Aspen/Pitkin County Airport
Fly Green/Fly Clean

Annual 2020 Report

(November 1, 2019 – October 31, 2020)

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Executive Summary

Each reporting period, Aspen/Pitkin County Airport (ASE) analyzes and reports on aircraft operations for the previous 12-months. This report summarizes operations for Reporting Period 2019-2020. This represents the period from November 1, 2019 through October 31, 2020.

The Fly Green/Fly Clean Program analyzed three categories:

1. Fleet/Aircraft Stage Quality,
2. High Noise Events, and
3. Runway 33 Arrivals.

For the Fly Green/Fly Clean Report, the following business jet operators are noted for adhering to the Program goals and scored the highest results.

Highest Score – Part 135 Operators

More than 30 Operations

- Omni Air Transport (DRL) had the best overall Fly Green/Fly Clean Score

Less than 30 Operations

- Channel Island Aviation (CHN) had the best overall Fly Green/Fly Clean Score

Highest Score – Single Operators

More than 6 Operations

- N48PW had the best overall Fly Green/Fly Clean Score (25 Operations)

Lowest Score – Part 135 Operators

- Regency Airlines (RGY)

Lowest Score – Single Operators

Single Operators, more than 6 Operations

- N36PN (Operated by B&G Leasing)

Single Operators, less than 6 Operations

- N422TK (Operated by AIR T-B INC)
- N540EA (Operated by AC Aviation LLC)

Most Improved – Part 135 Operators

- FFL ForeFlight (30 or more departures per year)
- CNS Cobalt Air (Operated by PlaneSense) (less than 30 departures per day)

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1. Introduction

Aspen/Pitkin County Airport's Fly Green/Fly Clean is an initiative implemented by Pitkin County for the purpose of encouraging operators to operate as quietly as possible at the Airport. The program promotes a voluntary participatory approach in complying with noise abatement procedures and objectives by grading an operator's performance and by making the scores available to the users of the Airport and the public via newsletters, publications, and public meetings.

Fly Green/Fly Clean is intended to grow and change as new procedures and new technologies for aircraft and airspace are available. Initially, the Fly Green/Fly Clean Program evaluated two categories; a new category was added last year to monitor Runway 33 arrivals.

1. Fleet Quality of the entire fleet at ASE,
2. High Noise Events, and
3. Runway 33 Arrivals.

In order to fairly and accurately evaluate the operators, they are divided into two groups; those operators with more than 30 operations a year, and those with less than 30 operations per year. Within these two groups, operators are categorized based on the type of operators; either Part 135, which incorporates fractional and charter operations, and single owners or small fleets (single aircraft).

The historical base period of evaluation for Fly Green/Fly Clean was a 2-year period prior to the start of the Fly Green/Fly Clean Program (from November 1, 2005 – October 31, 2007). This base period allowed the Airport to compare future Fly Green/Fly Clean documents to measure improvements. The program can be expanded as additional radar and noise monitoring capabilities are available; for example, this is the second year of year-round noise monitoring at the Woody Creek Remote Noise Monitoring Site. Scores are computed, and reports are generated once a year that includes both reporting seasons. The reporting seasons are; winter, November 1 – April 30, and summer, May 1 – October 31.

This report presents the **Annual 2020** results. This includes both the winter and summer season results. The winter period is from November 1, 2019 through April 30, 2020 while the summer period is May 1, 2020 through October 31, 2020. Fly Green/Fly Clean is a dynamic venue for implementing noise abatement procedures by praising and publicizing active participation rather than a system that admonishes violations from essentially voluntary procedures. While many airports throughout the United States experienced drastic reduction of operations in 2020 due to the global pandemic, ASE operations remained at approximately the same level as previous years.

2. Program Overview and Goals

The goal of the Aspen/Pitkin County Airport's Fly Green/Fly Clean Program is to influence operators to operate as quietly as possible at Aspen/Pitkin County Airport. Monitoring, collecting, and analyzing comprehensive amounts of operational and noise data highlights both Airport trends and individual operator performance for specific noise abatement issues. A successful Fly Green/Fly Clean Program can be expected to reduce both single event and total noise levels around the Airport. Fly Green/Fly Clean data is quantified and translated into bi-annual reports, or scorecards, for individual operators and fractional operators. A summary of the scorecard will be published for the winter and summer periods, and a full report will be published for public distribution for the same time period.

2.1 Definition

The purpose of the Fly Green/Fly Clean Program is to, through positive reinforcement, communicate to the aircraft operators the accepted noise abatement procedures and request that pilots fly them as efficiently as possible.

The Fly Green/Fly Clean Program uses current available information and may be expanded to include additional information as was done for this reporting period to include arrivals on Runway 33 and year-round noise monitoring. Existing data sources include third party radar data, seasonal and year-round noise monitoring, and observations of operations by Airport and consultant staff. This information is organized and analyzed in a software program to reveal a variety of comparative patterns showing the relative noise contribution of operators and aircraft types. These results are then processed into a 0 – 10 rating system so that it is easy to show which operator is the best in each category and how each operator rates overall.

The Fly Green/Fly Clean Program covers three areas: fleet quality, high noise events, and Runway 33 arrivals; this can be expanded over time to cover other issues, both in the air and on the ground. The bi-annual report scorecard grades each Fly Green/Fly Clean category on a 10-point scale, awarding the best operator in each category the highest possible score, 10 points. Any operator that does not participate or have a documented occurrence or performance in any category, with the exception of the high noise event category, will receive a not applicable rating. Operators that have no recorded or documented high noise events, however, will be automatically awarded 10 points for the given analyzed time period.

It is important to emphasize that the primary purpose of the Fly Green/Fly Clean report is to motivate operators by rewarding good noise abatement procedures, thus reducing noise intrusion. By providing this information publicly, Fly Green/Fly Clean enables operators to engage in informed self-evaluation and improvement. Positive reinforcement and good publicity is expected to be a strong incentive for operator performance.

2.2 Program Elements

Currently, the Fly Green/Fly Clean Program consists of three elements: the overall noise quality of all aircraft operating at ASE, an evaluation of single overflight noise levels, and Runway 33 Arrivals. As stated previously, the base period reporting period for these elements was an average of November 1, 2005

through October 31, 2007. All subsequent bi-annual and annual Fly Green/Fly Clean reports have been compared to this initial reporting period to determine the effectiveness of the program.

2.2.1 Fleet Noise Quality Rating Methodology

Goal

The goal of fleet noise quality rating is to have aircraft operators schedule their quietest aircraft at the Airport and be acknowledged for doing so. The Fly Green/Fly Clean Program Fleet Noise Quality Rating (FNQ) evaluates the noise contribution of each operator's fleet as it actually operates at ASE.

Methodology

This category rates single aircraft owners as well as fractional jet operations. The Fleet Noise Quality Rating score presents an overall Airport score and a list of operators that performed above average. The method for quantifying a fleet noise quality rating at Aspen is based on established federal noise certification data for each aircraft. Stages 2, 3, 4 and 5 were established by Federal Aviation Regulation Part 36, which mandated the allowable noise levels for the manufacture of aircraft at three measurement locations. For each aircraft type, Part 36 specifies allowable noise levels at three measurement locations: approach, departure, and sideline. Stage 2 is the loudest, oldest type of aircraft; there are very few Stage 2 aircraft sill operating. Stage 2 aircraft without physical or operational modifications are not allowed to operate in the United States as of December 31, 1999 for commercial operators and December 31, 2015 for business jets. There are some Stage 2 aircraft in the nationwide fleet that are certificated to operate as Stage 3 with modifications. These aircraft still generate noise similar to a stage 2 aircraft and for the purposes of the Fly Green/Fly Clean program are considered Stage 2. For example, the Gulfstream III business jet is in this category that still operates at ASE. Stage 5 is the newest generation of aircraft which provide a cumulative reduction of 17 dB over Stage 3; the cumulative reduction is the total reduction at the three measurement locations described above.

The majority of commercial and business jet aircraft in the current fleet are Stage 3. Any newly designed aircraft must be type certificated to meet the Stage restrictions in place at the time of the original type certification. The newly published Stage 5 represents the most technologically advanced and quietest aircraft with some of the newer business jet aircraft meeting this Stage 5 levels. Any aircraft that are type certificated after 2018 would need to meet the Stage 5 standard. Note that the only regulation regarding the retirement of aircraft Stages are for Stage 1 and 2; there are no regulations or phases for retirement of Stage 3 and newer aircraft.

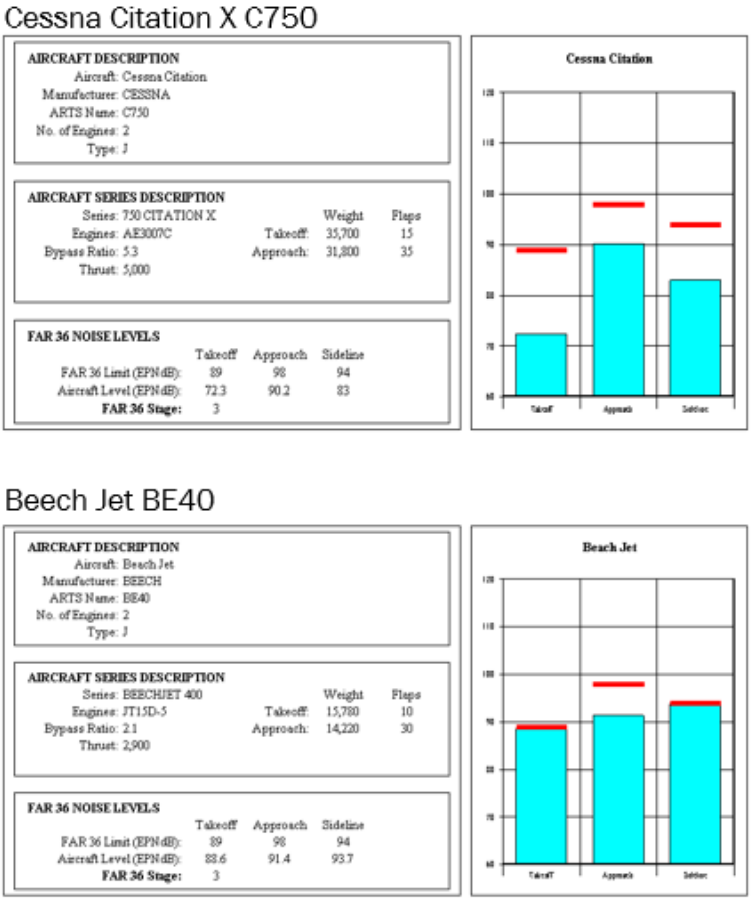
The FNQ rating uses third party radar data to determine the aircraft type for each operation at ASE. The radar data provides a list of each operation that occurs at ASE, including the aircraft type, time of operation and type of operation (VFR or IFR). The aircraft information will be used to determine the type of aircraft and FAR Part 36 Stage.

Figure 1 depicts the noise characteristics of two aircraft types: a Beech Jet and a Cessna Citation X. Both aircraft are certified as Stage 3, yet the combined noise levels at all three Part 36 measuring points for the Cessna Citation X is 35.5 dB lower than the Stage 3 requirements, while the Beech Jet falls only 7.3 dB below the requirements. The red line at the top of each column represents Stage 3 limits; the blue portions of the columns indicate actual monitored certificated noise values. Because there is a range of aircraft noise levels within each certificated Stage, the Fly Green/Fly Clean Report methodology includes organizing aircraft types into each Stage as well as a "half" Stage; i.e. Stage 4 and 4.5 to recognize aircraft that are quieter than the minimum Stage requirements.

The aircraft fleet at Aspen/Pitkin County Airport is primarily composed of commercially operated regional jets, business jets, high performance turbo-prop aircraft, and general aviation propeller aircraft. The fleet noise quality rating pertains to the general aviation fleet; both based aircraft and frequent users of the Airport are scored through this system. Note that military, turbo propeller, propeller aircraft and helicopters do not fall under this regulation and are also not measured as part of the Fleet Noise Quality Rating. Military aircraft are exempt from aircraft Stage regulations.

Figure 1 - FAR Stage 3 Limits and Certificated Noise Levels

Aspen/Pitkin County Airport Fly Green/Fly Clean



Source: BridgeNet International

2.2.2 High Noise Events Methodology

Goal

The goal of the Loudest Noise Event category is to reduce and eliminate the highest single event noise levels of aircraft operating at Aspen/Pitkin County Airport.

Methodology

The Loudest Noise Events score rates arriving and departing aircraft for excessive single event noise levels, which are a convenient method for describing noise from individual aircraft events. A Sound Exposure Level (SEL) is calculated by summing the decibel (dB) level for each second during a noise event and compressing that noise into one second. A noise event is defined as a takeoff or landing for the purpose of the Fly Green/Fly Clean Program. It is the level the noise would be if it all occurred in one second. The SEL value is the integration of all the acoustic energy contained within the event. This metric takes into account the maximum noise level of the event and the duration of the event. For aircraft flyovers, the SEL value is numerically about 10 dBA higher than the maximum noise level.

Whenever an aircraft operation surpasses a high noise event threshold established for a remote noise monitoring site (RMS), a "loud single event" occurs. Loud noise events are measured by the Airport's RMS's situated in the communities surrounding the airport. **Table 1** shows the address and latitude/longitude of each RMS, and **Figure 2** shows the locations of the RMS sites used to determine historical single event noise levels at each of the sites. For the Fly Green/Fly Clean measurement periods, the Woody Creek RMS was used to measure high noise events. Future Fly Green/Fly Clean reports will be expanded to include high noise event calculations at multiple RMS sites.

At the Woody Creek measurement location (Site 4), since 2006, a noise monitor has been placed seasonally to measure the aircraft noise levels in the winter and summer. This location is now capable of year-round noise monitoring; this data is used in the Fly Green/Fly Clean program to determine when high noise events occur anytime throughout the year, not just the peak summer and winter monitoring period. Past measurements were for just the peak summer and winter periods.

Table 1 - Noise Monitoring Locations

Aspen/Pitkin County Airport Fly Green/Fly Clean

Sites	Name	Location	Longitude	Latitude
1	S Airport	South Airport Boundary	-106.8647666	39.2121166
2	N Airport	North Airport Boundary	-106.8744833	39.2349166
3	W/J	W/J Ranch	-106.8784500	39.2537000
4	WC	Woody Creek – 262 Woods Rd.	-106.8878330	39.2668000
5	LWC	Little Woody Creek	-106.8779167	39.2769167
6	NWC	Woody Creek – 240 Doc Henry Rd.	-106.8935666	39.2797330

Figure 2 - Noise Monitoring Locations

Aspen/Pitkin County Airport Fly Green/Fly Clean

Historic single event noise data was used to help identify high noise level thresholds at the Woody Creek monitoring site. The historical data set was used to identify a high noise level threshold for aircraft producing noise levels higher than are typical for the majority of operations.

To determine the recommended Loudest Aircraft Noise Event at the Woody Creek site, the standard deviations were calculated. The resulting number equates to approximately 1% of all operations that are anticipated to be above the high noise level threshold. For the High Noise Level threshold, any noise event that generates an SEL of 85 dBA or greater is considered a high noise event. Historically the SEL for the Fly Green/Fly Clean Program was 90 SEL. With older Stage 2 aircraft retiring and being replaced by quieter Stage 3, 4 and 5 aircraft, an SEL of 85 dBA is a more accurate representation of the fleet mix. Older generation Stage 3 aircraft typically generate the loudest events.

Whenever an aircraft overflight produces noise levels higher than the maximum allowable decibel value established for a particular monitoring site, the noise threshold is surpassed and a high noise event occurs. This category will be expanded over time to include additional RMS measurements of high noise events.

Figure 3 shows the Loudest Noise Events results for the 2019/2020 winter period, November 1, 2019 – April 30, 2020. **Figure 4** shows the Loudest Noise Events for the 2020 summer measurement period, May 1, 2020 – October 31, 2020. Both of the measurement periods Loudest Noise Events are shown for the Woody Creek RMS, located north of the Airport. While there were additional noise events above 85 SEL, these were the Top 25 for the measurement period.

These events were nearly all generated by the older generation-built aircraft such as the Gulfstream III and Falcon Jets. At ASE, there were approximately eight Stage 2 aircraft and 347 Stage 3 older generation business jets that operated during the 2019-2020 year.

Figure 3 - Loudest Noise Events, Winter 2019/2020– Woody Creek

Aspen/Pitkin County Airport Fly Green/Fly Clean

Period November 1, 2019 – April 30, 2020

Date Time	Flight ID	Airline	Aircraft	Oper	Rwy	SEL	Scale
3/10/2020 7:45:04 AM	N36PN	General Aviation	GLF2	D	33	95.6	
1/3/2020 10:31:05 AM	N36PN	General Aviation	GLF2	D	33	93.8	
1/24/2020 8:59:00 AM	SDU299	Dumont	FA50	D	33	91.8	
3/3/2020 1:12:04 PM	N36PN	General Aviation	GLF2	D	33	91.5	
12/26/2019 9:31:50 AM	N987CF	General Aviation	FA50	D	33	90.3	
2/20/2020 4:11:03 PM	N36PN	General Aviation	GLF2	D	33	90.2	
2/3/2020 1:03:00 PM	JKR51	Justice Air Charter	FA50	D	33	89.9	
3/13/2020 12:50:26 PM	N987CF	General Aviation	FA50	D	33	89.8	
1/30/2020 10:37:01 AM	N925BP	General Aviation	ASTR	D	33	89.6	
3/13/2020 10:34:02 AM	N752JC	General Aviation	FA50	D	33	89.5	
3/1/2020 8:32:04 AM	SDU299	Dumont	FA50	D	33	88.8	
3/14/2020 9:04:04 AM	N674DJ	General Aviation	BE40	D	33	88.4	
2/17/2020 10:32:00 AM	N212T	General Aviation	ASTR	D	33	88.2	
2/18/2020 3:00:00 PM	N58HL	General Aviation	FA50	D	33	88.1	
2/23/2020 1:05:05 PM	N77ME	General Aviation	FA50	D	33	88.0	
1/11/2020 10:44:54 AM	N531GP	General Aviation	G150	D	33	87.9	
12/7/2019 2:43:54 PM	N987CF	General Aviation	FA50	D	33	87.8	
2/18/2020 11:23:02 AM	N514MB	General Aviation	FA50	D	33	87.7	
11/23/2019 7:57:54 AM	N987CF	General Aviation	FA50	D	33	87.7	
3/18/2020 10:12:29 AM	N5895K	General Aviation	BE40	D	33	87.6	
11/21/2019 1:11:45 PM	N217MS	General Aviation	G150	D	33	87.5	
12/4/2019 5:03:57 PM	N987CF	General Aviation	FA50	D	33	87.5	
1/25/2020 4:31:13 PM	N531GP	General Aviation	G150	D	33	87.5	
2/9/2020 3:34:02 PM	N470DP	General Aviation	C560	D	33	87.3	
2/1/2020 9:35:31 AM	PEG26	Pelangi Air	GLF4	A	15	87.1	
11/5/2019 3:32:37 PM	N32FJ	General Aviation	C650	D	33	87.0	
2/21/2020 6:05:01 PM	SDU244	Dumont	FA50	D	33	87.0	
12/9/2019 12:30:54 PM	N848C	General Aviation	BE40	D	33	86.6	
3/14/2020 4:33:01 PM	N752JC	General Aviation	FA50	D	33	86.4	
3/7/2020 12:53:03 PM	EJA783	Executive Jet Aviation	CL35	D	33	86.3	

Figure 4 - Loudest Noise Events, Summer 2020 – Woody Creek

Aspen/Pitkin County Airport Fly Green/Fly Clean

Period: May 1, 2020 – October 31, 2020

Date Time	Flight ID	Airline	Aircraft	Oper	Rwy	SEL	Scale
5/2/2020 11:10:36 AM	N981CE	General Aviation	H25B	A	15	93.3	
7/23/2020 12:41:23 PM	N422TK	General Aviation	GLF3	A	15	92.2	
6/29/2020 1:12:33 PM	N68VP	General Aviation	LJ31	A	15	91.9	
6/27/2020 1:34:57 PM	N510FR	General Aviation	GLF3	D	33	89.7	
6/7/2020 6:12:01 PM	N711P	General Aviation	BE40	D	33	89.7	
7/23/2020 5:06:25 PM	DCM4163	FltPlan	FA50	A	15	89.1	
7/21/2020 4:04:43 PM	JTL445	Jetall	LJ45	A	15	89.0	
7/17/2020 12:13:50 PM	N945PK	General Aviation	GLF2	A	15	88.8	
6/8/2020 9:57:12 AM	N36PN	General Aviation	GLF2	D	33	88.8	
6/10/2020 2:15:30 PM	N711P	General Aviation	BE40	D	33	88.2	
7/25/2020 1:03:01 PM	N500LY	General Aviation	FA50	D	33	87.6	
6/26/2020 12:07:01 PM	N324AD	General Aviation	F900	D	33	87.4	
5/29/2020 5:48:06 PM	N56LN	General Aviation	FA50	D	33	87.4	
6/26/2020 12:14:03 PM	N420CL	General Aviation	FA50	D	33	87.3	
6/19/2020 11:19:31 AM	N44MQ	General Aviation	C650	D	33	86.8	
7/10/2020 10:00:40 AM	EJA327	Executive Jet Aviation	E55P	A	15	86.8	
6/28/2020 12:30:38 PM	N895JK	General Aviation	SF50	A	15	86.7	
5/25/2020 9:43:43 AM	N24FJ	General Aviation	F900	D	33	86.6	
6/13/2020 10:09:08 AM	LXJ459	Bombardier FlexJet	GLF4	D	33	86.6	
5/20/2020 6:00:00 PM	WDY805	Chicago Express Airlines	FA50	D	33	86.6	
6/14/2020 7:03:03 PM	GAJ357	Gama Jet	F900	A	15	86.5	
7/26/2020 7:56:52 AM	N400KP	General Aviation	BE40	D	33	86.5	
5/27/2020 3:04:01 PM	N888TX	General Aviation	C650	D	33	86.4	
6/19/2020 12:04:00 PM	N710VP	General Aviation	C650	D	33	86.2	
7/25/2020 1:02:03 PM	N32FJ	General Aviation	C650	D	33	86.2	
6/26/2020 8:47:04 AM	N520WS	General Aviation	BE40	D	33	86.0	
6/16/2020 7:14:03 AM	JAS99	Japan Air System	FA7X	D	33	86.0	
5/22/2020 8:36:02 AM	N136MV	General Aviation	FA50	D	33	85.8	
5/16/2020 10:46:28 AM	OKC348	Private Jets	BE40	D	33	85.8	
8/7/2020 8:54:03 AM	N92CJ	General Aviation	FA50	D	33	85.8	

2.2.3 Runway 33 Arrival Methodology

Goal

The goal of the Runway 33 Arrival category is to have aircraft use the preferred, primary arrival runway at Aspen/Pitkin County Airport, which is Runway 15.

Methodology

The Runway 33 Arrival score rates arriving aircraft that use this runway instead of the preferred runway, which is Runway 15. Due to rising terrain to the south of the airport and noise abatement procedures that avoid the town, the airport generally operates with aircraft arriving and departing the airport in the same direction from the northwest on Runway 15. This category counts the number of Runway 33 arrivals that are reported as part of the Fly Green/Fly Clean program but are not calculated in the overall score.

3. Program Results

The results are presented in two categories. One category is the operations for FAR Part 135 aircraft that include fractional jet ownership and charters (operators that fly a fleet of different aircraft similar to an airline). The second category is operations for single owners or small fleets (single aircraft). These aircraft are not operated as part of a fractional jet ownership program or charter, and normally fly under a tail number not an airline operator code. Note that this is not an exact method of categorizing the aircraft, in that some charters will fly different aircraft both under an airline operator code and by its tail number. Where possible, charters that operate as a tail number were assigned their respective airline operator code. The intent is to separately evaluate those operators that fly a fleet of aircraft and those that operate just one aircraft or a small fleet. In order to fairly and accurately report how aircraft performed, the two categories of operators noted above are grouped into those operators with more than 30 operations per year and those operators with less than 30 operations per year.

The Fly Green/Fly Clean 2019-2020 program results are presented in **Figures 5** through **8a-c. Figures 5** and **6 (Parts 1 – 3)** graphically show the operations for FAR Part 135 operations that include fractional jet ownership and charters. **Figures 7a** and **7b** graphically show the operations for single operators, or aircraft not operated as part of a fractional jet ownership program for the low scoring operators. **Figures 8a-c** present the corresponding data for the high scoring single operators.

In all of the figures, those operators with high scoring values are highlighted in shades of green. This is a Fleet Quality rating of 9 or better with no High Noise Level events (on a 0 to 10 scale with 10 being the highest rating). The Airport average value is shown as a blue line. Low scoring values are shown in shades of yellow. This is a Fleet Quality Rating of below 4 and at least one High Noise Level event. Operators with less than six operations per year were not included in the Program unless they generated a high noise event or had a score below 4. All operations are compared back to the base period levels. The base period is the two years prior to the start of the Fly Green/Fly Clean program (November 1, 2005 through October 31, 2007). The color codes for the different scores are shown below.

Rating	Fleet Quality Score	High Noise Events	Color
Good	9 to 10	0	
Average	4 to 9	0	
Poor	Below 4	>=1	

3.1 Fleet Quality Results

FAR Part 135 Operators

The fleet quality results for the Part 135 operators are presented in **Figures 5** and **6**. The graphic shows the operations for FAR Part 135 operations that include fractional jet ownership and charters. The figures show the aircraft Fleet Noise Quality (FNQ) scored on a 0-10 scale, with 10 being the best possible in the available fleet and 0 being a marginal Stage 3 aircraft.

For each operator, the first two columns in the figure shows their number of departures and their corresponding FNQ score. Any score above 9 is considered good (green). Any score between 4 and 9 is average (light green). Any score less than 4 is considered poor (yellow).

The 'Delta' column in the figure also shows the change in the 2019-2020 annual FNQ relative to the base period (2006/2007) FNQ. Any improvement in FNQ of 1 or more is considered good and any decrease in FNQ of 1 or more is considered poor. For the operators with more than 30 departures per year, ForeFlight had the most improvement. For operators with less than 30 departures, Cobalt Air had the most improvement.

For the operators with more than 30 departures per year, Sun Devil and Omni Aviation had the highest FNQ score of 10.0. For the smaller operators with between six and 30 departures per year, the top operators earned a FNQ score of 10: Channel Island Aviation, Air Charter Services, AB Jets, FlightAware, Baker Aviation, Excel Jet, Advanced Air, and Aspen Airways.

The operators are shown in descending order, with aircraft that operated above the airport-wide average on the top. The middle blue line marks the average overall score for the Airport, which for the 2019-2020 reporting period is 8.3 out of 10. This is an improvement 1.6 FNQ over the base period (2006/2007) of 6.7, and a 0.3 increase over the previous year's FNQ.

Single Operators

Figure 7a shows the results for single aircraft operators that scored on the bottom of the FNQ. These aircraft had at least six departures per year, and a FNQ score of 4 or below. The 4 or lower score is a result of flying older, louder marginal Stage 3 aircraft. The figure shows the tail number, type of plane, registered owner, the number of annual departures along with the FNQ score. The number of high noise events and Runway 33 Arrivals is also shown. In addition to those operators that had six or more departures per year, **Figure 7b** shows any aircraft that generated a high noise event.

Figures 8a – 8c show the results for single aircraft that scored on the top of the FNQ. These aircraft had at least 6 departures per year, and a FNQ score of greater than 9. The 9 or greater score is a result of flying new generation Stage 3 and Stage 4 aircraft. The figure shows the tail number, type of plane, registered owner, the number of departures for the annual period along with the FNQ score. There were no high noise events generated by these aircraft. The operator with the most number of operations flying an aircraft with a FNQ of 9 or greater was registered to Terrapin Aircraft, LLC that had 84 flights and a FNQ score of 9.84. There were 91 single aircraft operators with aircraft with a FNQ of 9 or more and had at least 6 departures per year. This is slightly lower than last year's total of 109 aircraft with a FNQ score of 9 or higher.

3.2 High Noise Event Results

The high noise events were incorporated into the Fly Green/Fly Clean program with the results presented in **Figures 5** through **7a-b**. The Part 135 Operators data in **Figures 5** and **6** shows that there were 13 Part 135 operators that generated high noise events throughout the year, with a total of 24 events. This is a significant decrease from last year; this is the second full year of the SEL threshold being lowered from 90 SEL to 85 SEL.

These results for the single aircraft operator's high noise events are presented in **Figures 7a** and **7b** as discussed in the previous section. It is an important observation that there were only two high noise event associated with aircraft that had a good FNQ.

3.3 Runway 33 Results

In the 2018-2019 reporting period, the Runway 33 arrival category was added to the Fly Green/Fly Clean program. These results are presented in the following Figures 5, 6, and 7b. The results show that there were 13 operators with arrivals on Runway 33; each operator landed once on Runway 33.

Figure 5 - Fleet Quality Rating, FAR Part 135 Operations with more than 30 departures per year

Aspen/Pitkin County Airport Fly Green/Fly Clean

Airline Code	Airline Name	Dep	FNQ Score Current	Delta	High Events	Arrivals RWY33
DRL	Omini Air Transport	30	10.0	0.0	0	0
SVL	Sun Devil Aviation	48	10.0	0.0	0	1
FFL	Foreflight	31	9.8	1.1	0	1
LXJ	Bombardier FlexJet	904	9.8	0.0	1	0
XOJ	XOJet	364	9.6	-0.3	0	0
TIV	Thrive Aviation	34	9.6		0	0
XSR	Executive Flight Services	115	9.6	-0.1	0	0
EDG	Jet Edge	62	9.5	0.0	0	0
FTH	Mountain Aviation	205	9.5	0.4	0	0
PXT	Pacific Coast Jet	52	9.4	-0.2	0	1
DPJ	Delta Private Jets	111	9.2	0.6	1	0
EJM	Executive Jet Management	157	8.8	0.6	0	0
SIS	Saber Airlines	31	8.7	0.1	0	0
GAJ	Gama Jet	96	8.7	0.1	1	0
JTL	Jetall	222	8.5	1.1	2	0
DCM	FltPlan	123	8.2	0.7	2	1
TWY	Sunset Aviation	120	8.0	-0.8	0	1
EJA	Executive Jet Aviation	1,608	7.9	-0.4	3	0
STV	Saturn Aviation	32	7.9	0.6	0	1
JAS	Japan Air System	52	7.6	-0.1	3	0
GTH	General Aviation Flying Services	29	6.8	-0.2	0	1

Airport Average FNQ Score 8.4

Figure 6 - Fleet Quality Rating, FAR Part 135 Operations with less than 30 departures per year, Part 1

Aspen/Pitkin County Airport Fly Green/Fly Clean

Airline Code	Airline Name	Dep	FNQ Score Current	Delta	High Events	Arrivals RWY33
CHN	Channel Island Aviation	10	10.0	0.0	0	0
CHR	Air Charter Services	17	10.0		0	1
FTD	AB Jets	6	10.0	0.0	0	0
FWR	FlightAware	8	10.0	0.4	0	0
KOW	Baker Aviation	10	10.0	1.1	0	0
XLJ	XCEL Jet	8	10.0	0.0	0	0
WSN	Advanced Air	6	10.0	0.4	0	0
ASP	Aspen Airways Inc	8	10.0	0.0	0	0
DLX	Dreamline Aviation	22	9.9	1.5	0	0
PEG	Pelangi Air	21	9.9	0.5	1	0
RSP	Jetsuite Air	18	9.8	0.0	0	0
SBE	World Class Aviation	9	9.8	1.4	0	0
FJS	Florida Jet Service	9	9.7	0.6	0	0
FWK	Flightworks	14	9.4	-0.1	0	0
XLS	Excel Aire LLC	8	9.3	0.0	0	0
SCM	American Jet International	11	9.3	1.8	0	0
MLN	Air Madeleine	11	9.3	0.3	0	0
DJR	Desert Jet	20	9.1	-0.5	0	0
PJC	Pittsburgh Jet Center	10	9.0	0.4	0	0
KFB	STAjets	8	8.8	-0.1	0	0
GCT	GC Aviation	18	8.8	0.5	1	0
WWI	Worldwide Jet Charter	24	8.8	0.1	0	1
JPL	JetPlus Aviation	6	8.7		0	0
PFT	Air Cargo Express International	6	8.4	0.1	0	0

Figure 6- Fleet Quality Rating, FAR Part 135 Operations with less than 30 departures per year, Part 2

Aspen/Pitkin County Airport Fly Green/Fly Clean

Airline Code	Airline Name	Dep	FNQ Score Current	Delta	High Events	Arrivals RWY33
SVW	Global Jet Luxembourg	6	8.4	0.0	0	0
LJY	LJ Aviation	7	8.3	-0.2	0	0
MMN	Pro Airways	6	8.3	1.0	0	0
CWG	Clear Wing	29	8.2	1.6	0	0
YEL	Summit Aviation	11	8.2	-1.7	0	0
SJE	Sunair 2001	24	8.2	0.2	0	0
LAK	Great Lake Airlines	25	8.1	0.0	0	1
TTE	Avcenter	6	8.1	0.0	0	1
IJA	International Jet Aviation Services	23	8.1	0.9	0	0
SLH	Silverhawk Aviation	12	8.0	-0.1	0	0
EGC	First Wing Aircraft Charter	6	7.9	-0.2	0	0
GLT	Aero Charter	11	7.8	-0.3	0	0
SYB	Symbol Publicidad	8	7.7		0	0
TFF	Talon Air	28	7.7	0.8	0	0
PRD	Presidential Aviation	11	7.6	-1.5	0	0
SDU	Dumont	24	7.6	0.2	4	0
CYO	Air Transport	19	7.4	0.5	0	0
SIY	Executive Aviation Corporation	10	7.3	3.4	0	0
NUS	Northern Illinois Flight Center	21	7.3	0.4	0	0
DBC	Gemini Air Group	14	7.2	-0.6	0	1
NSH	Gama Aviation	10	6.9	1.8	0	0
CNS	Cobalt Air	10	6.7	3.6	0	0
PWA	Priester Charters (GA)	22	6.7	0.3	0	0
OKC	Private Jets	18	6.0	-2.7	1	1
SJJ	Spirit Jets	21	6.0	-0.9	0	0
WDY	Chicago Express Airlines	6	5.9	-0.7	1	0
RAX	Royal Air Freight	15	4.4	0.2	0	0
COL	Columbia Airlines	23	4.3	-0.7	0	0
RLJ		6	3.9		0	0
RGY	Regency Airlines	22	2.0	0.0	3	0

Figure 7a - Low Score Fleet Quality Rating, Single Operators – More than 6 Operations
Aspen/Pitkin County Airport Fly Green/Fly Clean

Operators with 6 or more Departures per year with a Fly Quiet Score of 4 or less

AC Number	Registered Owner	Aircraft Type	Dep	FQ Score	High Events	Arr RW33
N987CF	PEEKEY LUMBUS LLC	FA50	30	3.64	6	0
N959CR	TETON AVIATION LLC	BE40	13	2.02	0	0
N950H	ISLAND AVIATION INC	FA50	16	3.64	0	1
N826JM	SOUTHLAND AIRWAYS LLC	BE40	6	2.02	0	0
N77ME	JDR MANAGEMENT LLC	FA50	9	3.64	1	0
N727KB	XT LEASING CO LLC	BE40	14	2.02	0	0
N500LY	1380 JETS LLC	FA50	6	3.64	1	0
N400WF	TWO RIVERS AVIATION LLC	BE40	14	2.02	0	1
N390SB	400XP SHARES LLC	BE40	13	2.02	0	1
N302TB	MOSER AVIATION LLC	BE40	11	2.02	0	1
N228SB	JET SHARES LLC	BE40	6	2.02	0	1

Figure 7b - Low Score Fleet Quality Rating, Single Operators – Less than 6 Operations
Aspen/Pitkin County Airport Fly Green/Fly Clean

Operators with less than 6 Departures per year with a Fly Quiet Score of 4 or less

AC Number	Registered Owner	Aircraft Type	Dep	FQ Score	High Events	Arr RW33
N136MV	TRANSNET AVIATION GROUP	FA50	5	3.64	1	0
N318GA	GARDEN AIR LLC	FA50	5	3.64	1	0
N37WX	FALCON LEAS. OF SO FLORIDA	FA50	1	3.64	1	0
N420CL	STAR CAPITAL HOLDINGS LLC	FA50	2	3.64	1	0
N50KD	MEREGRASS INC	FA50	5	3.64	1	0
N514MB	MCL FALCON LLC	FA50	2	3.64	1	0
N52RF	FINAIR LLC	FA50	1	3.64	1	0
N56LN	STEEL CURTAIN FALCON LLC	FA50	5	3.64	3	0
N58HL	HRL ENTERPRISES LLC	FA50	1	3.64	1	0
N600LY	CMM FLIGHT SERVICES LLC	FA50	1	3.64	1	0
N634KA	BB WESTWIND LLC	FA50	3	3.64	1	0
N752JC	MANHATTEN TRAVEL LLC	FA50	2	3.64	2	0
N92CJ	SKYVIEW LLC	FA50	1	3.64	1	0
N990MM	FALCON 50 LLC	FA50	1	3.64	1	0
N213BK	B4A LLC	BE40	4	2.02	1	0
N400KP	KINGSTON AVIATION LLC	BE40	2	2.02	1	0
N424SK	CENTRAL IOWA AVIATION	BE40	4	2.02	1	0
N520WS	MMU AVIATION LLC	BE40	1	2.02	1	0
N5895K	YCY LLC	BE40	4	2.02	2	0
N661WD	DURHAM AIRCRAFT LLC	BE40	1	2.02	1	0
N674DJ	MAVERICK AIR LLC	BE40	1	2.02	1	0
N711P	DNA AVIATION LLC	BE40	3	2.02	2	0
N848C	ENCORE LEASING LLC	BE40	2	2.02	1	0
N90CU	UNITED BOTTLING COMPANY	BE40	1	2.02	1	0
N36PN	B&G LEASING LLC	GLF2	5	0.00	7	0
N422TK	AIR T-B INC	GLF3	1	0.00	1	0
N510FR	ONEFLIGHT INTERNATIONAL	GLF3	1	0.00	1	0
N945PK	SILVERSTAR PARTNERS LLC	GLF2	1	0.00	1	0

Figure 8 - High Score Fleet Quality Rating, Single Operators, Part 1
Aspen/Pitkin County Airport Fly Green/Fly Clean

AC Number	Aircraft Type	Registered Owner	Dep	FQ Score
N100LX	C501	CASH IS KING AIR GP LLC	6	10.0
N160BP	LJ60	BEESON JOHN S	18	10.0
N17XR	C750	PEREGRINUS LLC	10	10.0
N211JH	C525	JDH AERO LLC	6	10.0
N21GV	C25B	VILDOSOLA AVIATION LLC	12	10.0
N233MK	LJ45	GIDDYUP AVIATION LLC	11	10.0
N241LJ	LJ45	N820KD LLC	16	10.0
N267CH	LJ45	TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	19	10.0
N298CJ	C25B	C & J AVIATION LLC	6	10.0
N29RE	LJ40	THC TRAVEL LLC	12	10.0
N345PF	C25C	FRANKLIN MOUNTAIN ASSETS II LLC	6	10.0
N358JJ	C25B	CORAL AIR LLC	12	10.0
N393SG	C25B	N393SG LLC	6	10.0
N39DJ	C25B	AVIATION ENTERPRISES INC	11	10.0
N411AJ	LJ45	XCEL JET MANAGEMENT INC	6	10.0
N448LL	C525	CHO OYU LLC	13	10.0
N454N	LJ45	BANK OF AMERICA NA	10	10.0
N459SF	LJ60	PHILLIPS AVIATION COMPANY LLC	18	10.0
N45NP	LJ45	F & S LLC	8	10.0
N48PW	C750	PENNER GREG B	25	10.0
N49PW	C750	PENNER GREG B	8	10.0
N513RV	C525	WOOD PAUL R	11	10.0
N51BT	C25B	400 KNOT AVIATION LLC	10	10.0
N525MP	C25B	BIRDWELL EQUIPMENT LEASING GP LLC	6	10.0
N52ZG	C25M	LIFT AVIATION LLC	6	10.0
N537MZ	C25M	TRITON ONE LLC	7	10.0
N585EP	C25A	SONGBIRD LLC	6	10.0
N63WG	LJ75	GOLD KEY AVIATION LLC	9	10.0
N711R	LJ45	COCKRELL RESOURCES INC	7	10.0
N750GB	C750	ACCENT STRIPE INC	6	10.0

Figure 8 - High Score Fleet Quality Rating, Single Operators, Part 2
Aspen/Pitkin County Airport Fly Green/Fly Clean

AC Number	Aircraft Type	Registered Owner	Dep	FQ Score
N750NA	C750	N A CITATION (2012) LLC	7	10.0
N751MM	C750	MORGANS MACH ONE MACHINE LLC	17	10.0
N778XJ	C750	TRANSAIR LEASING INC	6	10.0
N77ZE	LJ40	N77ZE LLC	10	10.0
N787CH	LJ45	LJ-45 LLC	6	10.0
N7SG	C25B	LB EAGLE AVIATION LLC	9	10.0
N812RP	LJ60	ATI JET SALES WEST LLC	6	10.0
N816JD	HDJT	RC Aviation LLC	10	10.0
N835CB	C25B	ROMANZA AVIATION LLC	7	10.0
N8HS	SF50	SIMON WILLIAM SCOTT	8	10.0
N945JS	C750	FE X 258 LLC	8	10.0
N947JS	C750	JULIETTE LIMA BRAVO LLC	6	10.0
N95SB	C525	SOUTHERN BLEACHER COMPANY INC	11	10.0
N96DD	C25A	MERCIER DAVID C	13	10.0
N98QC	LJ70	J BROS LLC	9	10.0
N100SA	CL35	ESSAY MANAGEMENT SERVICES LLC	9	9.8
N108JA	E50P	TERRAPIN AIRCRAFT LLC	84	9.8
N129GD	E50P	DIJ AIR LLC	7	9.8
N155SL	CL30	SELA PLANE LLC	10	9.8
N17KJ	CL35	TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	9	9.8
N197JS	CL30	US BANK NA	12	9.8
N215BV	E550	TVPX ARS INC TRUSTEE	13	9.8
N218KF	CL30	KW FLIGHT LLC	6	9.8
N256WB	CL30	TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	14	9.8
N300FJ	E55P	RICHBUILT CONSTRUCTION LLC	17	9.8
N300MG	E55P	EON MANAGEMENT LLC	7	9.8
N302GV	E55P	IBW AIR SERVICES LLC	8	9.8
N312FL	E55P	TANGO-LIMA AVIATION LLC	6	9.8
N316K	CL35	CORPORATE JET LEASING COMPANY LLC	8	9.8
N323KP	E55P	TOBARTHS LLC	9	9.8

Figure 8 - High Score Fleet Quality Rating, Single Operators, Part 3
Aspen/Pitkin County Airport Fly Green/Fly Clean

AC Number	Aircraft Type	Registered Owner	Dep	FQ Score
N3300	E55P	BANK OF UTAH TRUSTEE	12	9.8
N370MK	E55P	DS 300 LEASING LLC	7	9.8
N413N	E55P	NICHOLAS SERVICES LLC	6	9.8
N471TD	E55P	300 PHENOM LLC	6	9.8
N500QF	E55P	BRANCH AVIATION LLC	10	9.8
N569EE	E55P	CORVIS AVIATION LLC	8	9.8
N57HA	CL30	U S BANK NA	6	9.8
N717JJ	CL30	WESTERN DEVCON INC	8	9.8
N752M	CL30	TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	8	9.8
N804SW	E55P	ECHO MATRIX LLC	6	9.8
N858EE	E55P	RBL AVIATION LLC	14	9.8
N85BZ	E55P	DAT-II LLC	9	9.8
N862LG	E55P	CORNERSTONE AVIATION LLC	8	9.8
N1963N	GLF4	WATER FORCE ONE LLC	8	9.8
N236CA	GLF4	G-IVSP N236CA LLC	10	9.8
N236KR	GLF4	FOOTHILL TECHNICAL LLC	12	9.8
N270SC	GLF4	SLOAN HARRY EVANS TRUSTEE	6	9.8
N2HC	GLF4	WHCC AVIATION LLC	10	9.8
N400HG	GLF4	STARFLITE MANAGEMENT GROUP INC	12	9.8
N401FT	GLF4	EJS - EXECUTIVE JET SHARES INC	10	9.8
N424PX	GLF4	NF AIR VENTURES LLC	7	9.8
N450AB	GLF4	BLUE VISTA LLC	6	9.8
N451BH	GLF4	HERD BOB L	20	9.8
N570DC	GLF4	WEBSTER AIR LLC	10	9.8
N621JH	GLF4	CFS AIR LLC	6	9.8
N63NM	GLF4	N2 AVIATION LLC	6	9.8
N671AF	GLF4	AMERIPRISE FINANCIAL INC	7	9.8
N68AL	GLF4	AIRCRAFT ENGINE LEASE FINANCE INC	8	9.8
N779AZ	GLF4	PITTCO AVIATION LLC	13	9.8
N7UF	GLF4	F & L AVIATION II LLC	7	9.8
N889CG	GLF4	ITS LIKE WAVING A FLAG IN THE ALBERT	6	9.8

4. 2020 Annual Awards – Fly Green/Fly Clean

The following is a list of those operators that have achieved the goals of working towards improving the noise environment around Aspen/Pitkin County Airport. These awards are divided into the Part 135 operators that fly a fleet of corporate jets and the single aircraft operators that fly one or a small number of corporate jets operating under a tail number.

4.1 Part 135 Operators

- Operators that flew the quietest fleet without any high noise events (30 or more departures per year)

Operator Code	Operator	Departures
DRL	Omni Air Transport	30
SVL	Sun Devil Aviation	48
FFL	Foreflight	31

- Operators that flew the quietest fleet without any high noise events (less than 30 departures per year)

Operator Code	Operator	Departures
CHN	Channel Island Aviation	10
FTD	AB Jets	17
FWR	FlightAware	8

- Operators that were most improved from previous year (2019)

FFL ForeFlight (30 or more departures per year)
CNS Cobalt Air (less than 30 departures per day)

- Honorable Mention of those Operators with a better than airport average fleet with no high noise events

30 or more Departures per year

Operator Code	Operator	Departures
XOJ	XO Jet	364
TIV	Thrive Aviation	34
XSR	Executive Flight Services	115
EDG	Jet Edge	62

Less than 30 departures per year

Operator Code	Operator	Departures
KOW	Baker Aviation	10
XLJ	Xcel Jet	8
WSN	Advanced Air	6
ASP	Aspen Airways, Inc	8

4.2 Single Operators

- Operators that flew the quietest fleet without any high noise events (6 or more departures per year)

  N100LX operated by Cash Is King Air GP LLC

5. Overall Fly Green/Fly Clean Airport Evaluation

The Fly Green/Fly Clean Program presents the Airport's overall score and compares it to historical data. **Figure 9** shows historical data for four categories:

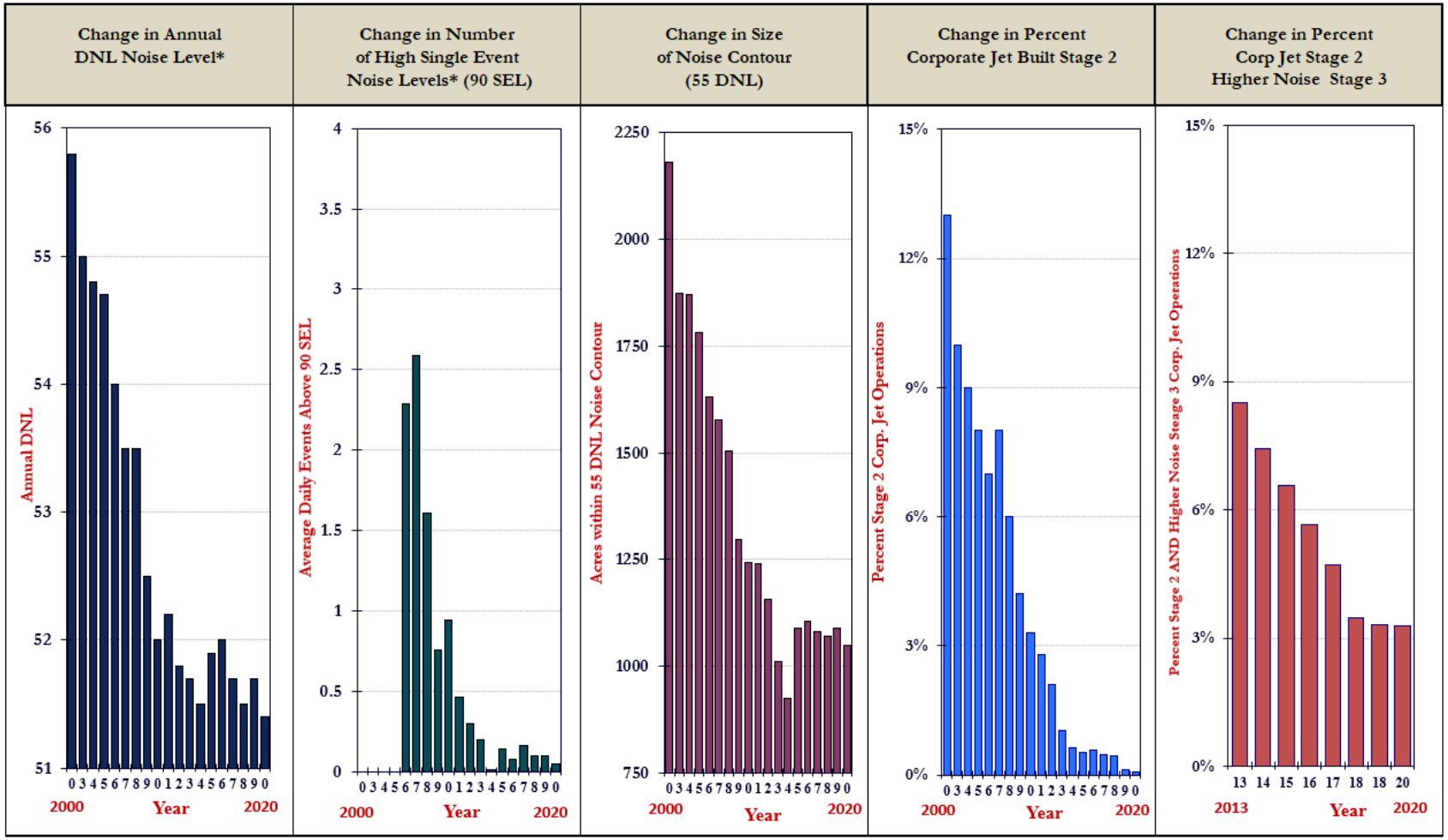
- Change in Annual DNL Noise Level
- Change in Number of Average Daily Number of High Single Event Noise Levels
- Change in Size of Noise Contour
- Change in Percentage of Corporate Jet hush kit Stage 2 Operations

Historical data for these categories is show for the years 2000 and 2003 – 2020. Each of the four categories shows significant improvement year over year. This report focuses on the 2020 Fly Green/Fly Clean Airport Reporting period.

The number of Stage 2 operations accounted for 0.1% of all corporate jet operations. The number of High Single Event Noise Levels average well less than one per day (0.1 events per day). The lower number of high noise events can be directly correlated with the continued reduction of Stage 2 corporate jet aircraft and the louder Stage 3. Specifically, the older Gulfstream's (II and III) and the louder Stage 3 jets (Beach 400 and Falcon 50). It is anticipated that these levels will continue to lower as these aircraft retire from the fleet. As with the other airport rating categories, the size of the noise contour was slightly decreased with a total of 1,050 acres in the 55 DNL; this is 40 acres smaller than last year.

Figure 9 - Historic Overall Airport Comparison (2020)

Aspen/Pitkin County Airport Fly Green/Fly Clean



** DNL and SEL Noise Events from Woody Creek Measurement Site*