

## APPENDIX C

### NOISE ANALYSIS

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This section provides basic information on the noise modeling conducted for this EIS. It is intended to supplement the description of the existing noise setting in Section 3.1. Basic assumptions incorporated into the noise model, including aircraft approach and departure paths and the existing fleet mix at JNU, are summarized. The existing noise setting in the vicinity of the Airport is also described. In addition, data was collected from six sites around JNU during the period July 29th and August 18<sup>th</sup>, 2001. The noise analyses presented in this Appendix reflect existing aircraft noise based on the year 2000 operations.

#### C.1 MODEL ASSUMPTIONS

One of the most important factors in generating accurate noise contours is the collection of accurate operational data. The INM programs require the input of the physical and operational characteristics of an airport. Physical characteristics include runway coordinates, airport altitude, and temperature and optionally, topographical data. Operational characteristics include various types of aircraft data. This includes not only the aircraft types and flight tracks, but also departure procedures, arrival procedures and stage lengths that are specific to the operations at an airport. Aircraft data needed to generate noise contours include:

- Number of aircraft operations by type
- Types of aircraft
- Day/Night time distribution by type
- Flight tracks, including:
  - Flight track utilization by type
  - Flight profiles
  - Typical operational procedures
  - Average Meteorological Conditions

Operational data needed for the model include the runway use percentages, aircraft types, and time of day of operations. Topographic effects and average wind effects were also included in the DNL computations, as follows:

Topographic Effects - The effect of topography on noise levels near an airport may be important where there are significant elevation differences between the airport and surrounding environs. Juneau is just such an airport, and the INM DNL contours include topographic effects on sound propagation from aircraft.

Average Wind Effects - The Integrated Noise Model includes standard takeoff and approach profiles. The takeoff and approach profiles include a description of the aircraft altitude and airspeed along the flight path. These profiles are based on an assumed 8-knot headwind for all operations.

**C.1.1 EXISTING AIRCRAFT OPERATIONS**

The existing noise environment for JNU was analyzed based upon year 2000 operational conditions. The data used in the analysis was derived from various sources. This included historical data from the JNU Master Plan Update and data from the FAA’s aircraft situation display (ASD). A variety of operational data is necessary in order to determine the noise environment around the Airport, as described in the following sections.

**C.1.2 AIRCRAFT ACTIVITY LEVELS**

The total aircraft operational levels were derived directly from the JNU air traffic control tower counts. The historical data showed that for the year 2000 there were a total of 146,095 operations, or an average of 400 operations per day (an operation is one takeoff or one landing). The breakdown by aircraft category was determined from a variety of sources:

- Review of the aircraft based at JNU
- Totals presented in the Airport Master Plan (for the year 2000)
- Aircraft Situational Display (ASD) data for 2000

The 2000 aircraft operations for each category of operation are summarized in Table C-1. These operations are categorized as GA (single-engine, twin-engine, twin turbo, and business jets), military, helicopters, air taxi, air cargo and commercial jets. The total number of annual corporate jet aircraft was taken from JNU Master Plan. The ASD data provides information on aircraft that file an instrument flight plan. It accounts for nearly all of the larger aircraft, including corporate jets. Larger twin-engine propeller aircraft are also counted in ASD data, but smaller visual flight aircraft are not included.

**Table C-1.** Summary of Operations, Existing 2000

Category Type	Annual Operations	Daily Operations	Percent Nighttime
GA Single Engine	10,718	29.4	14%
GA Twin Engine	10,718	29.4	14%
GA Twin Turbo	10,718	29.4	14%
GA Jet	915	2.5	20%
Military	872	2.4	0%
Helicopter	23,608	64.7	0%
Air Taxi	79,767	218.5	5%

**Table C-1.** Summary of Operations, Existing 2000, continued

<b>Category Type</b>	<b>Annual Operations</b>	<b>Daily Operations</b>	<b>Percent Nighttime</b>
Air Cargo	1,013	2.8	44%
Commercial Jet	7,766	21.3	30%
<b>Total Operations</b>	<b>146,095</b>	<b>400.3</b>	

### **C.1.3 FLEET MIX**

The fleet mix of aircraft that operate at the Airport is one of the most important factors in terms of the aircraft noise environment. The corporate jet fleet mix data was determined from an extensive review of the ASD database. The fleet mix assumptions for the corporate jets are presented in Table C-2.

**Table C-2.** Percentage of Operations by Type for Corporate Jets

<b>Aircraft</b>	<b>ASD Data for Corporate Jets</b>			
	<b>Total</b>	<b>Stage</b>	<b>INM Type</b>	<b>Percent</b>
ASTR	29	3	1A1125	3.17%
BE40	13	3	LEAR35	1.39%
C500	9	3	CIT3	0.99%
C525	2	3	CIT3	0.20%
C550	20	3	CIT3	2.18%
C560	58	3	CIT3	6.34%
C56X	13	3	CIT3	1.39%
C650	9	3	CIT3	0.99%
C750	4	3	CIT3	0.40%
CL60	20	3	CL600	2.18%
CL64	9	3	CL600	0.99%
F2TH	9	2	FAL20	0.99%
F900	2	3	GIV	0.20%
FA20	13	2	FAL20	1.39%
FA50	5	3	GIV	0.59%
GLF2	2	2	GIIB	0.20%
GLF3	34	2	GIIB	3.76%
GLF4	5	3	GIV	0.59%

**Table C-2.** Percentage of Operations by Type for Corporate Jets, continued

Aircraft	ASD Data for Corporate Jets			
	Total	Stage	INM Type	Percent
GLF5	4	3	GIV	0.40%
H25	7	2/3	SBR80	0.79%
H25A	2	2/3	SBR80	0.20%
H25B	5	3	SBR80	0.59%
H25C	5	3	SBR80	0.59%
HS25	5	3	SBR80	0.59%
JCOM	2	2	GIIB	0.20%
LJ25	46	2	LEAR25	5.03%
LJ31	2	3	LEAR35	0.20%
LJ35	570	3	LEAR35	62.30%
LJ60	7	3	LEAR35	0.79%
SBR1	2	2	SBR80	0.20%
WW24	2	3	1A1125	0.20%

ASD- Aircraft Situation Display Data

The airport has a number of Stage 2 corporate jet aircraft. Stage 2 refers to the FAA's Federal Aircraft Regulations 36 that categorizes jet aircraft based upon noise levels. Stage 2 refers to the older louder aircraft. Stage 3 refers to the newer generation quieter aircraft. For corporate jet aircraft the fleet was calculated to be 12% Stage 2.

**C.1.4 TIME OF DAY**

In the DNL metric, any operations that occur after 10 p.m. and before 7 a.m. are considered more intrusive and are weighted by 10 dBA. Therefore, the number of nighttime operations is very critical in determining the DNL noise environment and is also very important to the residences around JNU. The nighttime operation assumptions were estimated from a variety of sources. This included a review of the scheduled operations, ASD data and the noise measurement survey data.

**C.1.5 RUNWAY USE**

An additional important consideration in developing the noise contours is the percentage of time each runway is used. The speed and direction of the wind dictate the runway direction that is used by an aircraft. The wind at JNU is generally calm with predominate wind direction from the west. Therefore, Runways 26 and W26 are used more than the reverse runway direction (Runways 08

and W08). The runway utilization assumptions used in the study are presented in Tables C-3 and C-4. These tables present the percentage of operations by category utilizing each of the runways, for daytime and nighttime hours, respectively.

**Table C-3. Daytime Runway Utilization (7 AM to 10 PM)**

Category Type	Runway 08	Runway2 6	Runway W08	Runway W26	Runway CHW/CHE	Runway TME/TMW
<b>Arrivals</b>						
GA Single Engine	55%	45%				
GA Twin Engine	55%	45%				
GA Twin Turbo	55%	45%				
GA Jet	55%	45%				
Military	55%	45%				
Helicopter					26%	74%
Air Taxi	44%	36%	11%	9%		
Air Cargo	55%	45%				
Commercial Jet	55%	45%				
<b>Departures</b>						
GA Single Engine	60%	40%				
GA Twin Engine	60%	40%				
GA Twin Turbo	60%	40%				
GA Jet	60%	40%				
Military	60%	40%				
Helicopter					26%	74%
Air Taxi	48%	32%	12%	8%		
Air Cargo	60%	40%				
Commercial Jet	60%	40%				

**Table C-4. Nighttime Runway Utilization (10 PM to 7 AM)**

Category Type	Runway 08	Runway2 6	Runway W08	Runway W26	Runway CHW/CHE	Runway TME/TMW
<b>Arrivals</b>						
GA Single Engine	55%	45%				
GA Twin Engine	55%	45%				
GA Twin Turbo	55%	45%				

**Table C-4.** Nighttime Runway Utilization (10 PM to 7 AM), continued

Category Type	Runway 08	Runway2 6	Runway W08	Runway W26	Runway CHW/CHE	Runway TME/TMW
GA Jet	55%	45%				
Military						
Helicopter						
Air Taxi	44%	36%	11%	9%		
Air Cargo	55%	45%				
Commercial Jet	55%	45%				
Departures						
GA Single Engine	60%	40%				
GA Twin Engine	60%	40%				
GA Twin Turbo	60%	40%				
GA Jet	60%	40%				
Military						
Helicopter						
Air Taxi	48%	32%	12%	8%		
Air Cargo	60%	40%				
Commercial Jet	60%	40%				

**C.1.6 FLIGHT PATH UTILIZATION**

The FAA air traffic control tower has established paths for aircraft arriving and departing from JNU. These paths are not precisely defined ground tracks, but represent a broad area over which the aircraft will generally fly. The modeling analysis includes a total of 20 departure flight tracks and 20 arrival flight tracks to model the aircraft flight paths at JNU. Aircraft flight tracks were obtained by observations during the measurement survey, discussions with CBJ airport staff and air traffic control personnel. The flight paths developed for use in the INM model are presented Figures C-1 through C-4. Figure C-1 shows the departure and arrival flight tracks for a typical west flow day, and flight tracks presented in Figure C-2 show the departure and arrival tracks for a typical east flow day. The departure and arrival flight tracks for the floatplane basin are shown in Figure C-3. The departure and arrival flight tracks for the helipads at JNU are shown in Figure C-4.

**C.1.7 NOISE MODELING RESULTS**

Results for the noise models for the year 2000 are included in Section 3.1.3.3. This data show that the model correlates well with existing conditions in the vicinity of JNU.

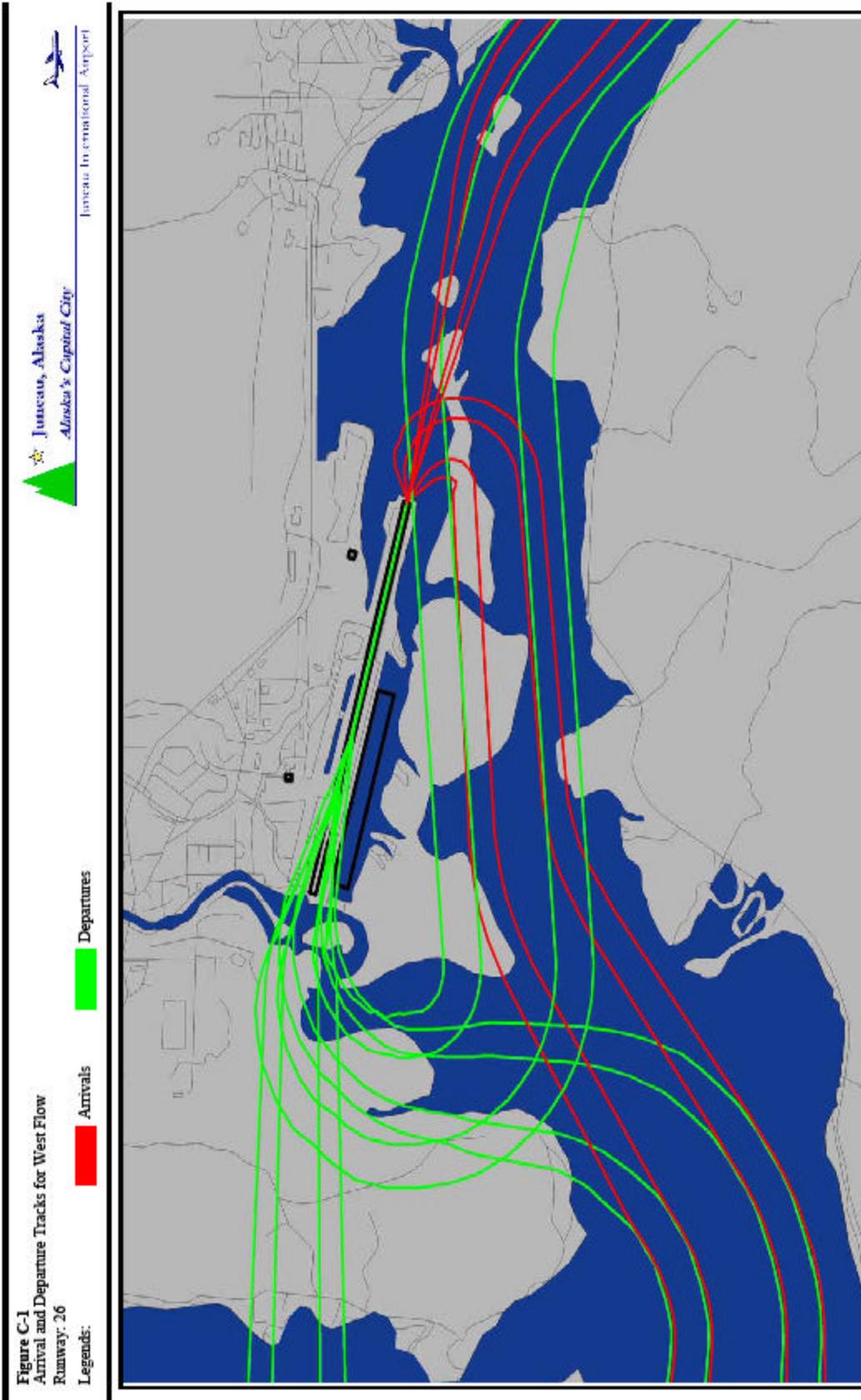


Figure C-1. Arrival and departure tracks for west flow.

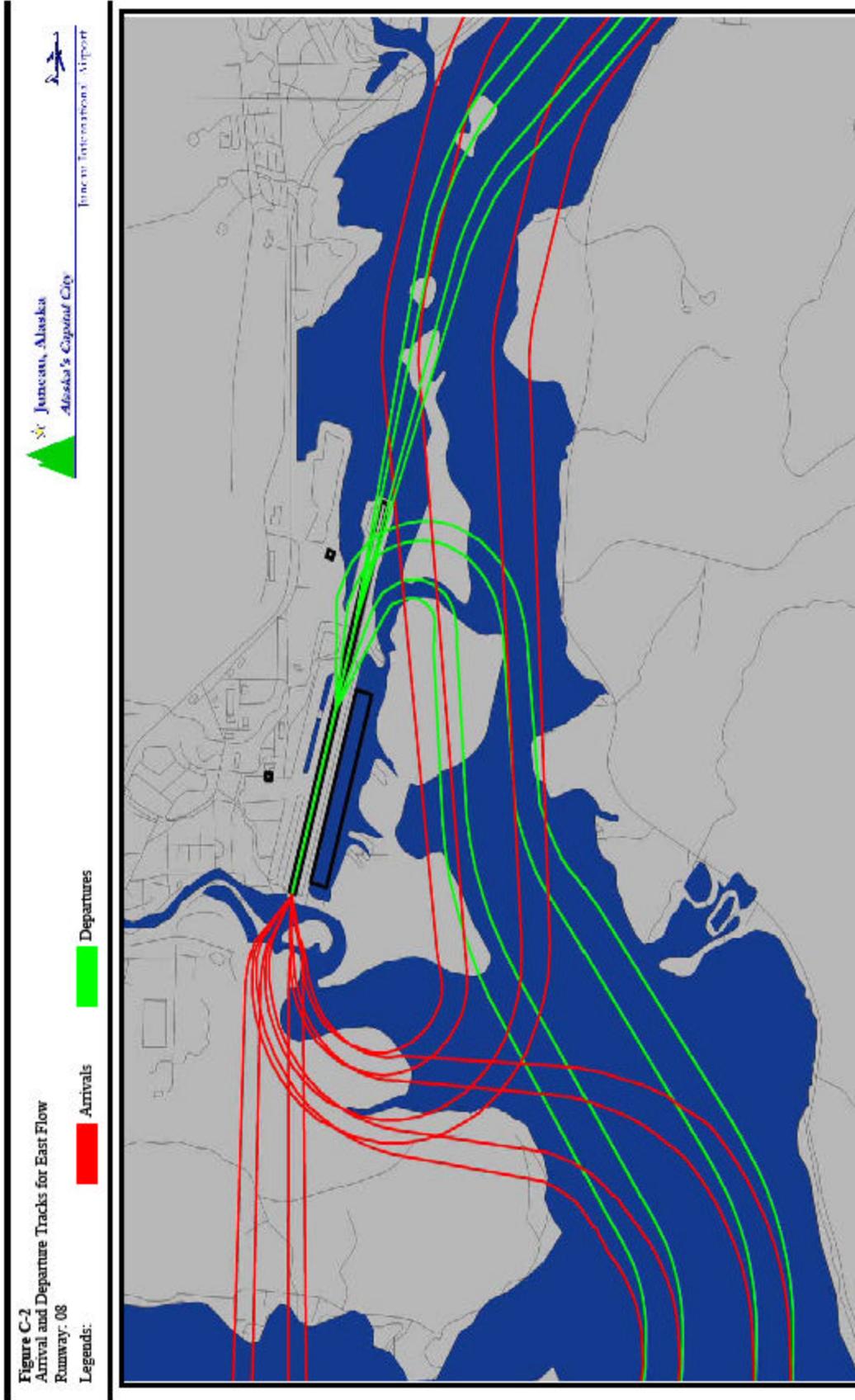


Figure C-2. Arrival and departure tracks for east flow.

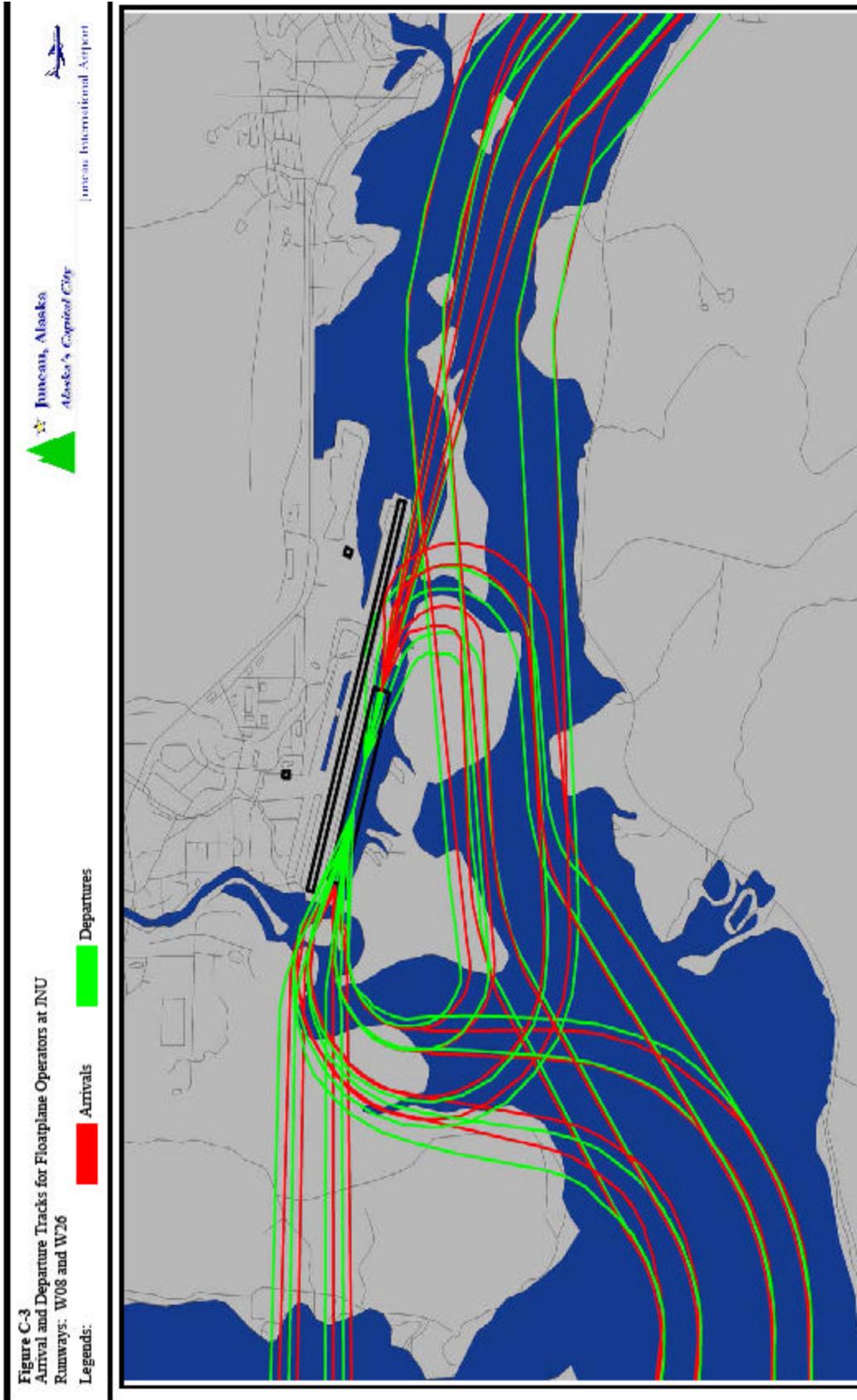


Figure C-3. Arrival and departure tracks for floatplane operators at JNU Runways W08 and W26.

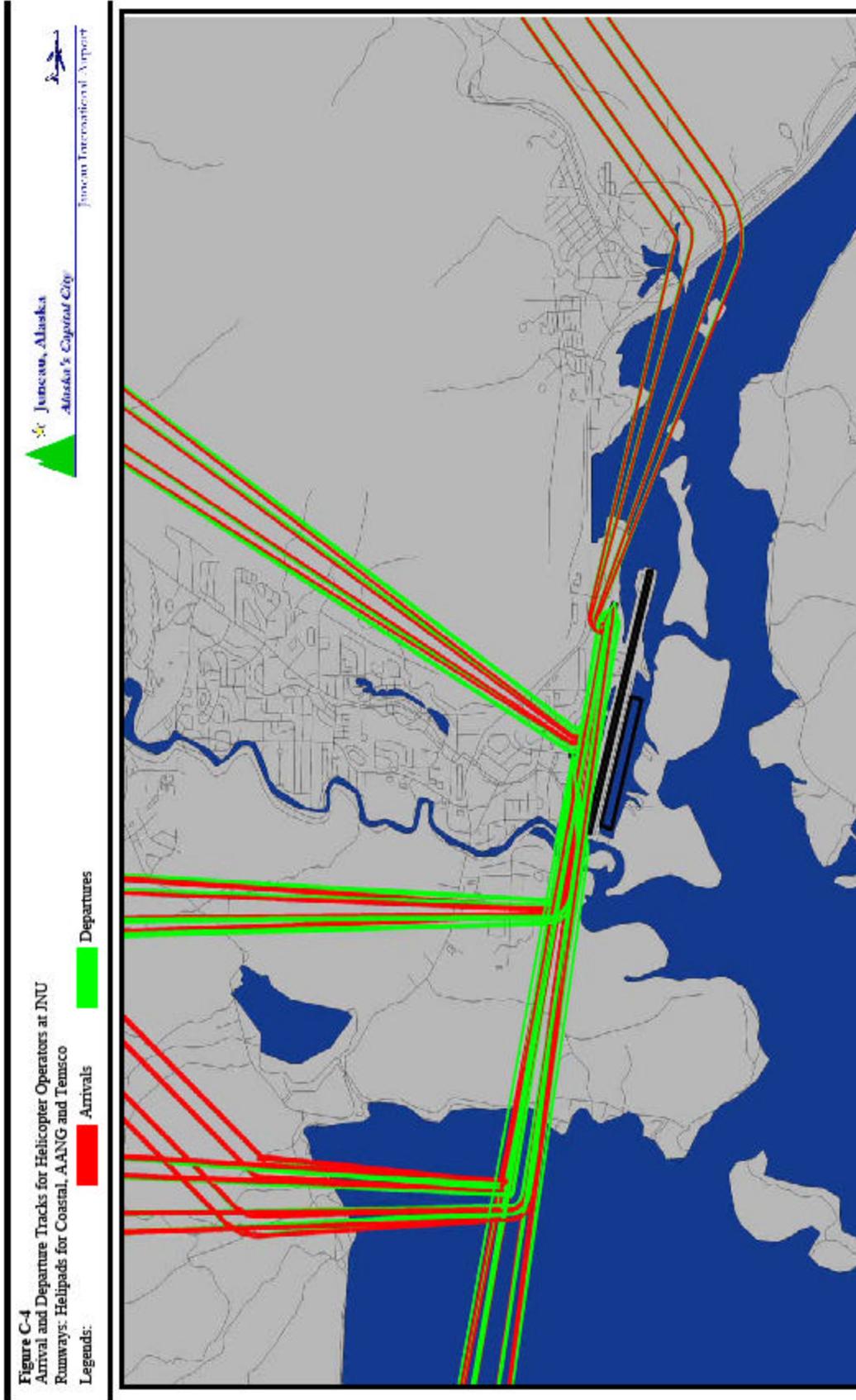


Figure C-4. Noise exposure contours-future (2015) Alternative RSA-6B.

## C.2 FUTURE NOISE ENVIRONMENT

The future noise environment for Juneau International Airport was analyzed based upon 2015 forecast operational conditions. The year 2015 is the long-term future analysis year. The noise modeling assumptions used to develop the year 2015 noise contours includes a variety of operational information. As with the existing noise environment, the operational conditions include the aircraft activity level, fleet mix, time of day of flight operations, runway use percentages, and the flight path use percentages. The operational forecasts and flight conditions for the future (2015) case are presented in the following sections.

### C.2.1 AIRPORT OPERATING ASSUMPTIONS

The operations forecast for JNU indicates that by 2015, total operations levels may reach 175,624 annual operations, or an average of about 481 operations per day (an operation is either one takeoff or one landing). The 2015 aircraft activity for each category of operation is summarized in Table C-5. These operations consist of air carriers, air cargo, military, and general aviation aircraft.

**Table C-5.** Summary of Operations, Future 2015

Category Type	Annual Operations	Daily Operations	Percent Nighttime
GA Single Engine	12,911	29.4	14%
GA Twin Engine	12,911	29.4	14%
GA Twin Turbo	12,911	29.4	14%
GA Jet	1,103	2.5	20%
Military	1,000	2.4	0%
Helicopter	28,132	64.7	0%
Air Taxi	95,054	218.5	5%
Air Cargo	1,339	2.8	44%
Commercial Jet	10,263	21.3	30%
<b>Total Operations</b>	<b>175,624</b>	<b>481.2</b>	

The fleet mix of aircraft that operate at the Airport is one of the most important factors in terms of the aircraft noise environment. The 2015 fleet mix assumes a projected increase in the utilization of quieter, new technology Stage 3 aircraft. The older commercial Stage 2 aircraft that are currently operating at the Airport are all assumed to be replaced by newer, quieter Stage 3 aircraft. The B737-200 is expected to be replaced by the new B737-700, and the DC9 is expected to be replaced by the A320. While the number of corporate jets is expected to increase in the future, the percentage of aircraft type was assumed to be the same as the existing case, which are listed in Table C-2.

The analysis assumes that 100 percent of the air carrier fleet utilizing Juneau International Airport in 2015 will be Stage 3 aircraft. The 100 percent assumption is based on Federal legislation requiring complete phase out of noisier Stage 2 aircraft at all civil airports by December 31, 1999. While this legislation exempts aircraft flying within Alaska, most aircraft also fly interstate and therefore would be subject to the legislation. The Stage 3 requirement also does not apply to aircraft weighting less than 75,000 pounds, including private jets, however, this is a very small portion of the jet aircraft at the Airport.

The time of day that aircraft are assumed to operate at the Airport is an important input variable in the DNL noise metric. Aircraft that operate during the nighttime hours (10 p.m. to 7 a.m.) are assumed to be more intrusive and weighted by a factor of 10 dB. The time of day assumptions are assumed to be the same as with the existing conditions.

An additional important consideration in developing the noise contours is the percentage of time each runway is utilized. The runway utilize for 2015 is assumed to be similar to the 2000 conditions, which are listed in Table C-3 and C-4.

The FAA has established paths for aircraft arriving and departing from Juneau International Airport. These paths are not precisely defined ground tracks, but represent a broad area over which the aircraft will generally fly. The year 2015 flight paths are expected to be the same as those in 2000.

## **C.2.2 FUTURE AIRCRAFT NOISE EXPOSURE CONTOURS**

Based on the consideration of the Airport and airfield layouts associated with each of the projects, noise contours were developed for the following conditions:

- Year 2015 No Action
- Year 2015 With Project
  - With RSA-5C
  - With RSA-6A
  - With RSA-6B
  - With RSA-6C or RSA-1
  - With Expanded GA Aircraft Parking

As is described in Chapter 4 of the EIS, the noise exposure associated with all other alternatives determined prudent and feasible are reflected in the above scenarios.

### **C.2.2.1 FUTURE No ACTION (RSA-8, NAV-3, SREF-5, FW/RW-3, FF-3, WHMP-4)**

The 2015 Baseline or No Action DNL contours for Juneau International Airport were prepared using Integrated Noise Model (INM) version 6.0c. Noise contours for calendar year 2015 that depict the noise exposure in terms of DNL are shown in the EIS (see Figure 4-2). This analysis

assumes that no projects being considered in this EIS would be implemented that would change runway thresholds, nor would other changes be made to Airport facilities or operations that would affect noise contours. The contours shown are the 65, 70 and 75 dBA DNL.

RSA-8 is the No Action alternative. It would leave the airfield as it exists today, such that non-standard RSAs would be provided. The runway would retain its current length of 8,456 feet and the landing and takeoff thresholds would remain at their present location. (From a noise perspective, this alternative is the same as RSA-1 and RSA-6C.) In evaluating the noise exposure implications of RSA-8, the existing flight tracks and percentage of runway use were used, as well as the forecast aircraft operations for year 2015 and fleet mix as discussed in Chapter 1. With this alternative, future levels of activity would be expected to use the runway system and flight in the same proportion as occurs today. Based on these assumptions, aircraft noise exposure contours were developed for Alternative RSA-8.

The results of the analysis show that all of the future contours are somewhat smaller than the existing conditions contours, shown in Figure 3-3 of the EIS. This is a result of the replacement of the older Stage 2 aircraft with the quieter Stage 3 aircraft in operations that are forecasted to occur. The change in aircraft type results in a reduced overall noise exposure, even though the number of operations will have increased.

Overall, the area inside the 65 DNL noise contours covers approximately 1.08 square miles, or 691 acres. Relative to existing conditions, the future RSA-8 alternative would result in a reduction in area affected by 65 DNL and greater noise levels (from 1.35 square miles in 2000 to 1.08 square miles in 2015) of about 20% due to the effects of quieter Stage 3 aircraft operations, even with the increased level of aircraft operations. The reduced contour size occurs despite an increase in aircraft operations primarily due to the expected replacement of the B737-200 and DC-9 aircraft currently operating at JNU by the quieter B737-700 and A320 aircraft, respectively, by 2015. This change alone is expected to reduce the size of the 65 DNL contour by 300 acres when compared to the 2000 existing conditions.

### **C.2.2.2 ALTERNATIVE RSA-5C**

With this RSA Alternative (RSA-5C), the length available for takeoff on Runway 08 would be increased from 8,456 feet to 9,074 feet, while the takeoff length on Runway 26 would be maintained at its present length. To achieve RSA compliance, the Runway 08 threshold would be displaced 618 feet, and the takeoff and landing threshold for Runway 26 would be relocated 618 feet east. As a result, landing on existing runway ends would be moved 618 feet east for Runway 08, and 618 feet east for Runway 26. As a result, relative to existing conditions, aircraft would be at a higher altitude on their approach to the runway from the west, but slightly lower when approach the runway from the east.

It should be noted that the distance of the threshold shifts under this alternative were reduced from 618 feet to 446 feet after the DEIS was issued. As the noise impacts resulting from this reduction are within the range of impacts analyzed for this alternative in its original configuration no new

analysis was conducted, and the results presented here are considered conservative; the actual noise impacts from this alternative as described in the Final EIS are likely to be less than that reported here.

The existing flight tracks locations and usage, and the percentage of runway use were used for Alternative RSA-5C, as well as the forecast aircraft operations for year 2015 and fleet mix as discussed in Chapter 1. With this alternative, future levels of activity would be expected to use the runway system and flight tracks in the same proportion as occurs today. However, the location of the landing flight tracks was altered to reflect the displaced thresholds that would be instituted for each runway end. Similarly, the departure flight tracks were altered by 618 feet for departures on Runway 26. Based on these assumptions, aircraft noise exposure contours were developed for Alternative RSA-5C.

The total area (including airport property) that would be exposed to 65 DNL and greater noise levels in 2015 with RSA-5C would include 1.09 square miles extending. The 65 DNL and greater contour would extend from about 0.5 miles (2,640 feet) off the west end of the runway to about 0.61 miles (3,218 feet) to the east. About 0.15 square miles or about 95 acres of land would be encompassed within the 75 DNL and greater contour (severe noise exposure). Relative to existing conditions, this alternative would result in a reduction in area affected by 65 DNL and greater noise levels (from 1.35 square miles in 2000 to 1.09 square miles in 2015) of about 20% due to the effects of quieter Stage 3 aircraft operations, even with the increased level of aircraft operations. The area affected by severe noise exposure (75 DNL and greater) would decrease between 2000 and 2015 with this alternative by about 34% (from 0.38 square miles to 0.25 square miles).

Relative to the No Action (RSA-8), three grid points (point 641, point 425, and point 443) would experience a significant noise increase with this alternative. Each of these points is located along the runway centerline and is located on-Airport property. At point 641 (I=36, J=11), noise would increase from the No Action level of 76.9 DNL to 95.9 DNL (a 15 DNL increase). The two remaining points are located within Airport property. At point 425 (I=24, J=11), noise would increase from the No Action level of 96.9 DNL to 98.8 DNL (a 1.9 DNL increase). At point 443 (I=25, J=11), noise would increase from the No Action level of 91.4 DNL to 93.6 DNL (a 2.2 DNL increase).

Because 1.5 DNL or greater increases were identified, a refined analysis was conducted using the “delta” contours to identify a contour associated with changes of 1.5 DNL or greater. Only the areas east of the Airport could experience significant increases in noise relative to the No Action. This area would fall completely within the Mendenhall State Game Refuge.

### **C.2.2.3 ALTERNATIVE RSA-5D**

This alternative was added after the Draft EIS was issued. Under this alternative, there would be no change to existing landing and departure thresholds for Runway 08. As such, the noise impacts for Runway 08 under this alternative would be the similar to those described for RSA-6C (or RSA-1). Under this alternative, the Runway 26 landing and departure thresholds would be relocated 400 feet to the east. Predicted noise impacts from this relocation would be similar to, though slightly reduced from, those described for Alternative RSA-5C.

Noise analysis conducted for the Draft EIS indicated that no significant noise impacts would result from any of the RSA alternatives contained in that document. The runway threshold changes for Alternative RSA-5D, which is a modification of Alternative RSA-5C analyzed in the Draft EIS, is within the range of analysis conducted for that document. As such, FAA determined that no new noise modeling was needed for this alternative.

#### **C.2.2.4 ALTERNATIVE RSA-5E**

This alternative was added after the Draft EIS was issued. Under this alternative, the Runway 08 departure threshold would remain in its current location, but the landing threshold would be displaced 120 feet to the east. As such, the noise impacts for Runway 08 under this alternative would be similar to those described for RSA-6A. Under RSA-5E, the Runway 26 landing and departure thresholds would be relocated 520 feet to the east. Predicted noise impacts from this relocation would be similar to, though slightly reduced from, those described for Alternative RSA-5C.

Noise analysis conducted for the Draft EIS indicated that no significant noise impacts would result from any of the RSA alternatives contained in that document. The runway threshold changes for Alternative RSA-5E, which is a modification of alternatives analyzed in the Draft EIS, is within the range of analysis conducted for that document. As such, FAA determined that no new noise modeling was needed for this alternative.

#### **C.2.2.5 ALTERNATIVE RSA-6A**

With Alternative RSA-6A, the Runway 08 landing threshold would be displaced 188 feet to the east, while the Runway 26 landing threshold would be retained in its current location. The Runway 08 departure threshold would be from its existing location and the departure from Runway 26 would be displaced about 188 feet to the east. As a result, relative to existing conditions, aircraft would be at a slightly higher altitude on approach to the runway from the west, and at their present location when approach the runway from the east. Therefore, the location of the landing flight tracks was altered to reflect the displaced or relocated thresholds that would be instituted for each runway end.

In 2015, the total area (including airport property) that would be exposed to 65 DNL and greater noise levels would be 1.09 square miles, extending from approximately 2,640 feet off the west end of the runway and approximately 3,218 feet to the east of the runway, virtually the same as Alternative RSA-5C. Approximately 0.25 square miles of land would be encompassed within the severe noise exposure contour of 75 DNL and greater.

Relative to the No Action Alternative, one grid point (Point 641) would experience a significant noise increase with this alternative. This point is at the end of Runway 26 on Airport property. Point 641 (coordinates I=36, J=11) would experience a 19.5 DNL increase relative to the No Action (Alternative RSA-8). No significant off-airport increases would occur with Alternative RSA-6A.

### **C.2.2.6 ALTERNATIVE RSA-6B**

With Alternative RSA-6B, the Runway 08 landing threshold would remain at its present location and departures would begin approximately 188 feet west of the current threshold location. The Runway 26 threshold would be displaced, with the landing threshold about 188 feet west of the current location and departures beginning roll from the existing threshold. As a result, relative to existing conditions, aircraft would be at a slightly higher altitude on approach to the runway from the east, but the same altitude when approaching from the west. Therefore, the location of the landing flight tracks was altered to reflect the displaced or relocated thresholds that would be instituted for each runway end.

In 2015, the total area (including airport property) that would be exposed to 65 DNL and greater noise levels would be 1.08 square miles, extending from approximately 2,640 feet off the west end of the runway and approximately 3,218 feet to the east of the runway, virtually the same as Alternative RSA-5C and RSA-6A. Approximately 0.25 square miles of land would be encompassed within the severe noise exposure contour of 75 DNL and greater.

Relative to the No Action Alternative, one grid point (Point 389) would experience a significant noise increase with this alternative. This point is at the end of Runway 08 on Airport property. Point 389 (coordinates I=22, J=11) would experience a 20.5 DNL increase relative to the No Action (Alternative RSA-8). No significant off-airport increases would occur with Alternative RSA-6B.

### **C.2.2.7 ALTERNATIVE RSA-6C**

With Alternative RSA-6C, the runway thresholds would remain in their present locations. As a result, relative to existing conditions, aircraft would be at the same altitude as they currently operate when approaching the runway from either the east or west. Aircraft would also begin their departure roll from the locations currently used. Therefore, the location of the landing flight tracks would be the same as the No Action or baseline (2000) conditions.

In 2015, the total area (including airport property) that would be exposed to 65 DNL and greater noise levels would be 1.08 square miles, extending from approximately 2,640 feet off the west end of the runway and approximately 3,218 feet to the east of the runway. Approximately 0.25 square miles of land would be encompassed within the severe noise exposure contour of 75 DNL and greater.

Relative to the No Action Alternative, no sites would experience a significant increase in aircraft noise levels.

### **C.2.2.8 ALTERNATIVE RSA-6D**

With Alternative RSA-6D, the Runway 08 landing threshold would remain at its present location, and departures would begin approximately 400 feet west of the current threshold location. The Runway 26 landing threshold would remain at its present location, and departures would begin approximately 600 feet east of the current threshold. As a result, relative to existing conditions,

aircraft would be at a slightly lower altitude on take-off from the runway to either the east or the west. Therefore, the location of the departure flight tracks was altered to reflect the displaced thresholds that would be instituted for each runway end.

In 2015, the total area (including airport property) that would be exposed to 65 DNL and greater noise levels would be 1.09 square miles, extending from approximately 2,640 feet off the west end of the runway and approximately 3,218 feet to the east of the runway, virtually the same as Alternatives RSA-5C and RSA-6A. Approximately 0.16 square miles of land would be encompassed within the severe noise exposure contour of 75 DNL and greater.

Relative to the No Action (RSA-8), eight grid points (Points 371, 389, 641, 658, 659, 660, 676, and 678) would experience a significant noise increase with this alternative. Points 371 and 389 are located just west of the runway along centerline. Point 371 is located within the Mendenhall State Game Refuge, and Point 389 is located on Airport property. The remaining points are located along the runway centerline east of the runway. Points 641, 658, 659, and 660 are located on Airport property. Points 676 and 678 are located on the Mendenhall State Game Refuge. At point 371 (I=21, J=11), noise would increase from the No Action level of 71.9 DNL to 75.1 DNL (a 3.2 DNL increase). At point 389 (I=22, J=11), noise would increase from the No Action level of 80.7 DNL to 100.3 DNL (a 19.6 DNL increase). At point 641 (I=36, J=11), noise would increase from the No Action level of 76.9 DNL to 94.8 DNL (a 17.9 DNL increase). At point 658 (I=37, J=10), noise would increase from the No Action level of 68.7 DNL to 71.2 DNL (a 2.5 DNL increase). At point 659 (I=37, J=11), noise would increase from the No Action level of 70.8 DNL to 75.3 DNL (a 4.5 DNL increase). At point 660 (I=37, J=12), noise would increase from the No Action level of 68.6 DNL to 71.4 DNL (a 2.8 DNL increase). At point 676 (I=38, J=10), noise would increase from the No Action level of 67.1 DNL to 69.7 DNL (a 2.6 DNL increase), and at point 678 (I=38, J=12), noise would increase from the No Action level of 66.9 DNL to 70.2 DNL (a 3.3 DNL increase).

Because 1.5 DNL or greater increases were identified, a refined analysis was conducted using the “delta” contours to identify a contour associated with changes of 1.5 DNL or greater. Areas both east and west of the Airport could experience significant increases in noise relative to the No Action. These areas would fall completely within the Mendenhall State Game Refuge. Noise impacts to Refuge lands would not exceed 75 DNL, which is the FAA threshold for noise levels compatible with refuges and similar properties as outlined in the FAA Part 150 Land Use Compatibility guidelines, and would, therefore, be considered compatible with existing land use.

#### **C.2.2.9 ALTERNATIVES FW/RW-1 AND FW/RW-2**

This alternative assumes the helicopter operations at Northstar and other locations on the Airport would be relocated and combined with the helicopter operations near the existing Temsco facility, resulting in a single helicopter operation center on-Airport property. As with the No Action, this alternative assumes there would be no change in either the runway safety areas at the end of the runway, or changes in the departure and landing thresholds on the runway.

The contours associated with the scenario are similar in size and shape to the No Action (RSA-8) alternative, with the exception of a slightly larger area around the location of the Temsco helicopter facility. The noise contours for this alternative are presented in Section 4.7.1 of the EIS.

### C.2.3 DETAILED GRID ANALYSIS

To provide a greater level of detail, the noise levels around the Airport were also calculated on an evenly spaced grid that runs parallel with the main axis of the runway. The INM noise model was also used to determine the noise levels at each of these grid locations. The size and location of this grid are shown in Figure 4-7 in Chapter 4. This grid provides a greater definition of the noise levels within the 60 DNL noise contour, and will allow for a comparison of the change in noise level at specific points around the Airport relative to the different runway alternatives. Table C-6 lists the DNL levels at each of the 1,048 grid sites in DNL levels for the baseline and for 2015 for each RSA alternative.

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large)

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D'/6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
1	1	1	50.0	51.3	0	-0.1	-0.1	-0.1	-0.2
2	1	2	51.8	52.6	0	-0.1	-0.1	-0.1	-0.2
3	1	3	54.1	54.1	0	-0.1	0	0	-0.2
4	1	4	56.4	55.8	0	-0.1	0	0	-0.1
5	1	5	58.3	57.2	0	-0.2	0	0	0
6	1	6	59.0	57.9	0	-0.3	-0.1	0	0
7	1	7	58.4	57.4	0	-0.2	-0.1	0	0
8	1	8	56.7	56.1	0	-0.2	-0.1	0	-0.1
9	1	9	54.5	54.6	0	-0.1	0	0	-0.1
10	1	10	52.7	53.5	0	0	0	0	-0.1
11	1	11	51.5	52.7	0	0	0	0	0
12	1	12	50.6	51.9	0	0	0	0	0
13	1	13	49.7	51.1	0	0.1	0	0	0
14	1	14	49.0	50.4	0	0	0	0	0
15	1	15	48.4	49.7	0	0.1	0	0	0.1
16	1	16	47.9	49.1	0	0.1	0.1	0	0.1
17	1	17	47.3	48.5	0	0.1	0.1	0	0.1
18	1	18	46.8	47.9	0	0.1	0	0	0.1
19	2	1	49.6	51.1	0	-0.1	0	0	-0.1
20	2	2	51.3	52.3	0	-0.1	0	0	-0.1
21	2	3	53.5	53.8	0	-0.1	0	0	-0.2
22	2	4	55.9	55.5	0	-0.1	0	0	-0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
23	2	5	58.1	57.1	0	-0.2	0	0	0
24	2	6	59.2	58.1	0	-0.3	-0.1	0	0
25	2	7	59.0	57.9	0	-0.2	-0.1	0.1	0
26	2	8	57.4	56.7	0	-0.1	0	0	-0.1
27	2	9	55.3	55.3	0	-0.1	0	0	-0.1
28	2	10	53.5	54.2	0	0	0	0	-0.1
29	2	11	52.4	53.5	0	0	0	0	0
30	2	12	51.4	52.7	0	0	0	0	-0.1
31	2	13	50.4	51.7	0	0	0	0	0
32	2	14	49.4	50.8	0	0	0	0	0
33	2	15	48.6	49.9	0	0.1	0	0	0.1
34	2	16	47.8	49.1	0	0.1	0.1	0	0.1
35	2	17	47.1	48.4	0	0	0	0	0
36	2	18	46.4	47.6	0	0	0	0	0
37	3	1	49.3	50.9	0	-0.1	0	0	-0.1
38	3	2	50.9	52.1	0	-0.1	0	0	-0.1
39	3	3	53.0	53.5	0	-0.1	0	0	-0.1
40	3	4	55.4	55.2	0	-0.1	0	0	-0.1
41	3	5	57.7	57.0	0	-0.2	-0.1	-0.1	-0.1
42	3	6	59.3	58.2	0	-0.2	-0.1	0.1	0
43	3	7	59.5	58.4	0	-0.3	-0.1	0	0
44	3	8	58.2	57.4	0	-0.2	0	0	-0.1
45	3	9	56.1	56.0	0	-0.1	0	0	-0.1
46	3	10	54.4	55.0	0	0	0	0	-0.1
47	3	11	53.3	54.3	0	0	0	0	-0.1
48	3	12	51.9	53.2	0	0	0	0	0
49	3	13	50.6	52.0	0	0	0	0	0
50	3	14	49.4	50.8	0	0	0	0	0
51	3	15	48.3	49.7	0	0.1	0	0	0
52	3	16	47.4	48.8	0	0	0	0	0
53	3	17	46.6	47.9	0	0	0	0	0
54	3	18	45.8	47.0	0	0.1	0	0	0.1
55	4	1	49.0	50.7	0	0	0	0	0
56	4	2	50.5	51.9	0	-0.1	0	0	-0.1
57	4	3	52.4	53.3	0	-0.1	-0.1	-0.1	-0.2
58	4	4	54.8	54.9	0	-0.1	0	0	-0.2
59	4	5	57.4	56.8	0	-0.2	-0.1	-0.1	-0.2

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
60	4	6	59.3	58.2	0	-0.2	0	0.1	0
61	4	7	59.9	58.8	0	-0.3	-0.1	0.1	0
62	4	8	58.9	58.1	0	-0.2	-0.1	0	-0.1
63	4	9	56.9	56.7	0	-0.1	0	-0.1	-0.1
64	4	10	55.0	55.5	0	0	0	0	-0.1
65	4	11	53.6	54.6	0	0	0	0	-0.1
66	4	12	52.1	53.4	0	0	0	0	-0.1
67	4	13	50.6	52.0	0	0	0	0	0
68	4	14	49.2	50.6	0	0	0	0	0
69	4	15	48.0	49.4	0	0.1	0.1	0	0.1
70	4	16	46.9	48.4	0	0	0	0	0
71	4	17	46.0	47.4	0	0	0	0	0
72	4	18	45.1	46.5	0	0	0	0	0
73	5	1	48.8	50.6	0	0	0	0	-0.1
74	5	2	50.1	51.7	0	-0.1	0	0	-0.1
75	5	3	51.9	53.0	0	-0.1	0	0	-0.1
76	5	4	54.2	54.6	0	-0.1	-0.1	-0.1	-0.2
77	5	5	56.8	56.4	0	-0.1	0	0	-0.1
78	5	6	59.1	58.2	0	-0.2	-0.1	0	-0.1
79	5	7	60.2	59.1	0	-0.3	-0.1	0	0
80	5	8	59.6	58.6	0	-0.2	0	0.1	0
81	5	9	57.7	57.3	0	-0.1	0	0	-0.1
82	5	10	55.6	56.0	0	-0.1	0	0	-0.1
83	5	11	53.8	54.8	0	0	0	0	-0.1
84	5	12	52.2	53.4	0	0	0	0	0
85	5	13	50.5	52.0	0	-0.1	-0.1	-0.1	-0.1
86	5	14	49.0	50.5	0	0	0	0	0
87	5	15	47.7	49.2	0	0	0	0	0
88	5	16	46.5	48.1	0	0	0	0	0
89	5	17	45.5	47.0	0	0	0	0	0
90	5	18	44.6	45.9	0	0.1	0	0	0.1
91	6	1	48.6	50.4	0	0	0	0	0
92	6	2	49.8	51.5	0	0	0	0	-0.1
93	6	3	51.4	52.7	0	0	0	0	-0.1
94	6	4	53.6	54.2	0	0	0	0	-0.1
95	6	5	56.2	56.1	0	-0.1	-0.1	-0.1	-0.2
96	6	6	58.8	58.0	0	-0.2	-0.1	-0.1	-0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
97	6	7	60.4	59.2	0	-0.2	0	0.1	0.1
98	6	8	60.2	59.2	0	-0.2	-0.1	0.1	0
99	6	9	58.5	58.0	0	-0.2	-0.1	-0.1	-0.1
100	6	10	56.2	56.6	0	-0.1	-0.1	-0.1	-0.2
101	6	11	54.3	55.2	0	0	0	0	-0.1
102	6	12	52.4	53.7	0	-0.1	0	0	-0.1
103	6	13	50.6	52.1	0	-0.1	0	0	-0.1
104	6	14	48.9	50.5	0	-0.1	0	0	-0.1
105	6	15	47.4	49.1	0	0	0	0	0
106	6	16	46.2	47.8	0	0	0	0	0
107	6	17	45.1	46.6	0	0	0	0	0
108	6	18	44.1	45.5	0	0	0	0	0.1
109	7	1	48.4	50.3	0	0	0	0	0
110	7	2	49.6	51.3	0	0	0	0	0
111	7	3	51.1	52.5	0	0	0	0	-0.1
112	7	4	53.0	54.0	0	-0.1	-0.1	-0.1	-0.2
113	7	5	55.5	55.7	0	-0.1	0	0	-0.2
114	7	6	58.4	57.8	0	-0.2	-0.1	-0.1	-0.2
115	7	7	60.4	59.4	0	-0.3	-0.1	0	-0.1
116	7	8	60.9	59.8	0	-0.3	-0.1	0.1	0.1
117	7	9	59.6	58.9	0	-0.3	-0.1	0	-0.2
118	7	10	57.1	57.3	0	-0.1	0	-0.1	-0.2
119	7	11	55.0	55.9	0	-0.1	0	0	-0.1
120	7	12	52.9	54.2	0	-0.1	-0.1	0	-0.2
121	7	13	50.8	52.3	0	-0.1	-0.1	0	-0.1
122	7	14	48.9	50.5	0	0	0	0	0
123	7	15	47.4	49.0	0	0.1	0	0	0
124	7	16	46.0	47.6	0	0.1	0.1	0	0.1
125	7	17	44.8	46.3	0	0.1	0.1	0	0.1
126	7	18	43.7	45.1	0	0.1	0	0	0.1
127	8	1	48.3	50.2	0	0	0	0	0
128	8	2	49.4	51.2	0	0	0	0	-0.1
129	8	3	50.7	52.4	0	-0.1	-0.1	0	-0.1
130	8	4	52.6	53.8	0	-0.2	-0.1	0	-0.2
131	8	5	54.9	55.5	0	-0.2	-0.1	-0.1	-0.3
132	8	6	58.0	57.7	0	-0.3	-0.1	-0.1	-0.4
133	8	7	60.8	59.8	0	-0.3	-0.1	0	-0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
134	8	8	62.1	60.9	0	-0.4	-0.1	0.1	0.1
135	8	9	60.9	60.0	0	-0.3	-0.1	0	-0.1
136	8	10	58.1	58.2	0	-0.2	-0.1	-0.1	-0.3
137	8	11	55.9	56.8	0	-0.1	0	0	-0.2
138	8	12	53.5	54.7	0	-0.1	0	0	-0.1
139	8	13	50.9	52.4	0	-0.1	0	0	-0.1
140	8	14	48.9	50.6	0	-0.1	0	0	-0.1
141	8	15	47.3	49.0	0	0	0	0	0
142	8	16	45.9	47.4	0	0.1	0.1	0.1	0.1
143	8	17	44.7	46.2	0	0	0	0	0.1
144	8	18	43.7	45.0	0	0.1	0.1	0	0.1
145	9	1	48.2	50.2	0	-0.1	0	0	-0.1
146	9	2	49.2	51.1	0	0	0	0	-0.1
147	9	3	50.5	52.3	0	-0.1	0	0	-0.1
148	9	4	52.2	53.7	0	-0.2	-0.1	0	-0.2
149	9	5	54.4	55.3	0	-0.2	0	0	-0.2
150	9	6	57.4	57.4	0	-0.2	0	-0.1	-0.3
151	9	7	60.9	60.0	0	-0.2	-0.1	-0.1	-0.2
152	9	8	63.2	61.9	0	-0.4	-0.1	0.1	0.1
153	9	9	62.5	61.3	0	-0.3	-0.1	0.1	0
154	9	10	59.3	59.2	0	-0.2	0	-0.2	-0.4
155	9	11	57.3	58.2	0	-0.1	-0.1	-0.1	-0.2
156	9	12	54.0	55.2	0	-0.1	0	0	-0.1
157	9	13	51.4	52.8	0	-0.1	0	0	-0.1
158	9	14	49.6	51.0	0	0	0	0	0
159	9	15	48.0	49.5	0	0	0	0	0
160	9	16	46.5	48.0	0	0	0	0	0
161	9	17	45.3	46.6	0	0.1	0	0	0.1
162	9	18	44.4	45.5	0	0	0	0	0.1
163	10	1	48.1	50.1	0	0	0	0	0
164	10	2	49.0	51.0	0	0	0	0	0
165	10	3	50.3	52.2	0	-0.1	0	0	-0.1
166	10	4	52.0	53.6	0	-0.1	-0.1	0	-0.2
167	10	5	54.1	55.2	0	-0.2	-0.1	0	-0.2
168	10	6	56.8	57.1	0	-0.2	0	0	-0.3
169	10	7	60.6	59.9	0	-0.3	-0.1	-0.2	-0.4
170	10	8	63.5	62.2	0	-0.4	-0.1	0.2	0.2

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
171	10	9	63.4	62.2	0	-0.4	-0.1	0.2	0.2
172	10	10	60.8	60.4	0	-0.3	-0.1	-0.4	-0.6
173	10	11	58.1	58.9	0	-0.2	-0.1	-0.1	-0.3
174	10	12	54.9	56.0	0	-0.2	-0.1	0	-0.2
175	10	13	52.4	53.6	0	-0.2	-0.1	-0.1	-0.2
176	10	14	50.4	51.7	0	-0.1	-0.1	0	-0.1
177	10	15	48.7	50.0	0	0	0	0	0
178	10	16	47.3	48.5	0	0	0	0	0
179	10	17	46.0	47.2	0	0	0	0	0
180	10	18	45.0	46.0	0	0	0	0	0
181	11	1	48.2	50.2	0	0	0	0	0
182	11	2	49.1	51.1	0	0	0	0	0
183	11	3	50.3	52.3	0	-0.1	-0.1	0	-0.1
184	11	4	51.9	53.6	0	-0.1	0	0	-0.1
185	11	5	53.9	55.2	0	-0.2	-0.1	0	-0.2
186	11	6	56.4	57.0	0	-0.3	-0.1	-0.1	-0.4
187	11	7	59.7	59.4	0	-0.3	-0.1	-0.3	-0.5
188	11	8	62.7	61.6	0	-0.4	-0.1	0.1	-0.1
189	11	9	63.3	62.1	0	-0.4	-0.1	0.2	0.1
190	11	10	61.6	61.0	0	-0.4	-0.1	-0.1	-0.3
191	11	11	58.7	59.2	0	-0.3	-0.1	-0.1	-0.4
192	11	12	55.9	56.8	0	-0.2	-0.1	0	-0.3
193	11	13	53.4	54.4	0	-0.2	0	0	-0.2
194	11	14	51.2	52.3	0	-0.1	0	0	-0.1
195	11	15	49.5	50.6	0	0	0	0	0
196	11	16	48.0	49.1	0	0	0	0	0
197	11	17	46.8	47.7	0	0.1	0.1	0.1	0.1
198	11	18	45.7	46.5	0	0.1	0	0	0.1
199	12	1	48.5	50.5	0	0	0	0	0
200	12	2	49.4	51.4	0	0	0	0	0
201	12	3	50.6	52.5	0	-0.1	0	0	-0.1
202	12	4	52.2	53.9	0	-0.2	-0.1	0	-0.2
203	12	5	54.1	55.4	0	-0.3	-0.1	0	-0.3
204	12	6	56.3	57.1	0	-0.4	-0.2	-0.1	-0.5
205	12	7	59.1	59.0	0	-0.4	-0.1	-0.1	-0.5
206	12	8	62.0	61.1	0	-0.4	-0.1	0	-0.2
207	12	9	63.3	62.2	0	-0.5	-0.1	0.1	0

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
208	12	10	62.1	61.4	0	-0.4	-0.1	0	-0.2
209	12	11	59.4	59.5	0	-0.2	0	-0.1	-0.3
210	12	12	56.8	57.5	0	-0.2	0	0	-0.2
211	12	13	54.4	55.3	0	-0.1	-0.1	0	-0.2
212	12	14	52.3	53.2	0	0	0	0	-0.1
213	12	15	50.4	51.3	0	0	0	0	0
214	12	16	48.8	49.7	0	0.1	0	0	0.1
215	12	17	47.5	48.4	0	0	0	0	0
216	12	18	46.4	47.1	0	0.1	0	0	0.1
217	13	1	49.1	51.1	0	0	0	0	-0.1
218	13	2	50.1	52.0	0	-0.1	0	0	-0.1
219	13	3	51.4	53.1	0	-0.1	0	0	-0.1
220	13	4	52.9	54.4	0	-0.2	-0.1	0	-0.2
221	13	5	54.6	55.8	0	-0.3	-0.1	0	-0.3
222	13	6	56.5	57.3	0	-0.3	-0.1	-0.1	-0.4
223	13	7	58.8	58.9	0	-0.2	0	-0.1	-0.4
224	13	8	61.6	60.9	0	-0.2	0	0	-0.2
225	13	9	63.6	62.5	0	-0.4	-0.1	0.1	0.1
226	13	10	63.0	62.1	0	-0.3	-0.1	0	-0.1
227	13	11	60.5	60.3	0	-0.2	-0.1	-0.2	-0.3
228	13	12	57.7	58.1	0	-0.1	0	0	-0.2
229	13	13	55.3	56.0	0	-0.1	0	0	-0.1
230	13	14	53.1	54.0	0	-0.1	0	0	-0.1
231	13	15	51.2	52.1	0	0	0	0	0
232	13	16	49.6	50.4	0	0	0	0	0.1
233	13	17	48.3	49.0	0	0.1	0.1	0.1	0.1
234	13	18	47.3	47.8	0	0.1	0.1	0.1	0.2
235	14	1	50.3	51.9	0	0	0	0	-0.1
236	14	2	51.3	52.8	0	0	0	0	0
237	14	3	52.9	54.0	0	-0.1	0	0	-0.1
238	14	4	54.6	55.3	0	-0.1	0	0	-0.1
239	14	5	56.1	56.6	0	-0.1	0	0	-0.1
240	14	6	57.5	57.9	0	-0.2	-0.1	0	-0.2
241	14	7	59.2	59.2	0	-0.2	0	0	-0.2
242	14	8	61.5	61.0	0	-0.3	-0.1	-0.1	-0.4
243	14	9	63.8	62.8	0	-0.4	-0.1	0.1	0
244	14	10	63.9	62.9	0	-0.3	-0.1	0.1	0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
245	14	11	61.6	61.2	0	-0.2	0	-0.1	-0.3
246	14	12	58.6	59.0	0	-0.2	-0.1	-0.1	-0.3
247	14	13	56.1	56.8	0	-0.1	0	0	-0.2
248	14	14	53.9	54.7	0	0	0	0	0
249	14	15	51.9	52.8	0	0	0	0	0
250	14	16	50.5	51.2	0	0	0	0	0.1
251	14	17	49.3	49.9	0	0.1	0	0	0.1
252	14	18	48.4	48.9	0	0	0	0	0.1
253	15	1	52.5	53.2	0	-0.1	0	0	0
254	15	2	53.9	54.3	0	-0.1	0	0	-0.1
255	15	3	55.5	55.6	0	-0.1	-0.1	0	-0.1
256	15	4	57.1	56.9	0	-0.2	-0.1	0	-0.1
257	15	5	58.3	58.0	0	-0.1	0	0.1	0
258	15	6	59.4	59.1	0	-0.2	0	0.1	-0.1
259	15	7	60.5	60.2	0	-0.2	-0.1	0	-0.2
260	15	8	62.0	61.5	0	-0.3	-0.1	-0.1	-0.3
261	15	9	64.2	63.2	0	-0.3	-0.1	0	-0.2
262	15	10	64.8	63.8	0	-0.4	-0.1	0.2	0.1
263	15	11	62.7	62.3	0	-0.3	-0.1	-0.1	-0.3
264	15	12	59.6	59.9	0	-0.2	-0.1	-0.1	-0.3
265	15	13	56.9	57.7	0	-0.2	-0.1	0	-0.2
266	15	14	54.8	55.6	0	-0.1	0	0	-0.1
267	15	15	52.9	53.7	0	0	0	0	0.1
268	15	16	51.5	52.2	0	0	0	0	0.1
269	15	17	50.4	51.0	0	0	0	0	0.1
270	15	18	49.6	50.2	0	0	0	0	0
271	16	1	54.5	54.5	0	0	0	0.1	0
272	16	2	56.1	55.8	0	-0.1	-0.1	0	0
273	16	3	57.6	57.0	0	-0.1	0	0	0
274	16	4	59.0	58.3	0	-0.2	-0.1	0	0
275	16	5	60.1	59.3	0	-0.2	0	0	0
276	16	6	61.1	60.4	0	-0.3	-0.1	0	-0.1
277	16	7	62.0	61.3	0	-0.3	-0.1	0	-0.1
278	16	8	62.9	62.3	0	-0.3	-0.1	-0.1	-0.3
279	16	9	64.6	63.7	0	-0.3	-0.1	-0.1	-0.2
280	16	10	65.9	64.8	0	-0.4	-0.1	0.2	0.1
281	16	11	64.1	63.5	0	-0.3	-0.1	-0.1	-0.3

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
282	16	12	60.7	60.9	0	-0.2	0	-0.1	-0.3
283	16	13	57.9	58.7	0	-0.2	-0.1	-0.1	-0.2
284	16	14	55.8	56.6	0	-0.1	0	0	0
285	16	15	54.1	54.7	0	0	0	0.1	0.1
286	16	16	52.7	53.2	0	0.1	0.1	0.1	0.2
287	16	17	51.5	52.1	0	0	0	0	0.1
288	16	18	50.6	51.0	0	0.1	0	0.1	0.1
289	17	1	56.0	55.7	0	-0.2	-0.1	0	0
290	17	2	57.4	56.8	0	-0.1	0	0	0
291	17	3	58.8	58.0	0	-0.1	0	0	0
292	17	4	60.0	59.1	0	-0.2	-0.1	0	0
293	17	5	60.7	59.9	0	-0.2	-0.1	0	-0.1
294	17	6	61.4	60.7	0	-0.2	0	0	0
295	17	7	62.3	61.7	0	-0.3	-0.1	0	-0.1
296	17	8	63.4	62.8	0	-0.3	-0.1	-0.1	-0.2
297	17	9	65.1	64.2	0	-0.3	-0.1	-0.1	-0.3
298	17	10	66.6	65.5	0	-0.4	-0.2	0.2	0.1
299	17	11	65.8	65.0	0	-0.4	-0.2	-0.1	-0.2
300	17	12	62.0	62.1	0	-0.2	0	-0.2	-0.4
301	17	13	59.0	59.7	0	-0.2	0	0	-0.2
302	17	14	56.8	57.6	0	-0.1	-0.1	0	0
303	17	15	54.9	55.5	0	0	0	0	0.1
304	17	16	53.1	53.6	0	0	0	0	0.1
305	17	17	51.5	51.9	0	0.1	0	0	0.2
306	17	18	50.1	50.5	0	0.1	0	0	0.1
307	18	1	56.6	56.3	0	-0.1	0	0	0
308	18	2	58.1	57.4	0	-0.1	0	0	0
309	18	3	59.2	58.4	0	-0.1	0	0	0
310	18	4	59.8	59.0	0	-0.1	0	0	0
311	18	5	60.0	59.5	0	-0.1	0	0	0
312	18	6	60.2	60.1	0	-0.1	0	0	-0.1
313	18	7	61.0	61.0	0	-0.1	0	0.1	-0.1
314	18	8	62.8	62.5	0	-0.2	0	0	-0.1
315	18	9	64.8	64.2	0	-0.3	-0.1	-0.1	-0.2
316	18	10	67.3	66.2	0	-0.5	-0.2	0	-0.1
317	18	11	67.0	66.1	0	-0.4	-0.1	0.3	0.2
318	18	12	63.6	63.5	0	-0.2	-0.1	-0.4	-0.6

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
319	18	13	59.8	60.4	0	-0.1	0	0	0
320	18	14	57.4	57.9	0	0	0	0.1	0.2
321	18	15	55.1	55.6	0	0	0	0	0.1
322	18	16	53.1	53.4	0	0.1	0	0	0.2
323	18	17	51.3	51.5	0	0.1	0	0	0.2
324	18	18	49.7	49.9	0	0.1	0	0	0.2
325	19	1	56.8	56.7	0	-0.1	-0.1	0	-0.1
326	19	2	58.2	57.6	0	-0.1	0	0	0
327	19	3	58.9	58.3	0	-0.1	0	0	0
328	19	4	59.0	58.6	0	-0.1	0	0	0
329	19	5	58.5	58.8	0	-0.1	0	0	-0.1
330	19	6	58.3	59.2	0	-0.1	0	0	-0.1
331	19	7	59.3	60.3	0	-0.1	-0.1	0	-0.1
332	19	8	61.4	61.8	0	-0.1	0	0	0
333	19	9	64.1	63.9	0	-0.2	-0.1	-0.1	-0.2
334	19	10	67.1	66.2	0	-0.3	-0.1	0	0
335	19	11	68.4	67.3	0	-0.4	-0.1	0.5	0.5
336	19	12	65.0	64.7	0	-0.3	-0.1	-0.6	-0.7
337	19	13	60.9	61.2	0	-0.2	-0.1	0	0.2
338	19	14	58.2	58.4	0	0	0	0.1	0.3
339	19	15	55.6	55.8	0	0.1	0.1	0.1	0.3
340	19	16	53.3	53.5	0	0.1	0	0	0.2
341	19	17	51.4	51.5	0	0.1	0	0	0.2
342	19	18	49.7	49.7	0	0.2	0.1	0.1	0.2
343	20	1	56.9	56.9	0	0	0	0.1	0
344	20	2	58.2	57.7	0	-0.1	0	0	0
345	20	3	58.6	58.1	0	0	0	0	0
346	20	4	58.4	58.3	0	-0.1	0	0	0
347	20	5	57.6	58.4	0	0	0	0	0
348	20	6	57.6	58.9	0	0	0	0.1	0
349	20	7	58.9	60.0	0	0	0	0.1	0
350	20	8	61.1	61.6	0	-0.1	0	0.1	0
351	20	9	64.0	63.8	0	-0.2	-0.1	0	0.2
352	20	10	67.3	66.4	0	-0.3	-0.1	-0.4	0.6
353	20	11	69.7	68.5	0	-0.6	-0.2	0.8	0.9
354	20	12	66.2	65.7	0	-0.4	-0.1	-0.5	0.6
355	20	13	62.5	62.1	0	-0.2	-0.1	0.1	0.4

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
356	20	14	59.3	59.1	0	-0.1	0	0.1	0.2
357	20	15	56.3	56.3	0	0	0	0	0.2
358	20	16	53.7	53.7	0	0.2	0.1	0.1	0.3
359	20	17	51.6	51.6	0	0.2	0.1	0	0.2
360	20	18	49.9	49.8	0	0.2	0.1	0.1	0.2
361	21	1	56.8	57.1	0	-0.1	0	0	0
362	21	2	58.0	57.8	0	-0.1	0	0	0
363	21	3	58.3	58.1	0	-0.1	-0.1	-0.1	-0.1
364	21	4	58.0	58.1	0	0	0	0	0
365	21	5	57.4	58.2	0	0	0	0	0
366	21	6	57.4	58.6	0	0.1	0.1	0.1	0
367	21	7	58.7	59.7	0	0	0	0	0
368	21	8	61.3	61.5	0	-0.1	-0.1	0	-0.1
369	21	9	64.9	64.0	0	-0.2	-0.1	0.1	0.1
370	21	10	69.8	67.5	0	-0.2	-0.1	0.6	1.4
371	21	11	71.9	70.4	0	-0.8	-0.3	0.9	3.2
372	21	12	69.4	67.2	0	-0.2	-0.1	0.7	1.4
373	21	13	64.3	63.1	0	-0.1	0	0.1	0.2
374	21	14	60.2	59.6	0	0	0	0.1	0.1
375	21	15	56.8	56.6	0	0.1	0	0	0.1
376	21	16	54.0	53.9	0	0.2	0.1	0.1	0.2
377	21	17	51.9	51.8	0	0.2	0	0	0.2
378	21	18	50.1	50.0	0	0.1	0	0	0.2
379	22	1	56.7	57.2	0	-0.1	-0.1	0	0
380	22	2	57.7	57.8	0	0	0	0	0
381	22	3	58.1	58.0	0	0	0	0	0
382	22	4	57.8	58.0	0	-0.1	-0.1	-0.1	0
383	22	5	57.4	57.9	0	0	0	0	0
384	22	6	57.1	58.1	0	0	0	0	0
385	22	7	58.4	59.1	0	0	0	0	0
386	22	8	61.3	61.1	0	0	0	0	0
387	22	9	65.5	64.1	0	0	0	0.1	-0.1
388	22	10	72.9	69.5	0	-0.1	0	0.3	0.2
389	22	11	80.7	76.8	0	-1	-0.4	20.5	19.6
390	22	12	72.3	69.1	0	-0.1	0	0.3	0.1
391	22	13	65.2	63.7	0	-0.1	0	0	-0.1
392	22	14	60.5	59.8	0	0	0	0	0

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
393	22	15	56.9	56.6	0	0.2	0.1	0	0.1
394	22	16	54.1	53.9	0	0.2	0.1	0	0.2
395	22	17	52.0	51.8	0	0.2	0.1	0	0.2
396	22	18	50.2	50.1	0	0.1	0	-0.1	0.1
397	23	1	56.4	57.1	0	0	0	0	0
398	23	2	57.4	57.8	0	-0.1	-0.1	0	0
399	23	3	57.9	58.1	0	-0.1	-0.1	0	0
400	23	4	57.8	57.9	0	-0.1	0	0	0
401	23	5	57.3	57.6	0	0	0	0	0
402	23	6	57.0	57.6	0	0	0	-0.1	0
403	23	7	58.0	58.4	0	0.1	0.1	0	0.1
404	23	8	60.9	60.6	0	0.1	0	0	0
405	23	9	65.6	64.1	0	0	0	-0.1	-0.3
406	23	10	77.2	74.2	0	0	0	0	-0.3
407	23	11	103.9	98.4	0	-0.1	-0.1	-1.1	-0.9
408	23	12	73.0	69.6	0	-0.1	0	-0.2	-0.9
409	23	13	65.4	63.9	0	0	0	-0.1	-0.2
410	23	14	60.4	59.7	0	0.1	0	-0.1	0
411	23	15	56.7	56.5	0	0.2	0	-0.1	0.1
412	23	16	53.8	53.8	0	0.2	0	0	0.1
413	23	17	51.8	51.8	0	0.2	0	-0.1	0.1
414	23	18	50.1	50.1	0	0.1	0	-0.1	0.1
415	24	1	55.9	56.8	0	-0.1	-0.1	0	0
416	24	2	57.1	57.7	0	-0.1	-0.1	0	0
417	24	3	57.8	58.1	0	-0.1	-0.1	0	0
418	24	4	57.8	58.0	0	-0.1	-0.1	-0.1	0
419	24	5	57.4	57.5	0	0	0	0	0.1
420	24	6	57.1	57.3	0	0	0	0	0
421	24	7	57.7	57.9	0	0.2	0	0	0.1
422	24	8	60.4	60.1	0	0.1	0	0	0
423	24	9	65.0	63.7	0	0	0	0	-0.1
424	24	10	76.1	73.2	0	0	0	0	-0.1
425	24	11	98.6	92.6	0	0.1	0.2	-0.8	-2.3
426	24	12	72.0	68.5	0	-0.2	0	-0.1	-0.4
427	24	13	65.4	64.3	0	0	0	-0.1	-0.1
428	24	14	60.1	59.5	0	0.2	0.1	0	0.1
429	24	15	56.4	56.3	0	0.3	0.1	0	0.2

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
430	24	16	53.7	53.7	0	0.3	0.1	0	0.2
431	24	17	51.8	51.9	0	0.1	0	-0.1	0.1
432	24	18	50.1	50.2	0	0.2	0.1	0	0.1
433	25	1	55.4	56.3	0	-0.1	-0.1	-0.1	-0.1
434	25	2	56.7	57.4	0	-0.1	-0.1	0	0
435	25	3	57.6	58.1	0	-0.1	-0.2	-0.1	-0.1
436	25	4	57.8	58.1	0	-0.1	-0.1	0	0
437	25	5	57.5	57.7	0	0	0	0	0
438	25	6	57.2	57.3	0	0	0	0	0
439	25	7	57.6	57.7	0	0.1	0	0	0.1
440	25	8	60.0	59.9	0	0	0	0	0
441	25	9	64.5	63.5	0	0	0	0	0
442	25	10	73.3	70.7	0	0	0	-0.1	-0.1
443	25	11	95.7	89.1	0	0.2	0	-0.5	-1.5
444	25	12	71.3	68.1	0	0	0	-0.1	-0.2
445	25	13	67.6	67.6	0	0	0	0	0
446	25	14	60.0	59.8	0	0.1	0	0	0.1
447	25	15	56.4	56.5	0	0.1	0	0	0.1
448	25	16	53.8	54.1	0	0.1	0	0	0.1
449	25	17	51.9	52.2	0	0.1	0.1	0	0.2
450	25	18	50.4	50.7	0	0.1	0	0	0.1
451	26	1	54.8	55.6	0	-0.1	-0.1	0	-0.1
452	26	2	56.3	56.9	0	0	-0.1	0	0
453	26	3	57.3	57.9	0	-0.1	-0.1	0	0
454	26	4	57.8	58.2	0	0	-0.1	0	0
455	26	5	57.7	58.0	0	-0.1	-0.1	-0.1	0
456	26	6	57.4	57.5	0	0	0	0	0
457	26	7	57.7	57.8	0	0	0	0	0.1
458	26	8	59.8	59.9	0	0	0	0	0
459	26	9	64.2	63.5	0	0	0	0	0
460	26	10	71.6	69.7	0	-0.1	0	0	-0.2
461	26	11	93.5	87.3	0	-0.5	-0.1	-0.2	-1.5
462	26	12	70.9	68.1	0	-0.1	0	0	-0.2
463	26	13	65.9	65.8	0	0	0	0	0
464	26	14	60.3	60.6	0	0	0	0	0
465	26	15	57.0	57.4	0	0	0	0	0
466	26	16	54.5	55.0	0	0.1	0.1	0.1	0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
467	26	17	52.7	53.2	0	0.1	0	0	0.1
468	26	18	51.2	51.7	0	0.1	0	0	0.1
469	27	1	54.2	54.8	0	-0.1	-0.1	0	0
470	27	2	55.8	56.3	0	0	0	0	0
471	27	3	56.9	57.5	0	0	-0.1	0	0
472	27	4	57.7	58.3	0	-0.1	-0.2	-0.1	0
473	27	5	57.8	58.2	0	0	-0.1	0	0.1
474	27	6	57.6	57.7	0	0.1	0	0	0.1
475	27	7	57.9	57.8	0	0.2	0.1	0	0.2
476	27	8	59.7	59.6	0	0.3	0.1	0	0.4
477	27	9	63.9	63.3	0	0.1	0	0	0.2
478	27	10	71.4	71.3	0	0	0	0	0
479	27	11	92.8	87.5	0	-1.1	-0.1	-0.2	-1.8
480	27	12	70.5	68.2	0	-0.1	0	0	-0.2
481	27	13	64.4	64.2	0	0.1	0	0	0.1
482	27	14	60.3	60.6	0	0.3	0.1	0	0.3
483	27	15	57.5	58.0	0	0.2	0	0	0.2
484	27	16	55.8	56.3	0	0.2	0.1	0	0.2
485	27	17	54.4	55.0	0	0.1	0	0	0.1
486	27	18	53.0	53.6	0	0.1	0.1	0	0.1
487	28	1	53.5	54.0	0	0	0	0	0
488	28	2	55.2	55.6	0	0	0	0	0
489	28	3	56.5	57.1	0	0	-0.1	0	0
490	28	4	57.5	58.2	0	-0.1	-0.1	0	0
491	28	5	57.9	58.4	0	0	-0.1	0	0.1
492	28	6	57.9	58.0	0	0.1	0	0	0.1
493	28	7	58.1	57.9	0	0.2	0.1	0	0.3
494	28	8	59.8	59.4	0	0.4	0.2	0.1	0.5
495	28	9	63.8	63.3	0	0.1	0	0	0.2
496	28	10	72.4	74.8	0	-0.1	0	0	-0.1
497	28	11	93.9	90.8	0	-0.5	0	-0.1	-1.2
498	28	12	70.0	68.4	0	-0.2	-0.1	-0.1	-0.2
499	28	13	63.9	63.8	0	0.1	0	0	0.2
500	28	14	59.5	59.7	0	0.3	0.1	0	0.4
501	28	15	56.2	56.5	0	0.3	0.1	0	0.4
502	28	16	54.5	54.9	0	0.2	0.1	0	0.3
503	28	17	53.8	54.4	0	0.1	0	0	0.2

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
504	28	18	54.7	55.3	0	0.1	0.1	0	0.1
505	29	1	52.8	53.1	0	0	0	0	0
506	29	2	54.6	54.9	0	0	0	0	0
507	29	3	56.2	56.6	0	0	0	0	0.1
508	29	4	57.3	57.9	0	0	-0.1	0	0.1
509	29	5	58.0	58.5	0	0	-0.1	0	0.1
510	29	6	58.2	58.4	0	0	-0.1	0	0.1
511	29	7	58.5	58.2	0	0.1	0	0	0.2
512	29	8	60.2	59.5	0	0.3	0.1	0.1	0.4
513	29	9	64.0	63.4	0	0.3	0.1	0.1	0.4
514	29	10	72.8	75.5	0	0	0	0	0
515	29	11	92.8	93.7	0	-2	-0.1	0	-1.5
516	29	12	70.1	68.5	0	-0.1	0	0	-0.1
517	29	13	64.2	63.9	0	0.2	0.1	0	0.4
518	29	14	59.1	58.9	0	0.3	0.1	0	0.4
519	29	15	55.6	55.5	0	0.3	0.1	0.1	0.5
520	29	16	53.1	53.2	0	0.3	0.1	0.1	0.4
521	29	17	51.4	51.7	0	0.2	0	0	0.3
522	29	18	50.2	50.7	0	0.1	0	0	0.2
523	30	1	52.2	52.4	0	0	0	0	0
524	30	2	54.0	54.1	0	0	0.1	0	0
525	30	3	55.7	56.0	0	-0.1	-0.1	0	0
526	30	4	57.1	57.6	0	0	-0.1	0	0
527	30	5	58.1	58.7	0	-0.1	-0.2	-0.1	0
528	30	6	58.6	58.8	0	0	-0.1	0	0.1
529	30	7	59.1	58.6	0	0.1	0	0	0.2
530	30	8	60.9	59.8	0	0.1	0	0	0.3
531	30	9	64.4	63.2	0	0.2	0	0	0.3
532	30	10	70.6	69.6	0	-0.1	-0.1	0	-0.1
533	30	11	91.2	92.7	0	-0.5	-0.3	-1	-0.7
534	30	12	70.6	68.6	0	-0.1	-0.1	0	-0.1
535	30	13	65.1	64.4	0	0.1	0	0	0.2
536	30	14	59.4	58.6	0	0.2	0	0	0.4
537	30	15	55.5	54.9	0	0.2	0.1	0.1	0.5
538	30	16	52.5	52.2	0	0.2	0	0	0.4
539	30	17	50.3	50.3	0	0.1	0	0	0.3
540	30	18	48.5	48.8	0	0	0	0	0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
541	31	1	51.7	51.8	0	0	0	0	0
542	31	2	53.5	53.4	0	0	0.1	0.1	0
543	31	3	55.3	55.4	0	-0.1	-0.1	0	-0.1
544	31	4	56.8	57.2	0	0	-0.1	0	0
545	31	5	58.1	58.6	0	-0.1	-0.1	0	0
546	31	6	58.9	59.1	0	0	-0.1	0	0
547	31	7	59.8	59.1	0	0.1	0	0.1	0.1
548	31	8	61.7	60.2	0	0	0	0	0.1
549	31	9	64.9	63.0	0	0.1	0	0	0.1
550	31	10	70.9	69.3	0	-0.2	-0.1	0	-0.3
551	31	11	90.8	91.3	0	-0.4	-0.4	0	-1.2
552	31	12	71.1	68.7	0	-0.2	0	0	-0.2
553	31	13	66.1	65.2	0	0.1	0	0	0.1
554	31	14	60.0	58.5	0	0.1	0	0	0.3
555	31	15	55.6	54.4	0	0.1	0	0.1	0.3
556	31	16	52.3	51.6	0	0.1	0	0	0.2
557	31	17	49.6	49.3	0	0	0	0.1	0.2
558	31	18	47.7	47.9	0	-0.1	0	0	-0.1
559	32	1	51.2	51.2	0	0	0	0	0
560	32	2	53.0	52.8	0	0	0	0	0
561	32	3	54.7	54.6	0	0	0	0.1	0
562	32	4	56.4	56.6	0	-0.1	-0.1	0	0
563	32	5	57.9	58.3	0	-0.1	-0.1	0	0
564	32	6	59.1	59.3	0	0	-0.1	0	0
565	32	7	60.3	59.7	0	0	-0.1	0	0
566	32	8	62.3	60.6	0	0	0	0	0
567	32	9	65.4	63.2	0	0	0	0	0
568	32	10	71.0	69.2	0	-0.2	0	0	-0.3
569	32	11	91.7	92.3	0	-1.3	-0.5	0.1	-1.6
570	32	12	71.2	68.9	0	-0.2	0	0	-0.3
571	32	13	68.7	68.4	0	0	0	0	0
572	32	14	60.8	59.1	0	0.1	0	0.1	0.1
573	32	15	56.0	54.4	0	0.1	0.1	0.1	0.2
574	32	16	52.6	51.5	0	0.1	0	0.1	0.1
575	32	17	49.8	49.5	0	-0.2	-0.1	0	-0.1
576	32	18	47.7	47.8	0	-0.1	0	0.1	-0.1
577	33	1	50.6	50.6	0	-0.1	0	0	-0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
578	33	2	52.3	52.0	0	0	0.1	0.1	0
579	33	3	54.1	53.8	0	0	0	0	0
580	33	4	56.0	55.9	0	-0.1	-0.1	0	0
581	33	5	57.6	57.9	0	-0.1	-0.1	0	0
582	33	6	59.1	59.4	0	-0.1	-0.2	0	0
583	33	7	60.5	60.1	0	-0.1	-0.2	0	0
584	33	8	62.5	60.9	0	0	0	0	0
585	33	9	65.7	63.3	0	0	0	0	0
586	33	10	70.9	69.3	0	-0.3	-0.2	0	-0.3
587	33	11	92.9	93.7	0	-1.5	-0.6	0.1	-1.5
588	33	12	71.1	69.2	0	-0.3	-0.2	0	-0.3
589	33	13	69.6	69.4	0	-0.1	-0.1	0	0
590	33	14	63.0	62.2	0	0	0	0	0
591	33	15	56.7	54.9	0	0	0	0	0.1
592	33	16	53.0	51.7	0	-0.1	0	0.1	0
593	33	17	50.3	49.8	0	-0.2	-0.1	0	-0.2
594	33	18	47.8	48.0	0	-0.2	-0.1	0	-0.1
595	34	1	50.0	50.0	0	0	0	0	0
596	34	2	51.7	51.4	0	-0.1	0	0	-0.1
597	34	3	53.5	53.1	0	-0.1	-0.1	0	-0.1
598	34	4	55.4	55.1	0	-0.1	0	0	0
599	34	5	57.2	57.2	0	-0.1	-0.1	0	0
600	34	6	58.9	59.0	0	-0.1	-0.2	0	0
601	34	7	60.5	60.1	0	-0.1	-0.1	0	0
602	34	8	62.6	61.1	0	-0.2	-0.1	-0.1	-0.2
603	34	9	65.9	63.5	0	-0.3	-0.1	0	-0.3
604	34	10	70.8	69.6	0	-0.6	-0.2	-0.1	-0.5
605	34	11	94.8	96.4	0	-2.9	-1	-0.1	-2.3
606	34	12	71.0	69.6	0	-0.6	-0.2	-0.1	-0.5
607	34	13	67.4	66.2	0	-0.1	0	0	-0.1
608	34	14	62.8	61.5	0	-0.1	0	0	0
609	34	15	57.7	55.8	0	-0.2	-0.1	0	0
610	34	16	53.8	52.2	0	-0.2	-0.1	0	0
611	34	17	51.0	50.1	0	-0.2	0	0	-0.1
612	34	18	48.6	48.4	0	-0.2	0	0	-0.1
613	35	1	49.5	49.5	0	0	0	0	0
614	35	2	51.1	50.8	0	-0.1	0	0	0

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
615	35	3	53.0	52.4	0	-0.1	0	0	-0.1
616	35	4	54.9	54.2	0	-0.1	0	0.1	0
617	35	5	56.7	56.4	0	-0.1	-0.1	0	0
618	35	6	58.6	58.5	0	-0.1	-0.2	0	0
619	35	7	60.5	60.2	0	-0.2	-0.2	-0.1	-0.1
620	35	8	62.8	61.3	0	-0.2	-0.1	0	-0.1
621	35	9	66.0	63.9	0	-0.5	-0.1	0	-0.4
622	35	10	71.0	70.8	0	-1.4	-0.4	0	-1.4
623	35	11	96.6	98.7	0	-2.5	-1.6	-0.1	-3.1
624	35	12	71.0	70.6	0	-1.3	-0.3	0	-1.4
625	35	13	66.3	64.5	0	-0.4	-0.1	0	-0.4
626	35	14	62.6	60.8	0	-0.2	-0.1	0	-0.1
627	35	15	58.3	56.2	0	-0.2	0	0	0
628	35	16	54.6	52.7	0	-0.1	0	0.1	0
629	35	17	51.8	50.5	0	-0.2	0	0	0
630	35	18	49.5	48.8	0	-0.2	-0.1	0	-0.1
631	36	1	49.2	49.1	0	0	0	0.1	0
632	36	2	50.7	50.4	0	-0.1	0	0	-0.1
633	36	3	52.5	51.8	0	-0.1	0	0	0
634	36	4	54.4	53.6	0	-0.2	-0.1	0	-0.1
635	36	5	56.3	55.7	0	-0.2	-0.1	0	0
636	36	6	58.3	58.0	0	-0.2	-0.2	0	0
637	36	7	60.5	60.1	0	-0.2	-0.3	0	0
638	36	8	63.0	61.6	0	-0.2	-0.2	0	0
639	36	9	65.8	64.1	0	-0.2	0	0	-0.1
640	36	10	70.4	70.3	0	0.3	0.5	0	0.4
641	36	11	76.9	79.2	0	17.9	19.5	-0.3	17.9
642	36	12	70.5	70.2	0	0.4	0.5	0	0.4
643	36	13	66.0	64.1	0	0	0.1	0	0
644	36	14	62.6	60.4	0	-0.1	0	0	-0.1
645	36	15	58.7	56.4	0	-0.1	0	0.1	0
646	36	16	55.3	53.2	0	-0.1	0	0	0
647	36	17	52.6	51.0	0	-0.2	-0.1	0	0
648	36	18	50.3	49.2	0	-0.2	-0.1	0	-0.1
649	37	1	48.9	48.8	0	0	0	0	0
650	37	2	50.5	49.9	0	0.1	0.1	0.1	0.1
651	37	3	52.2	51.3	0	0	0	0	0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
652	37	4	54.0	52.9	0	0	0	0	0.1
653	37	5	56.0	54.9	0	-0.1	0	0	0.1
654	37	6	58.0	57.2	0	-0.1	-0.1	0	0.1
655	37	7	60.3	59.6	0	0	-0.2	0	0.1
656	37	8	62.9	61.5	0	0	-0.1	-0.1	0.1
657	37	9	65.5	63.7	0	0.4	0.1	0	0.5
658	37	10	68.7	67.8	0	2.4	1.1	0	2.5
659	37	11	70.8	72.7	0	14.1	0.2	-0.4	4.5
660	37	12	68.6	67.3	0	2.8	1.4	-0.1	2.8
661	37	13	65.5	63.1	0	0.7	0.3	0	0.6
662	37	14	62.5	59.9	0	0.3	0.1	0.1	0.3
663	37	15	59.0	56.4	0	0.1	0.1	0	0.2
664	37	16	55.8	53.4	0	0.1	0	0	0.2
665	37	17	53.1	51.1	0	0.1	0.1	0.1	0.2
666	37	18	50.8	49.3	0	0.1	0	0	0.2
667	38	1	48.7	48.4	0	0.1	0.1	0.1	0.1
668	38	2	50.3	49.6	0	0	0	0	0.1
669	38	3	51.9	50.9	0	0	0	0	0
670	38	4	53.7	52.3	0	0.1	0.1	0.1	0.1
671	38	5	55.7	54.2	0	0	0	0	0.1
672	38	6	57.8	56.5	0	0	0	0	0.1
673	38	7	60.2	59.1	0	0	-0.1	-0.1	0.1
674	38	8	62.8	61.6	0	0.1	-0.3	-0.1	0.3
675	38	9	65.0	63.2	0	0.8	0.1	0	0.9
676	38	10	67.1	65.2	0	2.6	0.3	0	2.6
677	38	11	69.6	71.0	0	1.5	0.2	-0.2	0
678	38	12	66.9	63.8	0	3.5	0.7	0	3.3
679	38	13	64.8	61.7	0	1.3	0.4	0	1.2
680	38	14	62.2	59.3	0	0.4	0.1	0	0.4
681	38	15	59.1	56.2	0	0.2	0.1	0	0.3
682	38	16	56.1	53.5	0	0.1	0	0	0.2
683	38	17	53.5	51.2	0	0.1	0	0	0.2
684	38	18	51.1	49.3	0	0.1	0.1	0	0.2
685	39	1	48.6	48.2	0	0	0	0	0
686	39	2	50.1	49.3	0	0	0	0	0.1
687	39	3	51.7	50.5	0	0.1	0.1	0	0.1
688	39	4	53.5	51.9	0	0.1	0.1	0	0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
689	39	5	55.5	53.5	0	0.2	0.2	0	0.2
690	39	6	57.5	55.4	0	0.3	0.3	0.1	0.2
691	39	7	59.8	57.8	0	0.5	0.3	0	0.2
692	39	8	62.3	60.3	0	0.7	0.4	0	0.4
693	39	9	64.5	62.3	0	0.8	0.3	-0.1	0.5
694	39	10	66.6	64.6	0	0.4	0.3	0	0.1
695	39	11	68.7	69.7	0	1.1	0.2	-0.2	0
696	39	12	66.4	63.3	0	0.4	0.3	0	0.1
697	39	13	64.3	60.7	0	0.8	0.2	0	0.7
698	39	14	62.0	58.6	0	0.5	0.2	0	0.5
699	39	15	59.2	55.9	0	0.3	0.1	0	0.4
700	39	16	56.4	53.5	0	0.2	0.1	0	0.3
701	39	17	53.8	51.2	0	0.2	0.1	0.1	0.3
702	39	18	51.4	49.3	0	0.2	0.1	0	0.2
703	40	1	48.5	48.0	0	0	0	0	0.1
704	40	2	50.0	49.0	0	0.1	0.1	0.1	0.1
705	40	3	51.6	50.2	0	0.1	0.1	0	0.1
706	40	4	53.4	51.5	0	0.1	0.1	0.1	0.2
707	40	5	55.3	53.0	0	0.2	0.2	0.1	0.2
708	40	6	57.3	54.7	0	0.3	0.2	0	0.2
709	40	7	59.6	56.6	0	0.6	0.5	0	0.2
710	40	8	61.9	58.7	0	1.2	0.9	0	0.2
711	40	9	64.0	60.8	0	1.2	0.9	0	0.2
712	40	10	66.1	64.0	0	0.4	0.5	0	-0.1
713	40	11	67.9	68.6	0	0.9	0.1	-0.2	-0.1
714	40	12	66.0	63.3	0	-0.1	0.1	0	-0.2
715	40	13	64.0	60.1	0	0.4	0.1	0	0.3
716	40	14	61.8	58.1	0	0.3	0.1	0	0.3
717	40	15	59.2	55.6	0	0.3	0.1	0.1	0.3
718	40	16	56.5	53.4	0	0.2	0.1	0	0.2
719	40	17	54.0	51.2	0	0.2	0.1	0	0.3
720	40	18	51.6	49.2	0	0.2	0.1	0.1	0.3
721	41	1	48.6	47.9	0	0	0	0	0
722	41	2	50.0	48.9	0	0	0	0	0.1
723	41	3	51.5	50.0	0	0.1	0.1	0	0.1
724	41	4	53.3	51.3	0	0.1	0	0	0.1
725	41	5	55.2	52.7	0	0.1	0.1	0	0.2

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
726	41	6	57.2	54.2	0	0.2	0.1	0	0.1
727	41	7	59.4	55.8	0	0.4	0.3	0	0.1
728	41	8	61.6	57.7	0	0.6	0.6	0	0.1
729	41	9	63.6	60.0	0	0.5	0.5	0	-0.1
730	41	10	65.6	63.7	0	0.1	0.2	0	-0.1
731	41	11	67.2	67.6	0	0.7	0.1	-0.2	0
732	41	12	65.6	63.4	0	-0.1	0	-0.1	-0.2
733	41	13	63.7	59.9	0	-0.1	0	-0.1	-0.2
734	41	14	61.5	57.7	0	0.1	0	-0.1	0
735	41	15	59.1	55.3	0	0.2	0.1	0	0.2
736	41	16	56.5	53.2	0	0.1	0	0	0.1
737	41	17	54.1	51.1	0	0.2	0.1	0	0.2
738	41	18	51.7	49.1	0	0.2	0.1	0.1	0.3
739	42	1	48.7	47.8	0	0.1	0.1	0	0.1
740	42	2	50.0	48.8	0	0.1	0	0	0.1
741	42	3	51.5	49.9	0	0.1	0	0	0.1
742	42	4	53.3	51.1	0	0.1	0.1	0	0.1
743	42	5	55.1	52.5	0	0.1	0	0	0.1
744	42	6	57.1	53.9	0	0.1	0.1	0	0.1
745	42	7	59.2	55.5	0	0.1	0.1	0	0.1
746	42	8	61.3	57.4	0	0.1	0.1	-0.1	-0.1
747	42	9	63.3	59.8	0	0	0.1	0	-0.1
748	42	10	65.2	63.7	0	-0.1	0	-0.1	-0.1
749	42	11	66.5	66.8	0	0.6	0	-0.2	-0.1
750	42	12	65.2	63.4	0	0	0	-0.1	-0.1
751	42	13	63.3	59.6	0	0	0.1	0	-0.1
752	42	14	61.2	57.3	0	0	0	0	0
753	42	15	58.9	55.0	0	0.1	0	0	0.1
754	42	16	56.4	52.9	0	0.1	0	0	0.1
755	42	17	54.1	51.0	0	0.2	0.1	0	0.2
756	42	18	51.9	49.2	0	0.1	0	0	0.2
757	43	1	48.9	47.9	0	0.1	0.1	0.1	0.1
758	43	2	50.2	48.9	0	0	0	0	0
759	43	3	51.7	49.9	0	0.1	0.1	0	0.1
760	43	4	53.3	51.1	0	0.1	0	0	0.1
761	43	5	55.1	52.4	0	0.1	0.1	0	0.1
762	43	6	57.0	53.8	0	0	0	0	0

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
763	43	7	59.1	55.3	0	0.1	0	0	0
764	43	8	61.1	57.2	0	0	0	0	-0.1
765	43	9	63.0	59.7	0	-0.1	0	0	-0.1
766	43	10	64.9	63.6	0	0	-0.1	-0.1	-0.1
767	43	11	66.0	66.1	0	0.5	0	-0.2	-0.1
768	43	12	64.8	63.3	0	0.1	0.1	0	-0.1
769	43	13	63.0	59.5	0	-0.1	0	0	-0.2
770	43	14	60.9	57.0	0	0	0	0	-0.1
771	43	15	58.6	54.7	0	0.1	0.1	0	0.1
772	43	16	56.3	52.7	0	0.1	0.1	0	0.1
773	43	17	54.1	50.9	0	0.1	0.1	0	0.1
774	43	18	52.0	49.2	0	0.1	0.1	0	0.2
775	44	1	49.1	48.1	0	0.1	0.1	0.1	0.1
776	44	2	50.4	49.0	0	0.1	0.1	0.1	0.1
777	44	3	51.9	50.1	0	0	0	0	0.1
778	44	4	53.5	51.2	0	0.1	0	0	0.1
779	44	5	55.2	52.5	0	0	0	0	0
780	44	6	57.1	53.7	0	0	0	0	0
781	44	7	59.0	55.2	0	0	0.1	0	0
782	44	8	60.9	57.1	0	0	0	0	-0.1
783	44	9	62.7	59.7	0	-0.1	0	0	-0.1
784	44	10	64.5	63.4	0	0.1	0	-0.1	-0.1
785	44	11	65.4	65.4	0	0.4	0	-0.1	0
786	44	12	64.4	63.2	0	0.2	0	0	-0.1
787	44	13	62.6	59.4	0	-0.1	0	0	-0.1
788	44	14	60.5	56.8	0	0	0	0	-0.1
789	44	15	58.4	54.6	0	0	0	0	-0.1
790	44	16	56.1	52.6	0	0	0	0	0
791	44	17	54.0	50.8	0	0.1	0.1	0	0.1
792	44	18	51.9	49.2	0	0.1	0	0	0.1
793	45	1	49.3	48.4	0	0	0	0	0
794	45	2	50.6	49.3	0	0	0	0	0
795	45	3	52.1	50.3	0	0	0	0	0
796	45	4	53.7	51.4	0	0	0	0	0
797	45	5	55.3	52.5	0	0	0	0	0
798	45	6	57.1	53.8	0	0	0	0	0
799	45	7	58.9	55.3	0	0	0	0	-0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
800	45	8	60.7	57.2	0	-0.1	0	-0.1	-0.2
801	45	9	62.5	59.7	0	-0.1	0	0	-0.1
802	45	10	64.1	63.2	0	0.2	0	0	0
803	45	11	64.8	64.8	0	0.4	0	-0.1	0
804	45	12	63.9	63.1	0	0.1	0	-0.1	-0.1
805	45	13	62.1	59.4	0	-0.1	0	-0.1	-0.2
806	45	14	60.1	56.6	0	0	0	0	-0.1
807	45	15	58.0	54.4	0	0	0	0	-0.1
808	45	16	55.8	52.4	0	0	0	0	0
809	45	17	53.7	50.7	0	0.1	0	0	0.1
810	45	18	51.7	49.1	0	0.1	0	0	0.1
811	46	1	49.5	48.6	0	0	0	0	0.1
812	46	2	50.8	49.5	0	0	0	0	0
813	46	3	52.3	50.5	0	0	0	0	0
814	46	4	53.8	51.6	0	0	0	0	0
815	46	5	55.4	52.7	0	0	0	0	0
816	46	6	57.1	53.9	0	0	0	0	0
817	46	7	58.8	55.4	0	0	0	0	-0.1
818	46	8	60.5	57.3	0	-0.1	0	-0.1	-0.2
819	46	9	62.2	59.8	0	0	0	0	-0.1
820	46	10	63.7	63.0	0	0.2	0	-0.1	-0.1
821	46	11	64.2	64.3	0	0.3	0	-0.1	-0.1
822	46	12	63.4	62.8	0	0.2	0	-0.1	-0.1
823	46	13	61.6	59.3	0	0	0	0	-0.1
824	46	14	59.5	56.4	0	0	0	0	-0.1
825	46	15	57.4	54.2	0	-0.1	0	-0.1	-0.1
826	46	16	55.3	52.2	0	0	0	0	-0.1
827	46	17	53.3	50.5	0	0	0	0	0
828	46	18	51.4	49.0	0	0	0	0	0
829	47	1	49.7	48.8	0	0	0	0	0
830	47	2	51.0	49.7	0	0	0	0	0
831	47	3	52.4	50.7	0	0	0	0	0
832	47	4	53.9	51.7	0	0	0	0	0
833	47	5	55.4	52.9	0	-0.1	0	-0.1	-0.1
834	47	6	57.1	54.1	0	0	0	0	-0.1
835	47	7	58.7	55.6	0	-0.1	0	-0.1	-0.1
836	47	8	60.2	57.4	0	-0.1	0	0	-0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
837	47	9	61.8	59.9	0	0	0	0	-0.1
838	47	10	63.1	62.8	0	0.1	0	-0.1	-0.1
839	47	11	63.5	63.7	0	0.3	0	-0.1	0
840	47	12	62.7	62.4	0	0.2	0	-0.1	-0.1
841	47	13	60.9	59.1	0	0	0	0	-0.1
842	47	14	58.9	56.1	0	0	0	0	-0.1
843	47	15	56.8	53.8	0	0	0	0	-0.1
844	47	16	54.8	51.9	0	-0.1	0	-0.1	-0.1
845	47	17	52.8	50.2	0	0	0	0	0
846	47	18	50.9	48.7	0	0.1	0.1	0	0.1
847	48	1	49.9	49.0	0	0	0	0	0
848	48	2	51.2	49.9	0	-0.1	0	0	0
849	48	3	52.5	50.8	0	0	0	0	0
850	48	4	54.0	51.9	0	0	0	0	0
851	48	5	55.5	53.1	0	-0.1	0	-0.1	-0.1
852	48	6	57.1	54.4	0	-0.1	0	-0.1	-0.1
853	48	7	58.6	55.8	0	0	0	0	-0.1
854	48	8	60.1	57.7	0	0	0	0	-0.1
855	48	9	61.5	60.3	0	0	0	-0.1	-0.1
856	48	10	62.5	62.5	0	0.2	0	-0.1	-0.1
857	48	11	62.7	63.2	0	0.2	0	-0.1	-0.1
858	48	12	61.8	61.9	0	0.1	0	-0.1	-0.1
859	48	13	60.0	58.8	0	0	0	-0.1	-0.1
860	48	14	58.1	55.7	0	0	0	0	-0.1
861	48	15	56.1	53.4	0	0	0	0	-0.1
862	48	16	54.1	51.5	0	0	0	0	-0.1
863	48	17	52.2	49.9	0	0	0	0	0
864	48	18	50.4	48.5	0	0	0	0	0
865	49	1	50.1	49.1	0	0	0	0	0
866	49	2	51.4	50.0	0	0	0	0	0
867	49	3	52.7	51.0	0	0	0	0	0
868	49	4	54.2	52.1	0	0	0	0	-0.1
869	49	5	55.6	53.3	0	-0.1	0	0	-0.1
870	49	6	57.1	54.7	0	-0.1	0	-0.1	-0.1
871	49	7	58.6	56.3	0	-0.1	0	0	-0.1
872	49	8	60.0	58.4	0	-0.1	0	-0.1	-0.1
873	49	9	61.3	60.7	0	0.1	0	0	-0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
874	49	10	62.0	62.3	0	0.2	0	-0.1	0
875	49	11	62.0	62.6	0	0.2	0	-0.1	-0.1
876	49	12	61.0	61.2	0	0.2	0	0	0
877	49	13	59.2	58.3	0	0	0	0	-0.1
878	49	14	57.2	55.3	0	-0.1	0	0	-0.1
879	49	15	55.3	53.0	0	-0.1	0	0	-0.1
880	49	16	53.4	51.1	0	0	0	0	0
881	49	17	51.6	49.6	0	0	0	0	0
882	49	18	49.9	48.2	0	0	0	0	0
883	50	1	50.5	49.3	0	0	0	0	0
884	50	2	51.7	50.2	0	0	0	0	0
885	50	3	53.1	51.2	0	0	0	0	0
886	50	4	54.5	52.3	0	0	0	0	0
887	50	5	55.9	53.6	0	0	0	0	-0.1
888	50	6	57.3	55.1	0	-0.1	0	0	-0.1
889	50	7	58.7	57.0	0	-0.1	0	0	-0.1
890	50	8	60.0	59.1	0	0	0	0	0
891	50	9	61.1	61.1	0	0.1	0	0	0
892	50	10	61.6	62.1	0	0.2	0	-0.1	-0.1
893	50	11	61.3	61.9	0	0.2	0	0	0
894	50	12	60.2	60.5	0	0.1	0	-0.1	0
895	50	13	58.4	57.6	0	0	0	0	0
896	50	14	56.4	54.8	0	-0.1	0	0	-0.1
897	50	15	54.5	52.6	0	-0.1	0	0	-0.1
898	50	16	52.7	50.8	0	0	0	0	0
899	50	17	51.0	49.3	0	0	0	0	0
900	50	18	49.5	48.0	0	0	0	0	0
901	51	1	50.9	49.5	0	0	0	0	0
902	51	2	52.2	50.5	0	0	0	0	0
903	51	3	53.6	51.5	0	0	0	0	0
904	51	4	55.0	52.7	0	0	0	0	0
905	51	5	56.3	54.1	0	0	0	0	-0.1
906	51	6	57.6	55.8	0	-0.1	0	0	-0.1
907	51	7	58.9	57.8	0	0	0	0	-0.1
908	51	8	60.1	59.9	0	0.1	0	-0.1	-0.1
909	51	9	60.8	61.3	0	0.1	0	-0.1	-0.1
910	51	10	61.0	61.8	0	0.2	0	0	0

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
911	51	11	60.5	61.3	0	0.1	0	-0.1	-0.1
912	51	12	59.3	59.6	0	0.2	0	0	0
913	51	13	57.5	56.9	0	0	0	0	-0.1
914	51	14	55.7	54.2	0	0	0	0	0
915	51	15	53.9	52.2	0	-0.1	0	0	-0.1
916	51	16	52.1	50.5	0	0	0	0	0
917	51	17	50.5	49.1	0	0	0	0	0
918	51	18	49.0	47.8	0	0	0	0	0.1
919	52	1	51.5	49.8	0	0	0	0	0
920	52	2	52.8	50.8	0	0	0	0.1	0
921	52	3	54.1	52.0	0	-0.1	0	0	-0.1
922	52	4	55.4	53.3	0	-0.1	0	0	-0.1
923	52	5	56.7	54.8	0	0	0	0	-0.1
924	52	6	58.0	56.7	0	0	0	0	0
925	52	7	59.2	58.8	0	0	-0.1	-0.1	-0.1
926	52	8	60.1	60.4	0	0.1	0	-0.1	0
927	52	9	60.5	61.3	0	0.1	0	-0.1	-0.1
928	52	10	60.4	61.3	0	0.2	0	0	0
929	52	11	59.7	60.4	0	0.2	0	0	0
930	52	12	58.4	58.6	0	0.1	0	0	-0.1
931	52	13	56.7	56.0	0	0	0	0	0
932	52	14	55.0	53.7	0	0	0	0	0
933	52	15	53.3	51.9	0	0	0	0	0
934	52	16	51.7	50.3	0	0	0	0	0
935	52	17	50.1	49.0	0	-0.1	0	0	0
936	52	18	48.6	47.7	0	0	0	0	0
937	53	1	52.1	50.2	0	0	0	0	0
938	53	2	53.4	51.3	0	0	0	0	0
939	53	3	54.7	52.5	0	0	0	0	-0.1
940	53	4	55.9	53.9	0	0	0	0	-0.1
941	53	5	57.2	55.8	0	-0.1	0	0	-0.1
942	53	6	58.4	57.7	0	0	0	0	0
943	53	7	59.4	59.6	0	0	0	-0.1	-0.1
944	53	8	60.1	60.7	0	0.1	0	-0.1	-0.1
945	53	9	60.2	61.1	0	0.2	0	0	0
946	53	10	59.7	60.7	0	0.1	0	-0.1	0
947	53	11	58.8	59.6	0	0	0	-0.1	-0.1

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
948	53	12	57.5	57.5	0	0	0	0	0
949	53	13	56.0	55.3	0	-0.1	0	0	-0.1
950	53	14	54.5	53.4	0	-0.1	0	0	-0.1
951	53	15	52.9	51.7	0	0	0	0	0
952	53	16	51.3	50.2	0	0	0	0	0
953	53	17	49.8	48.9	0	-0.1	0	0	0
954	53	18	48.3	47.6	0	0	0	0	0
955	54	1	52.8	50.7	0	0	0	0	0
956	54	2	54.0	51.8	0	0	0	0	0
957	54	3	55.2	53.1	0	0	0	0	0
958	54	4	56.4	54.8	0	-0.1	0	0	-0.1
959	54	5	57.6	56.7	0	0	0	0	-0.1
960	54	6	58.7	58.6	0	0.1	0	0	-0.1
961	54	7	59.5	60.0	0	0.1	0	-0.1	-0.1
962	54	8	59.9	60.7	0	0.2	0	0	0
963	54	9	59.7	60.7	0	0.1	0	-0.1	0
964	54	10	59.0	59.9	0	0.1	0	-0.1	0
965	54	11	57.9	58.4	0	0.1	0	0	0
966	54	12	56.6	56.3	0	0	0	0	0
967	54	13	55.2	54.4	0	-0.1	0	0	0
968	54	14	53.9	52.9	0	-0.1	-0.1	0	-0.1
969	54	15	52.4	51.5	0	-0.1	0	0	-0.1
970	54	16	51.0	50.1	0	0	0	0	0
971	54	17	49.5	48.9	0	-0.1	0	0	0
972	54	18	48.2	47.6	0	0	0	0	0.1
973	55	1	53.4	51.2	0	0	0	0	0
974	55	2	54.5	52.4	0	0	0	0	0
975	55	3	55.7	53.9	0	0	0	0	0
976	55	4	56.9	55.8	0	-0.1	0	-0.1	-0.1
977	55	5	58.0	57.6	0	0.1	0	0	0
978	55	6	59.0	59.3	0	0.1	0	-0.1	-0.1
979	55	7	59.5	60.2	0	0.2	0	0	0
980	55	8	59.6	60.6	0	0.1	0	-0.1	0
981	55	9	59.1	60.1	0	0.1	0	0	0
982	55	10	58.3	59.0	0	0.1	0	0	0
983	55	11	57.0	57.2	0	0	0	0	0
984	55	12	55.7	55.2	0	-0.1	0	0	0

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
985	55	13	54.5	53.5	0	0	0	0	0
986	55	14	53.3	52.3	0	0	0	0	0
987	55	15	52.0	51.3	0	-0.1	0	0	-0.1
988	55	16	50.8	50.2	0	-0.1	0	0	0
989	55	17	49.5	49.0	0	0	0	0	0
990	55	18	48.2	47.9	0	0	0	0	0
991	56	1	53.9	51.8	0	0	0	0	-0.1
992	56	2	55.0	53.2	0	-0.1	-0.1	-0.1	-0.1
993	56	3	56.2	54.9	0	-0.1	0	0	0
994	56	4	57.3	56.7	0	0	0	0	0
995	56	5	58.3	58.5	0	0	0	-0.1	-0.1
996	56	6	59.0	59.7	0	0.1	0	-0.1	-0.1
997	56	7	59.3	60.3	0	0.1	0	-0.1	-0.1
998	56	8	59.1	60.2	0	0.1	0	-0.1	-0.1
999	56	9	58.5	59.4	0	0.1	0	-0.1	-0.1
1000	56	10	57.4	57.9	0	0.1	0	0	0
1001	56	11	56.1	55.9	0	0	0	0	0
1002	56	12	54.9	54.0	0	-0.1	0	0	0
1003	56	13	53.7	52.7	0	-0.1	0	0	0
1004	56	14	52.6	51.8	0	0	0	0	0
1005	56	15	51.6	51.0	0	0	0	0	0
1006	56	16	50.6	50.2	0	0	0	0	0
1007	56	17	49.5	49.3	0	0	0	0	0
1008	56	18	48.4	48.3	0	0	0	0	0
1009	57	1	54.4	52.4	0	0	0	0	0
1010	57	2	55.5	54.0	0	0	0	0	0
1011	57	3	56.6	55.8	0	0	0	0	0
1012	57	4	57.7	57.6	0	0	-0.1	-0.1	-0.1
1013	57	5	58.5	59.0	0	0.1	0	-0.1	-0.1
1014	57	6	59.0	59.8	0	0.1	0	0	0
1015	57	7	59.0	60.1	0	0.1	0	-0.1	-0.1
1016	57	8	58.6	59.6	0	0.1	0	-0.1	0
1017	57	9	57.7	58.5	0	0.1	0	0	0
1018	57	10	56.6	56.8	0	0	0	0	0
1019	57	11	55.3	54.8	0	-0.1	0	0	-0.1
1020	57	12	54.0	52.9	0	-0.1	0	0	0
1021	57	13	52.9	51.8	0	0	0	0	0

**Table C-6.** Juneau International Airport DNL Grid Point Analysis (Large), continued

Site	I	J	2000 Baseline	2015 RSA-8	Change in DNL over the No Action (RSA-8)				
					2015 RSA-1/ 5D <sup>1</sup> /6C	2015 RSA-5C/ 5D/5E <sup>1</sup>	2015 RSA-6A/ 5E <sup>2</sup>	2015 RSA-6B	2015 RSA-6D
1022	57	14	51.9	51.1	0	0	0	0	0
1023	57	15	51.1	50.6	0	0	0	0	0
1024	57	16	50.3	50.1	0	0	0	0	0
1025	57	17	49.5	49.5	0	0	0	0	0
1026	57	18	48.6	48.7	0	0	0	0	0
1027	58	1	54.9	53.2	0	0	0	0	0
1028	58	2	56.0	54.9	0	0	0	0	0
1029	58	3	57.0	56.7	0	0	0	0	-0.1
1030	58	4	57.9	58.2	0	0.1	0	0	0
1031	58	5	58.6	59.3	0	0.1	0	0	0
1032	58	6	58.8	59.8	0	0.1	0	0	0
1033	58	7	58.6	59.6	0	0.2	0	0	0
1034	58	8	57.9	58.9	0	0.1	0	-0.1	-0.1
1035	58	9	57.0	57.5	0	0.1	0	0	0
1036	58	10	55.8	55.6	0	-0.1	0	0	-0.1
1037	58	11	54.5	53.4	0	-0.1	0	0	0
1038	58	12	53.2	51.8	0	-0.1	0	0	0
1039	58	13	52.0	50.8	0	-0.1	-0.1	0	-0.1
1040	58	14	51.1	50.2	0	0	0	0	0
1041	58	15	50.4	49.9	0	0	0	0	0
1042	58	16	49.9	49.8	0	0	0	0	0
1043	58	17	49.4	49.5	0	0	0	0	0
1044	58	18	48.7	49.0	0	0	0	0	0
1045	1	1	13.8	14.4	0	0	0	0	0
1046	1	2	29.0	29.8	0	0	0	0	0
1047	2	1	42.2	40.6	0	0	0	0	0
1048	2	2	9.5	10.0	0	0	0	0	0

Source: BridgeNet International, September 2004.

<sup>1</sup> RSA-5D operational configuration is identical to RSA-1 at the Rwy 08 end and nearly identical to RSA-5C at the Rwy 26 end. The departure threshold for RSA-5E would be relocated 520 east of its current position at the Rwy 26 end. This is less of a shift than was analyzed for RSA-5C in the DEIS, which is what is depicted in this table. Noise impacts from RSA-5E would, therefore, be similar to RSA-5C for the Rwy 26 end. Note: The eastward shift of landing thresholds for Alternative RSA-5C was reduced by 172 feet following issuance of the DEIS. The numbers presented here are from the DEIS analysis and are considered conservative for this alternative. The reduced shift of RSA-5C is within 46 feet of the eastward Rwy 26 landing threshold shift for Alternative RSA-5D.

<sup>2</sup> RSA-5E operational configuration is nearly identical to RSA-6A at the Rwy 08 end; the landing threshold for RSA-5E is displaced 120 feet east, while the landing threshold for RSA-6A is displaced 188 feet.