 7/13/01		
72	PLANNING FOR GROWTH	785d	Thu 10/15/98	Tue 10/16/01		
73	Pursue nighttime curfews or restriction alternatives	599d	Thu 7/1/99	Mon 10/15/01		
74	Pursue in Part 150	338d	Thu 7/1/99	Sun 10/15/00		
75	Put negotiated curfews in operating agreements	262d	Sun 10/15/00	Mon 10/15/01		
76	Strategies to keep nighttime flights away from residential areas	785d	Thu 10/15/98	Tue 10/16/01		
77	Pursue commitments to use non-residential flight paths	586d	Mon 1/4/99	Fri 3/30/01		
78	Review GA flight tracks in Part 150	523d	Thu 10/15/98	Sun 10/15/00		
79	Submit any revised tracks to FAA in noise remedies	121d	Sun 10/15/00	Fri 3/30/01		
80	Test period by FAA prior to implementation	142d	Mon 4/2/01	Tue 10/16/01		

Task	Summary	Rolled Up Progress
Progress	Rolled Up Task	
Milestone	Rolled Up Milestone	








**KING COUNTY INTERNATIONAL AIRPORT
NOISE REDUCTION WORKPLAN: PROJECT TASK TIMELINE**

ID	Task Name	Duration	Start	Finish	Q1 '98	Q2 '98
					Qtr 1	Qtr
81						
82	QUIET FLYING STRATEGIES	676d	Wed 9/30/98	Tue 5/1/01		
83	Seek commitments by pilots and operators on use of 10,000' runway	676d	Wed 9/30/98	Tue 5/1/01		
84	EIS complete to permit 10,000'	153d	Wed 9/30/98	Fri 4/30/99		
85	Pursue in Master Plan policies/procedures	66d	Fri 4/30/99	Fri 7/30/99		
86	Adopt as policy in final Master Plan if threshold shift is approved	44d	Thu 9/30/99	Tue 11/30/99		
87	Also pursue in Part 150	523d	Thu 10/15/98	Sun 10/15/00		
88	Submit voluntary restriction in P150 noise remedy program	143d	Sun 10/15/00	Tue 5/1/01		
89	""Quiet-flying" pilot/operator education programs	581d	Thu 10/15/98	Wed 1/3/01		
90	Evaluate with operators in P150	121d	Thu 10/15/98	Thu 4/1/99		
91	Review operators' pilot-training programs	144d	Tue 6/15/99	Fri 12/31/99		
92	Add program review to voluntary noise abatement agreements	263d	Tue 1/4/00	Wed 1/3/01		
93						
94	GROUND NOISE	846d	Thu 10/15/98	Wed 1/9/02		
95	Maintain a nighttime run-up curfew	846d	Thu 10/15/98	Wed 1/9/02		
96	Pursue voluntary limits with operators in P150	523d	Thu 10/15/98	Sun 10/15/00		
97	Add any negotiated agreements to operators agreements	324d	Sun 10/15/00	Wed 1/9/02		
98	Submit as part of noise remedies in P150	142d	Fri 3/31/00	Sun 10/15/00		
99	Limit daytime maintenance and run-ups to certain areas	523d	Thu 10/15/98	Sun 10/15/00		
100	Already being done - identify areas again in P150	523d	Thu 10/15/98	Sun 10/15/00		

Task	Summary	Rolled Up Progress
Progress	Rolled Up Task	
Milestone	Rolled Up Milestone	







KING COUNTY INTERNATIONAL AIRPORT NOISE REDUCTION WORKPLAN: PROJECT TASK TIMELINE

ID	Task Name	Duration	Start	Finish	Q1 '98	Q2 '98
					Qtr 1	Qtr
101	Review designated areas for best use	175d	Thu 7/1/99	Wed 3/1/00		
102	Eliminating power-backs by use of tugs	45d	Thu 10/15/98	Wed 12/16/98		
103	Verify with operators that this is already happening	45d	Thu 10/15/98	Wed 12/16/98		
104						
105	NOISE MONITORING	784d	Wed 7/1/98	Fri 6/29/01		
106	Monitoring flight impacts with noise monitors and flight tracking	393d	Wed 7/1/98	Fri 12/31/99		
107	Finalize monitor placement finalized, including monitoring at schools in 1999	370d	Mon 8/3/98	Fri 12/31/99		
108	Apply to FAA for flight tracking	23d	Wed 7/1/98	Sat 8/1/98		
109	Upgrade existing system	44d	Tue 9/1/98	Fri 10/30/98		
110	Locating monitors to capture c-weighted sound waves	523d	Thu 10/15/98	Sun 10/15/00		
111	Occurs during P150 noise monitoring	523d	Thu 10/15/98	Sun 10/15/00		
112	Developing combined noise contours and show different metrics	523d	Thu 10/15/98	Sun 10/15/00		
113	Occurs during P150 noise monitoring	523d	Thu 10/15/98	Sun 10/15/00		
114	Installing noise/vibration monitoring systems	708d	Thu 10/15/98	Fri 6/29/01		
115	Investigate C-weighted monitoring	523d	Thu 10/15/98	Sun 10/15/00		
116	Determine whether to include C-weighted monitoring in '01 budget	44d	Tue 5/1/01	Fri 6/29/01		
117						
118	PART 161 NOISE/ACCESS RESTRICTION STUDY	1206d	Thu 10/15/98	Wed 5/28/03		
119	Part 150/Part 161 to minimize nighttime noise	1143d	Thu 10/15/98	Fri 2/28/03		
120	Conduct P150/demonstrate practicality and legality of pursuing P161	523d	Thu 10/15/98	Sun 10/15/00		

Task		Summary		Rolled Up Progress	
Progress		Rolled Up Task			
Milestone		Rolled Up Milestone			

KING COUNTY INTERNATIONAL AIRPORT NOISE REDUCTION WORKPLAN: PROJECT TASK TIMELINE

ID	Task Name	Duration	Start	Finish	Q1 '98	Q2 '98
					Qtr 1	Qtr 2
121	Submit any P150 remedies to FAA (inc. P161 recommended measures)	121d	Sun 10/15/00	Fri 3/30/01		
122	Test period by FAA of any flight remedy evaluations	121d	Sun 10/15/00	Fri 3/30/01		
123	If pursuit of P161 approved by FAA, begin study to restrict nighttime noise	370d	Mon 4/16/01	Fri 9/13/02		
124	Submit study results and methodology for FAA approval	121d	Fri 9/13/02	Fri 2/28/03		
125	Part 161 study to ban Stage 2 below 75,000 lbs	653d	Thu 10/15/98	Fri 4/13/01		
126	Conduct P150/P161 study, determine practicality and legality of restriction	523d	Thu 10/15/98	Sun 10/15/00		
127	Submit to FAA for review/approval of methodology	131d	Sun 10/15/00	Fri 4/13/01		
128	Feasibility of cap on accepted noise impacts	1206d	Thu 10/15/98	Wed 5/28/03		
129	Conduct P150/evaluate feasibility of pursuing P161	523d	Thu 10/15/98	Sun 10/15/00		
130	Submit any P150 remedies to FAA (inc. P161 recommended measures)	121d	Mon 10/30/00	Mon 4/16/01		
131	If pursuit of P161 approved by FAA, begin study to restrict nighttime noise	435d	Mon 4/16/01	Fri 12/13/02		
132	Submit study results and methodology for FAA approval	119d	Fri 12/13/02	Wed 5/28/03		
133						
134	AIR QUALITY STUDY					
135	Air quality monitoring study	653d	Thu 10/1/98	Fri 3/30/01		
136	Permanent air quality monitoring system	283d	Thu 10/1/98	Mon 11/1/99		
137	Recommendation would be outcome of aq study	371d	Mon 11/1/99	Fri 3/30/01		
138	Develop capital program for approved recommendations	262d	Mon 11/1/99	Mon 10/30/00		
139	Air scrubbers	110d	Mon 10/30/00	Fri 3/30/01		
140	Recommendation would be outcome of aq study	262d	Mon 11/1/99	Mon 10/30/00		

	Task		Summary
	Progress		Rolled Up Task
	Milestone		Rolled Up Milestone



Rolled Up Progress

Fri 10/9/98

**KING COUNTY INTERNATIONAL AIRPORT
NOISE REDUCTION WORKPLAN: PROJECT TASK TIMELINE**

ID	Task Name	Duration	Start	Finish	Q1 '98		Q2 '98	
					Qtr 1	Qtr 2	Qtr 1	Qtr 2
141	Incentives to use cleanest equipment available	262d	Mon 11/1/99	Mon 10/30/00				
142	Recommendation would be outcome of aq study	262d	Mon 11/1/99	Mon 10/30/00				

1050
2050

Task	Summary	Rolled Up Progress
Progress		
Milestone	