

APPENDIX T

AUDIBILITY EVALUATIONS FOR ZION NATIONAL PARK

As requested by the National Park Service (NPS), the audibility of aircraft within the vicinity of Zion National Park (Zion) was computed. This appendix provides an introduction to the complex acoustic concept of audibility and presents the results of audibility computations for various locations within Zion.

Introduction to Audibility

Audibility is a feature of a sound source that reflects whether or not it can be heard by someone who is actively listening. In terms of aircraft noise, audibility is achieved when the sound attributable to aircraft can be heard by a person actively listening for aircraft noise, given a specific background (ambient) noise level on the ground. The Integrated Noise Model (INM) has been upgraded in its version 6.2b¹ to be able to compute the amount of time that a location on the ground receives audible sound from individual aircraft. As used in the assessment of audibility for Zion National Park, the INM v6.2b computes time audible (TAUD), which is the total amount of time (in percent or minutes of the average annual 24-hour day) all aircraft being considered are deemed audible at a specific position on the ground.

As implied above, one aspect of the TAUD metric is the consideration of the background, or ambient, sound environment at the location of interest. This aspect of TAUD distinguishes it from many other noise metrics reported in other sections of this document such as aircraft DNL (day-night average sound level), aircraft Leq (equivalent sound level), and aircraft Lmax (maximum sound level). Commonly reported noise metrics such as aircraft DNL, aircraft Leq, and aircraft Lmax will be identical in both areas because aircraft activity is exactly the same. However, the amount of time aircraft are audible (TAUD) will be higher in an area such as Zion with very low ambient noise because ambient noise levels strongly affect the amount of sound detection of a specific source.

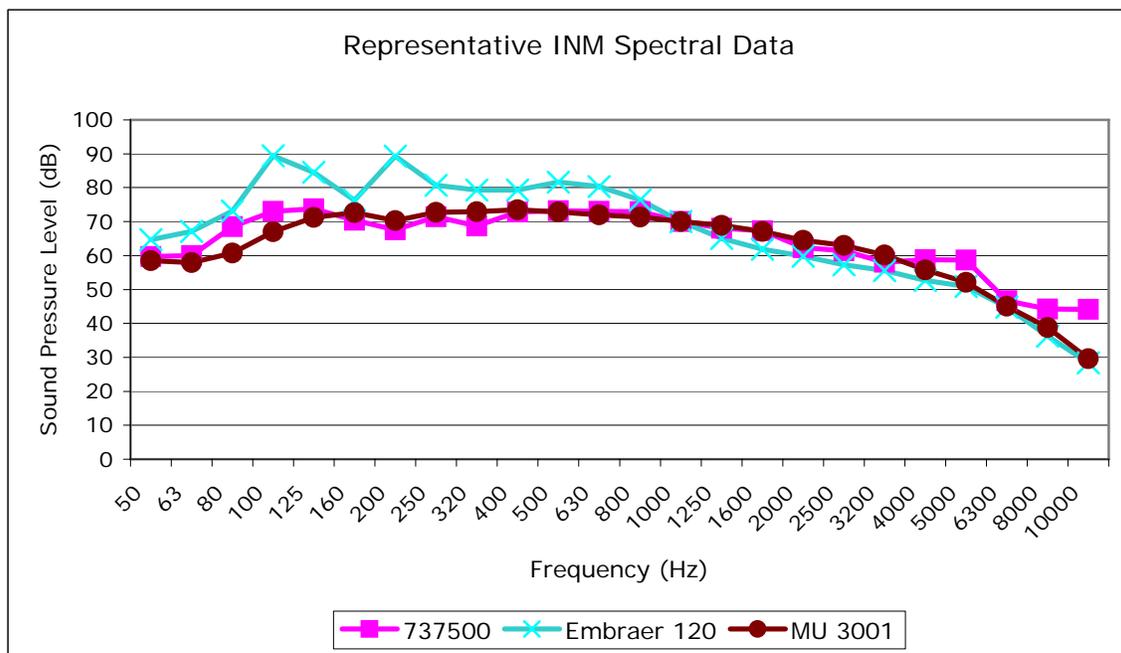
Another distinguishing aspect of audibility is that it is not based solely on overall loudness. Instead, both loudness and pitch characteristics must be analyzed for the sound source (i.e. aircraft) and compared to those of the ambient conditions to determine whether a sound source is audible. As an example from nature, a bird's chirp may not have much overall loudness, but since its sound is predominately consolidated as a high pitch tone, a bird chirp may be audible at relatively long distances. To use more technical terms than loudness and pitch, the sound characteristics compared between source and ambient noise are sound pressure level (SPL) and frequency. SPL can be generally thought of as loudness, and is typically measured in units of decibels (dB). Frequency is what determines pitch

¹ The audibility evaluation for this study was performed with the latest (beta) version of INM 6.2b, noted in this appendix with the suffix "b."

and is measured in cycles (vibrations) per second and is expressed in Hertz (Hz). In terms of the physics of sound, the amplitude (strength) of sound waves determines the SPL, while frequency is a measure of how quickly sound waves are vibrating.

To understand the computation of TAUD, it is important to understand aircraft do not emit sounds of just one frequency. Sounds which are composed of only one frequency, like a single note struck on a piano, are known as pure tones. Conversely, aircraft emit sounds made up of a mixture of frequencies, with the sound levels at all different frequencies making up the overall aircraft sound we hear. Thus, an aircraft may simultaneously emit a relatively low-pitched sound of 200 Hz at a level of 25 dB, a relatively high pitched sound of 8,000 Hz at SPL of 35 dB, and hundreds of other unique sounds of varying pitch and loudness. The combination of all the unique sounds emitted by an aircraft will reach a listener simultaneously and can be thought of as one composite sound. Composite sounds can be analyzed by examining a spectral graph. **Exhibit T-1** below indicates the spectral characteristics of three common aircraft flown over the area surrounding St. George Airport. The horizontal axis represents frequency in Hz, while the vertical axis represents SPL in dB.

Exhibit T-1

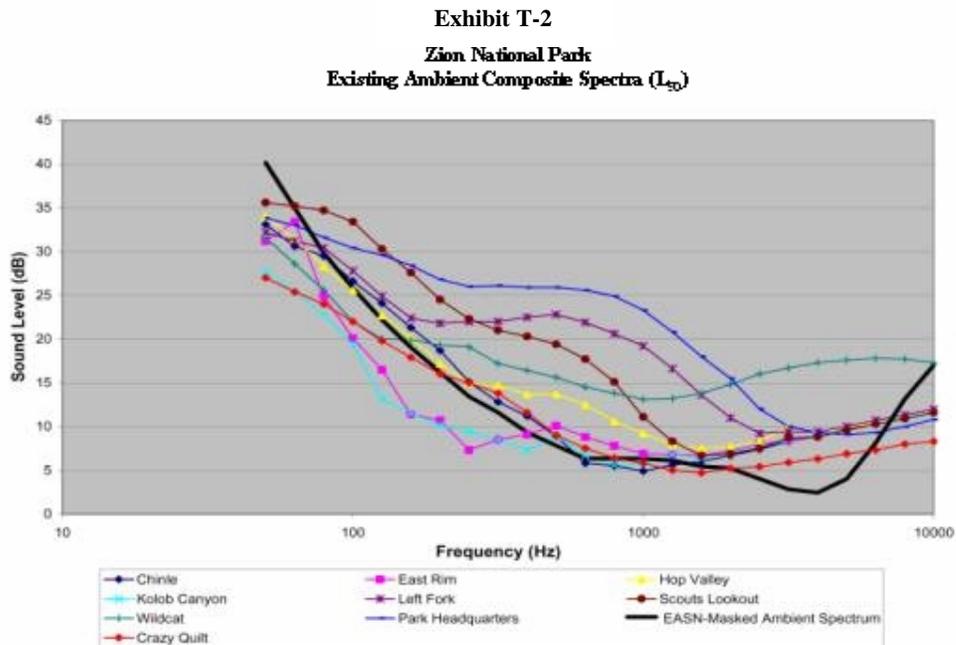


Note: Data is normalized to 70 dB at 1000 Hz to provide aircraft-to-aircraft comparability

Notably, the spectral curve of the Embraer 120, a propeller aircraft, peaks near 90 dB in the frequency levels at 100 and 200 Hz. Because this peaking of the sound signal occurs at specific frequency levels, the propeller aircraft is called a tonal source. On the other hand, the frequency dispersion of the Mitsubishi 3001

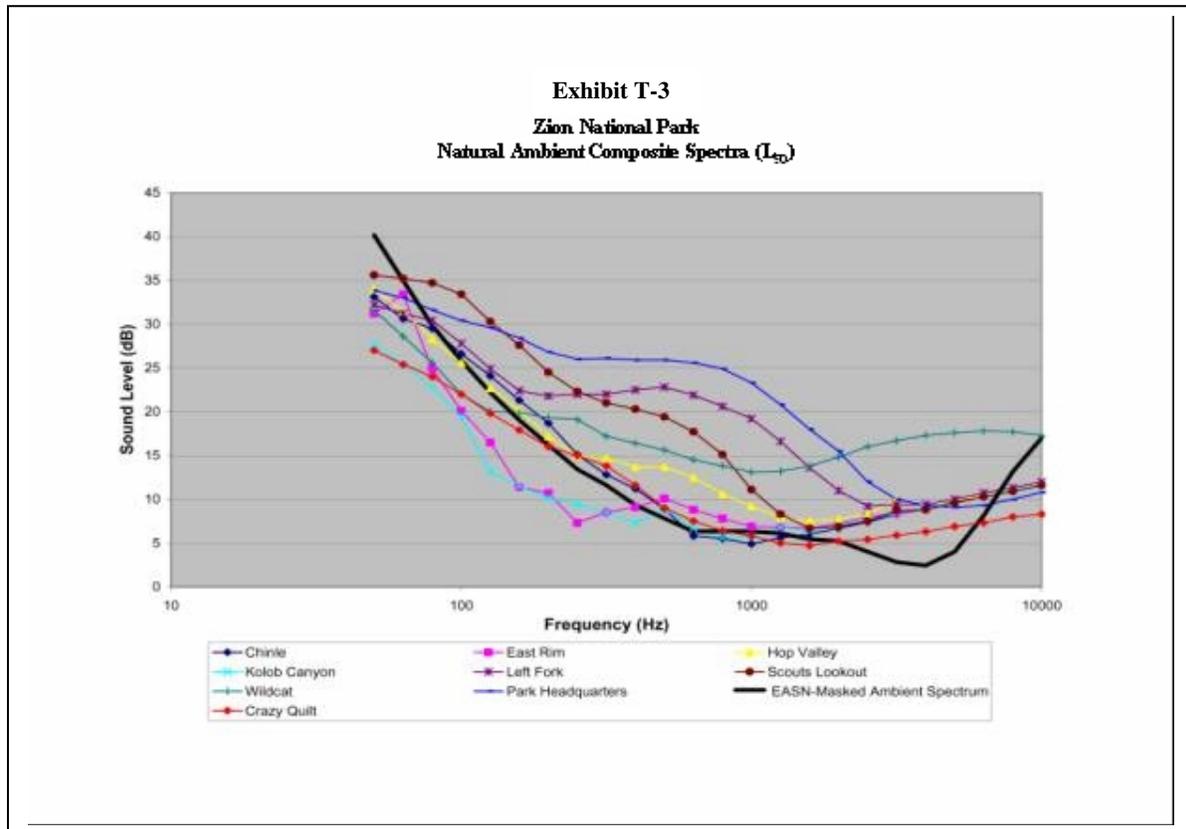
(MU3001), a small business jet, and the 737-500, a common air carrier jet aircraft, are distributed more broadly across all frequency levels and these aircraft are called broadband sources. The Embraer 120 aircraft would potentially be more audible than the jet aircraft because it has this tonality.

Exhibit T-2 shows spectral graphs developed for the existing ambient sound environment at nine noise measurement locations in Zion National Park. Each colored curve is a spectral graph representing the measured ambient sound environment at a different location within Zion. The black line represents the default audibility curve used by INM, v6.2b when underlying mapping of ambient spectral conditions is not available. It can be seen that these composite sounds are actually made up of multiple sounds over a wide range of frequencies at varying loudness levels. For example, the entire blue curve represents the ambient sound environment at Zion Park Headquarters. A listener standing at Zion Park Headquarters would be simultaneously exposed to all the sound pitches at the loudness levels represented by the blue curve.



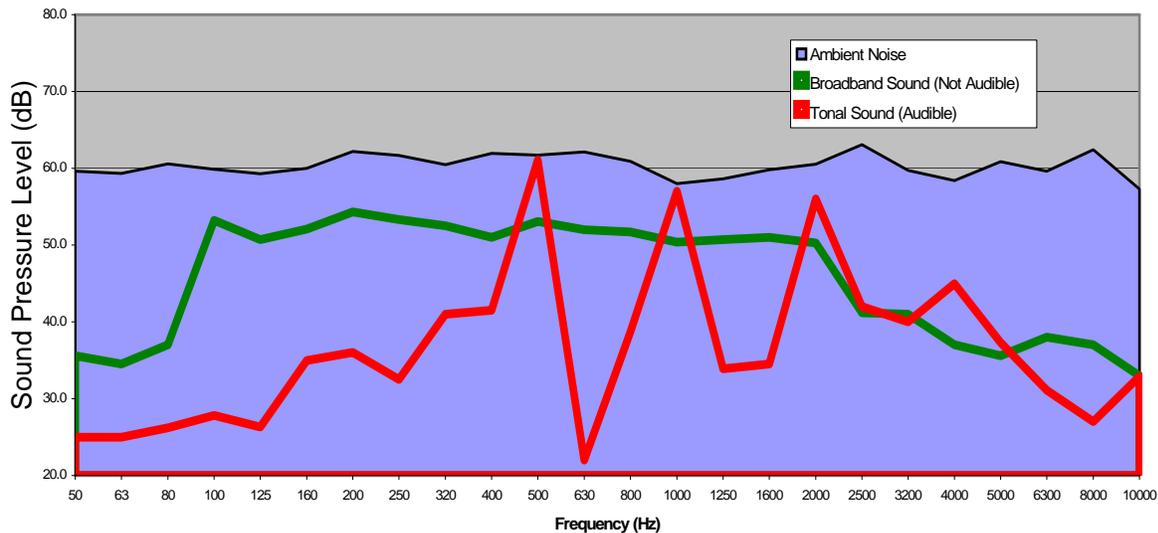
The curves in **Exhibit T-2** were developed by measuring the sound pressure levels within specific ranges or bands of frequencies, known as 1/3 octave bands, which are distributed across the range of human hearing. Thus, each marked point on the curves represents the ambient sound level at a noise measurement site, for one of twenty-four specific 1/3 octave frequency bands. For all measurement sites represented, the highest ambient sound levels occur at the lowest frequencies of human hearing ability, with decreasing SPL through the middle level frequencies,

and finally a slight increase in SPL through the higher frequencies. **Exhibit T-3** illustrates the spectral data for natural ambient conditions as computed for the Zion National Park measurement sites.



Spectral graphs help provide insight into how audibility is computed by INM, v6.2b. To calculate whether an aircraft is audible to a listener at a specific location, the spectral graph for the aircraft is mathematically compared to the spectral graph of the background ambient noise levels. **Exhibit T-4** is used to demonstrate how two separate sound sources would be analyzed against a background sound environment to determine if they are audible. In **Exhibit T-4**, the solid black curve with area filled in blue is a spectral graph of a hypothetical ambient sound environment. The solid green curve and solid red curve are spectral graphs for two separate sound sources, which are assumed to occur at two separate times. The green curve is labeled as a broadband sound source because its sound levels are spread somewhat evenly across the entire frequency spectrum, while the red curve is labeled as tonal because much of its sound is located within only a few distinct frequency bands or tones.

Exhibit T-4
Audibility Analysis of Two Separate Sound Signals



To determine whether a sound is audible, the INM v6.2b makes a series of complex calculations that take into account the human ear's varying sensitivity to sounds at different frequencies. Generally, a sound signal needs only be loud enough compared to the ambient sound level within one or more frequency bands to be deemed audible. Thus the overall SPL (loudness) of the signal, which would be related to the total area in blue underneath the signal's spectral curve, is not nearly as important in the calculation of audibility as are the individual comparisons of sound pressure level in each 1/3 octave frequency band. In **Exhibit T-4** neither the tonal signal nor the broadband signal have nearly the overall sound level of the ambient, but the tonal signal actually is deemed audible because it is close enough to ambient sound levels for two of the middle level frequency bands. A careful listener will not hear every frequency of the sound emitted from the tonal source, but the sounds emitted around frequencies of approximately 500 Hz and 1000 Hz will likely be heard because they are close enough to ambient levels at those frequencies. Thus the tonal signal is deemed audible. In contrast, no frequency band of the broadband sound is close enough to the ambient level to be deemed audible.

Because natural and existing ambient² mapping has been prepared to evaluate the audibility of aircraft noise in Zion National Park, it is useful to note that the third octave band noise levels of the natural ambient condition may, in one or more octave bands, exceed those of the existing ambient condition. This is a result of the methodology used to determine the natural ambient noise levels across Zion. Natural ambient conditions were developed from a sub-set of measured existing

² Natural and existing ambient noise levels as used for audibility evaluation are similar to the natural and existing ambient conditions described elsewhere within **Appendix B** (in the Draft EIS). However, for audibility purposes, the one-third octave band noise levels of the ambient conditions are recorded for natural (without man-made noise effect) and existing (without aviation noise effect) conditions. These are then compared to the one-third octave band levels generated by aviation sources.

ambient data during which observer logs notated the source of sound. During those periods when man-made sounds were not noted as being present, the measured noise levels were considered to reflect natural ambient noise levels. Based on this sub-set of the measured data in Zion, on weather conditions and on vegetation at the measurement site, natural ambient mapping was developed across all areas of Zion. The full set of measured data, including all natural ambient sounds, as well as additional noise associated with roadway traffic, were considered to reflect the existing ambient condition. Consequently, if during the period of observation, a natural sound source produced, within a limited set of one or more 1/3 octave bands, a noise level in excess of the average measured within those same octave bands over the longer period of time, a metric based on time in excess of within individual octave band noise levels might result in more exposure time for the natural ambient condition than the existing ambient condition. For example, if during the observation period, insect activity was high or winds were moving through vegetation at noise levels greater than the average across the entire noise measurement period, the natural ambient noise level could be higher than the existing ambient noise level for one or more frequencies. These conditions are rare within the data measured within Zion National Park, but have been found at parks elsewhere in the United States.

Limitations of Audibility

The best available science is being used for the St. George EIS audibility analysis. Nevertheless, there are current limitations to the ability to analyze audibility. The implementation of audibility requires greater attention to more complex acoustic science than does the use of conventional sound pressure level (SPL) metrics. In addition to scientific issues, the use of audibility presents new challenges to the development of assessment methodology, to the collection of more refined and detailed input data (e.g. ambient sound measurements), and to reasonable quality assurances on data development.

The individual or combined effects from the scientific, methodology, and data limitations for audibility are currently uncertain. Indeed, it is worth noting that this EIS represents the first complete park application of audibility to an aviation proposal.

With regard to assessment methodology, INM v6.2b models each flight track independently to determine what portions of the flight, if any, are time audible (in percent or minutes) for a specified time period (e.g., 24 hour day). Each modeled flight track is considered independently to determine what portions of the flight, if any, are audible. Each flight track is broken into many smaller sequential track segments by a process internal to the INM. For each track segment of a flight, a representative point is chosen from which a spectral graph of the aircraft sound from the INM's aircraft/engine database is compared mathematically to the spectral graph of the background for the given ground location to determine whether the segment of the flight is audible. Each track segment has an associated time duration based on its length and the speed of the aircraft. If a segment is deemed audible, its time duration segment is added to those of every other segment for the

flight track/aircraft/engine type combination to compute a total time audible for the flight. This process is repeated for every aircraft along each flight track in the study. Finally, the audible times associated with all modeled flights are added together to calculate total aircraft TAUD for a given listener position.

One characteristic of the TAUD computation using INM v6.2b is that there is no method to consider the presence of two or more flights that may be in the air at the same time. Concurrent or overlapping air traffic can have an impact on the computed TAUD value. In INM v6.2b, modeling concurrent air traffic is not a possibility, because flights are not assigned to a specific flight schedule, but rather they are only assigned as daytime, evening, or nighttime operations. In effect, flights are modeled by the INM as if they occur independently, as opposed to the actual nature of air traffic where multiple flights may simultaneously be heard in the field.

The model's consideration of audibility in a sequential manner can lead to underestimation or overestimation of TAUD. For example, if two aircraft, neither of which is individually audible, operate simultaneously over a listener and jointly are audible, the TAUD may be underestimated. Owing to the relatively low number of flights originating at or destined to the St. George Airport, it is unlikely that the TAUD will be underestimated for airport-only conditions.

Conversely, in cases where ambient levels are low enough that many aircraft independently reach and exceed audibility levels, such as in the audibility study for Zion National Park, INM v6.2b³ will likely overestimate TAUD. When two aircraft generate noise above audible levels, the INM will add the TAUD computed for the first aircraft to the TAUD computed for the second to compute a total TAUD at the site, when in reality the time period in which both aircraft were simultaneously audible should only be counted once. This means the INM overestimates the true TAUD since the real time period when both aircraft are audible is double counted by INM. This double (or more) counting of time audible results in calculations of TAUD for many locations that exceed 100 percent of a full day.

³ Notwithstanding audibility, INM has undergone validation through the use of actual aircraft positioning tracking and noise monitoring data to determine the accuracy of both the computational methods and data base. This validation effort involved three major airports and included more than 50,000 aircraft flight events over a six month period. In addition to the validation effort, the INM's data base and computational procedures closely conform to the standards established by the Aircraft Noise Committee (A-21) of the American Society of Automotive Engineers, which is a forum of the foremost scientific and technical experts in acoustics and noise engineering. Also, INM has experienced over 27 years of development and refinement based on its use by more than 700 public and private organizations throughout the United States and 40 other countries around the world. For park analysis, INM was part of a validation study conducted at Grand Canyon National Park in 2001. Following publication of the FAA/NPS study report, "Assessment of Tools for Modeling Aircraft Noise in the National Parks," the Federal Interagency Committee on Aviation Noise (FICAN) issued a finding in February 2005 that INM was the "best practice modeling methodology currently available to evaluate aircraft noise in national parks."

In addition to the need for improved methodology to account for overlapping events, there are several underlying aspects of acoustic science that require further investigation in this area. Historically, the core algorithms for audibility originated in the U.S. Department of Defense and the science of signal detection theory for submarine warfare. Synonymous with detectability, audibility is based on many factors including the listening environment in which one is located. This is a major consideration when applying audibility to the park environment and the evaluation of visitor annoyance, wildlife effects, and resource management values.

In many ways, frequency-based audibility is more sensitive and difficult to estimate than conventional SPL metrics. The following is a discussion of acoustic factors that are subject to frequency-based variations and that may influence the predictive accuracy of an audibility analysis:

Aspect of the source – For SPL (A-weighted) metrics, the altitude of aircraft (i.e., *distance* from source to receiver) is the most important factor affecting ground level noise. With audibility, altitude/distance can be less important than the *aspect* of the source, that is, the performance state of the aircraft. For example, is the aircraft moving toward or away from the receiver? Is the aircraft at cruise or is it accelerating or climbing at increased thrust? These and other factors will have an effect on noise directivity patterns and propagation, especially for audibility because these properties vary by frequency.

Meteorology, Air Absorption, Impedance – Atmospheric conditions and air turbulence will influence all metrics, but audibility to a greater extent because of variable effects by frequency. For example, current methodology does not include the potential effects of wind speed and direction. Research in this area suggests that gusty wind conditions can cause fluctuations at the receiver of as much as 20 dB and that these fluctuations are frequency-dependent (i.e., increase with the frequency of the sound). Higher frequency sounds are also subject to significantly greater atmospheric attenuation. Acoustic impedance, which is the product of the density of the air medium and the speed of sound in that medium is a function of temperature, atmospheric pressure, and altitude indirectly. Current implementation of impedance and other weather variables such as humidity are applied as a single value to a composite noise level and not by individual frequencies.

Ground attenuation and reflectivity – Attenuation due to ground surfaces, vegetation, structures, and terrain will vary by sound frequency. However, complex frequency effects are not considered in the methodology for evaluating barrier or shielding effects (i.e., line-of-sight blockage). In addition, there is no current capability to assess reflectivity, which is also frequency-dependent.

State of the listener – Audibility assesses the “detection” of aircraft sound by a listener with good hearing who is actively listening for aircraft. Most visitors to parks are not consciously attempting to hear aircraft during their visit, but may hear or “notice” aircraft while participating in outdoor activities such as camping, sightseeing, or hiking. For this reason, the audibility metric may need to be refined

or supplemented to account for the prevailing visitor condition of noticeability, i.e. to answer the question "When do people really hear aircraft noise?" In this regard, the calculation of audibility is currently 'unweighted', which lessens its applicability to human hearing (A-weighting) but increases its possible use to address wildlife concerns.

High altitude uncertainties – There is substantial uncertainty associated with modeling noise from high-altitude enroute aircraft. The critical factors for measuring source noise and propagation effects include high speed effects (jets can cruise at 500-600 knots), turbulent air flows, and phase shifts in sound waves from propfan aircraft (blade passage frequency). These effects are not limited to a particular noise metric but they affect audibility more because it is much more complex acoustically than the conventional SPL (A-weighted) family of metrics.

The audibility results for this study represent an additional indication of whether there will be an increase or decrease in the actual time that aircraft can be heard. It is important to emphasize that none of the limitations described above affects the validity of the study findings that aircraft using the proposed replacement airport would be less audible over Zion National Park on a comparative basis than those using the existing airport (see discussion below). As a result, the replacement airport would reduce aircraft audibility in the park.

The current limitations of audibility strongly suggest the need for long-term research, development, and validation of the audibility metric. This research should include an examination of the potential benefits of using a supplemental host traffic flow or simulation module. Additional capability to schedule or locate events in time would improve time-based estimates, especially in areas of high activity. Research should include not only the aircraft sound and modeling aspects, but also the human hearing and effects aspects.

Audibility Results Within Zion National Park

Based on the measured noise levels at nine locations within Zion National Park, acoustics staff at the Volpe Center prepared a file of assumed acoustic spectral data for each of more than one hundred thousand locations within Zion.⁴ This file was then assessed against the aircraft operational information included within the INM (flight location, altitude, number, and type of operations, etc.). The INM also contains, as part of its data bases, the frequency spectral data for each aircraft type in the model. These data are compared against a map of the measured spectral data assigned throughout Zion National Park to compile the time each location receives audible aircraft noise, given the measured spectral data for existing and natural ambient noise conditions. As described above, minutes of audibility are

⁴ Although noise measurements were available at 13 locations within Zion, spectral data was available in adequate quantity at only those nine sites indicated on **Exhibits T-2 and T-3**.

computed for an aircraft overflight for that period of time during which one or more of the ambient frequency levels within the spectrum of human hearing is exceeded or closely approached.

Within Zion locations are frequently exposed to flights at high altitude and ambient noise levels are very low. The total number of average daily aircraft operations that contribute to the total audibility in the park ranges from 335 to 480 across the various measurement points. Individual events that are audible (as opposed to those that may pass over a site but do not exceed the frequency spectra) range from only a few seconds to many minutes for various individual operations, but at each site, propeller aircraft contribute the longest individual durations of audibility. The average time aircraft are audible at the measurement sites ranges from 6.8 to 8.7 minutes for jet aircraft to 12.5 to 18.6 minutes for propeller aircraft.⁵

Consequently, in the St. George cases, where the total number of enroute overflights and flights to and from Las Vegas approach 1,500 on an average day in 2020, only one minute of audibility by the average flight would result in INM v6.2b calculating a total time audible (TAUD) in excess of the number of minutes in a day. The results of the audibility evaluations for the Zion National Park grid points are discussed in the following section.

The Time Audible (TAUD) and Percent Time Audible (%TAUD) were computed for "airport only" and total conditions for the years 2003, 2010 and 2020 within Zion National Park. Information was computed for the St. George Airport in its existing location for all three years, and for the proposed replacement airport location for 2010 and 2020. Audibility information was compiled for both existing and natural ambient conditions at a number of locations within Zion. **Exhibit T-5** presents the locations of the grid points. The results of these computations are presented in **Tables AUD-A through AUD-D**.

Cumulative Audibility Effects

As indicated by **Table AUD-A**, for 2003 cumulative aircraft noise in existing ambient conditions, the total number of minutes per day during which aircraft noise is computed to be audible exceeds the number of minutes available per day at all but two of the sites evaluated in Zion National Park. These two sites are located in the far northeast portion of Zion, in areas having very low ambient noise levels. At each site, the computed percent time audible exceeds 90 percent of the 24-hour day. **Table AUD-A** shows that the computed total number of minutes during which aircraft noise would be audible would *decrease* at every site with the replacement airport.

Table AUD-B presents the computed %TAUD and change in %TAUD for each grid point within Zion National Park between cumulative conditions with the existing and replacement St. George airports. At all but two of the 89 sites in 2003 and at every site in 2010 and 2020, cumulative aircraft noise audibility in existing ambient

⁵ Propeller aircraft typically contribute longer periods of audibility because they have more easily heard frequency characteristics, they fly at lower altitudes, and they fly at slower speeds.

conditions was computed to exceed 100 percent within Zion. This is due to the overestimation described above. **Exhibit T-6 and Exhibit T-7** present the change, or rather lack of change, in %TAUD for cumulative conditions over the existing ambient noise levels for 2010 and 2020, respectively.

Evaluated against natural ambient conditions, cumulative audibility is computed to exceed the total number of minutes per day at each of the 89 grid points within Zion for all three years of assessment. **Table AUD-C** presents the total minutes of audibility computed for every operation at the Zion grid points, while **Table AUD-D** presents the computation of the percent of the average day that aircraft are audible at these points. **Exhibit T-8 and Exhibit T-9** present the change, or rather lack of change, in %TAUD for cumulative conditions over the natural ambient noise levels for 2010 and 2020, respectively.

As previously discussed, many aircraft overflight events, evaluated over areas with very low ambient noise levels, combine to result in total minutes of audibility that exceed the available minutes in a day. The total minutes of calculated audibility, as presented in **Tables AUD-A and AUD-C**, provide an indication of the relative frequency of audible activity during the baseline and forecast year at the existing airport and the proposed replacement airport. The small differences between the cumulative noise levels with and without the replacement airport at St. George verify that the proposed project would contribute very little to the aircraft noise levels within Zion National Park. For both existing and natural ambient conditions, the proposed replacement airport would result in a reduction in time audible across all grid points. For existing ambient conditions, the reduction would be as much as -1.6 percent over conditions with the existing airport. For natural ambient conditions, the reduction would be as much as -2.6 percent.

Airport-Specific Audibility Effects

The contribution to audibility within Zion from aircraft using the existing and replacement airports was computed. The results of these computations are also indicated on **Tables AUD-A through AUD-D**.

As computed against existing ambient conditions, all sites in 2010 would be exposed to less time of audible noise with the replacement airport than with the existing airport. As computed, the various sites that will be exposed to less time audible for existing ambient conditions would receive ½ to 36 fewer minutes per day (6 to 58 percent less time) with the replacement airport. By 2020, across all sites, the range of time audible would be reduced by between 1 and 35 minutes (9 to 62 percent decrease) with the replacement airport. These reductions reflect the transition from propeller to jet aircraft used by the commuter operator at the St. George Airport occasioned by the longer runway length available at the replacement airport.

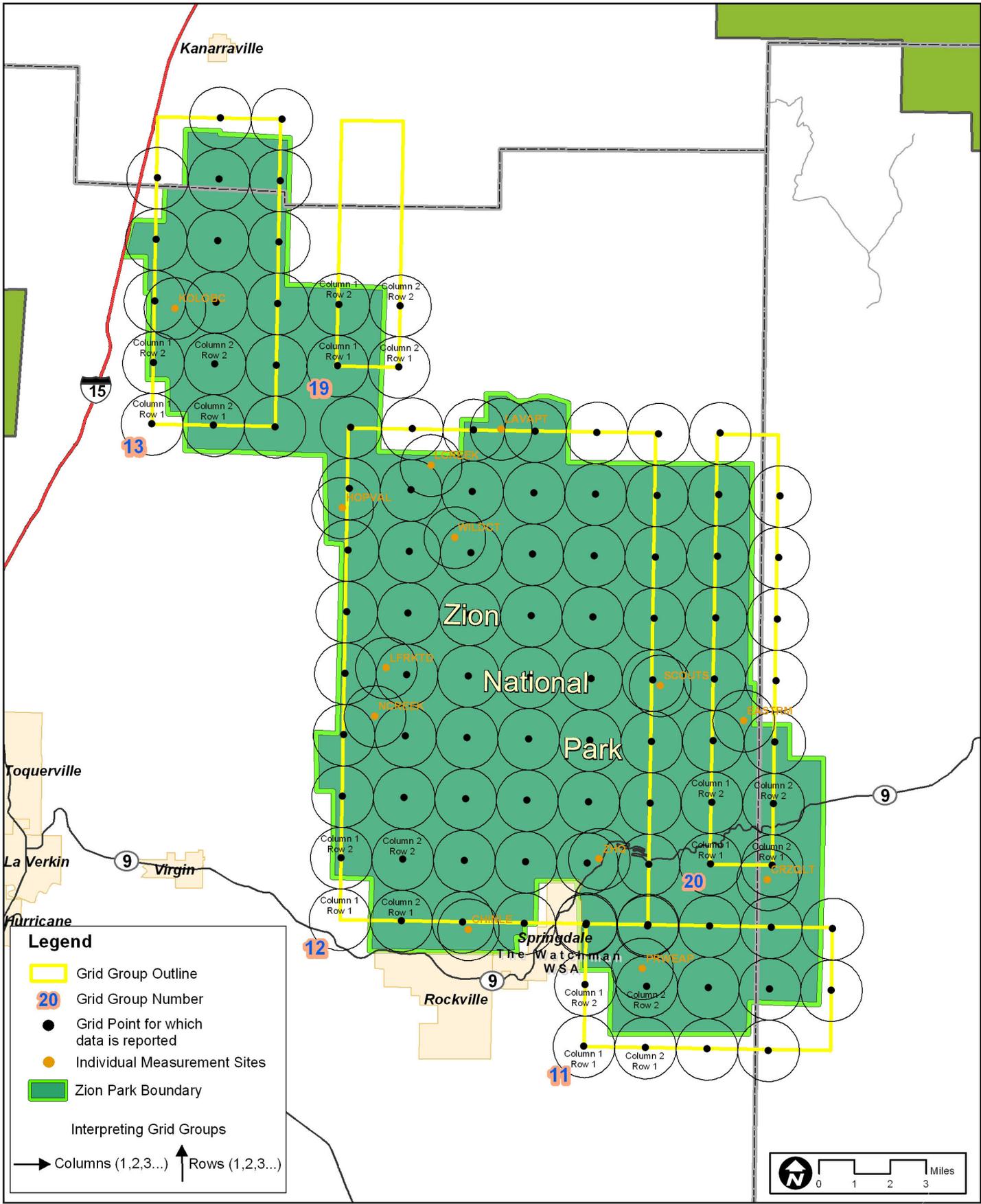
Exhibit T-10 and Exhibit T-11 illustrate the relative change in percent time audible at the grid points within Zion National Park for 2010 and 2020 conditions with existing ambient noise, respectively. Less time audible is indicated over all locations in Zion.

Against natural ambient conditions, none of the 89 Zion grid points in either 2010 or 2020 would be exposed to more time of audible noise with the replacement airport than with the existing airport. The sites would experience less time audible, ranging from 5 to 35 fewer minutes per day (18 to 57 percent less time) in 2010, and from 11 to 60 percent less audible noise per day (8 to 37 minutes less time).

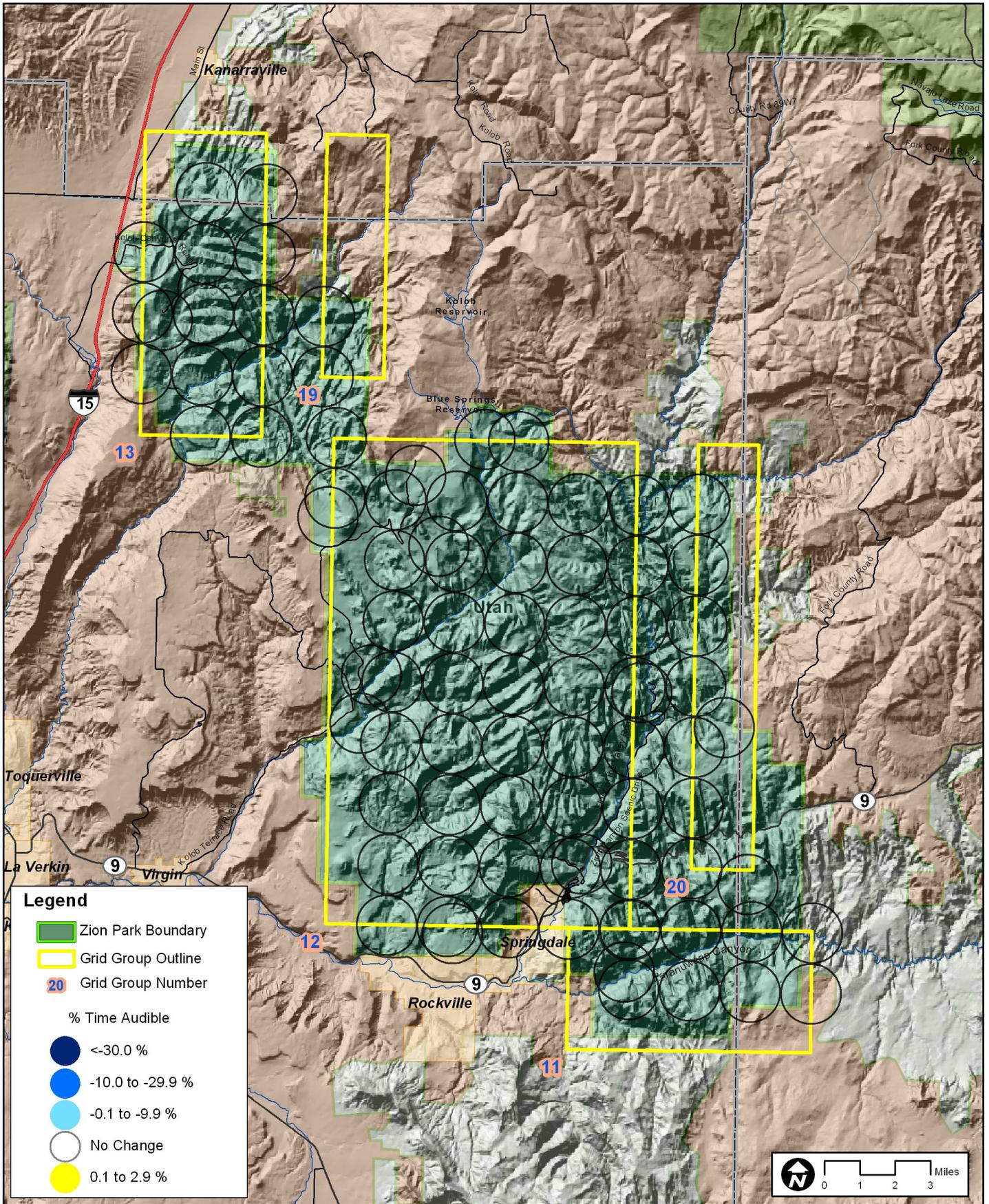
Exhibit T-12 and **Exhibit T-13** illustrate the relative change in percent time audible at the grid points within Zion National Park for 2010 and 2020 conditions with natural ambient noise, respectively. Less time audible is indicated at all locations in Zion for the replacement airport when compared to the existing airport.

These results are a reflection of the forecast changes in fleet mix and aircraft operations for the commuter carrier at St. George. As has been noted previously in the EIS, the runway length of the existing airport is inadequate to allow the introduction of commuter jet aircraft and the replacement airport is proposed to have a runway sufficiently long to accommodate these jets. Should the replacement airport be constructed, it is projected that the number of commuter operations per year by turboprop aircraft will be reduced from 7,320 to 3,084 in 2010 and from 9,910 to 2,454 in 2020 (of which half will fly near Zion). These reductions would be offset by the introduction of 3,856 regional jet operations in 2010 and 4,906 regional jet flights in 2020.

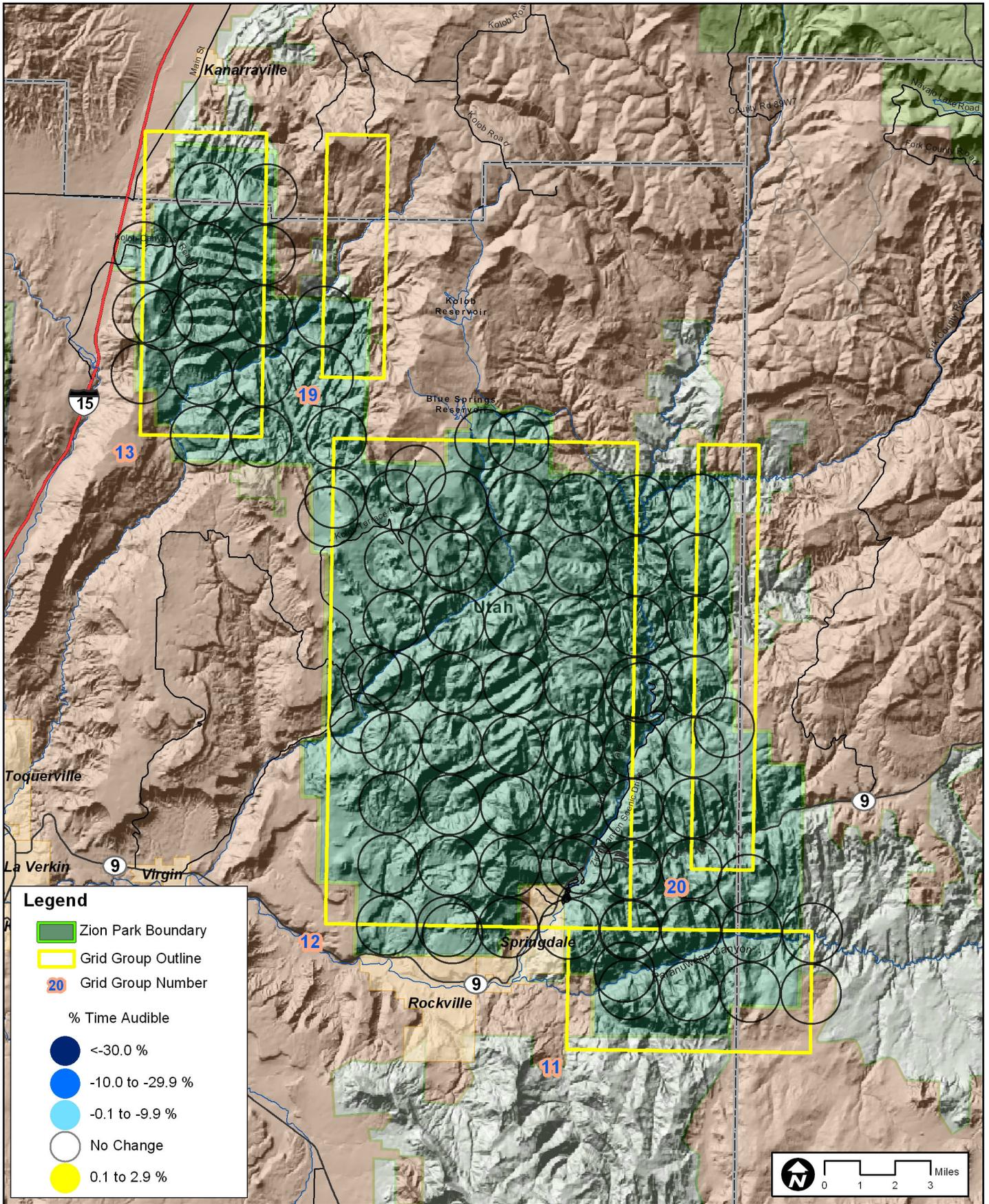
As noted earlier, turboprop aircraft contribute, on average, more minutes per operation to audibility at the measurement sites within Zion National Parks than do jets. Consequently, the combination of fewer turboprop commuter operations (which individually produce from two to nine times more minutes of audibility than regional jets), replaced by a lesser number of regional jet flights, results in fewer total minutes of audible noise. When added to the audibility associated with general aviation activity, which does not change with a relocation of the airport, and air tour flights, which changes little with a new facility, the total audibility associated with the proposed relocated airport is less than that of the existing facility.



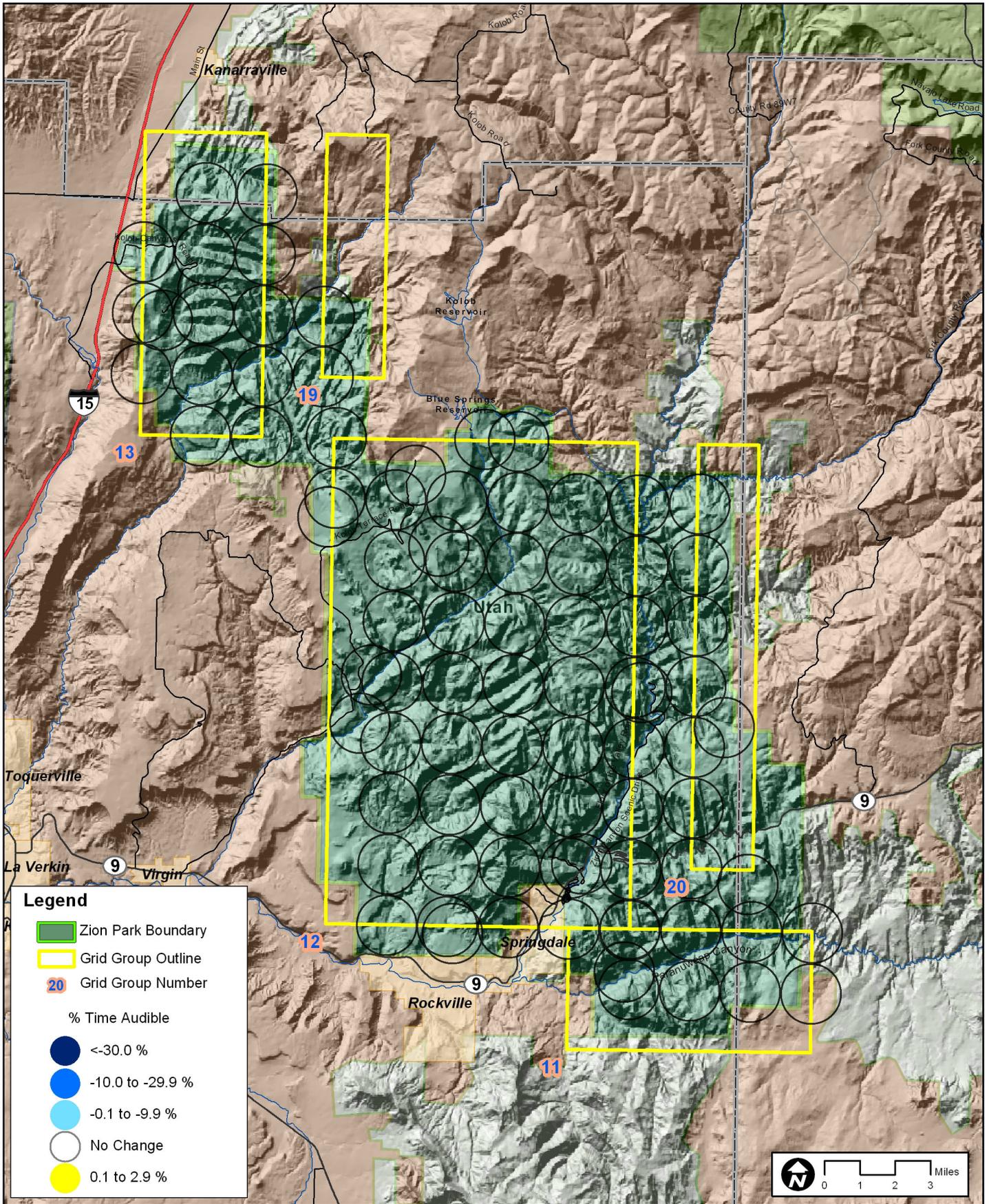
Grid Points and Key to Interpreting Location of Data Reported in Tables for Zion National Park



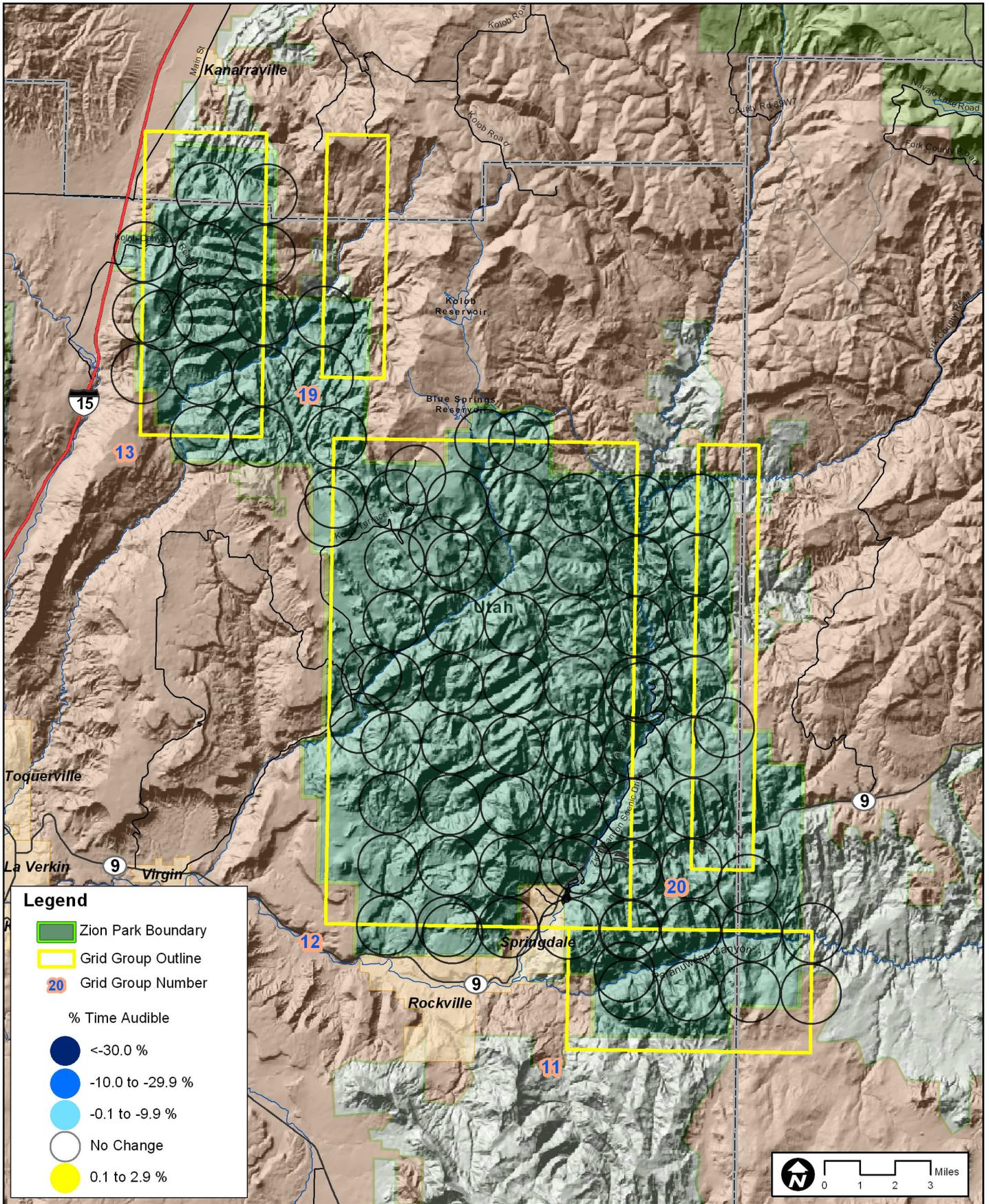
**Change in Project Noise
 2010 Cumulative
 Percent Time Audible
 % TAexisting**

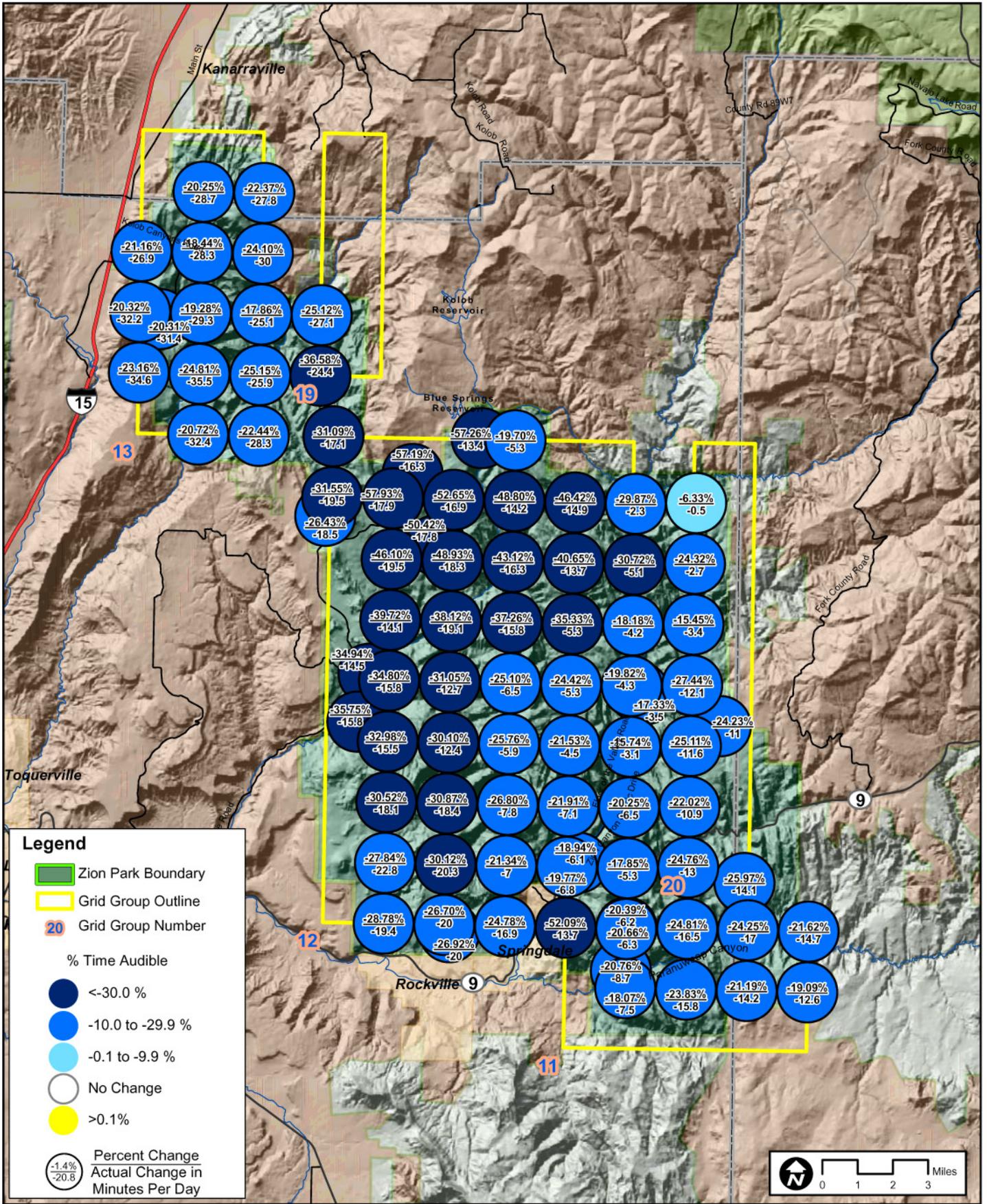


**Change in Project Noise
2020 Cumulative
Percent Time Audible
% TAexisting**

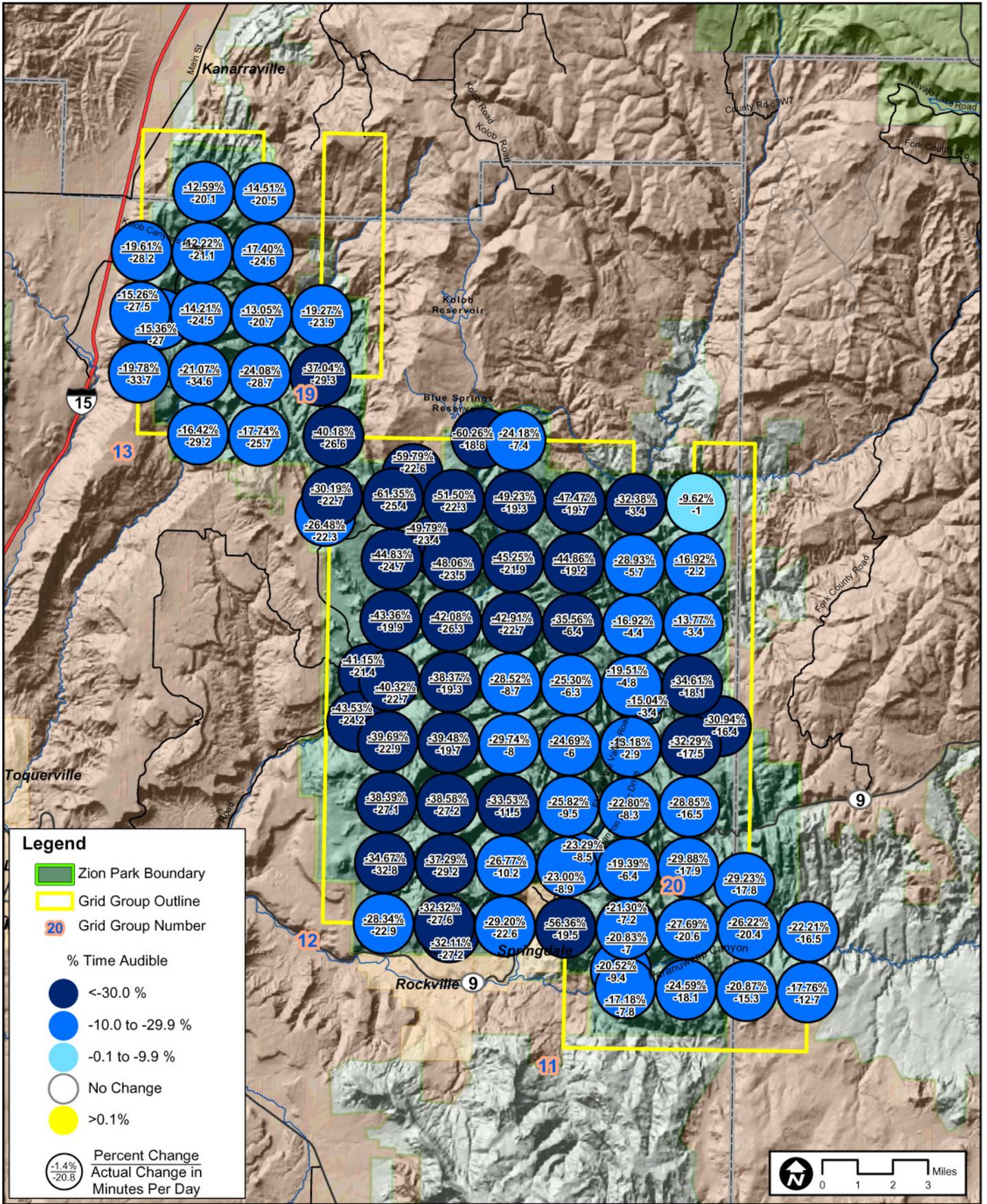


**Change in Project Noise
 2010 Cumulative
 Percent Time Audible
 % TANatural**

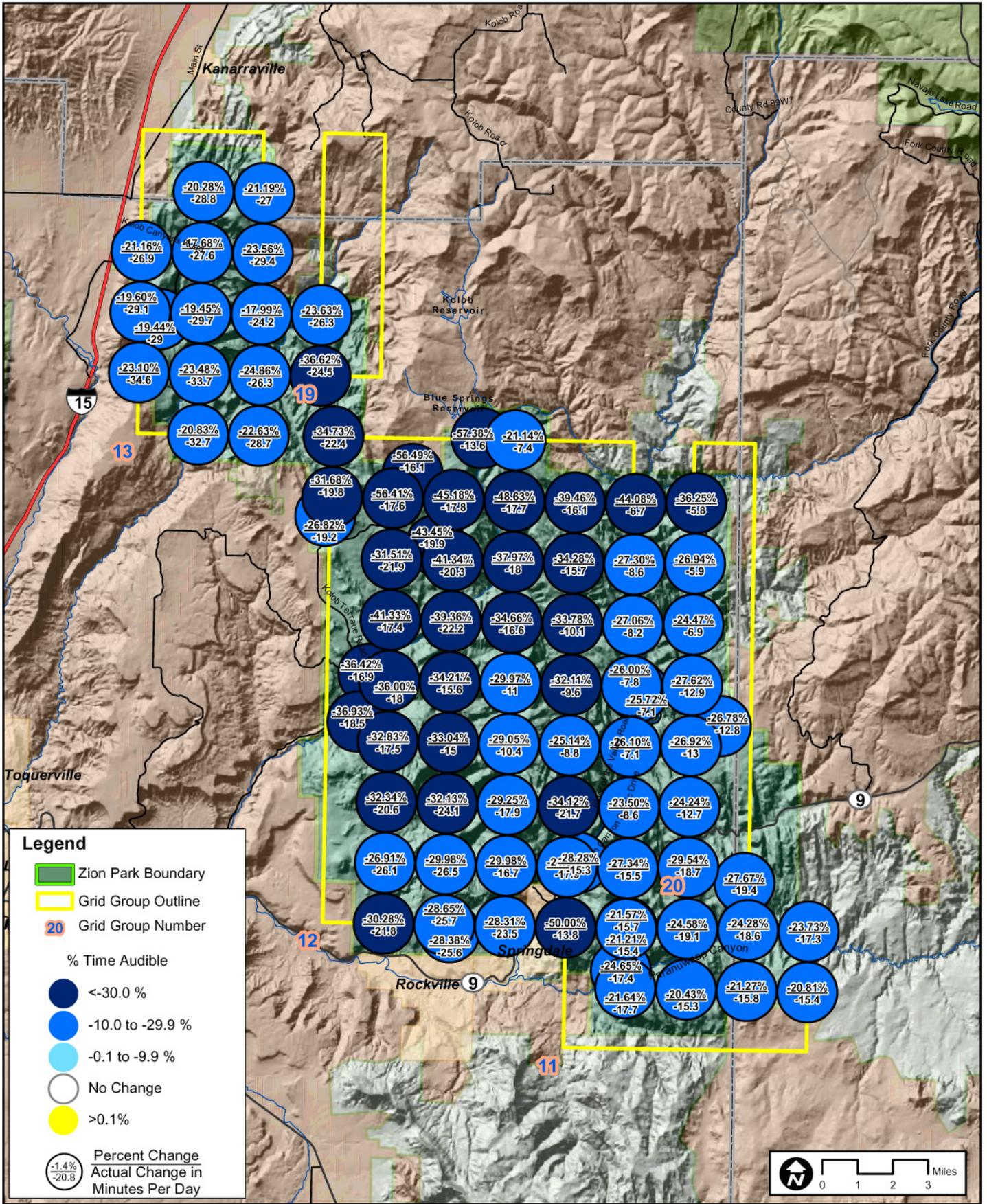




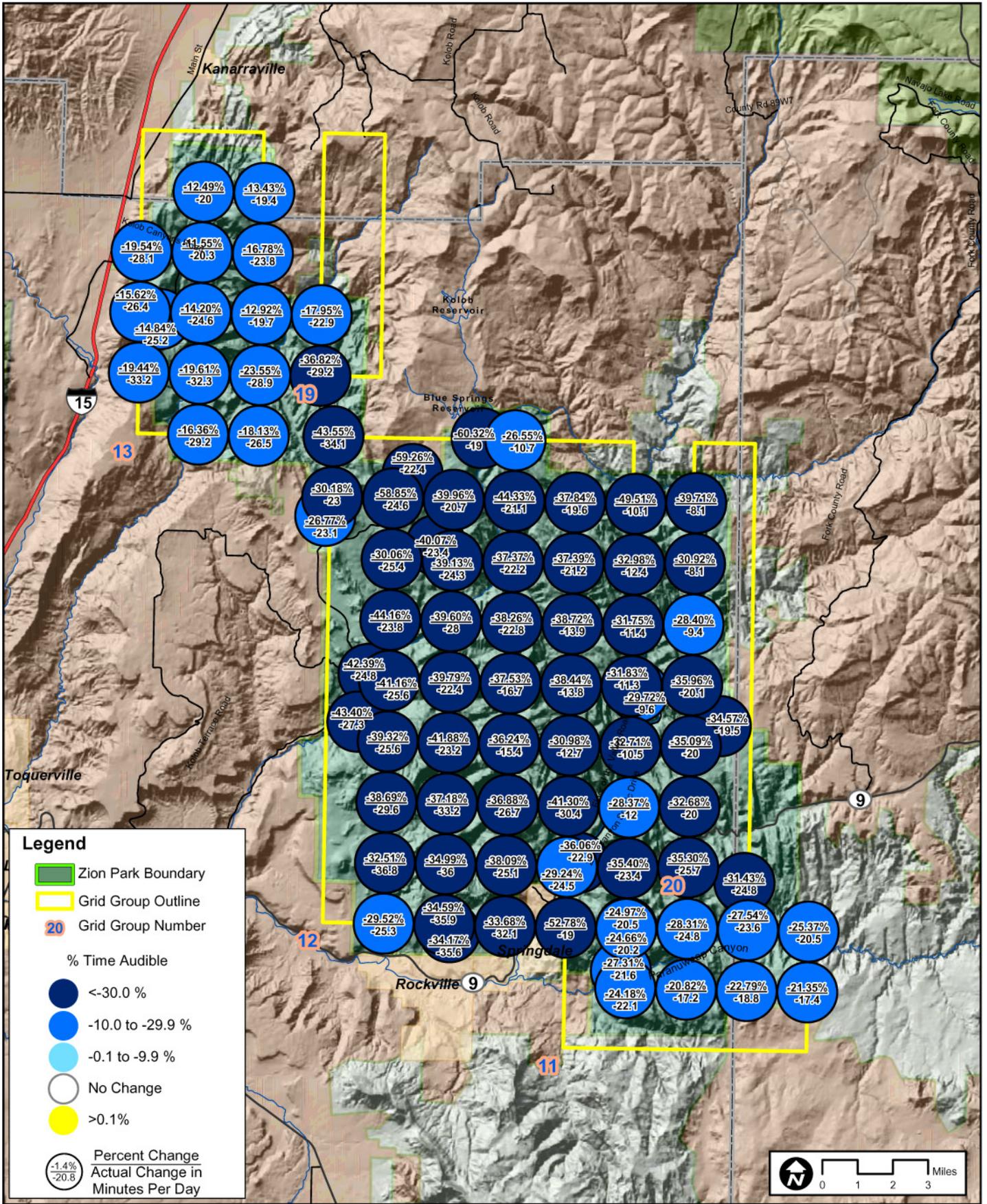
**Relative Change in Project Noise
 2010 Airport Only
 Percent Time Audible
 % TAexisting**



**Relative Change in Project Noise
 2020 Airport Only
 Percent Time Audible
 % TAexisting**



**Relative Change in Project Noise
 2010 Airport Only
 Percent Time Audible
 % TANatural**



**Relative Change in Project Noise
 2020 Airport Only
 Percent Time Audible
 % TANatural**

Table AUD - A
INM Computed Minutes Audible Per Average Day 2003/2010/2020 (TAUD) Existing Ambient
St. George Municipal Airport EIS
Zion National Park

Note: The Integrated Noise Model sums the specific minutes of audibility of each aircraft event affecting a site and provides the total result. Events that occur simultaneously are summed sequentially. Where there are many events, each contributing a short period of time, the sum of the total minutes of audibility for each event may exceed the number of minutes in a day (1,440)

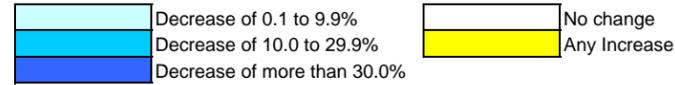
Grid Group Name	Column in Grid Group	Row in Grid Group	Ground Elevation (in feet)	2003 Time Audible (TAUD)		2010 Audibility (TAUD) Existing Ambient								2020 Audibility (TAUD) Existing Ambient							
				Existing Airport	Cumulative Condition	SGU Noise Only				Cumulative Noise				SGU Noise Only				Cumulative Noise			
						Existing Airport	Replacement Airport	Net Change in Project Noise - Minutes	Relative Change in Project Noise	Existing Airport	Replacement Airport	Net Change with Cumulative Noise- Minutes	Relative Change in Cumulative Noise	Existing Airport	Replacement Airport	Net Change in Project Noise- Minutes	Relative Change in Project Noise	Existing Airport	Replacement Airport	Net Change with Cumulative Noise- Minutes	Relative Change in Cumulative Noise
CHINLE	1	1	4200.2	61.0	2112.5	74.3	54.3	-20.0	-26.9%	2508.9	2488.9	-20.0	-0.8%	84.7	57.5	-27.2	-32.1%	3478.8	3451.6	-27.2	-0.8%
CRZQLT	1	1	5620.8	44.3	2282.4	54.3	40.2	-14.1	-26.0%	2707.1	2693.0	-14.1	-0.5%	60.9	43.1	-17.8	-29.2%	3753.9	3736.1	-17.8	-0.5%
EASTRM	1	1	6396.8	36.7	2249.1	45.4	34.4	-11.0	-24.2%	2689.2	2678.2	-11.0	-0.4%	53.0	36.6	-16.4	-30.9%	3734.0	3717.6	-16.4	-0.4%
HOPVAL	1	1	6380.3	60.3	1824.1	70.0	51.5	-18.5	-26.4%	2168.7	2150.2	-18.5	-0.9%	84.2	61.9	-22.3	-26.5%	3021.1	2998.8	-22.3	-0.7%
KOLOBC	1	1	6140.9	137.3	2162.3	154.6	123.2	-31.4	-20.3%	2563.8	2532.4	-31.4	-1.2%	175.8	148.8	-27.0	-15.4%	3547.2	3520.2	-27.0	-0.8%
LAVAPT	1	1	7798.0	20.3	1684.3	23.4	10.0	-13.4	-57.3%	1992.8	1979.4	-13.4	-0.7%	31.2	12.4	-18.8	-60.3%	2785.3	2766.5	-18.8	-0.7%
LCREEK	1	1	7598.9	24.3	1705.0	28.5	12.2	-16.3	-57.2%	2030.5	2014.2	-16.3	-0.8%	37.8	15.2	-22.6	-59.8%	2839.0	2816.4	-22.6	-0.8%
LFKRTD	1	1	5056.0	34.9	1708.8	41.5	27.0	-14.5	-34.9%	2022.1	2007.6	-14.5	-0.7%	52.0	30.6	-21.4	-41.2%	2824.3	2802.9	-21.4	-0.8%
NCREEK	1	1	4205.0	37.5	1743.0	44.2	28.4	-15.8	-35.7%	2077.6	2061.8	-15.8	-0.8%	55.6	31.4	-24.2	-43.5%	2897.1	2872.9	-24.2	-0.8%
PRWEAP	1	1	4023.1	34.5	1722.8	41.9	33.2	-8.7	-20.8%	2039.9	2031.2	-8.7	-0.4%	45.8	36.4	-9.4	-20.5%	2834.2	2824.8	-9.4	-0.3%
SCOUTS	1	1	5445.8	15.3	1509.7	20.2	16.7	-3.5	-17.3%	1805.3	1801.8	-3.5	-0.2%	22.6	19.2	-3.4	-15.0%	2513.8	2510.4	-3.4	-0.1%
WILDCT	1	1	6955.5	30.0	1933.1	35.3	17.5	-17.8	-50.4%	2293.6	2275.8	-17.8	-0.8%	47.0	23.6	-23.4	-49.8%	3201.7	3178.3	-23.4	-0.7%
ZHQ	1	1	4046.3	25.4	1710.8	32.2	26.1	-6.1	-18.9%	2043.6	2037.5	-6.1	-0.3%	36.5	28.0	-8.5	-23.3%	2839.9	2831.4	-8.5	-0.3%
ZION11	2	2	4815.7	34.7	1816.5	41.5	34.0	-7.5	-18.1%	2163.9	2156.4	-7.5	-0.3%	45.4	37.6	-7.8	-17.2%	3004.9	2997.1	-7.8	-0.3%
ZION11	2	3	5304.8	24.2	1742.1	30.5	24.2	-6.3	-20.7%	2075.6	2069.3	-6.3	-0.3%	33.8	26.6	-7.2	-21.3%	2886.0	2878.8	-7.2	-0.2%
ZION11	3	2	6029.4	54.8	2313.2	66.3	50.5	-15.8	-23.8%	2766.9	2751.1	-15.8	-0.6%	73.6	55.5	-18.1	-24.6%	3832.0	3813.9	-18.1	-0.5%
ZION11	3	3	5597.1	54.9	2298.0	66.5	50.0	-16.5	-24.8%	2746.0	2729.5	-16.5	-0.6%	74.4	53.8	-20.6	-27.7%	3804.4	3783.8	-20.6	-0.5%
ZION11	4	2	5972.5	55.1	2290.9	67.0	52.8	-14.2	-21.2%	2732.3	2718.1	-14.2	-0.5%	73.3	58.0	-15.3	-20.9%	3783.1	3767.8	-15.3	-0.4%
ZION11	4	3	4424.3	57.5	2284.4	70.1	53.1	-17.0	-24.3%	2717.6	2700.6	-17.0	-0.6%	77.8	57.4	-20.4	-26.2%	3761.4	3741.0	-20.4	-0.5%
ZION11	5	2	5612.1	54.2	2330.3	66.0	53.4	-12.6	-19.1%	2776.0	2763.4	-12.6	-0.5%	71.5	58.8	-12.7	-17.8%	3842.7	3830.0	-12.7	-0.3%
ZION11	5	3	4729.9	55.8	2310.2	68.0	53.3	-14.7	-21.6%	2744.8	2730.1	-14.7	-0.5%	74.3	57.8	-16.5	-22.2%	3800.0	3783.5	-16.5	-0.4%
ZION12	1	8	6481.8	56.3	2041.8	67.4	48.0	-19.4	-28.8%	2438.2	2418.8	-19.4	-0.8%	80.8	57.9	-22.9	-28.3%	3385.4	3362.5	-22.9	-0.7%
ZION12	1	9	7072.6	53.1	2195.3	61.8	42.3	-19.5	-31.6%	2606.3	2586.8	-19.5	-0.7%	75.2	52.5	-22.7	-30.2%	3632.1	3609.4	-22.7	-0.6%
ZION12	2	1	3798.2	68.1	1919.0	81.9	59.1	-22.8	-27.8%	2285.1	2262.3	-22.8	-1.0%	94.6	61.8	-32.8	-34.7%	3167.2	3134.4	-32.8	-1.0%
ZION12	2	2	4211.1	47.2	2146.2	55.0	37.9	-17.1	-31.1%	2543.6	2526.5	-17.1	-0.7%	66.2	39.6	-26.6	-40.2%	3544.0	3517.4	-26.6	-0.8%
ZION12	2	3	4638.1	48.4	1943.9	59.3	41.2	-18.1	-30.5%	2317.7	2299.6	-18.1	-0.8%	70.6	43.5	-27.1	-38.4%	3221.2	3194.1	-27.1	-0.8%
ZION12	2	4	6001.0	39.3	1824.4	47.0	31.5	-15.5	-33.0%	2177.3	2161.8	-15.5	-0.7%	57.7	34.8	-22.9	-39.7%	3030.9	3008.0	-22.9	-0.8%
ZION12	2	5	5216.6	37.9	1851.5	45.4	29.6	-15.8	-34.8%	2207.9	2192.1	-15.8	-0.7%	56.3	33.6	-22.7	-40.3%	3077.7	3055.0	-22.7	-0.7%
ZION12	2	6	5852.7	29.5	1798.6	35.5	21.4	-14.1	-39.7%	2150.3	2136.2	-14.1	-0.7%	45.9	26.0	-19.9	-43.4%	3004.1	2984.2	-19.9	-0.7%
ZION12	2	7	6624.1	35.9	1916.2	42.3	22.8	-19.5	-46.1%	2265.5	2246.0	-19.5	-0.9%	55.1	30.4	-24.7	-44.8%	3164.3	3139.6	-24.7	-0.8%
ZION12	2	8	7437.3	26.2	1713.1	30.9	13.0	-17.9	-57.9%	2044.3	2026.4	-17.9	-0.9%	41.4	16.0	-25.4	-61.4%	2858.1	2832.7	-25.4	-0.9%
ZION12	3	1	4191.1	61.5	2092.0	74.9	54.9	-20.0	-26.7%	2483.6	2463.6	-20.0	-0.8%	85.4	57.8	-27.6	-32.3%	3443.0	3415.4	-27.6	-0.8%
ZION12	3	2	4308.1	55.2	2077.9	67.4	47.1	-20.3	-30.1%	2473.5	2453.2	-20.3	-0.8%	78.3	49.1	-29.2	-37.3%	3431.1	3401.9	-29.2	-0.9%
ZION12	3	3	4398.2	48.6	2075.4	59.6	41.2	-18.4	-30.9%	2472.2	2453.8	-18.4	-0.7%	70.5	43.3	-27.2	-38.6%	3434.1	3406.9	-27.2	-0.8%
ZION12	3	4	6355.5	33.5	1878.4	41.2	28.8	-12.4	-30.1%	2241.2	2228.8	-12.4	-0.6%	49.9	30.2	-19.7	-39.5%	3117.7	3098.0	-19.7	-0.6%
ZION12	3	5	5117.5	33.3	1871.9	40.9	28.2	-12.7	-31.1%	2229.5	2216.8	-12.7	-0.6%	50.3	31.0	-19.3	-38.4%	3103.5	3084.2	-19.3	-0.6%
ZION12	3	6	5613.5	41.0	2017.5	50.1	31.0	-19.1	-38.1%	2394.4	2375.3	-19.1	-0.8%	62.5	36.2	-26.3	-42.1%	3334.6	3308.3	-26.3	-0.8%
ZION12	3	7	6469.1	30.4	1948.6	37.4	19.1	-18.3	-48.9%	2327.3	2309.0	-18.3	-0.8%	48.9	25.4	-23.5	-48.1%	3245.9	3222.4	-23.5	-0.7%
ZION12	3	8	7758.6	27.8	1842.5	32.1	15.2	-16.9	-52.6%	2205.3	2188.4	-16.9	-0.8%	43.3	21.0	-22.3	-51.5%	3078.6	3056.3	-22.3	-0.7%
ZION12	4	1	4327.5	55.7	2134.4	68.2	51.3	-16.9	-24.8%	2541.4	2524.5	-16.9	-0.7%	77.4	54.8	-22.6	-29.2%	3523.7	3501.1	-22.6	-0.6%
ZION12	4	2	7146.9	26.6	1661.8	32.8	25.8	-7.0	-21.3%	1984.6	1977.6	-7.0	-0.4%	38.1	27.9	-10.2	-26.8%	2760.7	2750.5	-10.2	-0.4%
ZION12	4	3	6756.6	22.9	1637.1	29.1	21.3	-7.8	-26.8%	1956.3	1948.5	-7.8	-0.4%	34.3	22.8	-11.5	-33.5%	2724.7	2713.2	-11.5	-0.4%
ZION12	4	4	6650.6	17.5	1593.3	22.9	17.0	-5.9	-25.8%	1898.1	1892.2	-5.9	-0.3%	26.9	18.9	-8.0	-29.7%	2645.8	2637.8	-8.0	-0.3%
ZION12	4	5	5189.8	20.1	1582.5	25.9	19.4	-6.5	-25.1%	1891.2	1884.7	-6.5	-0.3%	30.5	21.8	-8.7	-28.5%	2636.6	2627.9	-8.7	-0.3%
ZION12	4	6	7013.6	34.9	2016.4	42.4	26.6	-15.8	-37.3%	2400.8	2385.0	-15.8	-0.7%	52.9	30.2	-22.7	-42.9%	3343.6	3320.9	-22.7	-0.7%
ZION12	4	7	6121.0	31.1	1969.3	37.8	21.5	-16.3	-43.1%	2357.2	2340.9	-16.3	-0.7%	48.4	26.5	-21.9	-45.2%	3286.6	3264.7	-21.9	-0.7%
ZION12	4	8	7342.3	25.6	1891.5	29.1	14.9	-14.2	-48.8%	2241.1	2226.9	-14.2	-0.6%	39.2	19.9	-19.3	-49.2%	3129.6	3110.3	-19.3	-0.6%
ZION12	4	9	7219.2	20.4	1749.4	26.3	12.6	-13.7	-52.1%	2077.4	2063.7	-13.7	-0.7%	34.6	15.1	-19.5	-56.4%	2894.5	2875.0	-19.5	-0.7%
ZION12	5	1	4552.5	27.4	1709.9	34.4	27.6	-6.8	-19.8%	2039.9	2033.1	-6.8	-0.3%	38.7	29.8	-8.9	-23.0%	2833.7	2824.8	-8.9	-0.3%
ZION12	5	2	4315.6	25.5	1662.9	32.4	25.3	-7.1	-21.9%	1981.6	1974.5	-7.1	-0.4%	36.8	27.3	-9.5	-25.8%	2755.9	2746.4	-9.5	-0.3%
ZION12	5	3	6759.0	23.4	1703.1	26.9	21.6	-5.3	-19.7%	2017.6	2012.3	-5.3	-0.3%	30.6	23.2	-7.4	-24.2%	2813.4	2806.0	-7.4	-0.3%
ZION12	5	4	6333.4	16.0	1593.8	20.9	16.4	-4.5	-21.5%	1901.6	1897.1	-4.5	-0.2%	24.3	18.3	-6.0	-24.7%	2648.7	2642.7	-6.0	-0.2%
ZION12	5	5	6966.6	16.7	1562.9	21.7	16.4	-5.3	-24.4%	1874.3	1869.0	-5.3	-0.3%	24.9	18.6	-6.3	-25.3%	2611.2	2604.9	-6.3	-0.2%
ZION12	5	6	7029.1	11.0	1506.8	15.0	9.7	-5.3	-35.3%	1803.6	1798.3	-5.3	-0.3%	18.0	11.6	-6.4	-35.6%	2516.7	2510.3	-6.4	-0.3%
ZION12	5	7	6784.2	27.3	1986.9	33.7	20.0	-13.7	-40.7%	2377.7	2364.0	-13.7	-0.6%	42.8	23.6	-19.2	-44.9%	3314.2	3295.0	-19.2	-0.6%

Table AUD - A
INM Computed Minutes Audible Per Average Day 2003/2010/2020 (TAUD) Existing Ambient
St. George Municipal Airport EIS
Zion National Park

Note: The Integrated Noise Model sums the specific minutes of audibility of each aircraft event affecting a site and provides the total result. Events that occur simultaneously are summed sequentially. Where there are many events, each contributing a short period of time, the sum of the total minutes of audibility for each event may exceed the number of minutes in a day (1,440)

Grid Group Name	Column in Grid Group	Row in Grid Group	Ground Elevation (in feet)	2003 Time Audible (TAUD)		2010 Audibility (TAUD) Existing Ambient								2020 Audibility (TAUD) Existing Ambient							
				Existing Airport	Cumulative Condition	SGU Noise Only				Cumulative Noise				SGU Noise Only				Cumulative Noise			
						Existing Airport	Replacement Airport	Net Change in Project Noise - Minutes	Relative Change in Project Noise	Existing Airport	Replacement Airport	Net Change with Cumulative Noise- Minutes	Relative Change in Cumulative Noise	Existing Airport	Replacement Airport	Net Change in Project Noise- Minutes	Relative Change in Project Noise	Existing Airport	Replacement Airport	Net Change with Cumulative Noise- Minutes	Relative Change in Cumulative Noise
ZION12	5	8	5810.9	25.8	1921.9	32.1	17.2	-14.9	-46.4%	2300.1	2285.2	-14.9	-0.6%	41.5	21.8	-19.7	-47.5%	3207.5	3187.8	-19.7	-0.6%
ZION12	6	1	5447.8	24.0	1742.5	30.4	24.2	-6.2	-20.4%	2071.3	2065.1	-6.2	-0.3%	33.6	26.6	-7.0	-20.8%	2880.2	2873.2	-7.0	-0.2%
ZION12	6	2	5112.7	23.2	1650.1	29.7	24.4	-5.3	-17.8%	1968.6	1963.3	-5.3	-0.3%	33.0	26.6	-6.4	-19.4%	2736.7	2730.3	-6.4	-0.2%
ZION12	6	3	4974.2	25.4	1739.7	32.1	25.6	-6.5	-20.2%	2075.0	2068.5	-6.5	-0.3%	36.4	28.1	-8.3	-22.8%	2885.5	2877.2	-8.3	-0.3%
ZION12	6	4	4726.3	14.9	1529.2	19.7	16.6	-3.1	-15.7%	1816.1	1813.0	-3.1	-0.2%	22.0	19.1	-2.9	-13.2%	2529.0	2526.1	-2.9	-0.1%
ZION12	6	5	5759.6	16.6	1564.2	21.7	17.4	-4.3	-19.8%	1873.8	1869.5	-4.3	-0.2%	24.6	19.8	-4.8	-19.5%	2609.7	2604.9	-4.8	-0.2%
ZION12	6	6	5963.3	17.7	1507.2	23.1	18.9	-4.2	-18.2%	1800.7	1796.5	-4.2	-0.2%	26.0	21.6	-4.4	-16.9%	2506.5	2502.1	-4.4	-0.2%
ZION12	6	7	4803.6	12.2	1492.2	16.6	11.5	-5.1	-30.7%	1777.3	1772.2	-5.1	-0.3%	19.7	14.0	-5.7	-28.9%	2477.8	2472.1	-5.7	-0.2%
ZION12	6	8	5997.0	6.2	1301.0	7.7	5.4	-2.3	-29.9%	1557.7	1555.4	-2.3	-0.1%	10.5	7.1	-3.4	-32.4%	2175.8	2172.4	-3.4	-0.2%
ZION13	1	2	5973.1	133.0	2089.5	149.4	114.8	-34.6	-23.2%	2476.5	2441.9	-34.6	-1.4%	170.4	136.7	-33.7	-19.8%	3428.2	3394.5	-33.7	-1.0%
ZION13	1	3	6163.7	140.5	2157.9	158.5	126.3	-32.2	-20.3%	2566.6	2534.4	-32.2	-1.3%	180.2	152.7	-27.5	-15.3%	3549.8	3522.3	-27.5	-0.8%
ZION13	1	4	5532.4	113.8	1851.0	127.1	100.2	-26.9	-21.2%	2197.8	2170.9	-26.9	-1.2%	143.8	115.6	-28.2	-19.6%	3043.1	3014.9	-28.2	-0.9%
ZION13	2	1	5393.0	126.6	2153.7	143.1	107.6	-35.5	-24.8%	2546.2	2510.7	-35.5	-1.4%	164.2	129.6	-34.6	-21.1%	3525.9	3491.3	-34.6	-1.0%
ZION13	2	2	5195.9	139.1	2186.6	156.4	124.0	-32.4	-20.7%	2598.8	2566.4	-32.4	-1.2%	177.8	148.6	-29.2	-16.4%	3593.4	3564.2	-29.2	-0.8%
ZION13	2	3	5934.0	134.9	2161.4	152.0	122.7	-29.3	-19.3%	2569.9	2540.6	-29.3	-1.1%	172.4	147.9	-24.5	-14.2%	3556.0	3531.5	-24.5	-0.7%
ZION13	2	4	5937.3	139.8	2155.8	153.5	125.2	-28.3	-18.4%	2557.3	2529.0	-28.3	-1.1%	172.7	151.6	-21.1	-12.2%	3536.1	3515.0	-21.1	-0.6%
ZION13	2	5	6745.5	129.9	2063.3	141.7	113.0	-28.7	-20.3%	2448.6	2419.9	-28.7	-1.2%	159.7	139.6	-20.1	-12.6%	3385.0	3364.9	-20.1	-0.6%
ZION13	3	1	6096.9	88.4	2107.4	103.0	77.1	-25.9	-25.1%	2504.8	2478.9	-25.9	-1.0%	119.2	90.5	-28.7	-24.1%	3478.5	3449.8	-28.7	-0.8%
ZION13	3	2	5833.6	108.3	1928.4	126.1	97.8	-28.3	-22.4%	2296.0	2267.7	-28.3	-1.2%	144.9	119.2	-25.7	-17.7%	3183.9	3158.2	-25.7	-0.8%
ZION13	3	3	6453.8	125.4	2121.7	140.5	115.4	-25.1	-17.9%	2513.4	2488.3	-25.1	-1.0%	158.6	137.9	-20.7	-13.1%	3478.0	3457.3	-20.7	-0.6%
ZION13	3	4	7607.6	109.6	2038.5	124.5	94.5	-30.0	-24.1%	2432.2	2402.2	-30.0	-1.2%	141.4	116.8	-24.6	-17.4%	3370.0	3345.4	-24.6	-0.7%
ZION13	3	5	7384.4	108.8	2046.4	124.3	96.5	-27.8	-22.4%	2437.4	2409.6	-27.8	-1.1%	141.3	120.8	-20.5	-14.5%	3377.4	3356.9	-20.5	-0.6%
ZION19	1	1	6750.3	57.2	1765.7	66.7	42.3	-24.4	-36.6%	2113.7	2089.3	-24.4	-1.2%	79.1	49.8	-29.3	-37.0%	2947.0	2917.7	-29.3	-1.0%
ZION19	1	2	6517.5	92.9	2037.6	107.9	80.8	-27.1	-25.1%	2413.5	2386.4	-27.1	-1.1%	124.0	100.1	-23.9	-19.3%	3349.9	3326.0	-23.9	-0.7%
ZION20	1	1	5608.9	42.7	2274.1	52.5	39.5	-13.0	-24.8%	2702.9	2689.9	-13.0	-0.5%	59.9	42.0	-17.9	-29.9%	3751.2	3733.3	-17.9	-0.5%
ZION20	1	2	6812.4	40.1	2330.2	49.5	38.6	-10.9	-22.0%	2776.0	2765.1	-10.9	-0.4%	57.2	40.7	-16.5	-28.8%	3853.6	3837.1	-16.5	-0.4%
ZION20	1	3	6786.0	37.4	2275.8	46.2	34.6	-11.6	-25.1%	2722.8	2711.2	-11.6	-0.4%	54.2	36.7	-17.5	-32.3%	3781.6	3764.1	-17.5	-0.5%
ZION20	1	4	6133.7	35.6	2221.5	44.1	32.0	-12.1	-27.4%	2651.2	2639.1	-12.1	-0.5%	52.3	34.2	-18.1	-34.6%	3683.4	3665.3	-18.1	-0.5%
ZION20	1	5	5285.0	16.9	1553.1	22.0	18.6	-3.4	-15.5%	1844.5	1841.1	-3.4	-0.2%	24.7	21.3	-3.4	-13.8%	2564.7	2561.3	-3.4	-0.1%
ZION20	1	6	6479.4	7.4	1451.9	11.1	8.4	-2.7	-24.3%	1724.2	1721.5	-2.7	-0.2%	13.0	10.8	-2.2	-16.9%	2402.2	2400.0	-2.2	-0.1%
ZION20	1	7	6433.3	6.6	1378.2	7.9	7.4	-0.5	-6.3%	1646.3	1645.8	-0.5	0.0%	10.4	9.4	-1.0	-9.6%	2295.9	2294.9	-1.0	0.0%
ZION20	2	1	5956.0	40.1	2330.2	49.5	38.6	-10.9	-22.0%	2776.0	2765.1	-10.9	-0.4%	57.2	40.7	-16.5	-28.8%	3853.6	3837.1	-16.5	-0.4%
ZION20	2	2	6593.2	37.4	2275.8	46.2	34.6	-11.6	-25.1%	2722.8	2711.2	-11.6	-0.4%	54.2	36.7	-17.5	-32.3%	3781.6	3764.1	-17.5	-0.5%
ZION20	2	3	6613.4	35.6	2221.5	44.1	32.0	-12.1	-27.4%	2651.2	2639.1	-12.1	-0.5%	52.3	34.2	-18.1	-34.6%	3683.4	3665.3	-18.1	-0.5%

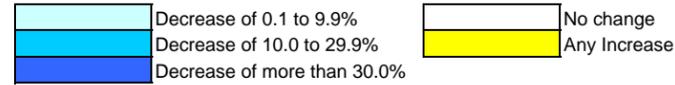
Table AUD - B
Percent Time Audible Per Average Day 2003/2010/2020 (%TAUD) Existing Ambient
St. George Municipal Airport EIS
Zion National Park



Note: When the Integrated Noise Model computes the total number of minutes to exceed 1440 minutes, it automatically caps the percentage of daily exposure at 100%.
 Where there are many events, each contributing a small amount of time, the total minutes of audibility for a day may exceed 100%.

Grid Group Name	Column in Grid Group	Row in Grid Group	Ground Elevation (in feet)	2003 Percent Time Audible (%TAUD)		2010 Percent Time Audible (%TAUD) Natural Ambient				2020 Percent Time Audible (%TAUD) Natural Ambient											
						SGU Noise Only		Cumulative Noise		SGU Noise Only		Cumulative Noise									
				Existing Airport	Cumulative Condition	Existing Airport	Replacement Airport	Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible				
CHINLE	1	1	4200.2	4.2%	100.0%	5.2%	3.8%	-1.4%	-26.9%	100.0%	100.0%	0.0%	0.0%	5.9%	4.0%	-1.9%	-32.1%	100.0%	100.0%	0.0%	0.00%
CRZQLT	1	1	5620.8	3.1%	100.0%	3.8%	2.8%	-1.0%	-26.0%	100.0%	100.0%	0.0%	0.0%	4.2%	3.0%	-1.2%	-29.2%	100.0%	100.0%	0.0%	0.00%
EASTRM	1	1	6396.8	2.5%	100.0%	3.2%	2.4%	-0.8%	-24.2%	100.0%	100.0%	0.0%	0.0%	3.7%	2.5%	-1.1%	-30.9%	100.0%	100.0%	0.0%	0.00%
HOPVAL	1	1	6380.3	4.2%	100.0%	4.9%	3.6%	-1.3%	-26.4%	100.0%	100.0%	0.0%	0.0%	5.8%	4.3%	-1.5%	-26.5%	100.0%	100.0%	0.0%	0.00%
KOLOBC	1	1	6140.9	9.5%	100.0%	10.7%	8.6%	-2.2%	-20.3%	100.0%	100.0%	0.0%	0.0%	12.2%	10.3%	-1.9%	-15.4%	100.0%	100.0%	0.0%	0.00%
LAVAPT	1	1	7798.0	1.4%	100.0%	1.6%	0.7%	-0.9%	-57.3%	100.0%	100.0%	0.0%	0.0%	2.2%	0.9%	-1.3%	-60.3%	100.0%	100.0%	0.0%	0.00%
LCREEK	1	1	7598.9	1.7%	100.0%	2.0%	0.8%	-1.1%	-57.2%	100.0%	100.0%	0.0%	0.0%	2.6%	1.1%	-1.6%	-59.8%	100.0%	100.0%	0.0%	0.00%
LFRKTD	1	1	5056.0	2.4%	100.0%	2.9%	1.9%	-1.0%	-34.9%	100.0%	100.0%	0.0%	0.0%	3.6%	2.1%	-1.5%	-41.2%	100.0%	100.0%	0.0%	0.00%
NCREEK	1	1	4205.0	2.6%	100.0%	3.1%	2.0%	-1.1%	-35.7%	100.0%	100.0%	0.0%	0.0%	3.9%	2.2%	-1.7%	-43.5%	100.0%	100.0%	0.0%	0.00%
PRWEAP	1	1	4023.1	2.4%	100.0%	2.9%	2.3%	-0.6%	-20.8%	100.0%	100.0%	0.0%	0.0%	3.2%	2.5%	-0.7%	-20.5%	100.0%	100.0%	0.0%	0.00%
SCOUTS	1	1	5445.8	1.1%	100.0%	1.4%	1.2%	-0.2%	-17.3%	100.0%	100.0%	0.0%	0.0%	1.6%	1.3%	-0.2%	-15.0%	100.0%	100.0%	0.0%	0.00%
WILDCT	1	1	6955.5	2.1%	100.0%	2.5%	1.2%	-1.2%	-50.4%	100.0%	100.0%	0.0%	0.0%	3.3%	1.6%	-1.6%	-49.8%	100.0%	100.0%	0.0%	0.00%
ZHQ	1	1	4046.3	1.8%	100.0%	2.2%	1.8%	-0.4%	-18.9%	100.0%	100.0%	0.0%	0.0%	2.5%	1.9%	-0.6%	-23.3%	100.0%	100.0%	0.0%	0.00%
ZION11	3	3	5597.1	3.8%	100.0%	4.6%	3.5%	-1.1%	-24.8%	100.0%	100.0%	0.0%	0.0%	5.2%	3.7%	-1.4%	-27.7%	100.0%	100.0%	0.0%	0.00%
ZION11	4	2	5972.5	3.8%	100.0%	4.7%	3.7%	-1.0%	-21.2%	100.0%	100.0%	0.0%	0.0%	5.1%	4.0%	-1.1%	-20.9%	100.0%	100.0%	0.0%	0.00%
ZION11	4	3	4424.3	4.0%	100.0%	4.9%	3.7%	-1.2%	-24.3%	100.0%	100.0%	0.0%	0.0%	5.4%	4.0%	-1.4%	-26.2%	100.0%	100.0%	0.0%	0.00%
ZION11	5	2	5612.1	3.8%	100.0%	4.6%	3.7%	-0.9%	-19.1%	100.0%	100.0%	0.0%	0.0%	5.0%	4.1%	-0.9%	-17.8%	100.0%	100.0%	0.0%	0.00%
ZION11	5	3	4729.9	3.9%	100.0%	4.7%	3.7%	-1.0%	-21.6%	100.0%	100.0%	0.0%	0.0%	5.2%	4.0%	-1.1%	-22.2%	100.0%	100.0%	0.0%	0.00%
ZION12	1	8	6481.8	3.9%	100.0%	4.7%	3.3%	-1.3%	-28.8%	100.0%	100.0%	0.0%	0.0%	5.6%	4.0%	-1.6%	-28.3%	100.0%	100.0%	0.0%	0.00%
ZION12	1	9	7072.6	3.7%	100.0%	4.3%	2.9%	-1.4%	-31.6%	100.0%	100.0%	0.0%	0.0%	5.2%	3.6%	-1.6%	-30.2%	100.0%	100.0%	0.0%	0.00%
ZION12	2	1	3798.2	4.7%	100.0%	5.7%	4.1%	-1.6%	-27.8%	100.0%	100.0%	0.0%	0.0%	6.6%	4.3%	-2.3%	-34.7%	100.0%	100.0%	0.0%	0.00%
ZION12	2	2	4211.1	3.3%	100.0%	3.8%	2.6%	-1.2%	-31.1%	100.0%	100.0%	0.0%	0.0%	4.6%	2.8%	-1.8%	-40.2%	100.0%	100.0%	0.0%	0.00%
ZION12	2	3	4638.1	3.4%	100.0%	4.1%	2.9%	-1.3%	-30.5%	100.0%	100.0%	0.0%	0.0%	4.9%	3.0%	-1.9%	-38.4%	100.0%	100.0%	0.0%	0.00%
ZION12	2	4	6001.0	2.7%	100.0%	3.3%	2.2%	-1.1%	-33.0%	100.0%	100.0%	0.0%	0.0%	4.0%	2.4%	-1.6%	-39.7%	100.0%	100.0%	0.0%	0.00%
ZION12	2	5	5216.6	2.6%	100.0%	3.2%	2.1%	-1.1%	-34.8%	100.0%	100.0%	0.0%	0.0%	3.9%	2.3%	-1.6%	-40.3%	100.0%	100.0%	0.0%	0.00%
ZION12	2	6	5852.7	2.0%	100.0%	2.5%	1.5%	-1.0%	-39.7%	100.0%	100.0%	0.0%	0.0%	3.2%	1.8%	-1.4%	-43.4%	100.0%	100.0%	0.0%	0.00%
ZION12	2	7	6624.1	2.5%	100.0%	2.9%	1.6%	-1.4%	-46.1%	100.0%	100.0%	0.0%	0.0%	3.8%	2.1%	-1.7%	-44.8%	100.0%	100.0%	0.0%	0.00%
ZION12	2	8	7437.3	1.8%	100.0%	2.1%	0.9%	-1.2%	-57.9%	100.0%	100.0%	0.0%	0.0%	2.9%	1.1%	-1.8%	-61.4%	100.0%	100.0%	0.0%	0.00%
ZION12	3	1	4191.1	4.3%	100.0%	5.2%	3.8%	-1.4%	-26.7%	100.0%	100.0%	0.0%	0.0%	5.9%	4.0%	-1.9%	-32.3%	100.0%	100.0%	0.0%	0.00%
ZION12	3	2	4308.1	3.8%	100.0%	4.7%	3.3%	-1.4%	-30.1%	100.0%	100.0%	0.0%	0.0%	5.4%	3.4%	-2.0%	-37.3%	100.0%	100.0%	0.0%	0.00%
ZION12	3	3	4398.2	3.4%	100.0%	4.1%	2.9%	-1.3%	-30.9%	100.0%	100.0%	0.0%	0.0%	4.9%	3.0%	-1.9%	-38.6%	100.0%	100.0%	0.0%	0.00%
ZION12	3	4	6355.5	2.3%	100.0%	2.9%	2.0%	-0.9%	-30.1%	100.0%	100.0%	0.0%	0.0%	3.5%	2.1%	-1.4%	-39.5%	100.0%	100.0%	0.0%	0.00%
ZION12	3	5	5117.5	2.3%	100.0%	2.8%	2.0%	-0.9%	-31.1%	100.0%	100.0%	0.0%	0.0%	3.5%	2.2%	-1.3%	-38.4%	100.0%	100.0%	0.0%	0.00%
ZION12	3	6	5613.5	2.8%	100.0%	3.5%	2.2%	-1.3%	-38.1%	100.0%	100.0%	0.0%	0.0%	4.3%	2.5%	-1.8%	-42.1%	100.0%	100.0%	0.0%	0.00%
ZION12	3	7	6469.1	2.1%	100.0%	2.6%	1.3%	-1.3%	-48.9%	100.0%	100.0%	0.0%	0.0%	3.4%	1.8%	-1.6%	-48.1%	100.0%	100.0%	0.0%	0.00%
ZION12	3	8	7758.6	1.9%	100.0%	2.2%	1.1%	-1.2%	-52.6%	100.0%	100.0%	0.0%	0.0%	3.0%	1.5%	-1.5%	-51.5%	100.0%	100.0%	0.0%	0.00%
ZION12	4	1	4327.5	3.9%	100.0%	4.7%	3.6%	-1.2%	-24.8%	100.0%	100.0%	0.0%	0.0%	5.4%	3.8%	-1.6%	-29.2%	100.0%	100.0%	0.0%	0.00%
ZION12	4	2	7146.9	1.8%	100.0%	2.3%	1.8%	-0.5%	-21.3%	100.0%	100.0%	0.0%	0.0%	2.6%	1.9%	-0.7%	-26.8%	100.0%	100.0%	0.0%	0.00%
ZION12	4	3	6756.6	1.6%	100.0%	2.0%	1.5%	-0.5%	-26.8%	100.0%	100.0%	0.0%	0.0%	2.4%	1.6%	-0.8%	-33.5%	100.0%	100.0%	0.0%	0.00%
ZION12	4	4	6650.6	1.2%	100.0%	1.6%	1.2%	-0.4%	-25.8%	100.0%	100.0%	0.0%	0.0%	1.9%	1.3%	-0.6%	-29.7%	100.0%	100.0%	0.0%	0.00%
ZION12	4	5	5189.8	1.4%	100.0%	1.8%	1.3%	-0.5%	-25.1%	100.0%	100.0%	0.0%	0.0%	2.1%	1.5%	-0.6%	-28.5%	100.0%	100.0%	0.0%	0.00%
ZION12	4	6	7013.6	2.4%	100.0%	2.9%	1.8%	-1.1%	-37.3%	100.0%	100.0%	0.0%	0.0%	3.7%	2.1%	-1.6%	-42.9%	100.0%	100.0%	0.0%	0.00%
ZION12	4	7	6121.0	2.2%	100.0%	2.6%	1.5%	-1.1%	-43.1%	100.0%	100.0%	0.0%	0.0%	3.4%	1.8%	-1.5%	-45.2%	100.0%	100.0%	0.0%	0.00%
ZION12	4	8	7342.3	1.8%	100.0%	2.0%	1.0%	-1.0%	-48.8%	100.0%	100.0%	0.0%	0.0%	2.7%	1.4%	-1.3%	-49.2%	100.0%	100.0%	0.0%	0.00%
ZION12	4	9	7219.2	1.4%	100.0%	1.8%	0.9%	-1.0%	-52.1%	100.0%	100.0%	0.0%	0.0%	2.4%	1.0%	-1.4%	-56.4%	100.0%	100.0%	0.0%	0.00%
ZION12	5	1	4552.5	1.9%	100.0%	2.4%	1.9%	-0.5%	-19.8%	100.0%	100.0%	0.0%	0.0%	2.7%	2.1%	-0.6%	-23.0%	100.0%	100.0%	0.0%	0.00%
ZION12	5	2	4315.6	1.8%	100.0%	2.3%	1.8%	-0.5%	-21.9%	100.0%	100.0%	0.0%	0.0%	2.6%	1.9%	-0.7%	-25.8%	100.0%	100.0%	0.0%	0.00%
ZION12	5	3	6759.0	1.6%	100.0%	1.9%	1.5%	-0.4%	-19.7%	100.0%	100.0%	0.0%	0.0%	2.1%	1.6%	-0.5%	-24.2%	100.0%	100.0%	0.0%	0.00%
ZION12	5	4	6333.4	1.1%	100.0%	1.5%	1.1%	-0.3%	-21.5%	100.0%	100.0%	0.0%	0.0%	1.7%	1.3%	-0.4%	-24.7%	100.0%	100.0%	0.0%	0.00%
ZION12	5	5	6966.6	1.2%	100.0%	1.5%	1.1%	-0.4%	-24.4%	100.0%	100.0%	0.0%	0.0%	1.7%	1.3%	-0.4%	-25.3%	100.0%	100.0%	0.0%	0.00%
ZION12	5	6	7029.1	0.8%	100.0%	1.0%	0.7%	-0.4%	-35.3%	100.0%	100.0%	0.0%	0.0%	1.3%	0.8%	-0.4%	-35.6%	100.0%	100.0%	0.0%	0.00%
ZION12	5	7	6784.2	1.9%	100.0%	2.3%	1.4%	-1.0%	-40.7%	100.0%	100.0%	0.0%	0.0%	3.0%	1.6%	-1.3%	-44.9%	100.0%	100.0%	0.0%	0.00%
ZION12	5	8	5810.9	1.8%	100.0%	2.2%	1.2%	-1.0%	-46.4%	100.0%	100.0%	0.0%	0.0%	2.9%	1.5%	-1.4%	-47.5%	100.0%	100.0%	0.0%	0.00%
ZION12	6	1	5447.8	1.7%	100.0%	2.1%	1.7%	-0.4%	-20.4%	100.0%	100.0%	0.0%	0.0%	2.3%	1.8%	-0.5%	-20.8%	100.0%	100.0%	0.0%	0.00%
ZION12	6	2	5112.7	1.6%	100.0%	2.1%	1.7%	-0.4%	-17.8%	100.0%	100.0%	0.0%	0.0%	2.3%	1.8%	-0.4%	-19.4%	100.0%	100.0%	0.0%	0.00%
ZION12	6	3	4974.2	1.8%	100.0%	2.2%	1.8%	-0.5%	-20.2%	100.0%	100.0%	0.0%	0.0%	2.5%	2.0%	-0.6%	-22.8%	100.0%	100.0%	0.0%	0.00%
ZION12	6	4	4726.3	1.0%	100.0%	1.4%	1.2%	-0.2%	-15.7%	100.0%	100.0%	0.0%	0.0%	1.5%	1.3%	-0.2%	-13.2%	100.0%	100.0%	0.0%	0.00%
ZION12	6	5	5759.6	1.2%	100.0%	1.5%	1.2%	-0.3%	-19.8%	100.0%	100.0%	0.0%	0.0%	1.7%	1.4%	-0.3%	-19.5%	100.0%	100.0%	0.0%	0.00%
ZION12	6	6	5963.3	1.2%	100.0%	1.6%	1.3%	-0.3%	-18.2%	100.0%	100.0%	0.0%	0.0%	1.8%	1.5%	-0.3%	-16.9%	100.0%	100.0%	0.0%	0.00%
ZION12	6	7	4803.6	0.8%	100.0%	1.2%	0.8%	-0.4%	-30.7%	100.0%	100.0%	0.0%	0.0%	1.4%	1.0%	-0.4%	-28.9%	100.0%	100.0%	0.0%	0.00%
ZION12	6	8	5997.0	0.4%	90.3%	0.5%	0.4%	-0.2%	-29.9%	100.0%	100.0%										

Table AUD - B
Percent Time Audible Per Average Day 2003/2010/2020 (%TAUD) Existing Ambient
St. George Municipal Airport EIS
Zion National Park



Note: When the Integrated Noise Model computes the total number of minutes to exceed 1440 minutes, it automatically caps the percentage of daily exposure at 100%.
 Where there are many events, each contributing a small amount of time, the total minutes of audibility for a day may exceed 100%.

Grid Group Name	Column in Grid Group	Row in Grid Group	Ground Elevation (in feet)	2003 Percent Time Audible (%TAUD)		2010 Percent Time Audible (%TAUD) Natural Ambient								2020 Percent Time Audible (%TAUD) Natural Ambient							
				Existing Airport	Cumulative Condition	SGU Noise Only				Cumulative Noise				SGU Noise Only				Cumulative Noise			
						Existing Airport	Replacement Airport	Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible
ZION13	1	2	5973.1	9.2%	100.0%	10.4%	8.0%	-2.4%	-23.2%	100.0%	100.0%	0.0%	0.00%	11.8%	9.5%	-2.3%	-19.8%	100.0%	100.0%	0.0%	0.00%
ZION13	1	3	6163.7	9.8%	100.0%	11.0%	8.8%	-2.2%	-20.3%	100.0%	100.0%	0.0%	0.00%	12.5%	10.6%	-1.9%	-15.3%	100.0%	100.0%	0.0%	0.00%
ZION13	1	4	5532.4	7.9%	100.0%	8.8%	7.0%	-1.9%	-21.2%	100.0%	100.0%	0.0%	0.00%	10.0%	8.0%	-2.0%	-19.6%	100.0%	100.0%	0.0%	0.00%
ZION13	2	1	5393.0	8.8%	100.0%	9.9%	7.5%	-2.5%	-24.8%	100.0%	100.0%	0.0%	0.00%	11.4%	9.0%	-2.4%	-21.1%	100.0%	100.0%	0.0%	0.00%
ZION13	2	2	5195.9	9.7%	100.0%	10.9%	8.6%	-2.3%	-20.7%	100.0%	100.0%	0.0%	0.00%	12.3%	10.3%	-2.0%	-16.4%	100.0%	100.0%	0.0%	0.00%
ZION13	2	3	5934.0	9.4%	100.0%	10.6%	8.5%	-2.0%	-19.3%	100.0%	100.0%	0.0%	0.00%	12.0%	10.3%	-1.7%	-14.2%	100.0%	100.0%	0.0%	0.00%
ZION13	2	4	5937.3	9.7%	100.0%	10.7%	8.7%	-2.0%	-18.4%	100.0%	100.0%	0.0%	0.00%	12.0%	10.5%	-1.5%	-12.2%	100.0%	100.0%	0.0%	0.00%
ZION13	2	5	6745.5	9.0%	100.0%	9.8%	7.8%	-2.0%	-20.3%	100.0%	100.0%	0.0%	0.00%	11.1%	9.7%	-1.4%	-12.6%	100.0%	100.0%	0.0%	0.00%
ZION13	3	1	6096.9	6.1%	100.0%	7.2%	5.4%	-1.8%	-25.1%	100.0%	100.0%	0.0%	0.00%	8.3%	6.3%	-2.0%	-24.1%	100.0%	100.0%	0.0%	0.00%
ZION13	3	2	5833.6	7.5%	100.0%	8.8%	6.8%	-2.0%	-22.4%	100.0%	100.0%	0.0%	0.00%	10.1%	8.3%	-1.8%	-17.7%	100.0%	100.0%	0.0%	0.00%
ZION13	3	3	6453.8	8.7%	100.0%	9.8%	8.0%	-1.7%	-17.9%	100.0%	100.0%	0.0%	0.00%	11.0%	9.6%	-1.4%	-13.1%	100.0%	100.0%	0.0%	0.00%
ZION13	3	4	7607.6	7.6%	100.0%	8.6%	6.6%	-2.1%	-24.1%	100.0%	100.0%	0.0%	0.00%	9.8%	8.1%	-1.7%	-17.4%	100.0%	100.0%	0.0%	0.00%
ZION13	3	5	7384.4	7.6%	100.0%	8.6%	6.7%	-1.9%	-22.4%	100.0%	100.0%	0.0%	0.00%	9.8%	8.4%	-1.4%	-14.5%	100.0%	100.0%	0.0%	0.00%
ZION19	1	1	6750.3	4.0%	100.0%	4.6%	2.9%	-1.7%	-36.6%	100.0%	100.0%	0.0%	0.00%	5.5%	3.5%	-2.0%	-37.0%	100.0%	100.0%	0.0%	0.00%
ZION19	1	2	6517.5	6.5%	100.0%	7.5%	5.6%	-1.9%	-25.1%	100.0%	100.0%	0.0%	0.00%	8.6%	7.0%	-1.7%	-19.3%	100.0%	100.0%	0.0%	0.00%
ZION20	1	1	5608.9	3.0%	100.0%	3.6%	2.7%	-0.9%	-24.8%	100.0%	100.0%	0.0%	0.00%	4.2%	2.9%	-1.2%	-29.9%	100.0%	100.0%	0.0%	0.00%
ZION20	1	2	6812.4	2.8%	100.0%	3.4%	2.7%	-0.8%	-22.0%	100.0%	100.0%	0.0%	0.00%	4.0%	2.8%	-1.1%	-28.8%	100.0%	100.0%	0.0%	0.00%
ZION20	1	3	6786.0	2.6%	100.0%	3.2%	2.4%	-0.8%	-25.1%	100.0%	100.0%	0.0%	0.00%	3.8%	2.5%	-1.2%	-32.3%	100.0%	100.0%	0.0%	0.00%
ZION20	1	4	6133.7	2.5%	100.0%	3.1%	2.2%	-0.8%	-27.4%	100.0%	100.0%	0.0%	0.00%	3.6%	2.4%	-1.3%	-34.6%	100.0%	100.0%	0.0%	0.00%
ZION20	1	5	5285.0	1.2%	100.0%	1.5%	1.3%	-0.2%	-15.5%	100.0%	100.0%	0.0%	0.00%	1.7%	1.5%	-0.2%	-13.8%	100.0%	100.0%	0.0%	0.00%
ZION20	1	6	6479.4	0.5%	100.0%	0.8%	0.6%	-0.2%	-24.3%	100.0%	100.0%	0.0%	0.00%	0.9%	0.8%	-0.2%	-16.9%	100.0%	100.0%	0.0%	0.00%
ZION20	1	7	6433.3	0.5%	95.7%	0.5%	0.5%	0.0%	-6.3%	100.0%	100.0%	0.0%	0.00%	0.7%	0.7%	-0.1%	-9.6%	100.0%	100.0%	0.0%	0.00%
ZION20	2	1	5956.0	2.8%	100.0%	3.4%	2.7%	-0.8%	-22.0%	100.0%	100.0%	0.0%	0.00%	4.0%	2.8%	-1.1%	-28.8%	100.0%	100.0%	0.0%	0.00%
ZION20	2	2	6593.2	2.6%	100.0%	3.2%	2.4%	-0.8%	-25.1%	100.0%	100.0%	0.0%	0.00%	3.8%	2.5%	-1.2%	-32.3%	100.0%	100.0%	0.0%	0.00%
ZION20	2	3	6613.4	2.5%	100.0%	3.1%	2.2%	-0.8%	-27.4%	100.0%	100.0%	0.0%	0.00%	3.6%	2.4%	-1.3%	-34.6%	100.0%	100.0%	0.0%	0.00%

Table AUD - C
Minutes Audible Per Average Day 2003/2010/2020 (TAUD) Natural Ambient
St. George Municipal Airport EIS
Zion National Park

Note: The Integrated Noise Model sums the specific minutes of audibility of each aircraft event affecting a site and provides the total result. Events that occur simultaneously are summed sequentially. Where there are many events, each contributing a short period of time, the sum of the total minutes of audibility for each event may exceed the number of minutes in a day (1,440).

Grid Group Name	Column in Grid Group	Row in Grid Group	Ground Elevation (in feet)	2003 Time Audible (TAUD)		2010 Audibility (TAUD) Natural Ambient								2020 Audibility (TAUD) Natural Ambient							
				Existing Airport	Cumulative Condition	SGU Noise Only				Cumulative Noise				SGU Noise Only				Cumulative Noise			
						Existing Airport	Replacement Airport	Net Difference in Project Noise - Minutes	Relative Change in Project Noise	Existing Airport	Replacement Airport	Net Difference with Cumulative Noise- Minutes	Relative Change in Cumulative Noise - % of 24hr Day	Existing Airport	Replacement Airport	Net Difference in Project Noise - Minutes	Relative Change in Project Noise	Existing Airport	Replacement Airport	Net Difference with Cumulative Noise- Minutes	Relative Change in Cumulative Noise - % of 24hr Day
CHINLE	1	1	4200.2	74.6	2435.9	90.2	64.6	-25.6	-28.4%	2901.1	2875.5	-25.6	-1.8%	104.2	68.6	-35.6	-34.2%	4021.4	3985.8	-35.6	-2.5%
CRZQLT	1	1	5620.8	57.9	2486.1	70.1	50.7	-19.4	-27.7%	2965.2	2945.8	-19.4	-1.3%	78.9	54.1	-24.8	-31.4%	4107.3	4082.5	-24.8	-1.7%
EASTRM	1	1	6396.8	38.8	2315.4	47.8	35.0	-12.8	-26.8%	2764.4	2751.6	-12.8	-0.9%	56.4	36.9	-19.5	-34.6%	3839.1	3819.6	-19.5	-1.4%
HOPVAL	1	1	6380.3	61.8	1891.4	71.6	52.4	-19.2	-26.8%	2250.4	2231.2	-19.2	-1.3%	86.3	63.2	-23.1	-26.8%	3135.8	3112.7	-23.1	-1.6%
KOLOBC	1	1	6140.9	132.7	2120.5	149.2	120.2	-29.0	-19.4%	2514.9	2485.9	-29.0	-2.0%	169.8	144.6	-25.2	-14.8%	3480.0	3454.8	-25.2	-1.7%
LAVAPT	1	1	7798.0	20.3	1673.2	23.7	10.1	-13.6	-57.4%	1987.0	1973.4	-13.6	-0.9%	31.5	12.5	-19.0	-60.3%	2775.8	2756.8	-19.0	-1.3%
LCREEK	1	1	7598.9	24.3	1702.8	28.5	12.4	-16.1	-56.5%	2031.8	2015.7	-16.1	-1.1%	37.8	15.4	-22.4	-59.3%	2840.7	2818.3	-22.4	-1.6%
LFKRTD	1	1	5056.0	39.2	1805.4	46.4	29.5	-16.9	-36.4%	2154.4	2137.5	-16.9	-1.2%	58.5	33.7	-24.8	-42.4%	3006.8	2982.0	-24.8	-1.7%
NCREEK	1	1	4205.0	42.1	1834.2	50.1	31.6	-18.5	-36.9%	2193.9	2175.4	-18.5	-1.3%	62.9	35.6	-27.3	-43.4%	3058.4	3031.1	-27.3	-1.9%
PRWEAP	1	1	4023.1	58.2	2135.6	70.6	53.2	-17.4	-24.6%	2542.7	2525.3	-17.4	-1.2%	79.1	57.5	-21.6	-27.3%	3522.4	3500.8	-21.6	-1.5%
SCOUTS	1	1	5445.8	21.5	1815.3	27.6	20.5	-7.1	-25.7%	2170.5	2163.4	-7.1	-0.5%	32.3	22.7	-9.6	-29.7%	3022.1	3012.5	-9.6	-0.7%
WILDCT	1	1	6955.5	37.2	2085.8	45.8	25.9	-19.9	-43.4%	2499.3	2479.4	-19.9	-1.4%	58.4	35.0	-23.4	-40.1%	3483.5	3460.1	-23.4	-1.6%
ZHQ	1	1	4046.3	44.5	2129.2	54.1	38.8	-15.3	-28.3%	2543.4	2528.1	-15.3	-1.1%	63.5	40.6	-22.9	-36.1%	3532.7	3509.8	-22.9	-1.6%
ZION11	2	2	4815.7	67.3	2400.3	81.8	64.1	-17.7	-21.6%	2865.4	2847.7	-17.7	-1.2%	91.4	69.3	-22.1	-24.2%	3967.9	3945.8	-22.1	-1.5%
ZION11	2	3	5304.8	60.1	2370.0	72.8	57.1	-15.7	-21.6%	2829.4	2813.7	-15.7	-1.1%	82.1	61.6	-20.5	-25.0%	3919.2	3898.7	-20.5	-1.4%
ZION11	3	2	6029.4	61.9	2386.6	74.9	59.6	-15.3	-20.4%	2848.7	2833.4	-15.3	-1.1%	82.6	65.4	-17.2	-20.8%	3942.9	3925.7	-17.2	-1.2%
ZION11	3	3	5597.1	64.4	2494.7	77.7	58.6	-19.1	-24.6%	2978.1	2959.0	-19.1	-1.3%	87.6	62.8	-24.8	-28.3%	4123.1	4098.3	-24.8	-1.7%
ZION11	4	2	5972.5	61.6	2466.5	74.3	58.5	-15.8	-21.3%	2935.9	2920.1	-15.8	-1.1%	82.5	63.7	-18.8	-22.8%	4062.9	4044.1	-18.8	-1.3%
ZION11	4	3	4424.3	63.4	2496.2	76.6	58.0	-18.6	-24.3%	2969.1	2950.5	-18.6	-1.3%	85.7	62.1	-23.6	-27.5%	4110.0	4086.4	-23.6	-1.6%
ZION11	5	2	5612.1	60.8	2503.9	74.0	58.6	-15.4	-20.8%	2974.1	2958.7	-15.4	-1.1%	81.5	64.1	-17.4	-21.3%	4117.3	4099.9	-17.4	-1.2%
ZION11	5	3	4729.9	60.0	2443.8	72.9	55.6	-17.3	-23.7%	2906.4	2889.1	-17.3	-1.2%	80.8	60.3	-20.5	-25.4%	4021.7	4001.2	-20.5	-1.4%
ZION12	1	8	6481.8	60.2	2375.4	72.0	50.2	-21.8	-30.3%	2807.6	2785.8	-21.8	-1.5%	85.7	60.4	-25.3	-29.5%	3899.2	3873.9	-25.3	-1.8%
ZION12	1	9	7072.6	53.7	2195.9	62.5	42.7	-19.8	-31.7%	2607.0	2587.2	-19.8	-1.4%	76.2	53.2	-23.0	-30.2%	3633.1	3610.1	-23.0	-1.6%
ZION12	2	1	3798.2	80.8	2131.3	97.0	70.9	-26.1	-26.9%	2542.3	2516.2	-26.1	-1.8%	113.2	76.4	-36.8	-32.5%	3523.8	3487.0	-36.8	-2.6%
ZION12	2	2	4211.1	55.4	2154.4	64.5	42.1	-22.4	-34.7%	2553.1	2530.7	-22.4	-1.6%	78.3	44.2	-34.1	-43.6%	3556.1	3522.0	-34.1	-2.4%
ZION12	2	3	4638.1	52.4	2089.1	63.7	43.1	-20.6	-32.3%	2467.5	2446.9	-20.6	-1.4%	76.5	46.9	-29.6	-38.7%	3429.3	3399.7	-29.6	-2.1%
ZION12	2	4	6001.0	44.2	2004.6	53.3	35.8	-17.5	-32.8%	2369.9	2352.4	-17.5	-1.2%	65.1	39.5	-25.6	-39.3%	3298.0	3272.4	-25.6	-1.8%
ZION12	2	5	5216.6	41.4	1943.5	50.0	32.0	-18.0	-36.0%	2291.0	2273.0	-18.0	-1.3%	62.2	36.6	-25.6	-41.2%	3191.1	3165.5	-25.6	-1.8%
ZION12	2	6	5852.7	35.1	1902.8	42.1	24.7	-17.4	-41.3%	2243.5	2226.1	-17.4	-1.2%	53.9	30.1	-23.8	-44.2%	3132.0	3108.2	-23.8	-1.7%
ZION12	2	7	6624.1	57.8	2192.4	69.5	47.6	-21.9	-31.5%	2620.3	2598.4	-21.9	-1.5%	84.5	59.1	-25.4	-30.1%	3646.7	3621.3	-25.4	-1.8%
ZION12	2	8	7437.3	26.5	1721.1	31.2	13.6	-17.6	-56.4%	2052.1	2034.5	-17.6	-1.2%	41.8	17.2	-24.6	-58.9%	2868.9	2844.3	-24.6	-1.7%
ZION12	3	1	4191.1	74.1	2431.7	89.7	64.0	-25.7	-28.7%	2897.1	2871.4	-25.7	-1.8%	103.8	67.9	-35.9	-34.6%	4016.3	3980.4	-35.9	-2.5%
ZION12	3	2	4308.1	73.2	2378.0	88.4	61.9	-26.5	-30.0%	2839.1	2812.6	-26.5	-1.8%	102.9	66.9	-36.0	-35.0%	3937.3	3901.3	-36.0	-2.5%
ZION12	3	3	4398.2	62.1	2349.0	75.0	50.9	-24.1	-32.1%	2812.6	2788.5	-24.1	-1.7%	89.3	56.1	-33.2	-37.2%	3904.9	3871.7	-33.2	-2.3%
ZION12	3	4	6355.5	37.1	1981.7	45.4	30.4	-15.0	-33.0%	2345.0	2330.0	-15.0	-1.0%	55.4	32.2	-23.2	-41.9%	3262.7	3239.5	-23.2	-1.6%
ZION12	3	5	5117.5	37.8	1992.4	45.6	30.0	-15.6	-34.2%	2365.5	2349.9	-15.6	-1.1%	56.3	33.9	-22.4	-39.8%	3293.2	3270.8	-22.4	-1.6%
ZION12	3	6	5613.5	46.5	2274.9	56.4	34.2	-22.2	-39.4%	2711.9	2689.7	-22.2	-1.5%	70.7	42.7	-28.0	-39.6%	3775.0	3747.0	-28.0	-1.9%
ZION12	3	7	6469.1	39.9	2124.9	49.1	28.8	-20.3	-41.3%	2529.5	2509.2	-20.3	-1.4%	62.1	37.8	-24.3	-39.1%	3524.0	3499.7	-24.3	-1.7%
ZION12	3	8	7758.6	33.5	2069.1	39.4	21.6	-17.8	-45.2%	2478.3	2460.5	-17.8	-1.2%	51.8	31.1	-20.7	-40.0%	3456.9	3436.2	-20.7	-1.4%
ZION12	4	1	4327.5	68.4	2381.7	83.0	59.5	-23.5	-28.3%	2845.5	2822.0	-23.5	-1.6%	95.3	63.2	-32.1	-33.7%	3944.0	3911.9	-32.1	-2.2%
ZION12	4	2	7146.9	45.4	2254.3	55.7	39.0	-16.7	-30.0%	2692.9	2676.2	-16.7	-1.2%	65.9	40.8	-25.1	-38.1%	3742.3	3717.2	-25.1	-1.7%
ZION12	4	3	6756.6	50.3	2220.5	61.2	43.3	-17.9	-29.2%	2658.3	2640.4	-17.9	-1.2%	72.4	45.7	-26.7	-36.9%	3692.2	3665.5	-26.7	-1.9%
ZION12	4	4	6650.6	28.6	1851.3	35.8	25.4	-10.4	-29.1%	2197.7	2187.3	-10.4	-0.7%	42.5	27.1	-15.4	-36.2%	3057.9	3042.5	-15.4	-1.1%
ZION12	4	5	5189.8	29.4	1887.2	36.7	25.7	-11.0	-30.0%	2248.5	2237.5	-11.0	-0.8%	44.5	27.8	-16.7	-37.5%	3132.0	3115.3	-16.7	-1.2%
ZION12	4	6	7013.6	39.4	2179.0	47.9	31.3	-16.6	-34.7%	2607.2	2590.6	-16.6	-1.2%	59.6	36.8	-22.8	-38.3%	3629.1	3606.3	-22.8	-1.6%
ZION12	4	7	6121.0	38.4	2162.9	47.4	29.4	-18.0	-38.0%	2589.3	2571.3	-18.0	-1.3%	59.4	37.2	-22.2	-37.4%	3605.9	3583.7	-22.2	-1.5%
ZION12	4	8	7342.3	29.4	2045.6	36.4	18.7	-17.7	-48.6%	2450.1	2432.4	-17.7	-1.2%	47.6	26.5	-21.1	-44.3%	3416.9	3395.8	-21.1	-1.5%
ZION12	4	9	7219.2	21.3	2297.3	27.6	13.8	-13.8	-50.0%	2745.4	2731.6	-13.8	-1.0%	36.0	17.0	-19.0	-52.8%	3821.8	3802.8	-19.0	-1.3%
ZION12	5	1	4552.5	60.8	2169.7	73.5	55.6	-17.9	-24.4%	2595.7	2577.8	-17.9	-1.2%	83.8	59.3	-24.5	-29.2%	3598.2	3573.7	-24.5	-1.7%
ZION12	5	2	4315.6	52.3	1903.8	63.6	41.9	-21.7	-34.1%	2261.0	2239.3	-21.7	-1.5%	73.6	43.2	-30.4	-41.3%	3137.2	3106.8	-30.4	-2.1%
ZION12	5	3	6759.0	30.3	1702.1	35.0	27.6	-7.4	-21.1%	2033.1	2025.7	-7.4	-0.5%	40.3	29.6	-10.7	-26.6%	2831.7	2821.0	-10.7	-0.7%
ZION12	5	4	6333.4	27.8	1867.9	35.0	26.2	-8.8	-25.1%	2222.8	2214.0	-8.8	-0.6%	41.0	28.3	-12.7	-31.0%	3092.7	3080.0	-12.7	-0.9%
ZION12	5	5	6966.6	23.6	1845.2	29.9	20.3	-9.6	-32.1%	2195.0	2185.4	-9.6	-0.7%	35.9	22.1	-13.8	-38.4%	3057.4	3043.6	-13.8	-1.0%
ZION12	5	6	7029.1	23.6	1812.0	29.9	19.8	-10.1	-33.8%	2162.0	2151.9	-10.1	-0.7%	35.9	22.0	-13.9	-38.7%	3012.6	2998.7	-13.9	-1.0%

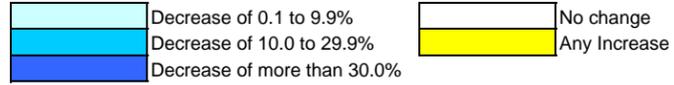
Table AUD - C
Minutes Audible Per Average Day 2003/2010/2020 (TAUD) Natural Ambient
St. George Municipal Airport EIS
Zion National Park

Note: The Integrated Noise Model sums the specific minutes of audibility of each aircraft event affecting a site and provides the total result. Events that occur simultaneously are summed sequentially. Where there are many events, each contributing a short period of time, the sum of the total minutes of audibility for each event may exceed the number of minutes in a day (1,440).

Grid Group Name	Column in Grid Group	Row in Grid Group	Ground Elevation (in feet)	2003 Time Audible (TAUD)		2010 Audibility (TAUD) Natural Ambient								2020 Audibility (TAUD) Natural Ambient							
				Existing Airport	Cumulative Condition	SGU Noise Only				Cumulative Noise				SGU Noise Only				Cumulative Noise			
						Existing Airport	Replacement Airport	Net Difference in Project Noise - Minutes	Relative Change in Project Noise	Existing Airport	Replacement Airport	Net Difference with Cumulative Noise- Minutes	Relative Change in Cumulative Noise - % of 24hr Day	Existing Airport	Replacement Airport	Net Difference in Project Noise - Minutes	Relative Change in Project Noise	Existing Airport	Replacement Airport	Net Difference with Cumulative Noise- Minutes	Relative Change in Cumulative Noise - % of 24hr Day
ZION12	5	7	6784.2	37.8	2197.9	45.8	30.1	-15.7	-34.3%	2624.7	2609.0	-15.7	-1.1%	56.7	35.5	-21.2	-37.4%	3652.4	3631.2	-21.2	-1.5%
ZION12	5	8	5810.9	33.1	2180.0	40.8	24.7	-16.1	-39.5%	2602.5	2586.4	-16.1	-1.1%	51.8	32.2	-19.6	-37.8%	3624.4	3604.8	-19.6	-1.4%
ZION12	6	1	5447.8	59.9	2369.7	72.6	57.2	-15.4	-21.2%	2829.2	2813.8	-15.4	-1.1%	81.9	61.7	-20.2	-24.7%	3918.9	3898.7	-20.2	-1.4%
ZION12	6	2	5112.7	46.1	2129.5	56.7	41.2	-15.5	-27.3%	2546.3	2530.8	-15.5	-1.1%	66.1	42.7	-23.4	-35.4%	3535.4	3512.0	-23.4	-1.6%
ZION12	6	3	4974.2	29.2	1935.5	36.6	28.0	-8.6	-23.5%	2312.6	2304.0	-8.6	-0.6%	42.3	30.3	-12.0	-28.4%	3215.8	3203.8	-12.0	-0.8%
ZION12	6	4	4726.3	21.2	1837.3	27.2	20.1	-7.1	-26.1%	2195.9	2188.8	-7.1	-0.5%	32.1	21.6	-10.5	-32.7%	3056.7	3046.2	-10.5	-0.7%
ZION12	6	5	5759.6	23.5	1908.8	30.0	22.2	-7.8	-26.0%	2258.4	2250.6	-7.8	-0.5%	35.5	24.2	-11.3	-31.8%	3144.7	3133.4	-11.3	-0.8%
ZION12	6	6	5963.3	24.0	1858.0	30.3	22.1	-8.2	-27.1%	2212.0	2203.8	-8.2	-0.6%	35.9	24.5	-11.4	-31.8%	3077.8	3066.4	-11.4	-0.8%
ZION12	6	7	4803.6	25.1	1785.4	31.5	22.9	-8.6	-27.3%	2134.4	2125.8	-8.6	-0.6%	37.6	25.2	-12.4	-33.0%	2971.4	2959.0	-12.4	-0.9%
ZION12	6	8	5997.0	13.0	1571.3	15.2	8.5	-6.7	-44.1%	1874.3	1867.6	-6.7	-0.5%	20.4	10.3	-10.1	-49.5%	2617.0	2606.9	-10.1	-0.7%
ZION13	1	2	5973.1	133.3	2110.6	149.8	115.2	-34.6	-23.1%	2504.4	2469.8	-34.6	-2.4%	170.8	137.6	-33.2	-19.4%	3466.5	3433.3	-33.2	-2.3%
ZION13	1	3	6163.7	132.1	2080.3	148.5	119.4	-29.1	-19.6%	2467.2	2438.1	-29.1	-2.0%	169.0	142.6	-26.4	-15.6%	3414.3	3387.9	-26.4	-1.8%
ZION13	1	4	5532.4	113.8	1859.8	127.1	100.2	-26.9	-21.2%	2207.3	2180.4	-26.9	-1.9%	143.8	115.7	-28.1	-19.5%	3056.3	3028.2	-28.1	-2.0%
ZION13	2	1	5393.0	127.0	2175.4	143.5	109.8	-33.7	-23.5%	2572.3	2538.6	-33.7	-2.3%	164.7	132.4	-32.3	-19.6%	3562.5	3530.2	-32.3	-2.2%
ZION13	2	2	5195.9	139.6	2207.9	157.0	124.3	-32.7	-20.8%	2622.9	2590.2	-32.7	-2.3%	178.5	149.3	-29.2	-16.4%	3627.0	3597.8	-29.2	-2.0%
ZION13	2	3	5934.0	135.7	2176.4	152.7	123.0	-29.7	-19.4%	2589.6	2559.9	-29.7	-2.1%	173.3	148.7	-24.6	-14.2%	3583.1	3558.5	-24.6	-1.7%
ZION13	2	4	5937.3	142.3	2165.2	156.1	128.5	-27.6	-17.7%	2570.6	2543.0	-27.6	-1.9%	175.7	155.4	-20.3	-11.6%	3553.7	3533.4	-20.3	-1.4%
ZION13	2	5	6745.5	130.2	2109.9	142.0	113.2	-28.8	-20.3%	2502.3	2473.5	-28.8	-2.0%	160.1	140.1	-20.0	-12.5%	3460.5	3440.5	-20.0	-1.4%
ZION13	3	1	6096.9	91.0	2115.8	105.8	79.5	-26.3	-24.9%	2516.7	2490.4	-26.3	-1.8%	122.7	93.8	-28.9	-23.6%	3494.5	3465.6	-28.9	-2.0%
ZION13	3	2	5833.6	108.8	1956.0	126.8	98.1	-28.7	-22.6%	2338.4	2309.7	-28.7	-2.0%	146.2	119.7	-26.5	-18.1%	3242.1	3215.6	-26.5	-1.8%
ZION13	3	3	6453.8	118.3	2115.8	134.5	110.3	-24.2	-18.0%	2523.0	2498.8	-24.2	-1.7%	152.5	132.8	-19.7	-12.9%	3493.9	3474.2	-19.7	-1.4%
ZION13	3	4	7607.6	109.8	2057.9	124.8	95.4	-29.4	-23.6%	2454.0	2424.6	-29.4	-2.0%	141.8	118.0	-23.8	-16.8%	3400.7	3376.9	-23.8	-1.7%
ZION13	3	5	7384.4	112.8	2063.0	127.4	100.4	-27.0	-21.2%	2451.9	2424.9	-27.0	-1.9%	144.5	125.1	-19.4	-13.4%	3396.4	3377.0	-19.4	-1.3%
ZION19	1	1	6750.3	57.3	1772.8	66.9	42.4	-24.5	-36.6%	2122.9	2098.4	-24.5	-1.7%	79.3	50.1	-29.2	-36.8%	2959.7	2930.5	-29.2	-2.0%
ZION19	1	2	6517.5	95.7	2049.3	111.3	85.0	-26.3	-23.6%	2437.2	2410.9	-26.3	-1.8%	127.6	104.7	-22.9	-17.9%	3380.1	3357.2	-22.9	-1.6%
ZION20	1	1	5608.9	52.2	2392.6	63.3	44.6	-18.7	-29.5%	2847.8	2829.1	-18.7	-1.3%	72.8	47.1	-25.7	-35.3%	3949.1	3923.4	-25.7	-1.8%
ZION20	1	2	6812.4	42.6	2368.8	52.4	39.7	-12.7	-24.2%	2819.1	2806.4	-12.7	-0.9%	61.2	41.2	-20.0	-32.7%	3913.4	3893.4	-20.0	-1.4%
ZION20	1	3	6786.0	39.1	2294.3	48.3	35.3	-13.0	-26.9%	2740.7	2727.7	-13.0	-0.9%	57.0	37.0	-20.0	-35.1%	3806.0	3786.0	-20.0	-1.4%
ZION20	1	4	6133.7	37.8	2284.4	46.7	33.8	-12.9	-27.6%	2723.5	2710.6	-12.9	-0.9%	55.9	35.8	-20.1	-36.0%	3783.8	3763.7	-20.1	-1.4%
ZION20	1	5	5285.0	22.0	1902.6	28.2	21.3	-6.9	-24.5%	2272.7	2265.8	-6.9	-0.5%	33.1	23.7	-9.4	-28.4%	3159.0	3149.6	-9.4	-0.7%
ZION20	1	6	6479.4	16.9	1788.7	21.9	16.0	-5.9	-26.9%	2137.7	2131.8	-5.9	-0.4%	26.2	18.1	-8.1	-30.9%	2975.8	2967.7	-8.1	-0.6%
ZION20	1	7	6433.3	12.5	1708.2	16.0	10.2	-5.8	-36.3%	2029.7	2023.9	-5.8	-0.4%	20.4	12.3	-8.1	-39.7%	2828.2	2820.1	-8.1	-0.6%
ZION20	2	1	5956.0	42.6	2368.8	52.4	39.7	-12.7	-24.2%	2819.1	2806.4	-12.7	-0.9%	61.2	41.2	-20.0	-32.7%	3913.4	3893.4	-20.0	-1.4%
ZION20	2	2	6593.2	39.1	2294.3	48.3	35.3	-13.0	-26.9%	2740.7	2727.7	-13.0	-0.9%	57.0	37.0	-20.0	-35.1%	3806.0	3786.0	-20.0	-1.4%
ZION20	2	3	6613.4	37.8	2284.4	46.7	33.8	-12.9	-27.6%	2723.5	2710.6	-12.9	-0.9%	55.9	35.8	-20.1	-36.0%	3783.8	3763.7	-20.1	-1.4%

Table - AUD - D

Percent Time Audible Per Average Day 2003/2010/2020 (%TAUD) Natural Ambient
 St. George Municipal Airport EIS
 Zion National Park

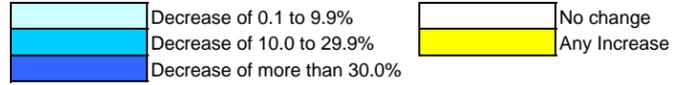


Note: When the Integrated Noise Model computes the total number of minutes to exceed 1440 minutes, it automatically caps the percentage of daily exposure at 100%.
 Where there are many events, each contributing a small amount of time, the total minutes of audibility for a day may exceed 100%.

Grid Group Name	Column in Grid Group	Row in Grid Group	Ground Elevation (in feet)	2003 Percent Time Audible (%TAUD)		2010 Percent Time Audible (%TAUD) Natural Ambient								2020 Percent Time Audible (%TAUD) Natural Ambient							
				Existing Airport	Cumulative Condition	SGU Noise Only				Cumulative Noise				SGU Noise Only				Cumulative Noise			
						Existing Airport	Replacement Airport	Net Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Net Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Net Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Net Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible
CHINLE	1	1	4200.2	5.2%	100.0%	6.3%	4.5%	-1.8%	-28.4%	100.0%	100.0%	0.0%	0.00%	7.2%	4.8%	-2.5%	-34.2%	100.0%	100.0%	0.0%	0.00%
CRZQLT	1	1	5620.8	4.0%	100.0%	4.9%	3.5%	-1.3%	-27.7%	100.0%	100.0%	0.0%	0.00%	5.5%	3.8%	-1.7%	-31.4%	100.0%	100.0%	0.0%	0.00%
EASTRM	1	1	6396.8	2.7%	100.0%	3.3%	2.4%	-0.9%	-26.8%	100.0%	100.0%	0.0%	0.00%	3.9%	2.6%	-1.4%	-34.6%	100.0%	100.0%	0.0%	0.00%
HOPVAL	1	1	6380.3	4.3%	100.0%	5.0%	3.6%	-1.3%	-26.8%	100.0%	100.0%	0.0%	0.00%	6.0%	4.4%	-1.6%	-26.8%	100.0%	100.0%	0.0%	0.00%
KOLOBC	1	1	6140.9	9.2%	100.0%	10.4%	8.3%	-2.0%	-19.4%	100.0%	100.0%	0.0%	0.00%	11.8%	10.0%	-1.8%	-14.8%	100.0%	100.0%	0.0%	0.00%
LAVAPT	1	1	7798.0	1.4%	100.0%	1.6%	0.7%	-0.9%	-57.4%	100.0%	100.0%	0.0%	0.00%	2.2%	0.9%	-1.3%	-60.3%	100.0%	100.0%	0.0%	0.00%
LCREEK	1	1	7598.9	1.7%	100.0%	2.0%	0.9%	-1.1%	-56.5%	100.0%	100.0%	0.0%	0.00%	2.6%	1.1%	-1.6%	-59.3%	100.0%	100.0%	0.0%	0.00%
LFRKTD	1	1	5056.0	2.7%	100.0%	3.2%	2.0%	-1.2%	-36.4%	100.0%	100.0%	0.0%	0.00%	4.1%	2.3%	-1.7%	-42.4%	100.0%	100.0%	0.0%	0.00%
NCREEK	1	1	4205.0	2.9%	100.0%	3.5%	2.2%	-1.3%	-36.9%	100.0%	100.0%	0.0%	0.00%	4.4%	2.5%	-1.9%	-43.4%	100.0%	100.0%	0.0%	0.00%
PRWEAP	1	1	4023.1	4.0%	100.0%	4.9%	3.7%	-1.2%	-24.6%	100.0%	100.0%	0.0%	0.00%	5.5%	4.0%	-1.5%	-27.3%	100.0%	100.0%	0.0%	0.00%
SCOUTS	1	1	5445.8	1.5%	100.0%	1.9%	1.4%	-0.5%	-25.7%	100.0%	100.0%	0.0%	0.00%	2.2%	1.6%	-0.7%	-29.7%	100.0%	100.0%	0.0%	0.00%
WILDCT	1	1	6955.5	2.6%	100.0%	3.2%	1.8%	-1.4%	-43.4%	100.0%	100.0%	0.0%	0.00%	4.1%	2.4%	-1.6%	-40.1%	100.0%	100.0%	0.0%	0.00%
ZHQ	1	1	4046.3	3.1%	100.0%	3.8%	2.7%	-1.1%	-28.3%	100.0%	100.0%	0.0%	0.00%	4.4%	2.8%	-1.6%	-36.1%	100.0%	100.0%	0.0%	0.00%
ZION11	2	2	4815.7	4.7%	100.0%	5.7%	4.5%	-1.2%	-21.6%	100.0%	100.0%	0.0%	0.00%	6.3%	4.8%	-1.5%	-24.2%	100.0%	100.0%	0.0%	0.00%
ZION11	2	3	5304.8	4.2%	100.0%	5.1%	4.0%	-1.1%	-21.6%	100.0%	100.0%	0.0%	0.00%	5.7%	4.3%	-1.4%	-25.0%	100.0%	100.0%	0.0%	0.00%
ZION11	3	2	6029.4	4.3%	100.0%	5.2%	4.1%	-1.1%	-20.4%	100.0%	100.0%	0.0%	0.00%	5.7%	4.5%	-1.2%	-20.8%	100.0%	100.0%	0.0%	0.00%
ZION11	3	3	5597.1	4.5%	100.0%	5.4%	4.1%	-1.3%	-24.6%	100.0%	100.0%	0.0%	0.00%	6.1%	4.4%	-1.7%	-28.3%	100.0%	100.0%	0.0%	0.00%
ZION11	4	2	5972.5	4.3%	100.0%	5.2%	4.1%	-1.1%	-21.3%	100.0%	100.0%	0.0%	0.00%	5.7%	4.4%	-1.3%	-22.8%	100.0%	100.0%	0.0%	0.00%
ZION11	4	3	4424.3	4.4%	100.0%	5.3%	4.0%	-1.3%	-24.3%	100.0%	100.0%	0.0%	0.00%	6.0%	4.3%	-1.6%	-27.5%	100.0%	100.0%	0.0%	0.00%
ZION11	5	2	5612.1	4.2%	100.0%	5.1%	4.1%	-1.1%	-20.8%	100.0%	100.0%	0.0%	0.00%	5.7%	4.5%	-1.2%	-21.3%	100.0%	100.0%	0.0%	0.00%
ZION11	5	3	4729.9	4.2%	100.0%	5.1%	3.9%	-1.2%	-23.7%	100.0%	100.0%	0.0%	0.00%	5.6%	4.2%	-1.4%	-25.4%	100.0%	100.0%	0.0%	0.00%
ZION12	1	8	6481.8	4.2%	100.0%	5.0%	3.5%	-1.5%	-30.3%	100.0%	100.0%	0.0%	0.00%	6.0%	4.2%	-1.8%	-29.5%	100.0%	100.0%	0.0%	0.00%
ZION12	1	9	7072.6	3.7%	100.0%	4.3%	3.0%	-1.4%	-31.7%	100.0%	100.0%	0.0%	0.00%	5.3%	3.7%	-1.6%	-30.2%	100.0%	100.0%	0.0%	0.00%
ZION12	2	1	3798.2	5.6%	100.0%	6.7%	4.9%	-1.8%	-26.9%	100.0%	100.0%	0.0%	0.00%	7.9%	5.3%	-2.6%	-32.5%	100.0%	100.0%	0.0%	0.00%
ZION12	2	2	4211.1	3.8%	100.0%	4.5%	2.9%	-1.6%	-34.7%	100.0%	100.0%	0.0%	0.00%	5.4%	3.1%	-2.4%	-43.6%	100.0%	100.0%	0.0%	0.00%
ZION12	2	3	4638.1	3.6%	100.0%	4.4%	3.0%	-1.4%	-32.3%	100.0%	100.0%	0.0%	0.00%	5.3%	3.3%	-2.1%	-38.7%	100.0%	100.0%	0.0%	0.00%
ZION12	2	4	6001.0	3.1%	100.0%	3.7%	2.5%	-1.2%	-32.8%	100.0%	100.0%	0.0%	0.00%	4.5%	2.7%	-1.8%	-39.3%	100.0%	100.0%	0.0%	0.00%
ZION12	2	5	5216.6	2.9%	100.0%	3.5%	2.2%	-1.3%	-36.0%	100.0%	100.0%	0.0%	0.00%	4.3%	2.5%	-1.8%	-41.2%	100.0%	100.0%	0.0%	0.00%
ZION12	2	6	5852.7	2.4%	100.0%	2.9%	1.7%	-1.2%	-41.3%	100.0%	100.0%	0.0%	0.00%	3.7%	2.1%	-1.7%	-44.2%	100.0%	100.0%	0.0%	0.00%
ZION12	2	7	6624.1	4.0%	100.0%	4.8%	3.3%	-1.5%	-31.5%	100.0%	100.0%	0.0%	0.00%	5.9%	4.1%	-1.8%	-30.1%	100.0%	100.0%	0.0%	0.00%
ZION12	2	8	7437.3	1.8%	100.0%	2.2%	0.9%	-1.2%	-56.4%	100.0%	100.0%	0.0%	0.00%	2.9%	1.2%	-1.7%	-58.9%	100.0%	100.0%	0.0%	0.00%
ZION12	3	1	4191.1	5.1%	100.0%	6.2%	4.4%	-1.8%	-28.7%	100.0%	100.0%	0.0%	0.00%	7.2%	4.7%	-2.5%	-34.6%	100.0%	100.0%	0.0%	0.00%
ZION12	3	2	4308.1	5.1%	100.0%	6.1%	4.3%	-1.8%	-30.0%	100.0%	100.0%	0.0%	0.00%	7.1%	4.6%	-2.5%	-35.0%	100.0%	100.0%	0.0%	0.00%
ZION12	3	3	4398.2	4.3%	100.0%	5.2%	3.5%	-1.7%	-32.1%	100.0%	100.0%	0.0%	0.00%	6.2%	3.9%	-2.3%	-37.2%	100.0%	100.0%	0.0%	0.00%
ZION12	3	4	6355.5	2.6%	100.0%	3.2%	2.1%	-1.0%	-33.0%	100.0%	100.0%	0.0%	0.00%	3.8%	2.2%	-1.6%	-41.9%	100.0%	100.0%	0.0%	0.00%
ZION12	3	5	5117.5	2.6%	100.0%	3.2%	2.1%	-1.1%	-34.2%	100.0%	100.0%	0.0%	0.00%	3.9%	2.4%	-1.6%	-39.8%	100.0%	100.0%	0.0%	0.00%
ZION12	3	6	5613.5	3.2%	100.0%	3.9%	2.4%	-1.5%	-39.4%	100.0%	100.0%	0.0%	0.00%	4.9%	3.0%	-1.9%	-39.6%	100.0%	100.0%	0.0%	0.00%
ZION12	3	7	6469.1	2.8%	100.0%	3.4%	2.0%	-1.4%	-41.3%	100.0%	100.0%	0.0%	0.00%	4.3%	2.6%	-1.7%	-39.1%	100.0%	100.0%	0.0%	0.00%
ZION12	3	8	7758.6	2.3%	100.0%	2.7%	1.5%	-1.2%	-45.2%	100.0%	100.0%	0.0%	0.00%	3.6%	2.2%	-1.4%	-40.0%	100.0%	100.0%	0.0%	0.00%
ZION12	4	1	4327.5	4.8%	100.0%	5.8%	4.1%	-1.6%	-28.3%	100.0%	100.0%	0.0%	0.00%	6.6%	4.4%	-2.2%	-33.7%	100.0%	100.0%	0.0%	0.00%
ZION12	4	2	7146.9	3.2%	100.0%	3.9%	2.7%	-1.2%	-30.0%	100.0%	100.0%	0.0%	0.00%	4.6%	2.8%	-1.7%	-38.1%	100.0%	100.0%	0.0%	0.00%
ZION12	4	3	6756.6	3.5%	100.0%	4.3%	3.0%	-1.2%	-29.2%	100.0%	100.0%	0.0%	0.00%	5.0%	3.2%	-1.9%	-36.9%	100.0%	100.0%	0.0%	0.00%
ZION12	4	4	6650.6	2.0%	100.0%	2.5%	1.8%	-0.7%	-29.1%	100.0%	100.0%	0.0%	0.00%	3.0%	1.9%	-1.1%	-36.2%	100.0%	100.0%	0.0%	0.00%
ZION12	4	5	5189.8	2.0%	100.0%	2.5%	1.8%	-0.8%	-30.0%	100.0%	100.0%	0.0%	0.00%	3.1%	1.9%	-1.2%	-37.5%	100.0%	100.0%	0.0%	0.00%
ZION12	4	6	7013.6	2.7%	100.0%	3.3%	2.2%	-1.2%	-34.7%	100.0%	100.0%	0.0%	0.00%	4.1%	2.6%	-1.6%	-38.3%	100.0%	100.0%	0.0%	0.00%
ZION12	4	7	6121.0	2.7%	100.0%	3.3%	2.0%	-1.3%	-38.0%	100.0%	100.0%	0.0%	0.00%	4.1%	2.6%	-1.5%	-37.4%	100.0%	100.0%	0.0%	0.00%
ZION12	4	8	7342.3	2.0%	100.0%	2.5%	1.3%	-1.2%	-48.6%	100.0%	100.0%	0.0%	0.00%	3.3%	1.8%	-1.5%	-44.3%	100.0%	100.0%	0.0%	0.00%
ZION12	4	9	7219.2	1.5%	100.0%	1.9%	1.0%	-1.0%	-50.0%	100.0%	100.0%	0.0%	0.00%	2.5%	1.2%	-1.3%	-52.8%	100.0%	100.0%	0.0%	0.00%
ZION12	5	1	4552.5	4.2%	100.0%	5.1%	3.9%	-1.2%	-24.4%	100.0%	100.0%	0.0%	0.00%	5.8%	4.1%	-1.7%	-29.2%	100.0%	100.0%	0.0%	0.00%
ZION12	5	2	4315.6	3.6%	100.0%	4.4%	2.9%	-1.5%	-34.1%	100.0%	100.0%	0.0%	0.00%	5.1%	3.0%	-2.1%	-41.3%	100.0%	100.0%	0.0%	0.00%
ZION12	5	3	6759.0	2.1%	100.0%	2.4%	1.9%	-0.5%	-21.1%	100.0%	100.0%	0.0%	0.00%	2.8%	2.1%	-0.7%	-26.6%	100.0%	100.0%	0.0%	0.00%
ZION12	5	4	6333.4	1.9%	100.0%	2.4%	1.8%	-0.6%	-25.1%	100.0%	100.0%	0.0%	0.00%	2.8%	2.0%	-0.9%	-31.0%	100.0%	100.0%	0.0%	0.00%
ZION12	5	5	6966.6	1.6%	100.0%	2.1%	1.4%	-0.7%	-32.1%	100.0%	100.0%	0.0%	0.00%	2.5%	1.5%	-1.0%	-38.4%	100.0%	100.0%	0.0%	0.00%
ZION12	5	6	7029.1	1.6%	100.0%	2.1%	1.4%	-0.7%	-33.8%	100.0%	100.0%	0.0%	0.00%	2.5%	1.5%	-1.0%	-38.7%	100.0%	100.0%	0.0%	0.00%

Table - AUD - D

Percent Time Audible Per Average Day 2003/2010/2020 (%TAUD) Natural Ambient
 St. George Municipal Airport EIS
 Zion National Park



Note: When the Integrated Noise Model computes the total number of minutes to exceed 1440 minutes, it automatically caps the percentage of daily exposure at 100%.
 Where there are many events, each contributing a small amount of time, the total minutes of audibility for a day may exceed 100%.

Grid Group Name	Column in Grid Group	Row in Grid Group	Ground Elevation (in feet)	2003 Percent Time Audible (%TAUD)		2010 Percent Time Audible (%TAUD) Natural Ambient								2020 Percent Time Audible (%TAUD) Natural Ambient							
						SGU Noise Only				Cumulative Noise				SGU Noise Only				Cumulative Noise			
				Existing Airport	Cumulative Condition	Existing Airport	Replacement Airport	Net Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Net Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Net Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible	Existing Airport	Replacement Airport	Net Change in Project Noise Percent Time Audible	Relative Change in Percent Time Audible
ZION12	5	7	6784.2	2.6%	100.0%	3.2%	2.1%	-1.1%	-34.3%	100.0%	100.0%	0.0%	0.00%	3.9%	2.5%	-1.5%	-37.4%	100.0%	100.0%	0.0%	0.00%
ZION12	5	8	5810.9	2.3%	100.0%	2.8%	1.7%	-1.1%	-39.5%	100.0%	100.0%	0.0%	0.00%	3.6%	2.2%	-1.4%	-37.8%	100.0%	100.0%	0.0%	0.00%
ZION12	6	1	5447.8	4.2%	100.0%	5.0%	4.0%	-1.1%	-21.2%	100.0%	100.0%	0.0%	0.00%	5.7%	4.3%	-1.4%	-24.7%	100.0%	100.0%	0.0%	0.00%
ZION12	6	2	5112.7	3.2%	100.0%	3.9%	2.9%	-1.1%	-27.3%	100.0%	100.0%	0.0%	0.00%	4.6%	3.0%	-1.6%	-35.4%	100.0%	100.0%	0.0%	0.00%
ZION12	6	3	4974.2	2.0%	100.0%	2.5%	1.9%	-0.6%	-23.5%	100.0%	100.0%	0.0%	0.00%	2.9%	2.1%	-0.8%	-28.4%	100.0%	100.0%	0.0%	0.00%
ZION12	6	4	4726.3	1.5%	100.0%	1.9%	1.4%	-0.5%	-26.1%	100.0%	100.0%	0.0%	0.00%	2.2%	1.5%	-0.7%	-32.7%	100.0%	100.0%	0.0%	0.00%
ZION12	6	5	5759.6	1.6%	100.0%	2.1%	1.5%	-0.5%	-26.0%	100.0%	100.0%	0.0%	0.00%	2.5%	1.7%	-0.8%	-31.8%	100.0%	100.0%	0.0%	0.00%
ZION12	6	6	5963.3	1.7%	100.0%	2.1%	1.5%	-0.6%	-27.1%	100.0%	100.0%	0.0%	0.00%	2.5%	1.7%	-0.8%	-31.8%	100.0%	100.0%	0.0%	0.00%
ZION12	6	7	4803.6	1.7%	100.0%	2.2%	1.6%	-0.6%	-27.3%	100.0%	100.0%	0.0%	0.00%	2.6%	1.8%	-0.9%	-33.0%	100.0%	100.0%	0.0%	0.00%
ZION12	6	8	5997.0	0.9%	100.0%	1.1%	0.6%	-0.5%	-44.1%	100.0%	100.0%	0.0%	0.00%	1.4%	0.7%	-0.7%	-49.5%	100.0%	100.0%	0.0%	0.00%
ZION13	1	2	5973.1	9.3%	100.0%	10.4%	8.0%	-2.4%	-23.1%	100.0%	100.0%	0.0%	0.00%	11.9%	9.6%	-2.3%	-19.4%	100.0%	100.0%	0.0%	0.00%
ZION13	1	3	6163.7	9.2%	100.0%	10.3%	8.3%	-2.0%	-19.6%	100.0%	100.0%	0.0%	0.00%	11.7%	9.9%	-1.8%	-15.6%	100.0%	100.0%	0.0%	0.00%
ZION13	1	4	5532.4	7.9%	100.0%	8.8%	7.0%	-1.9%	-21.2%	100.0%	100.0%	0.0%	0.00%	10.0%	8.0%	-2.0%	-19.5%	100.0%	100.0%	0.0%	0.00%
ZION13	2	1	5393.0	8.8%	100.0%	10.0%	7.6%	-2.3%	-23.5%	100.0%	100.0%	0.0%	0.00%	11.4%	9.2%	-2.2%	-19.6%	100.0%	100.0%	0.0%	0.00%
ZION13	2	2	5195.9	9.7%	100.0%	10.9%	8.6%	-2.3%	-20.8%	100.0%	100.0%	0.0%	0.00%	12.4%	10.4%	-2.0%	-16.4%	100.0%	100.0%	0.0%	0.00%
ZION13	2	3	5934.0	9.4%	100.0%	10.6%	8.5%	-2.1%	-19.4%	100.0%	100.0%	0.0%	0.00%	12.0%	10.3%	-1.7%	-14.2%	100.0%	100.0%	0.0%	0.00%
ZION13	2	4	5937.3	9.9%	100.0%	10.8%	8.9%	-1.9%	-17.7%	100.0%	100.0%	0.0%	0.00%	12.2%	10.8%	-1.4%	-11.6%	100.0%	100.0%	0.0%	0.00%
ZION13	2	5	6745.5	9.0%	100.0%	9.9%	7.9%	-2.0%	-20.3%	100.0%	100.0%	0.0%	0.00%	11.1%	9.7%	-1.4%	-12.5%	100.0%	100.0%	0.0%	0.00%
ZION13	3	1	6096.9	6.3%	100.0%	7.3%	5.5%	-1.8%	-24.9%	100.0%	100.0%	0.0%	0.00%	8.5%	6.5%	-2.0%	-23.6%	100.0%	100.0%	0.0%	0.00%
ZION13	3	2	5833.6	7.6%	100.0%	8.8%	6.8%	-2.0%	-22.6%	100.0%	100.0%	0.0%	0.00%	10.2%	8.3%	-1.8%	-18.1%	100.0%	100.0%	0.0%	0.00%
ZION13	3	3	6453.8	8.2%	100.0%	9.3%	7.7%	-1.7%	-18.0%	100.0%	100.0%	0.0%	0.00%	10.6%	9.2%	-1.4%	-12.9%	100.0%	100.0%	0.0%	0.00%
ZION13	3	4	7607.6	7.6%	100.0%	8.7%	6.6%	-2.0%	-23.6%	100.0%	100.0%	0.0%	0.00%	9.8%	8.2%	-1.7%	-16.8%	100.0%	100.0%	0.0%	0.00%
ZION13	3	5	7384.4	7.8%	100.0%	8.8%	7.0%	-1.9%	-21.2%	100.0%	100.0%	0.0%	0.00%	10.0%	8.7%	-1.3%	-13.4%	100.0%	100.0%	0.0%	0.00%
ZION19	1	1	6750.3	4.0%	100.0%	4.6%	2.9%	-1.7%	-36.6%	100.0%	100.0%	0.0%	0.00%	5.5%	3.5%	-2.0%	-36.8%	100.0%	100.0%	0.0%	0.00%
ZION19	1	2	6517.5	6.6%	100.0%	7.7%	5.9%	-1.8%	-23.6%	100.0%	100.0%	0.0%	0.00%	8.9%	7.3%	-1.6%	-17.9%	100.0%	100.0%	0.0%	0.00%
ZION20	1	1	5608.9	3.6%	100.0%	4.4%	3.1%	-1.3%	-29.5%	100.0%	100.0%	0.0%	0.00%	5.1%	3.3%	-1.8%	-35.3%	100.0%	100.0%	0.0%	0.00%
ZION20	1	2	6812.4	3.0%	100.0%	3.6%	2.8%	-0.9%	-24.2%	100.0%	100.0%	0.0%	0.00%	4.3%	2.9%	-1.4%	-32.7%	100.0%	100.0%	0.0%	0.00%
ZION20	1	3	6786.0	2.7%	100.0%	3.4%	2.5%	-0.9%	-26.9%	100.0%	100.0%	0.0%	0.00%	4.0%	2.6%	-1.4%	-35.1%	100.0%	100.0%	0.0%	0.00%
ZION20	1	4	6133.7	2.6%	100.0%	3.2%	2.3%	-0.9%	-27.6%	100.0%	100.0%	0.0%	0.00%	3.9%	2.5%	-1.4%	-36.0%	100.0%	100.0%	0.0%	0.00%
ZION20	1	5	5285.0	1.5%	100.0%	2.0%	1.5%	-0.5%	-24.5%	100.0%	100.0%	0.0%	0.00%	2.3%	1.6%	-0.7%	-28.4%	100.0%	100.0%	0.0%	0.00%
ZION20	1	6	6479.4	1.2%	100.0%	1.5%	1.1%	-0.4%	-26.9%	100.0%	100.0%	0.0%	0.00%	1.8%	1.3%	-0.6%	-30.9%	100.0%	100.0%	0.0%	0.00%
ZION20	1	7	6433.3	0.9%	100.0%	1.1%	0.7%	-0.4%	-36.3%	100.0%	100.0%	0.0%	0.00%	1.4%	0.9%	-0.6%	-39.7%	100.0%	100.0%	0.0%	0.00%
ZION20	2	1	5956.0	3.0%	100.0%	3.6%	2.8%	-0.9%	-24.2%	100.0%	100.0%	0.0%	0.00%	4.3%	2.9%	-1.4%	-32.7%	100.0%	100.0%	0.0%	0.00%
ZION20	2	2	6593.2	2.7%	100.0%	3.4%	2.5%	-0.9%	-26.9%	100.0%	100.0%	0.0%	0.00%	4.0%	2.6%	-1.4%	-35.1%	100.0%	100.0%	0.0%	0.00%
ZION20	2	3	6613.4	2.6%	100.0%	3.2%	2.3%	-0.9%	-27.6%	100.0%	100.0%	0.0%	0.00%	3.9%	2.5%	-1.4%	-36.0%	100.0%	100.0%	0.0%	0.00%