Aspen/Pitkin County Airport
Fly Green/Fly Clean

Annual 2019 Report

(November 1, 2018 – October 31, 2019)

(ASE FlyQuiet Report Annual2019_v2)

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Table of Contents

Table of Figures

Aspen/Pitkin County Airport
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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. This year, the program added a third category for 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 Quiet was a 2-year period prior to the start of the Fly Quiet 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 this year's Program, year-round noise monitoring was added at the Woody Remote Noise Monitoring Site. Scores are computed, and reports are generated once a year that includes both reporting season. The reporting seasons are; winter, November 1 – April 30, and summer, May 1 – October 31.

This report presents the **Annual 2019** results. This includes both the winter and summer season results. The winter period is from November 1, 2018 through April 30, 2019 while the summer period is May 1, 2019 through October 31, 2019. 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.

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.

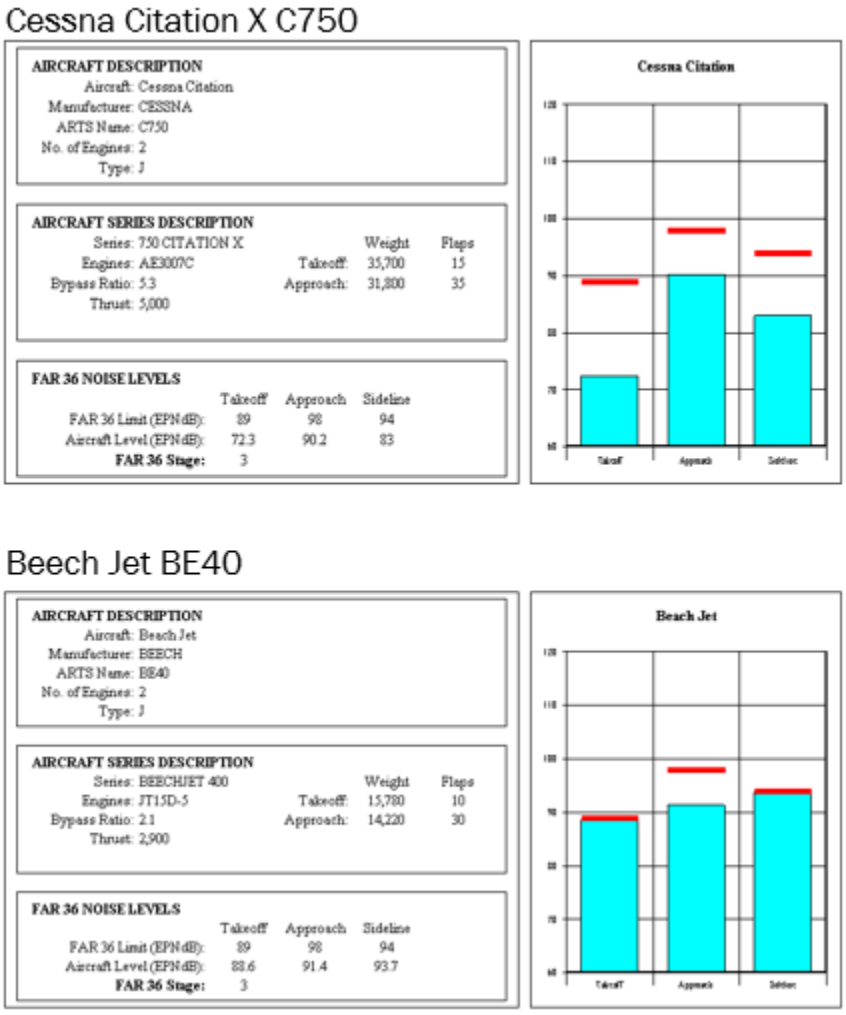
Methodology

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. Those Stage 2 aircraft that are still in the fleet operate as Stage 3 aircraft by applying operational or physical measures to meet Stage 3 standards. 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 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.

The rating method for the FNQ totals the difference between each aircraft's certified noise levels at all three measuring points and the Stage standard for that weight and number of engines. Aircraft with the lowest (i.e. quietest) noise levels are rated the best. An operator with aircraft certified close to borderline Stage 3 limits is rated low, while an operator with aircraft certificated noise levels quieter than Stage 3 limits rated higher. For Aspen/Pitkin County Airport, the departure value is weighted heavier than the approach and sideline noise due to the more widespread and intrusive nature of departure noise. **Figure 1** depicts the noise characteristics of two aircraft types: a Cessna Citation X and a Beech Jet BE40. Both aircraft are certified as Stage 3, yet the combined noise levels at all three Part 36 measuring points for the Cessna Citation 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.

Figure 1 - FAR Stage 3 Limits and Certificated Noise Levels
Aspen/Pitkin County Airport Fly Green/Fly Clean



Source: BridgeNet International

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 Airport is served by a variety of business jet aircraft, with a percentage certified as "marginal" Stage 3. 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.

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 (SEL) noise levels, which are a convenient method for describing noise from individual aircraft events. An 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 Quiet 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.

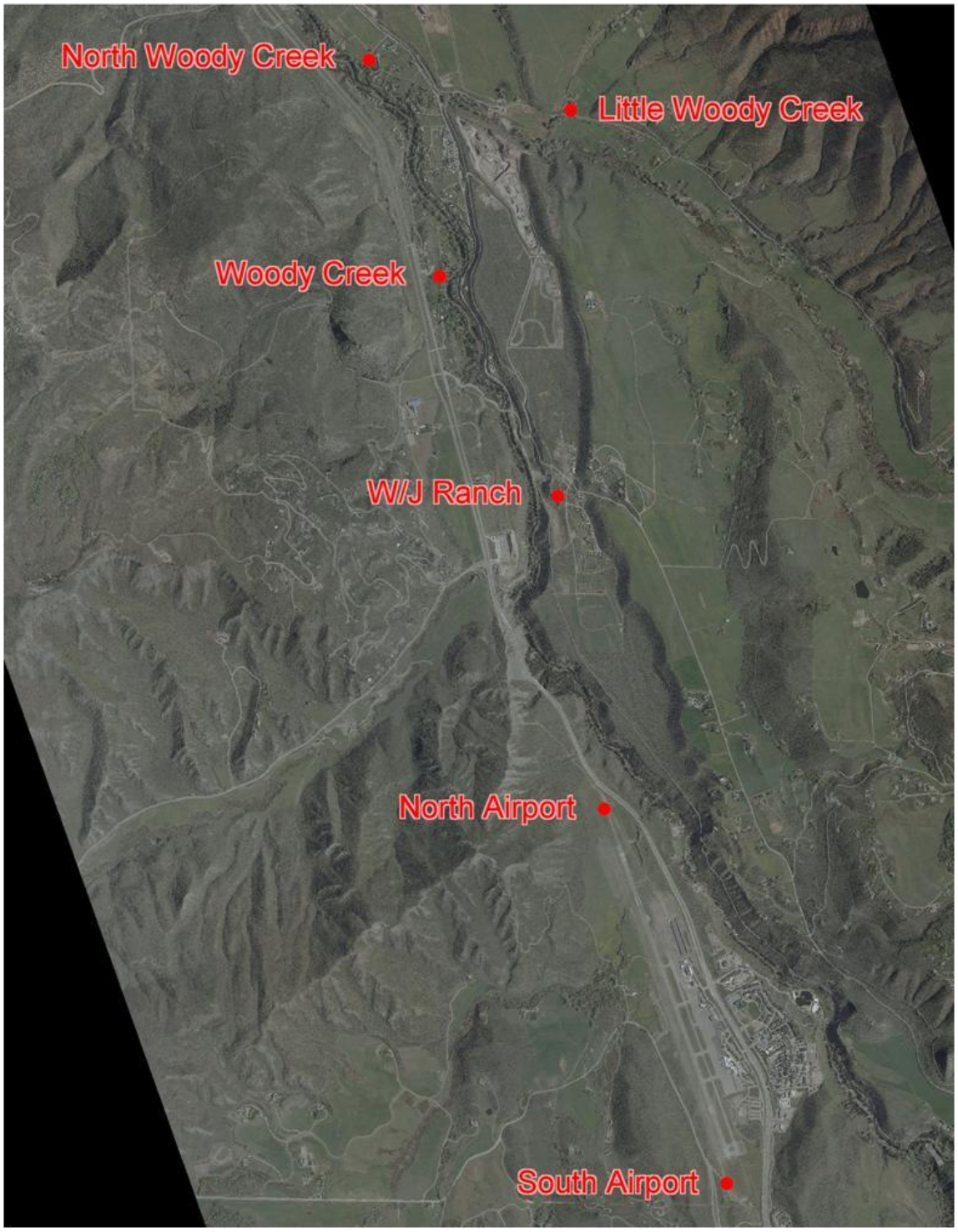
Table 1 - Noise Monitoring Locations

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 2018/19 winter period, November 1, 2018 – April 30, 2019. **Figure 4** shows the Loudest Noise Events for the 2019 summer measurement period, May 1, 2019 – October 31, 2019. 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.

Figure 3 - Loudest Noise Events, Winter 2018/2019– Woody Creek

Aspen/Pitkin County Airport Fly Green/Fly Clean

Period November 1, 2018 – April 30, 2019

Date Time	Flight ID	Airline	Aircraft	Oper	Runway	SEL	Scale
3/31/2019 7:04:00 PM	SDU299	Dumont Aviation	FA50	D	33	91.3	
1/23/2019 3:40:00 PM	N540EA	General Aviation	GLF3	D	33	90.9	
2/3/2019 8:45:00 PM	NDL500	Chrono Airline	FA50	D	33	90.6	
1/1/2019 5:33:00 PM	N175BG	General Aviation	GLF3	D	33	90.4	
1/6/2019 3:07:00 PM	N86TN	General Aviation	FA50	D	33	90.3	
2/3/2019 10:05:00 AM	N82CA	General Aviation	FA50	D	33	90.0	
4/5/2019 3:56:00 PM	N733M	General Aviation	FA50	D	33	89.4	
4/11/2019 8:42:00 AM	N151PW	General Aviation	G150	D	33	89.0	
1/22/2019 9:38:00 AM	SDU954	Dumont Aviation	FA50	D	33	88.6	
4/7/2019 9:52:00 AM	N634KA	General Aviation	FA50	D	33	88.5	
2/4/2019 11:24:00 AM	N773AG	General Aviation	BE50	D	33	88.4	
4/8/2019 10:53:00 AM	SDU299	Dumont Aviation	FA50	D	33	88.3	
12/23/2018 12:15:00 PM	N184LW	General Aviation	P180	D	33	88.3	
1/29/2019 12:05:00 PM	N540EA	General Aviation	GLF3	D	33	88.3	
2/17/2019 3:56:00 PM	N180NL	General Aviation	FA50	D	33	88.2	
11/23/2018 1:23:00 PM	N520WS	General Aviation	BE40	D	33	88.2	
1/25/2019 4:31:00 PM	N171TG	General Aviation	FA50	D	33	88.1	
1/6/2019 3:22:00 PM	N203DF	General Aviation	BE40	D	33	88.1	
2/24/2019 8:50:05 AM	N395LC	General Aviation	P180	A	15	88.0	
4/29/2019 11:39:00 AM	N151PW	General Aviation	G150	D	33	87.9	
1/12/2019 2:24:00 PM	N928BK	General Aviation	GLF3	D	33	87.9	
3/29/2019 8:45:32 AM	N481BR	General Aviation	P180	A	15	87.8	
4/11/2019 3:58:00 PM	N217MS	General Aviation	G150	D	33	87.8	
11/25/2018 1:58:00 PM	N987CF	General Aviation	FA50	D	33	87.7	
1/5/2019 5:38:13 PM	N928BK	General Aviation	GLF3	A	15	87.7	

Figure 4 - Loudest Noise Events, Summer 2019 – Woody Creek

Aspen/Pitkin County Airport Fly Green/Fly Clean

Period: May 1, 2019 – October 31, 2019

Date Time	Flight ID	Airline	Aircraft	Oper	Runway	SEL	Scale
9/28/2019 8:01:00 AM	N500LY	General Aviation	FA50	D	33	91.9	
6/11/2019 1:23:00 PM	N615CJ	General Aviation	P180	A	15	90.9	
7/8/2019 1:17:00 PM	N560TE	General Aviation	C56X	D	33	89.6	
9/17/2019 12:54:00 PM	N5UU	General Aviation	C560	D	33	89.5	
7/18/2019 10:18:00 AM	SDU299	Dumont Aviation	FA50	D	33	89.4	
10/11/2019 11:35:53 AM	N50JJ	General Aviation	P180	A	15	89.1	
7/2/2019 11:45:59 AM	N56CS	General Aviation	P180	A	15	89.0	
7/5/2019 11:52:13 AM	RAX625	Royal Air Freight	FA50	A	15	88.9	
7/23/2019 7:10:00 AM	SDU299	Dumont Aviation	FA50	D	33	88.9	
8/8/2019 11:45:00 AM	N888TX	General Aviation	C650	D	33	88.9	
5/21/2019 12:40:06 PM	SKW3250	Skywest Airlines	CRJ7	A	15	88.7	
10/21/2019 2:16:00 PM	N217MS	General Aviation	G150	D	33	88.6	
8/3/2019 8:19:00 AM	N408SF	General Aviation	P180	D	33	88.6	
7/7/2019 8:56:51 AM	N327A	General Aviation	P180	A	15	88.4	
8/2/2019 4:34:28 PM	SKW5500	Skywest Airlines	CRJ7	A	15	88.4	
7/20/2019 2:56:21 PM	N50JJ	General Aviation	P180	A	15	88.3	
7/17/2019 1:31:22 PM	N163LF	General Aviation	P180	A	15	88.2	
7/5/2019 10:54:00 AM	BLR05	United Express	FA50	D	33	88.2	
7/13/2019 8:32:52 AM	N615CJ	General Aviation	P180	A	15	88.0	
9/16/2019 2:35:00 PM	N787BN	General Aviation	G150	D	33	88.0	
8/26/2019 8:21:00 AM	LAK973	Lennox Airways	C560	D	33	87.9	
5/23/2019 7:36:57 PM	SKW5726	Skywest Airlines	CRJ7	A	15	87.9	
8/29/2019 7:16:00 PM	N987CF	General Aviation	FA50	D	33	87.8	
7/7/2019 12:33:00 PM	SKW2970	Skywest Airlines	CRJ7	D	33	87.7	
7/7/2019 4:12:00 PM	N166MC	General Aviation	C560	D	33	87.7	

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 newly 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.

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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 program results are presented in **Figures 5** through **8a-d. Figures 5** and **6** graphically shows 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 **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 in **BLUE**. Low scoring values are shown in **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 Quiet 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 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, Air Madeleine had the most improvement. For operators with less than 30 departures, Florida Jet Service had the most improvement.

For the operators with more than 30 departures per year, Sun Devil and XOJET Aviation had the highest FNQ scores of 10.0 and 9.9, respectively. For the smaller operators with less than 30 departures per year, the top operators earned a FNQ score of 10: Channel Island Aviation, Omni Air Transport, XCEL Jet, and Aspen Airways Inc.

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 reporting period is 8.0 out of 10. This is an improvement 1.3 FNQ over the base period (2006/2007) of 6.7, and a 0.1 decrease 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 4 or more departures per year, **Figure 7b** shows any aircraft that generated a high noise event.

Figures 8a – 8d 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. There were 109 single aircraft operators with aircraft with a FNQ of 9 or more and had at least 6 departures per year. This is down from last year's high of 146 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 11 Part 135 operators that generated high noise events throughout the year, with a total of 40 events. This is a significant increase from last year; it is due to the high noise event SEL threshold lowering from 90 SEL to 85 SEL and noise measurements being conducted year-round at the Woody RMS, capturing more events.

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 no high noise event associated with aircraft that had a good FNQ.

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

Aspen/Pitkin County Airport Fly Green/Fly Clean

ALCODE	ALName	Depts	FNQ Score Current	Delta	High Events	Arrivals RWY33
SVL	Sun Devil	36	10.0	0.0	0	1
XOJ	XOJET Aviation	367	9.9	0.0	0	0
OPT	Flight Options	210	9.8	0.2	1	0
RSP	Jetsuite Air	54	9.8	0.0	0	0
LXJ	Bombardier FlexJet	899	9.8	0.0	2	0
XSR	EAC Aircraft Management	120	9.6	0.0	0	0
EDG	Jet Edge	72	9.5	0.9	1	0
MLN	Air Madeleine	33	9.2	2.1	0	1
PXT	Pacific Coast Jet	38	9.1	-0.2	0	1
WWI	World Wide Jet Charters	36	8.8	-0.2	0	0
FTH	Mountain Aviation	161	8.7	0.8	3	1
TWY	Sunset Aviation	67	8.7	0.2	0	0
SIS	Silver Air	36	8.6	-0.8	0	0
DPJ	Delta Private Jet (Elite Jet)	185	8.6	-0.1	0	0
EJA	NetJets Aviation	2,346	8.2	0.1	3	0
EJM	Executive Jet Management	207	8.1	0.1	2	0
LAK	Lennox Airways	30	8.1	0.0	9	0
SJE	Sun Air Jets	34	8.0	-0.6	0	0
GAJ	Gemini	129	7.9	0.2	0	1
DCM	FltPlan	59	7.7	-1.0	0	0
JAS	Jet Aviation Flight Services	60	7.6	-1.0	3	0
SDU	Dumont Aviation	84	7.4	2.0	8	0
JTL	Jetall	213	7.4	0.1	7	0
IJA	International Jet Aviation	32	7.1		0	0
TFF	Talon Air	36	7.0	-0.2	0	0
NUS	Northern Illinois Flight Center	40	6.9	0.0	1	0
GTH	Meridian Air Charter	55	6.9	0.0	0	1

Airport Average FNQ Score 8.0

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

Aspen/Pitkin County Airport Fly Green/Fly Clean

Code	Airline Name	Dep	FNQ Score Current	Delta	High Events	Arrivals RWY33
CHN	Channel Island Aviation	22	10.0	0.5	0	0
DRL	Omni Air Transport	21	10.0	0.0	0	0
XLJ	XCEL Jet	17	10.0	0.0	0	0
ASP	AirSprint	18	10.0	0.0	0	0
RJC	Richmor Aviation	15	9.8	0.0	0	0
YEL	Summit Aviation	12	9.6		0	0
WSN	Advanced Air	10	9.6	0.3	0	0
FWK	Flightworks	26	9.6	0.4	0	0
DJR	Dreamjet	11	9.6	0.4	0	0
HPJ	Hop-a-Jet	10	9.5	1.2	0	0
JNY	Jenney Beechcraft	8	9.5	0.2	0	0
XLS	Excel-Aire Service	10	9.3	-0.5	0	0
SWD	Southern Winds	7	9.1	2.9	0	0
FJS	Florida Jet Service	15	9.0	6.3	0	0
KFB	STAjets	9	8.8	-0.4	0	0
KOW	Baker Aviation	11	8.8	0.6	0	0
PRD	Presidential Aviation	21	8.7	-0.2	0	1
FFL	Foreflight	6	8.7	0.5	0	0
PJC	Pittsburgh Jet Center	6	8.7	-0.3	0	0
PEG	Pelangi Air	25	8.6	0.0	0	1
DOW	Best Jets Intl	7	8.6	0.8	0	0
SBE	World Class Aviation	7	8.6	-1.4	0	0
OKC	Private Jets	19	8.5	0.7	1	0
DLX	Dreamline Aviation	9	8.5	-1.7	0	0
SVW	Global Jet Luxembourg	6	8.4	0.0	0	0
PFT	Air Cargo Express Intl.	7	8.4	0.2	0	0
GCT	G C Aviation	17	8.3	-1.1	0	0
PVO	Bearing Supplied Limited	9	8.3	1.8	0	0
LJY	LJ Aviation	10	8.3	-0.3	0	0
LKF	Aviation Advisor Inc.	16	8.3	-1.1	0	0
EGC	First Wing Aircraft	9	8.1	0.0	0	0
GLT	Aero Charter	7	8.1	0.2	0	0
PHJ	Peach Jet	12	8.1	0.3	0	0
SLH	Silverhawk Aviation	13	8.1	0.0	0	1
TTE	Avcenter	10	8.1	0.0	1	0
PRE	Precision Airlines	10	8.1	-0.1	0	0
DBC	Gemini Air	18	7.7	0.6	0	0
SCM	American Jet International	13	7.5	-0.7	0	0
STV	Saturn Aviation	11	7.3		0	0
CYO	Air Transport, Inc.(ATI Jet)	23	7.0	-0.6	1	0
SJJ	Spirit Aviation	15	7.0	1.5	0	0
BIA	Bohlke international	9	6.6	0.0	1	0
CWG	Clear Wing	17	6.6	0.8	0	0
PWA	Priester Aviation	23	6.5	-0.3	0	0
COL	Columbia Airlines	12	4.9	0.7	0	0
NSH	DB Aviation	27	4.9	-0.8	0	1
RAX	Royal Air Freight	8	4.2	-1.7	1	0
MJS	Aircharters Worldwide	6	3.9		0	0
SIY	Executive Aviation	8	3.9	-0.8	0	0
NDL	Chrono Airline	0	3.6		0	0
CNS	Centennial Flight Centre	16	3.0	0.6	0	0
RGY	Regency Airlines	17	2.0	0.0	6	0

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

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

Tail Nbr	AC_Reg	Aircraft Type	Flts	FQ Score	High Events	Arr RW33
N275KH	75 EXPRESS INC	BE40	6	2.02	0	0
N302TB	MOSER AVIATION LLC	BE40	26	2.02	0	0
N390SB	400XP SHARES LLC	BE40	10	2.02	0	0
N400WF	TWO RIVERS AVIATION LLC	BE40	17	2.02	3	1
N826JM	SOUTHLAND AIRWAYS LLC	BE40	8	2.02	0	0
N959CR	TETON AVIATION LLC	BE40	9	2.02	0	1
N258FV	BURNT ORANGE FIVE LLC	FA50	6	3.64	0	0
N500LY	1380 JETS LLC	FA50	7	3.64	2	0
N634KA	BB WESTWIND LLC	FA50	15	3.64	1	0
N733M	JAPC INC	FA50	17	3.64	3	0
N82CA	AMC AVIATION LLC	FA50	11	3.64	3	0
N987CF	PEEKEY LUMBUS LLC	FA50	33	3.64	6	0

Figure 8b - 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 0 or less

Tail Nbr	AC_Reg	Aircraft Type	Flts	FQ Score	High Events	Arr RW33
N540EA	AC AVIATION LLC	GLF3	5	0.00	3	0
N167BR	HHF AVIATION LLC	FA50	4	3.64	1	0
N171TG	TUDOR INVESTMENT CORP	FA50	4	3.64	1	0
N700JC	OXLEY JOHN C TRUSTEE	SBR1	4	0.00	1	0
N86TN	EKFJ LLC	FA50	4	3.64	2	0
N180NL	N180NL HOLDINGS LLC	FA50	3	3.64	1	0
N31ST	NATOLI AVIATION LLC	BE40	3	2.02	1	0
N203DF	FAST AIR LLC	BE40	2	2.02	2	0
N303PM	303PM LLC	FA50	2	3.64	3	0
N50KD	MEREGRASS INC	FA50	2	3.64	1	0
N939KM	DOUBLE X LLC	GLF3	2	0.00	0	0
N950H	ISLAND AVIATION INC	FA50	2	3.64	1	0
N139MS	PHILLIPS STEPHEN N	L39	1	0.00	0	0
N175BG	CONTEMPORARY VISTA LLC	GLF3	1	0.00	1	0
N205JA	BALLENGEE AVIATION LLC	FA50	1	3.64	1	0
N291FJ	VULCAN MATERIALS CO	FA50	1	3.64	1	0
N360MB	N360MB LLC	GLF3	1	0.00	0	0
N502JV	JETVUE TEXAS LLC	LJ25	1	0.00	0	0
N511PK	SILVERSTAR PARTNERS LLC	GLF2	1	0.00	0	0
N520WS	MMU AVIATION LLC	BE40	1	2.02	1	0
N77ME	JDR MANAGEMENT LLC	FA50	1	3.64	1	0
N928BK	WHITEHORSE AIR LLC	GLF3	1	0.00	2	0
N945PK	SILVERSTAR PARTNERS LLC	GLF2	1	0.00	0	0

Figure 9a - High Score Fleet Quality Rating, Single Operators, Part 1
Aspen/Pitkin County Airport Fly Green/Fly Clean

ACID	ACTYPE	AC_Reg	Flts	FQ Score
N108JA	E50P	TERRAPIN AIRCRAFT LLC	106	9.84
N925EM	C25B	AS ASPEN LLC	88	10.00
N569EE	E55P	CORVIS AVIATION LLC	36	9.84
N49PW	C750	PENNER GREG B	33	10.00
N235EE	E55P	TCN TRANSPORT 300 LLC	27	9.84
N358JJ	C25B	CORAL AIR LLC	24	10.00
N241LJ	LJ45	DOUBLE WHISKEY AVIATION LLC	22	10.00
N750NA	C750	N A CITATION (2012) LLC	22	10.00
N795HC	C525	N795HC LLC	22	10.00
N751MM	C750	MORGANS MACH ONE MACHINE LLC	20	10.00
N471TD	E55P	300 PHENOM LLC	18	9.84
N401FT	GLF4	EJS - EXECUTIVE JET SHARES INC	16	9.78
N218KF	CL30	KW FLIGHT LLC	15	9.84
N300FJ	E55P	RICHBUILT CONSTRUCTION LLC	15	9.84
N400HG	GLF4	STARFLITE MANAGEMENT GROUP INC	15	9.78
N85VM	C25B	VMI ENTERPRISES LLC	15	10.00
N45NP	LJ45	F & S LLC	14	10.00
N872J	C25B	JACKSONS FOOD STORES INC	14	10.00
N256WB	CL30	TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	13	9.84
N448LL	C525	CHO OYU LLC	13	10.00
N63WG	LJ75	GOLD KEY AVIATION LLC	13	10.00
N874C	GLF4	TRANS-EXEC AIR SERVICE INC	13	9.78
N211JH	C525	JDHIM-XLS LLC	12	10.00
N323KP	E55P	TOBARTHS LLC	12	9.84
N717JJ	CL30	PITA MAGOO HOLDINGS LLC	12	9.84
N85BZ	E55P	DAT-II LLC	12	9.84
N913MK	GLF4	GR AIRCRAFT ACQUISITION LLC	12	9.78
N390SA	PRM1	TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	11	9.69
N39RP	PRM1	GRAND QUINBY DTLA LLC	11	9.69
N420EH	C525	MACH ONE CJ2 LLC	11	10.00
N450EF	GLF4	NDM AVIATION LLC	11	9.78
N454N	LJ45	OAG AVIATION LLC	11	10.00

Figure 8b - High Score Fleet Quality Rating, Single Operators, Part 2

Aspen/Pitkin County Airport Fly Green/Fly Clean

ACID	ACTYPE	AC_Reg	Flts	FQ Score
N713FL	C750	WELLS FARGO TRUST CO NA TRUSTEE	11	10.00
N819CW	C25B	SKYBANK LLC	11	10.00
N160BP	LJ60	BEESON JOHN S	10	10.00
N1963N	GLF4	WATER FORCE ONE LLC	10	9.78
N238RM	C525	SACJ LLC	10	10.00
N300MG	E55P	EON MANAGEMENT LLC	10	9.84
N70VM	C25B	VMI ENTERPRISES LLC	10	10.00
N718MV	C25C	FOXY AIR 2009 LLC	10	10.00
N758XJ	C750	JMP CITATION LLC	10	10.00
N862LG	E55P	CORNERSTONE AVIATION LLC	10	9.84
N96PB	C25B	BANK OF UTAH TRUSTEE	10	10.00
N116HF	CL30	HAVEN JET LLC	9	9.84
N197JS	CL30	US BANK NA	9	9.84
N21GV	C25B	VILDOSOLA AVIATION LLC	9	10.00
N341AE	LJ40	CONQUEST EXPRESS LLC	9	10.00
N51BT	C25B	400 KNOT AVIATION LLC	9	10.00
N650VM	C25M	TTX HOLDINGS LLC	9	10.00
N703DM	C750	PAPA GRANDE AVIATION LLC	9	10.00
N711R	LJ45	COCKRELL RESOURCES INC	9	10.00
N820AV	GLF4	TVPX ARS INC TRUSTEE	9	9.78
N858EE	E55P	RBL AVIATION LLC	9	9.84
N17XR	C750	PEREGRINUS LLC	8	10.00
N236KR	GLF4	FOOTHILL TECHNICAL LLC	8	9.78
N316K	CL35	CORPORATE JET LEASING COMPANY LLC	8	9.84
N424PX	GLF4	NF AIR VENTURES LLC	8	9.78
N459SF	LJ60	PHILLIPS AVIATION COMPANY LLC	8	10.00
N502P	GLF4	PRITZKER REALTY GROUP LLC	8	9.78
N513RV	C525	WOOD PAUL R	8	10.00
N529GB	E35L	BMH AIR LLC	8	9.84
N558WG	C525	AUTOMATIC PRESS LLC	8	10.00
N605WG	E135	TVPX AIRCRAFT SOLUTIONS INC TRUSTEE	8	9.84
N621PR	C25C	BANK OF UTAH TRUSTEE	8	10.00

Figure 8c - High Score Fleet Quality Rating, Single Operators, Part 3

Aspen/Pitkin County Airport Fly Green/Fly Clean

ACID	ACTYPE	AC_Reg	Flts	FQ Score
N701WC	GLF4	KALIHIWAI AVIATION LLC	8	9.78
N7799T	GLF4	SN 1474 LLC	8	9.78
N816BL	C25B	FLIGHT DYNAMICS LLC	8	10.00
N894JW	E35L	GSM ASSETS LLC	8	9.84
N98QC	LJ70	J BROS LLC	8	10.00
N104RJ	LJ60	HALRIVE AIR LLC	7	10.00
N178CM	E50P	N178CM LLC	7	9.84
N1EG	PRM1	MALIBU LEASING CORP	7	9.69
N236CA	GLF4	G-IVSP N236CA LLC	7	9.78
N318JS	CL30	U S BANK NA	7	9.84
N34SJ	C25B	GAMMA2 INC	7	10.00
N352VJ	CL35	BANK OF UTAH TRUSTEE	7	9.84
N354VJ	CL35	BANK OF UTAH TRUSTEE	7	9.84
N448CJ	C25C	WINGS & WHEELS LLC	7	10.00
N52ZG	C25M	LIFT AVIATION LLC	7	10.00
N53NW	C25B	CAPITAL CITY JET CENTER INC	7	10.00
N570DC	GLF4	WEBSTER AIR LLC	7	9.78
N750GB	C750	ACCENT STRIPE INC	7	10.00
N785DF	C25C	AIRJAY LLC	7	10.00
N858CB	C25B	GUNTHER AIR LLC	7	10.00
N955TX	C25B	FIVE TEX AVIATION LLC	7	10.00
N98CH	C25C	HARRELL VENTURES LLC	7	10.00
N100LX	C501	CASH IS KING AIR GP LLC	6	10.00
N165MV	E55P	COLUMBIA ASSET TRUST CO TRUSTEE	6	9.84
N181KA	C525	JDHIM-XLS LLC	6	10.00
N21NV	LJ60	VINESTE LLC	6	10.00
N268RB	GLF4	GABY N268RB LLC	6	9.78
N329BH	C25B	ASPEN AIR LEASING LLC	6	10.00
N333JK	PRM1	PREMIER RB-159 LLC	6	9.69
N345PF	C25C	FRANKLIN MOUNTAIN ASSETS II LLC	6	10.00
N354WG	CL30	AUTOMATIC PRESS LLC	6	9.84
N395BC	LJ45	SOUTHWEST AIRCRAFT CHARTER L C	6	10.00

Figure 8d - High Score Fleet Quality Rating, Single Operators, Part 4

Aspen/Pitkin County Airport Fly Green/Fly Clean

ACID	ACTYPE	AC_Reg	Flts	FQ Score
N471MD	C525	525 CJ LLC	6	10.00
N500SD	C25A	SDI LEASING LLC	6	10.00
N525MP	C25B	BIRDWELL EQUIPMENT LEASING GP LLC	6	10.00
N57HA	CL30	U S BANK NA	6	9.84
N585EP	C525	SONGBIRD LLC	6	10.00
N600VM	C25M	VMI ENTERPRISES LLC	6	10.00
N622KH	C750	GLOBAL TRANSPORT LLC	6	10.00
N804SW	E55P	ECHO MATRIX LLC	6	9.84
N818WF	CL30	STEEL AIR LLC	6	9.84
N868DM	C750	P&G AVIATION LLC	6	10.00
N918DG	LJ45	N196SC LOUISIANA LLC	6	10.00
N941SP	CL30	SCHWARZ PARTNERS LP	6	9.84
N955GH	C750	LA MUSE PARTNERS LLC	6	10.00

4. 2019 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
SVL	Sun Devil	36
XOJ	XOJET Aviation	367
OPT	Flight Options	210

- 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	22
DRL	Omini Air Transport	21
ASP	AirSprint	18

- Operators that were most improved from previous year (2018)

MLN Air Madeleine (30 or more departures per year)
FJS Florida Jet Service (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
RSP	Jetsuite Air	54
XSR	EAC Aircraft Management	120
MLN	Air Madeleine	33
PXT	Pacific Coast Jet	38

Less than 30 departures per year

Operator Code	Operator	Departures
RJC	Richmor Aviation	15
YEL	Summit Aviation	12
WSN	Advanced Air	10
FWK	Flightworks	26

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 – 2019. Each of the four categories shows significant improvement year over year. This report focuses on the 2019 Fly Green/Fly Clean Airport Reporting period.

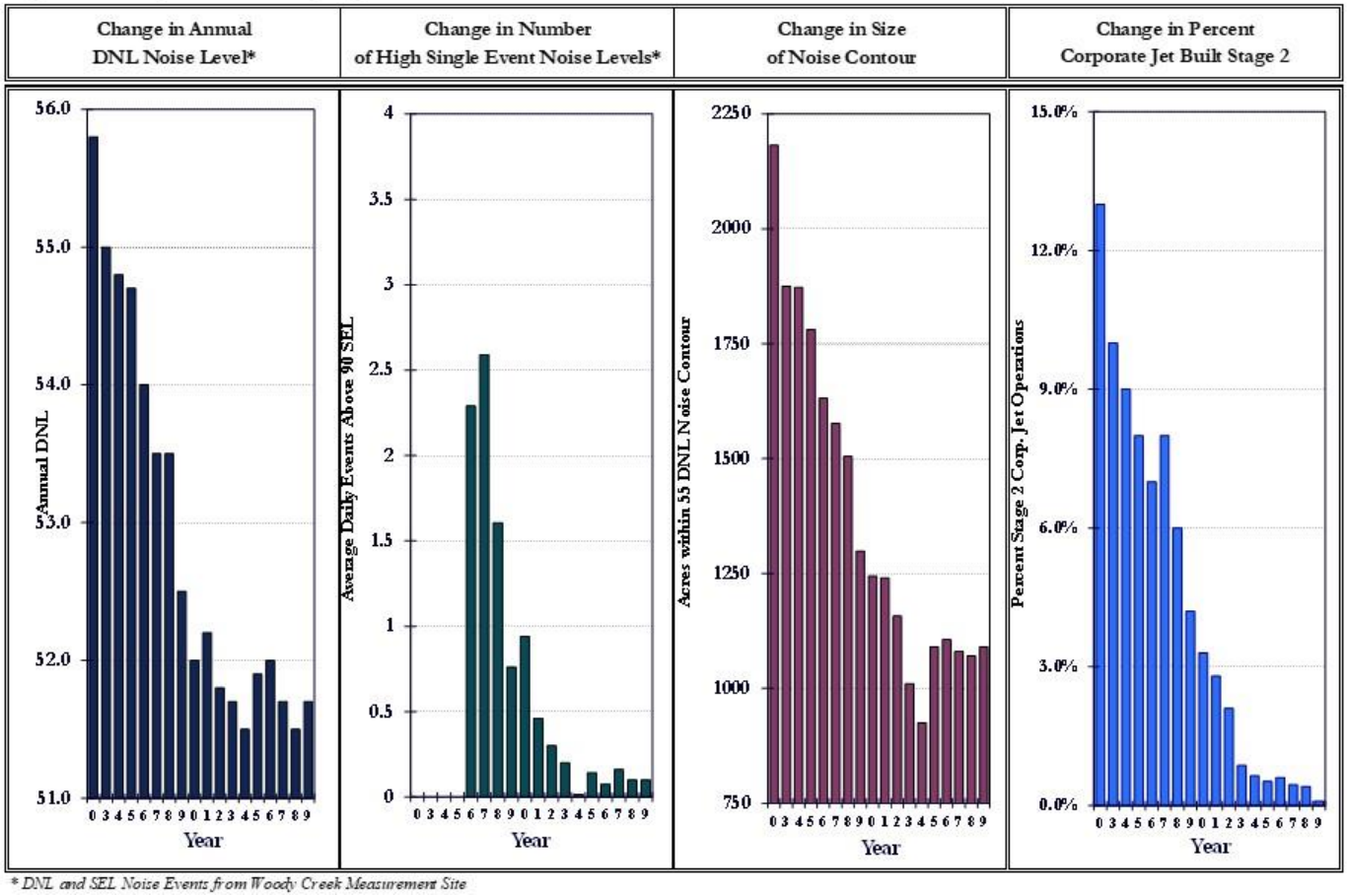
The number of built Stage 2 operations accounted for 0.1% of all corporate jet operations. The number of High Single Event Noise Levels average well less than one per day (0.1 events per day). The lower number of high noise events can be directly correlated with the continued reduction of husk kit Stage 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 increased at less than 1,090 acres in the 55 DNL. This can also be attributed to an increase in total operations; however, the fleet quality continues to improve.

Figure 9 - Historic Overall Airport Comparison (2019)

Aspen/Pitkin County Airport Fly Green/Fly Clean

SEL, DNL, ACRE & FLEET MIX SUMMARY (2019)

Aspen/Pitkin Airport Noise Summary Report



* DNL and SEL Noise Events from Woody Creek Measurement Site