MEMO:

To: Community Members, Board of Directors, ACAT and Staff From: Michael Cooke, Aviation & Community Services Manager

Subject: Community Comments & Operations Report- 3rd Quarter 2014

Date: November 14, 2014

New Data Gathering Equipment and Processing

The collection and processing of operations data changed significantly during the 3rd quarter of 2014. The contract with former data processor, Exelis, ended, and the awarded contractor, Vector, commenced in July. Staff decided to forgo retaining both contractors during the transitional period as it was cost prohibitive. Camera data through the camera vendor, TTI Wireless, was captured during the reporting period and was used as the underlying basis of this report.

During installation and optimization of the new system, milestones were used to verify performance and completion of the changeover. As a result, not every feature was available during the reporting period. For example, the Vector cameras installation milestone was mid-August. Track imagery as correlated to comments were incomplete for the period, however a sample of the final product is attached for review. Data from all reporting systems was captured will be retained for future analysis needs.

Operations Analysis

A continued industry-wide shift in the fleet mix away from piston powered aircraft toward increasing numbers of turboprop and jet operations is consistent with forecasts. The trend can be seen at KTRK as well. Piston aircraft operations are down from last year to date while Turboprop and Jet operation have grown. The most significant growth by aircraft type year to date occurred with Jets under 12,500lbs and Turboprops. Leading the category by model is the Pilatus PC12 turboprop, which compromises just over 50% of all Turboprop operations. This equates to about 650 operations. Since May of 2014 an on-demand operator selling membership based flight services, Surf Air, has operated to and from KTRK. Staff has closely monitored the operator and has had excellent experience when reaching out to them for 1 instance of mitigation this quarter.

Night Ops

Staff continued efforts to capture and report operations in the overnight and early morning hours. One cancellation of a Fly Quite incentive was processed during the reporting period. 17 operations occurred after 11 pm and before 6:30 am in Q3, excluding medical helicopter flights. Of those 17 operations, 7 were at least 10 minutes into the curfew period, 1 of which was a medical flight operation. The remaining 9 were on the cusp of a curfew periods but did not violate incentive agreements. 2 operations were preapproved for Young Eagles events. Please note the night curfew period is 11 pm to 6 am. Based on the relatively small number of night operations, staff chose to include operations up to the 6:30 am Fly Quiet 2 mark to demonstrate overall volumes of activity during the quarter and to highlight that the peak of "night" operations occurs around 6 am.

In an effort to better understand demand drivers for night or early morning operations, staff called and emailed 2 of the non-incentivized transient operators who were responsible for 4 of the operations but did not receive replies.

Night Ops by day/time (rounded to hour)

	Hour		Ì			
Day	5 am	6 am	7 am	12 am	1am	Total
Mon		4		1		5
Tue		2	1			3
Wed					1	1
Thu		4				4
Fri	1	2				3
Sat		1				1
Total	1	13	1	1	1	17

Comment Volume Growth

The overall number of comments rose significantly for the quarter. 47 commenters generated 171 comments from 10 out of 12 reporting residential areas. 2 commenters were new. The growth in comments can be attributed to 5 residents who submitted between 10 and 20 comments each, or 47% of gross. Staff has reached out to each of these residents, often on multiple occasions, and worked on their behalves and other commenters to make operator contact where possible and necessary.

51% of total comments were received via the TTAD website which was launched in April and offers new and improved reporting capabilities. The ease and speed of comment entry is perhaps the least cumbersome method, however the details which allow for correlation to flight tracks are often missing and can create considerable detective work for staff trying to contact operators. Specifically, aircraft type is often left blank and allows for larger quantities in the report for unknown types. Staff is looking into changing the web comment entry form to address this issue as well as discussion of automation options within the new NOMs system.

With regard to night operations, 2 comments were made on operations in the 11 pm hour during the quarter.

Comments by Area

23 commenters were single event annoyance. 24 commenters made multiple reports. The most comments from a single household was 20. The character of this type of annoyance tends to be driven by a lack of understanding about where aircraft should be in relation to the household. Staff experience has been that residents believe airplanes should not fly over residential areas. Some discussion with commenters centered around the normal and customary location of an aircraft while on arrival or departure to the airport.

Olympic Heights had the largest number of comments of any residential area with 58 for the quarter. Comments center on 29 departures making turns to the north before the Bypass Bridge. Airport staff have reached out to residents with phone calls as well as physically going door to door in the neighborhood to discuss noise and explain TTAD mitigation efforts.

Comments by Type

All comments by type were up for Q3, however many comments for Q3 have an unknown aircraft type associated to them and 2 of those were military. Several contributing factors have been identified, primarily the number of comments from the web which do not have type identification. Accuracy in determining operations by type will improve with an update to the entry form and an increase in track correlation. Staff speculates that Piston and Turboprop categories for the web reports were blended as "Propeller" and made efforts to correct this in the tabular report.

Comment Outreach Efforts

Outreach to commenters and follow ups to comments occurred continuously throughout the period. Some commenters expressed that they did not need a follow up, while others were more demanding. Community member outreach is largely driven by complaint; it can be as simple as informing the commenter of the type of operation to following up with data and confirmation of operator outreach.

Staff made operator contact via ramp interactions, email, mail and phone calls. All operators with whom staff engaged were open to discussion and willing to make efforts to mitigate community annoyance. A sample outreach letter with track imagery follows under Special Reports. Staff does not have a firm numerical value to quantify operator outreach for the quarter overall since many pilot interactions occurred in person on the airfield between multiple staff members. 10 notification letters were mailed and 4 operators were contacted via email.

Special Reports

The following reports fall outside of the parameters of the typical quarterly report.

Special Report 1: Unique Commenter Situation

During the 3rd Quarter of 2014, a new homeowner to the area began an active reporting campaign based almost exclusively on operations by glider towplanes. District staff received phone calls, direct emails, and 1,261 comments via the website.

The residence is located in the Juniper Hills area above Glenshire. The commenter claims to have a medical condition, tinnitus, which makes her hyper-sensitive to noise, which is causing her severe detrimental health issues. She expressed on multiple occasions that the sounds, especially of aircraft, stay with her long after the noise event. She is also allergic to dogs and made comments that she cannot get out of the house much as there are so many places in Truckee where dogs are allowed.

Staff including Kevin Smith, Hardy Bullock, and Michael Cooke corresponded with the homeowner and made multiple efforts to reach out to operators in the area, namely Soar Truckee to see if there was anything the airport could do to assist. Soar Truckee was cooperative with District requests to avoid overflights, however this did little to mitigate the annoyance. After a meeting with District staff as well as Soar Truckee and even with efforts made by Soar Truckee, the homeowner was not satisfied and began a campaign against the operator via the Reno FAA FSDO, Flight Standards District Office. An investigation by FSDO found no FAA regulation violations.

Staff has not looked at each complaint individually. A sample review of tracks shows vicinity activity but it is generally above 1,500 as the towplane climbs to an altitude to release the glider. The draw to the area for soaring is the "hot rocks" region which offers consistent convective currents to sailplanes. While the bulk of comments are primarily aimed at towplane operations, helicopter, jet and higher altitude aircraft transitioning the area have been the subject of comments as well.

The unique nature of the phone conversations and sheer volume of comments made it impossible to handle within the current constructs which the District uses to report community annoyance. This special report is intended to make the Board aware of this unique commenter and offer opportunity for any staff guidance.

Analysis by type and day Q3 2014:

Day	Qty				
Sunday	255				
Monday	178				
Tuesday	175				
Wednesday	115				
Thursday	115				
Friday	241				
Saturday	182				
Grand Total	1261				

Type	Qty
Helicopter	13
Jet	83
Propeller	958
Unknown	207
Grand Total	1261

Special Report 2: Commenter Request for Board Review

Commenter Request for Board Review:

Commenter: Ted Lipien, Greenwood Dr, Prosser Lakeview

Date: 09/01/2014, Monday, Labor Day between 2 - 3 pm local Location: Prosser Lakeview

- "Large jet making tremendous noise flying over the neighborhood."
- "Another very noisy jet flying over the neighborhood in less than 10 minutes after an earlier one."
- "Yet another loud jet flying over the neighborhood -- a third one in less than 20 minutes. Please share with Airport Board members."
- "Fourth loud jet over the neighborhood in less than 30 minutes."
- "Sixth loud jet over the neighborhood in less than 50 minutes. Times given in some of the previous reports today were in EDT."
- "Seventh loud jet over the neighborhood in slightly less than an hour."

"Please generate the fifth noise report. There were indeed six jets, about ten minutes apart flying over the neighborhood. I did not report two prop planes during that time. They were not as loud but hardly a pleasant sound. I would appreciate it if you would share these reports with Board Members as proof that expanding support for jet traffic is indeed turning what is already a plane noise Sierra/Truckee/Tahoe valley and mountain trails into a much worse jet noise Sierra/Truckee/Tahoe valley and mountain trails. Please include this comment for Board members as well. "Image: Departures from KTRK 9/01/2014 from 1400 to 1500 Local; 15 total: 5 Jet, 4 Turboprop, 6 Piston



Page **5** of **8**

3: Sample of Operator Outreach:



TRUCKEE TAHOE AIRPORT DISTRICT
10356 Truckee Airport Rd.
Truckee, CA 96161
(530) 587-4119 tel
(530) 587-2984 fax
WWW.TRUCKEETAHOEAIRPORT.COM

DIRECTORS

MARY HETHERINGTON

JOHN JONES

JAMES W. MORRISON

J. THOMAS VAN BERKEM

LISA WALLACE

September 16, 2014

Aircraft Operator c/o Bank Trust Inc 123456 Road Rd Sacramento, CA 95828

To the Operator of NXXX

Please be advised a recent operation at Truckee Tahoe Airport generated community annoyance. We make every effort to ensure good community relations and kindly ask that you review our Noise Abatement Procedures before your next visit. A copy of the flight track is attached with a short description of the annoyance. We understand there are a variety of factors which influence the course and altitude of aircraft flying in our area, and we appreciate all efforts which ensure safe operations. Your assistance in helping us minimize the impact to our neighbors, who fund our airfield, is greatly appreciated.

Thank you for your assistance. We look forward to serving you as our guest, and should you have any questions or need any information, please call, email, or visit me at your earliest convenience.

Best Regards,

Michael A Cooke Aviation and Community Services Manager 530.587.4119 x108

3: Sample of Operator Outreach continued:

Date & Time: 09/30/2014 15:33

Operation: Departure Runway 29

Comment Location: Olympic Heights

Comment Type: Low, Dangerous, Off course

Track Image: Flight Path Yellow, Comment Location Blue Cross, Suggested alternative highlighted in Red

e k × KIRK

Page **7** of **8**

4: Sample of Report for Track Correlations:

NOISE COMPLAINT REPORT

COMPLAINT ID: 4518
COMPLAINT TYPE: Off Course

OPERATION TYPE: UNKNOWN

RUNWAY: A/C TYPE: DATE AND TIME: Aug 29 2014, 02:16 PM
POINT OF CLOSEST APPROACH(PCA): 0.14 nm

ALTITUDE AT PCA: 6700 ft



Staff Review:

29 Piston Twin Departure Complaint type: Off Course

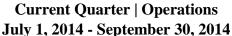
Commenter believes his pond is being used as a VFR waypoint for departures.

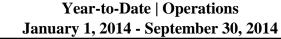
Altitude at PCA is 1,100'

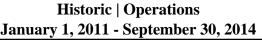


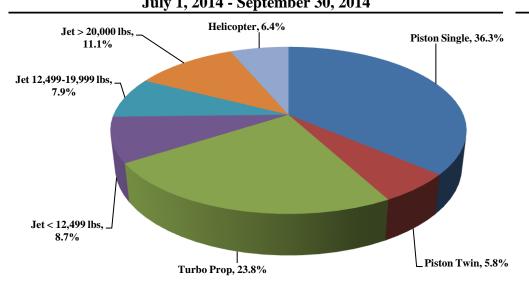
TRUCKEE TAHOE AIPORT DISTRICT **Operations and Community Comment Report** as of 9/30/2014

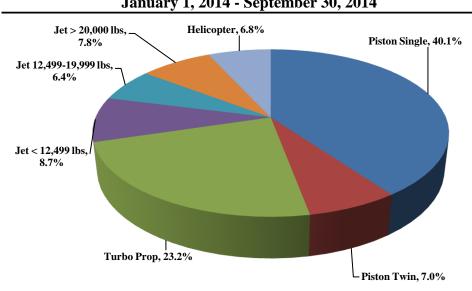


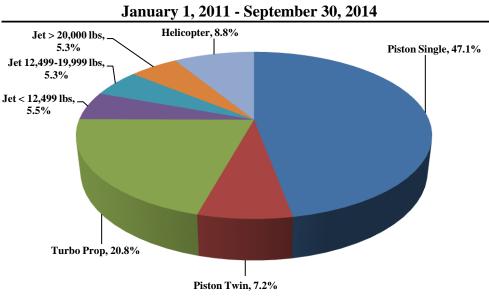












Total Powered Aircraft (before Modification)

5,364

Olympic Heights,

33.9%

Ponderosa, 11.1%

171

57

0.0%

Total Powered Aircraft (before Modification)

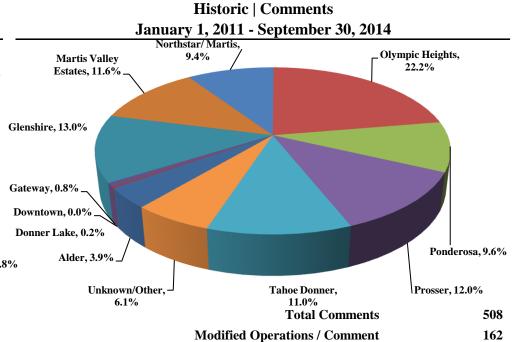
12,523

Total Powered Aircraft (before Modification)

56,016

Current Quarter | Comments July 1, 2014 - September 30, 2014 Martis Valley Northstar/ Martis, Gateway, 0.6% Glenshire, 14.0% Estates, 2.3% Downtown, 0.0%

Year-to- Date | Comments January 1, 2014 - September 30, 2014 Northstar/ Martis. 9.5% Martis Valley Olympic Heights, **Estates**, 2.6% Glenshire, 14.3% Gateway, 0.4% Downtown, 0.0% Donner Lake, 0.4% Alder, 4.3% Unknown/Other, Tahoe Donner, Prosser, 9.1% 10.4% **Total Comments** 231 **Modified Operations / Comment** 80



Notes

April 2014 - Launched new TTAD Website with 'Report Noise' link.

Prosser, 10.5%

Total Comments

Modified Operations / Comment

Q3-2014 - Total Commenters - 47

Tahoe Donner,

12.9%

Donner Lake, 0.6%

Alder, 5.8%

Unknown/Other

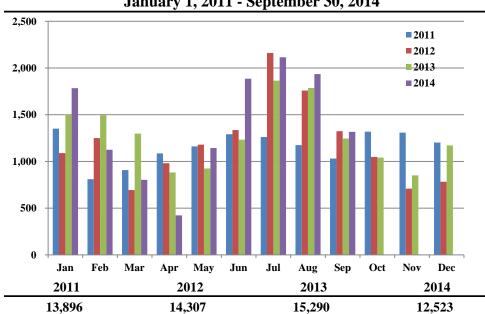
8.2%



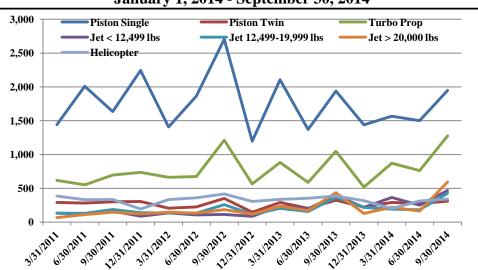
TRUCKEE TAHOE AIPORT DISTRICT Operations and Community Comment Report as of 9/30/2014



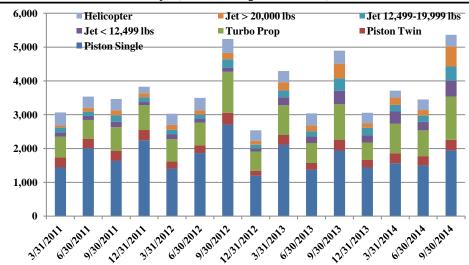
Operations | by Month by Year January 1, 2011 - September 30, 2014



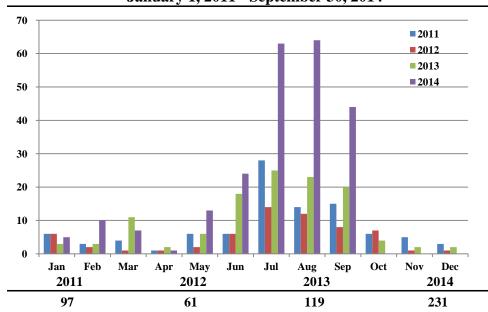
Operations | by Type by Quarter January 1, 2014 - September 30, 2014



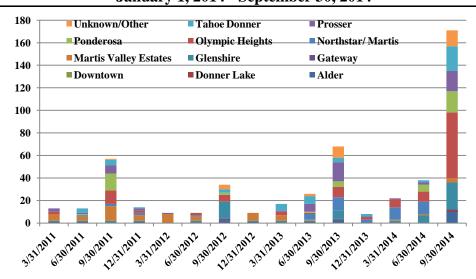
Operations | Mix by Type by Quarter January 1, 2011 - September 30, 2014



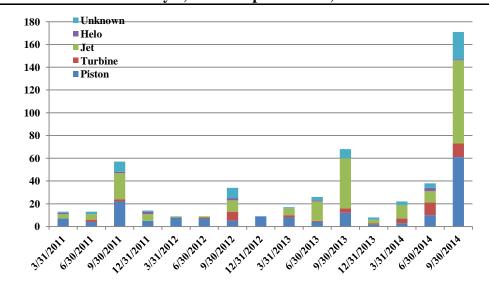
Comments | by Month by Year January 1, 2011 - September 30, 2014



Comments | by Locale by Quarter January 1, 2014 - September 30, 2014



Comments | by Type by Quarter January 1, 2011 - September 30, 2014



Notes



Truckee Tahoe Airport District Operations and Community Comment Report as of 9/30/2014



OPERATIONS 2013 2014 Year to Date Jul Aug Sep Q3 Jul Aug Sep Q3 difference 2013 2014 difference Notes **Operations Detail** 504 84 294 94 112 126 102 Piston Single
Piston Twin
Turbo Prop
Jet < 12,499 lbs
Jet 12,499-19,999 lbs 5,016 878 2,911 1,084 801 977 856 547 76 234 92 114 1,939 324 1,048 396 368 766 118 514 182 156 678 108 468 192 158 222 108 1,948 310 1,276 468 426 5,416 820 2,518 828 728 (7.39%) 7.07% 15.61% 30.92% 10.03% 138 414 158 124 0.46% (4.32%) (14) 228 72 58 21.76% 18.18% 15.76% 158 (43) 246 132 Jet > 20,000 lbs158 125 82 100 594 342 15.48% (20.30%) 196 160 436 385 36.24% 846 1,074 131 (218) Helicopter (11.17%)Total Powered Aircraft (before Modification) 1,865 1,786 1,245 4,896 2,114 1,934 1,316 5,364 468 9.56% 12,230 12,523 293 2.40% 3,957 4,780 0.00% Gliders 1,319 1,319 1,319 1,319 1,319 1,319 3,957 0.00% 4,780 Total Operations (before Modification) 3,184 3,105 2,564 8,853 3,433 3,253 2,635 9,321 468 5.29% 17,010 17,303 293 1.72% **Modified Operations** Total Powered Aircraft (above) 5,364 468 12,230 12,523 2.40% 4,896 9.56% 293 9 0.46% 5,016 (400)Piston Single 1,939 1,948 5,416 (7.39%)Helicopter 385 342 (43) (11.17%)1,074 856 (218)(20.30%) subtotal 2,324 2,290 (34)(1.46%)6,490 5,872 (618)(9.52%)Modifier 20% 20% 18% 18% 465 458 1,086 (90)(7.65%)Modification (7) (1.51%)1,176 Total Powered Aircraft (after Modification) 5,361 5,822 461 8.60% 13,406 13,609 203 1.51% 3,957 3,957 0.00% 4,780 4,780 0.00%Total Operations (after Modification) 9,318 9,779 461 4.95% 18,389 203 1.12% 18,186

						COMME	ENTS								
		2	013		2014						Year to Date				
	Jul	Aug	Sep	Q3	Jul	Aug	Sep	Q3	difference	%	2013	2014	difference	%	Notes
Comment Location															
Alder	2	1	-	3	6	3	1	10	7	233.33%	4	10	6	150.00%	
Donner Lake	-	-		-	-	1	-	1	1	100.00%	-	1	1	100.00%	
Downtown	-	-		-	-	-	-	-	-	0.00%	-	-	-	0.00%	
Gateway	1			1			1	1		0.00%	1	1		0.00%	
Glenshire	-	4	3	7	7	14	3	24	17	242.86%	10	33	23	230.00%	
Martis Valley Estates					3	1		4	4	100.00%	6	6		0.00%	
Northstar/ Martis	3	5	4	12				-	(12)	(100.00%)	17	22	5	29.41%	
Olympic Heights	5	1	3	9	24	21	13	58	49	544.44%	13	74	61	469.23%	
Ponderosa		1	4	5	2	4	13	19	14	280.00%	6	25	19	316.67%	
Prosser	10	4	3	17	5	4	9	18	1	5.88%	25	21	(4)	(16.00%)	
Tahoe Donner	$\frac{1}{2}$	1	1	4	10	10	2	22	18	450.00%	17	24	7	41.18%	
Unknown/Other	2	6	2	10	6	6	2	14	4	40.00%	12	14		16.67%	
Total Comments	25	23	20	68	63	64	44	171	103	151.47%	111	231	120	108.11%	-
Comment Type															
Piston	9	1	2	12	23	21	17	61	49	408.33%	24	74	50	208.33%	
Turbine	$\frac{1}{2}$	2		4	6	3	3	12	8	200.00%	7	27	20	285.71%	
Jet	14		13	44	24	28	21	73	29	65.91%	67	95	28	41.79%	
Helo	-	-			1	-	-	1	1	100.00%	1	4	3	300.00%	
Unknown	-	3	5	8	9	12	3	24	16	200.00%	<u> </u>	31	19	158.33%	
Total Comments	25	23	20	68	63	64	44	171	103	151.47%	111	231	120	108.11%	-
	-	-	-	-	-	-	-	-	-	0.00%		-		-	-
Operations per Comment				137				57	(80)	(58.27%)	164	80	(84)	(51.41%)	