



MEETING DATE: April 22, 2015

TO: Board of Directors

FROM: Michael Cooke, Manager of Aviation and Community Services

SUBJECT: Quarterly Operations and Comments Report

This report summarizes operations and community annoyance comments during the first quarter of 2015. A monthly report supplements this report which offers insights into the outreach efforts by staff to operators and community members based on annoyance comments. This document represents the most accurate operations numbers using the current suite of technology for data capture.

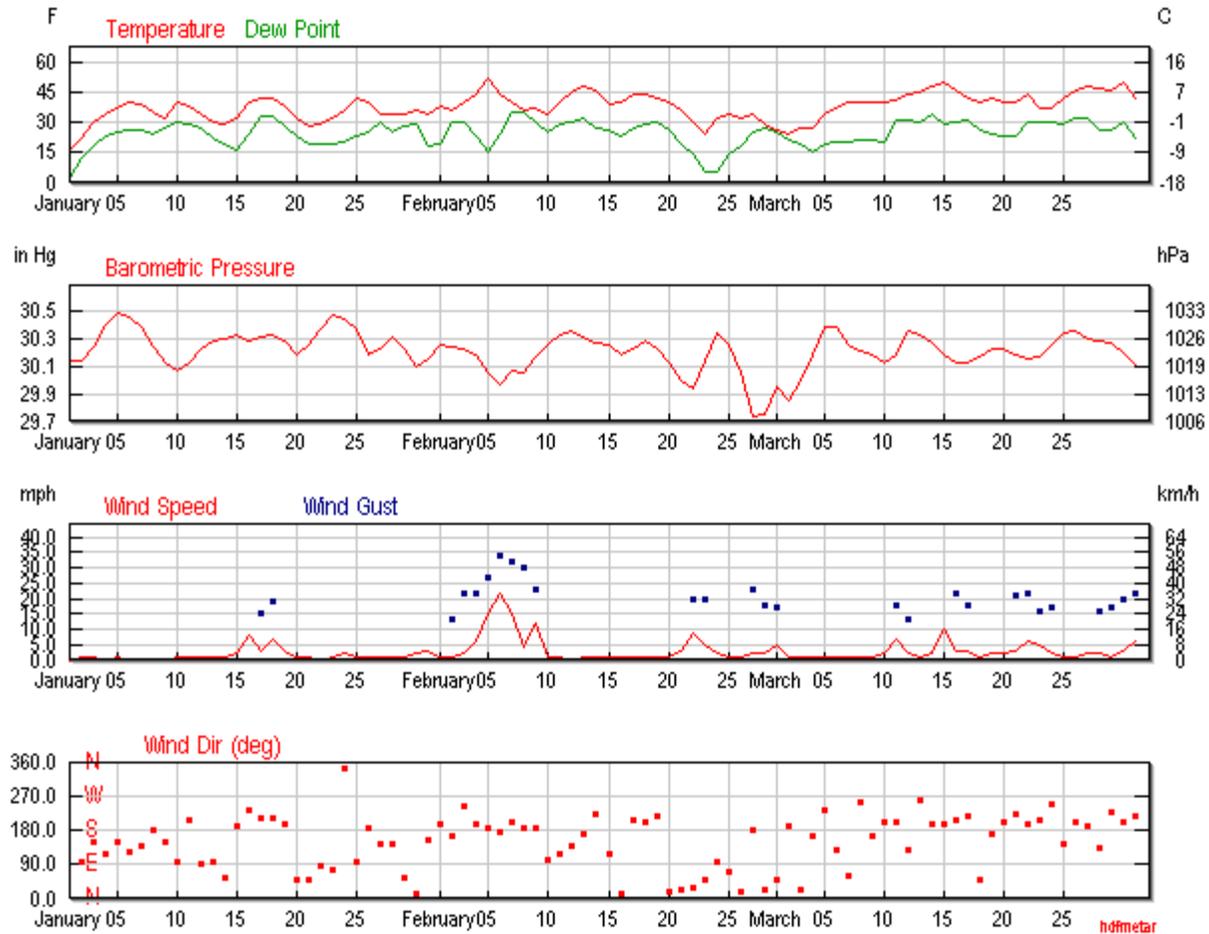
About the Data

The request to add a year over year chart has been accomplished. An analysis of jets weighing over 50,000 lbs has been added into the body of this report and staff requests Board direction on integration of this metric into the reporting protocol and charts.

The primary data source for this report is the Vector VNOMS system which integrates departure camera imagery at 4 runway ends and MLAT flight tracking data. There was no system downtime reported for Q1 2015. The reports are analyzed then combined with known data sets to ensure the highest accuracy in reported values. As discussed in Q4 2014, estimations using multipliers for touch and go operations are no longer used. Aircraft captured as unknowns have been assigned proportionally to the Piston category for this report. This change synchs the data sets so historical and current data are reported the same way and the charts are easier to read.

About the Drought

Winter skipped Tahoe for Q1 2015. Weather for flying could not have been better and operations and comments numbers are both higher and more reflective of warmer quarters. It is beyond the scope of this report and speculative to say what effect drought has on air travel to the region, however normal impediments to flight for this time of year were not a factor this quarter. A total of 2.31 inches of precipitation fell, and quarterly average wind speeds of 3 mph made the majority of the time period VMC. The graphs below illustrate the overall weather snapshot.



Night Operations

7 operations occurred between the hours of 10:30 pm and 6:30 am during the quarter excluding medical helicopter movements. All aircraft have been positively identified and operators have been counseled or received formal letters with requests for compliance. No Fly Quiet incentives were revoked. It is important to note that 4 of 7 are within an hour of a curfew period and one at 3 am was a medical patient transfer. One piston departure at 5:41am generated a comment, and staff reached out to the pilot and requested consideration of enrollment into the Fly Quiet program.

The following table illustrates the number of operations during the curfew period of 11PM to 6AM. Values do not include medical helicopter movements and have been rounded to the nearest hour.

Time	11 PM	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM
Ops	3	2	0	0	1	0	0	1

One medevac helicopter movement during curfew hours generated annoyance from Prosser Lakeview. The local flight crew readily offered to amend operations for non-emergency curfew period movements.

Operations and Fleet Mix

Operations grew about 20% overall as compared to Q1 2014. The largest gains by type were piston and turboprop. Overall piston operations rose by 856, by far the largest category of growth. However touch and go operations are no longer estimated and are part of this figure. The growth may indicate the operations are being captured more accurately, although that is speculative.

Turboprops saw a gain of 299 operations for the quarter. Jets as a whole dropped 123 operations.

The table to the right is a matrix of the top aircraft models visiting the airfield during the quarter. It is significant to note the huge popularity of the Pilatus PC12 turboprop which represents over 60% of operations for the category. Staff believes this aircraft will continue to expand in number of operations to KTRK and dominate the turboprop category.

Model	Type	Engines	Total Ops
PC12	Turboprop	1	730
C182	Piston	1	295
C172	Piston	1	251
SR22	Piston	1	222
BE36	Piston	1	139
E50P	Jet	2	135
C210	Piston	1	106
AS50	Helo	1	96
BE20	Turboprop	2	91
C206	Piston	1	82
B350	Turboprop	2	75
TBM7	Turboprop	1	72
AS55	Helo	1	70
BE30	Turboprop	2	64
C56X	Jet	2	63
C421	Piston	2	56
M20P	Piston	1	50
GLF4	Jet	2	46
C25B	Jet	2	40
C560	Jet	2	39

Community Annoyance Comments Summary

57 comments were generated from 21 households representing 7 residential areas near the airport. 2 commenters were first time emailers. 13 households made only one comment. 3 households represented 29 or about 50% of the 57 total comments.

Olympic Heights was the most impacted neighborhood followed by Prosser Lakeview. Prosser leads the charge in commenting about jets. Analysis shows these comments correlate to Jets at about 3000' AGL on the Truck Four Departure. A detail of neighborhood comments and associated aircraft type follows:

				Olympic		Sierra	Tahoe	
Type	Glenshire	Martis	Northstar	Heights	Prosser	Meadows	Donner	Total
Helo					1			1
Jet	1	2	3	2	10	4	4	26
Piston	1	1		2	2	2		8
P Twin				2				2
Turboprop	7		1	12				20
Total	9	3	4	18	13	6	4	57

Operation type and runway utilization play significant roles in which neighborhoods comment. For example, while Prosser Lakeview comments were heavily weighted to jets, Olympic Heights comments tend toward turboprop operations. Runway 29 departures continue to generate the highest numbers of comments, and these commenters often send multiple comments within the same day, suggesting the operational tempo may be a key factor of the annoyance.

Runway						
Operation	2	11	20	29	Unk	Total
Arrival		6	9	6		21
Departure	3			29		32
Touch n Go		1				1
Unknown					3	3
Total	3	7	9	37	3	57

One touch and go operation generated a complaint for the quarter. The Bay area flight school, CFI, and pilot were contacted. Three complaints could not be attributed to a specific operations.

Jets over 50,000 lbs

One Board member has asked for data and analysis on jets over 50,000 lbs. It is not a category previously broken out, so staff would like guidance on future inclusion for reporting. With some modifications it can be accomplished going forward from Q1 2015, however there is no way to accurately integrate it into historical reports. Staff will gladly make necessary amendments based on Board direction. The following table summarizes jet operations by weight and the corresponding operations to comment ratios.

2015 Operation Type	Total Ops	Total Comments	Ops/Cmnt
Piston Single	2626	8	328
Piston Twin	326	2	163
Turbo Prop	1171	20	59
Jet <12,499 lbs	215	6	36
Jet 12,499-19,999 lbs	227	6	38
Jet 20,000-49,999 lbs	144	11	13
Jet >50,000lbs	67	3	22
Helicopter	235	1	235
TOTAL	5011	57	88

Jet operations totaled 635 and generated 26 complaints for Q1 2015, yielding an operations to comment ratio of 25. Staff would offer that there are several commenters who regularly and exclusively complain about jets, which is not meant to diminish the value of their annoyance. Yet an analysis of jet complaints shows 24 of 26 operations were compliant. Since there is a degree of subjectivity in the complaint vs non-compliant decision, it may be worthwhile to analyze and clearly define compliance. For example, an aircraft departing 29 straight out is non-compliant while an arrival to 11, especially following the IAP, is compliant. This inherently suggests compliance is based not solely on position of the aircraft but on phase of flight and safety of operations.

Compliance and Outreach Efforts

Community members received either return email confirmations or call backs regarding their complaints for 57 of 57 comments. Staff made itself available for follow up and discussion to all community members during the quarter and staff periodically checks with regular commenters on their preferred method of follow up.

Efforts to reach out to operators on all non-compliant operations have been made. 4 operators were contacted by staff even though no community annoyance was reported. Of 57 operations which generated comments, 19 were either non-compliant, marginally compliant, or within a curfew period. 28 outreach efforts occurred to operators via direct engagements on the field, telephone conversations, email correspondence or mail.

One jet arrival to 11 generated 2 comments in January. Pilots were counseled at the airfield. One piston twin which generated a comment from a 29 departure could not be identified as the tail numbers were too small for night time camera capture and the aircraft transponder was Mode C.

17 of 19 track images are attached with summaries for non-compliant operations and follow up information.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4730

COMPLAINT TYPE: Low

OPERATION TYPE: Departure

RUNWAY: 29

A/C TYPE: PC12

DATE AND TIME: Jan 04 2015, 07:25 PM

POINT OF CLOSEST APPROACH(PCAO): 0.1 nm

ALTITUDE AT PCA: 0 ft



Commenter Input: Prop plane flying over Olympic Heights at 7:25pm

Staff Input: PCA altitude 6,900' msl (1,000' agl) - Marginally Compliant, staff made pilot outreach

Pilot Outreach: Staff spoke to receptive flight crew in Admin Building

NOISE COMPLAINT REPORT

COMPLAINT ID: 4732

COMPLAINT TYPE: Low And Loud

OPERATION TYPE: Arrival

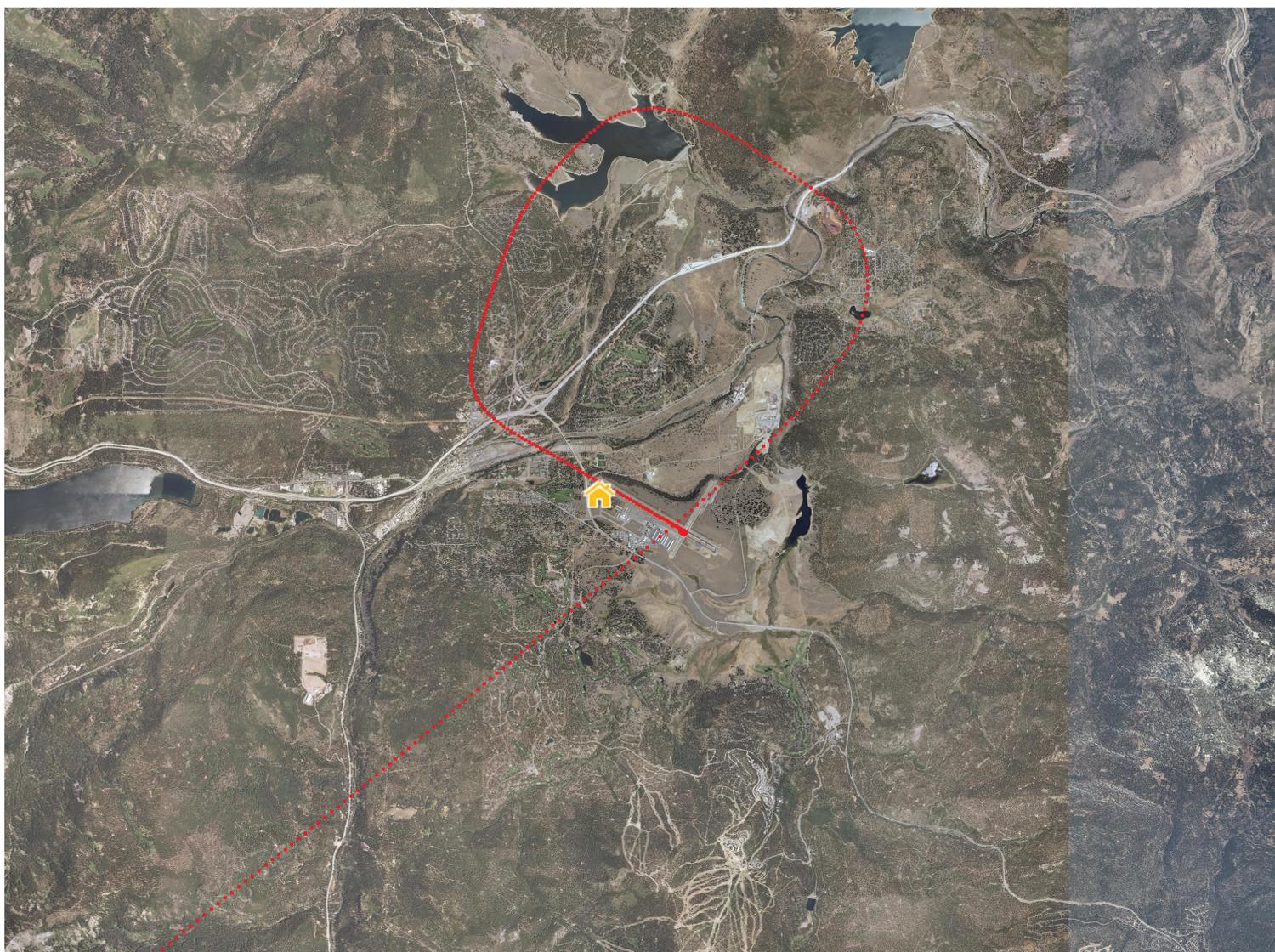
RUNWAY:

A/C TYPE: LJ45

DATE AND TIME: Jan 05 2015, 08:54 AM

POINT OF CLOSEST APPROACH(PCA): 0.02 nm

ALTITUDE AT PCA: 6100 ft



Commenter Input: Jet not taking the correct flight path for arrival and flying only a couple hundred feet above. I could throw a rock at this jet it was that close.

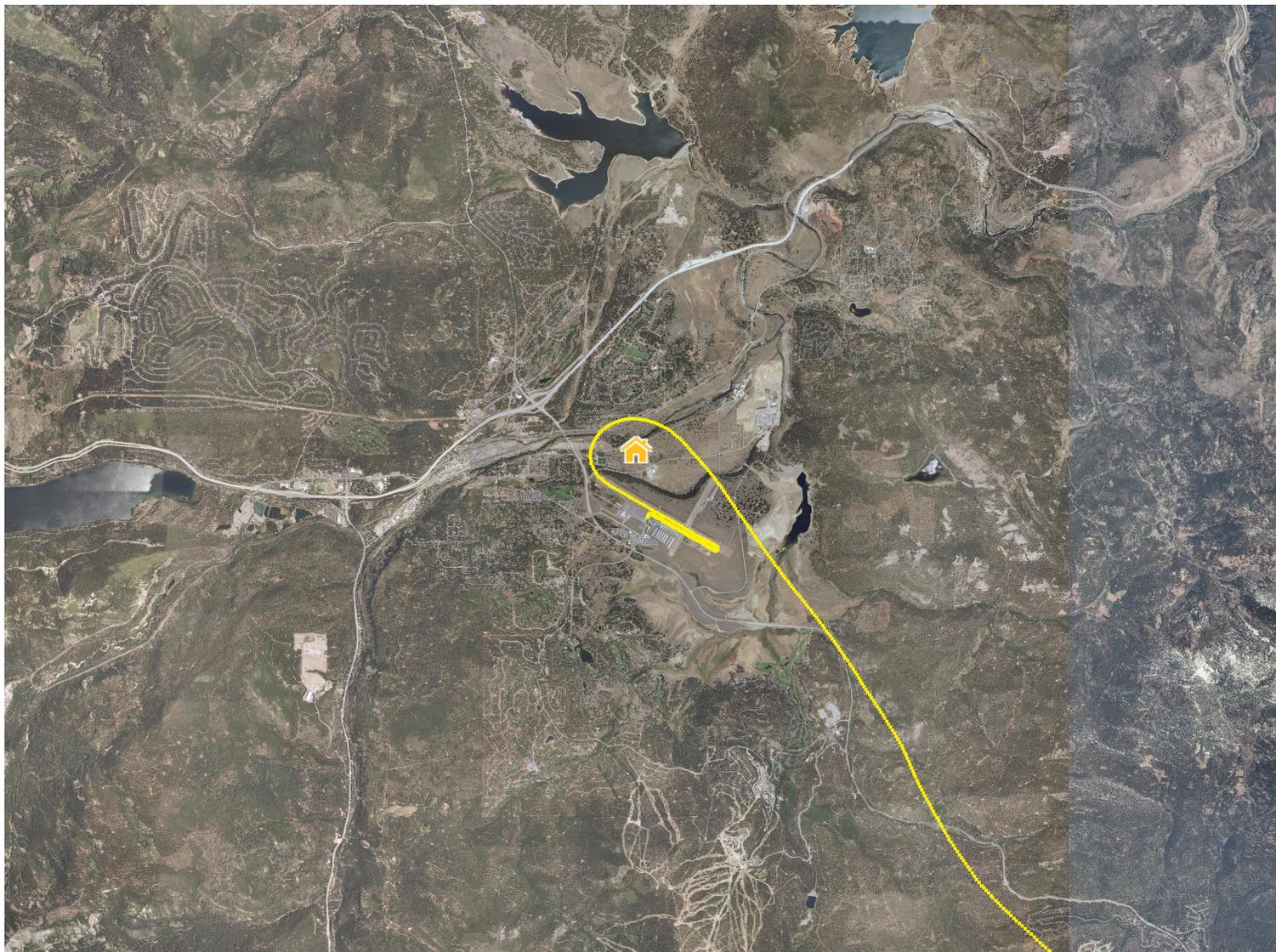
Staff Input: PCA 419' agl, Runway 11 Arrival. Low but appears to be on glideslope. Generated 2 comments.

Pilot Outreach: Staff spoke with receptive flight crew on ramp and gave out NAP info and requested use of 29 in calm winds.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4741
COMPLAINT TYPE: Low
OPERATION TYPE: UNKNOWN
RUNWAY: 29
A/C TYPE: UNK

DATE AND TIME: Jan 12 2015, 05:38 PM
POINT OF CLOSEST APPROACH(PCOA): 0.02 nm
ALTITUDE AT PCA: 6200 ft



Staff Input: Piston Twin, PA30 Departure Rwy 29

Pilot Outreach: Tiny tail numbers illegible @ night in departure camera photos.

Requests are out to staff for any available info.

No confirmed tail number, will continue to pursue.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4739

COMPLAINT TYPE: Low And Loud

OPERATION TYPE: Arrival

RUNWAY: 11

A/C TYPE: C182

DATE AND TIME: Jan 13 2015, 12:00 PM

POINT OF CLOSEST APPROACH(PCOA): 0.21 nm

ALTITUDE AT PCOA: 0 ft



Student pilot from Bay area flight school mountain training. Outreach to flight school, CFI and pilot. Productive efforts and NAP info will be updated and shared within the organization.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4748
COMPLAINT TYPE: Low
OPERATION TYPE: Arrival
RUNWAY: 11
A/C TYPE: C414

DATE AND TIME: Jan 16 2015, 08:11 PM
POINT OF CLOSEST APPROACH(PCOA): 0.07 nm
ALTITUDE AT PCOA: 6300 ft



3 comments placed by Olympic Heights resident. Tempo of operations likely a factor here. All operations were within 4 minutes.
A PC12 is the green 29 departure. A King Air 200 is the arrival to 20 in red. A C414 is the arrival to 11 also in red. Outreach to all operators even though 2 of 3 were compliant. 2 of 3 operators were deeply concerned with generating annoyance. The 414 was the least compliant and was also non-responsive to outreach. Staff will continue to reach out to that operator.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4743

COMPLAINT TYPE: Loud Disturbance

OPERATION TYPE: UNKNOWN

RUNWAY: 29

A/C TYPE: UNK

DATE AND TIME: Jan 21 2015, 04:53 PM

POINT OF CLOSEST APPROACH(PCA): 0.11 nm

ALTITUDE AT PCA: 7100 ft



Commenter Input: Really loud! Vibrated my house. Right over me!

Staff input: Touch and Go Runway 29, VFR target squawking 1200, no tail number info, 2 360 degree turns appear to be for traffic avoidance and spacing.

Altitude at PCA was 1,100'

Type unknown but likely Piston Single.

Checked audio, radio calls partially stepped on, no confirmed registration number for this T&G.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4753

COMPLAINT TYPE:

OPERATION TYPE: DEPARTURE

RUNWAY: 29

A/C TYPE: TURBOPROP BE9L

DATE AND TIME: Feb 04 2015, 03:22 PM

POINT OF CLOSEST APPROACH(PCA): 0.01 nm

ALTITUDE AT PCA: 6800 ft



Outreach to PIC was made via telephone on 2/5/2015 at 2:10pm. Semi-regular visitor and thought he was actually closer to bypass.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4757
COMPLAINT TYPE: Off Course
OPERATION TYPE: Arrival
RUNWAY: 20
A/C TYPE: BE9L

DATE AND TIME: Feb 05 2015, 04:24 PM
POINT OF CLOSEST APPROACH(PCOA): 0.08 nm
ALTITUDE AT PCA: 6800 ft



Committer Input: twin prop, arrival, flying over home

Staff Comments: Engaged PIC at field. Not familiar with area. Counseled on NAP, area hazards, etc.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4760

COMPLAINT TYPE: Loud Disturbance

OPERATION TYPE: Departure

RUNWAY: 2

A/C TYPE: C172

DATE AND TIME: Feb 11 2015, 04:45 PM

POINT OF CLOSEST APPROACH(PCA): 0.21 nm

ALTITUDE AT PCA: 6700 ft



Commenter Input: aircraft took off of 02, turned right and hammered the throttle over Glenshire
Staff: Reached out to operator - student pilot overflying home.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4765

COMPLAINT TYPE: Low

OPERATION TYPE: Departure

RUNWAY: 29

A/C TYPE: TBM7

DATE AND TIME: Feb 19 2015, 08:15 PM

POINT OF CLOSEST APPROACH(PCOA): 0.08 nm

ALTITUDE AT PCOA: 6800 ft



Olympic height comment regarding operation at 8:15pm. Outreach made to operator. Right turnout for NAP was made, just went slightly too far.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4766

COMPLAINT TYPE: Loud Disturbance

OPERATION TYPE: Departure

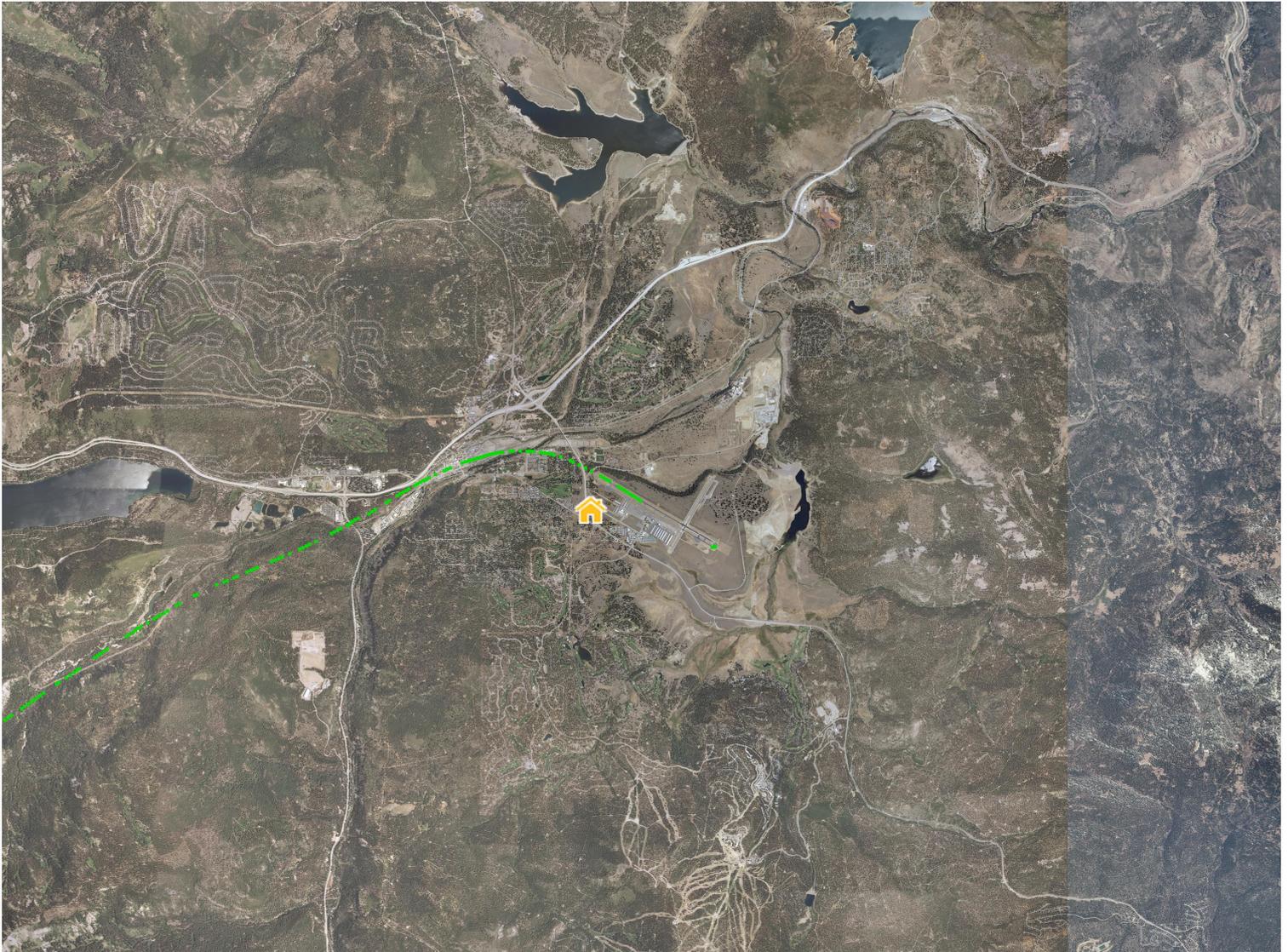
RUNWAY: 29

A/C TYPE: M20T

DATE AND TIME: Feb 26 2015, 02:15 PM

POINT OF CLOSEST APPROACH(PCOA): 0.2 nm

ALTITUDE AT PCOA: 6400 ft



Local pilot not following bypass departure. Good discussion with pilot via phone and follow up. This pilot was very impressed with the TTAD website and specifically the Lippert videos.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4773

COMPLAINT TYPE: Loud Disturbance

OPERATION TYPE: Departure

RUNWAY: 29

A/C TYPE: BE9L

DATE AND TIME: Mar 08 2015, 12:39 PM

POINT OF CLOSEST APPROACH(PCOA): 0.1 nm

ALTITUDE AT PCOA: 6600 ft



Regular operator over-corrected or possibly pushed by wind toward Olympic Heights on departure. 900 feet separate Olympic Heights from the the bypass bridge at the closest point. Operator was very concerned about generating noise - the company president showed up to discuss event in person.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4774

COMPLAINT TYPE: Loud Disturbance

OPERATION TYPE: Departure

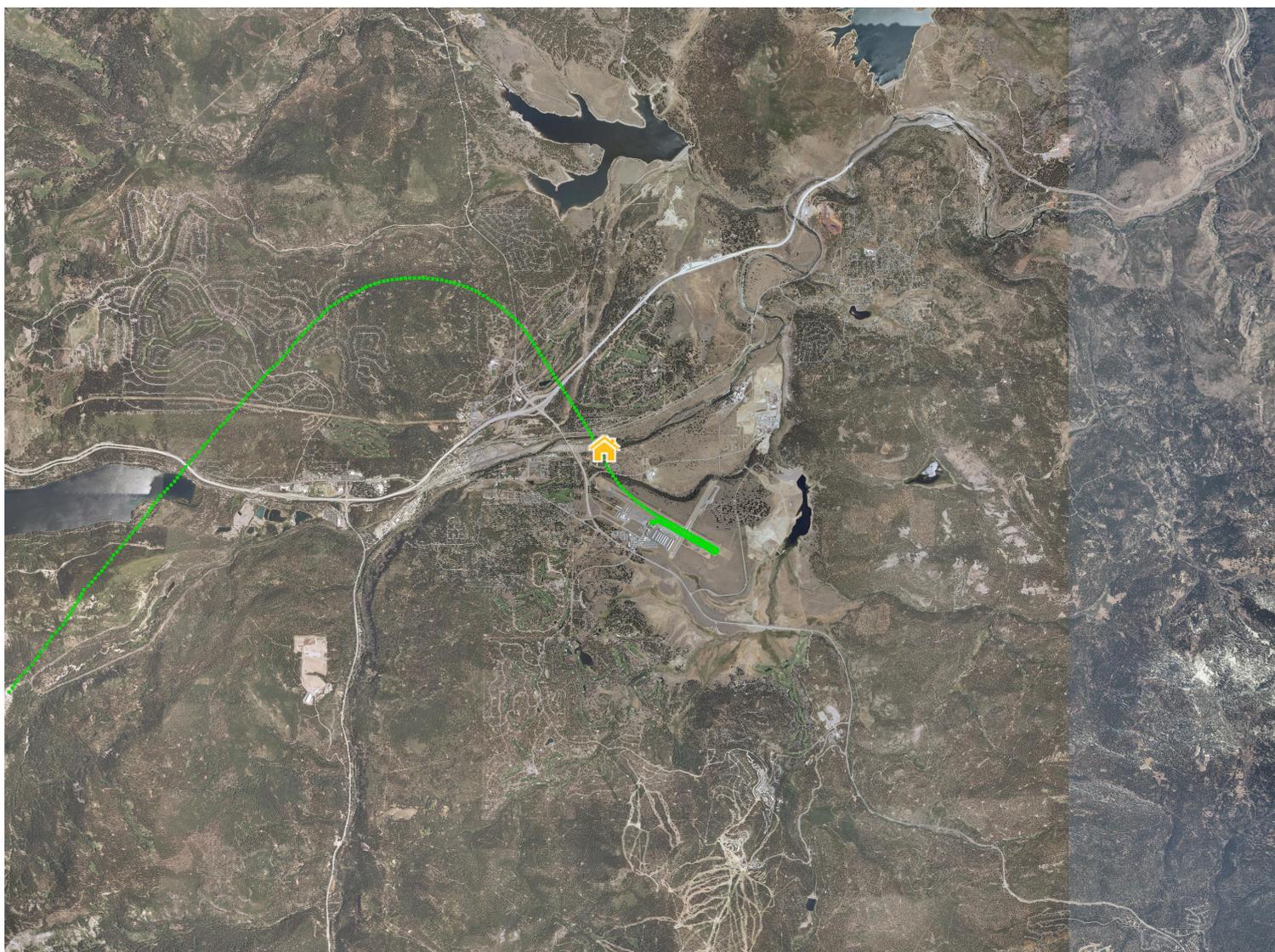
RUNWAY: 29

A/C TYPE: BE20

DATE AND TIME: Mar 08 2015, 12:40 PM

POINT OF CLOSEST APPROACH(PCOA): 0.02 nm

ALTITUDE AT PCOA: 6600 ft



Olympic Heights resident calling about a second 29 departure in under 5 minutes. Emailed operator, a regular, and requested review of incident and NAPs. Compliance effort was there, but again either over done or wind pushed aircraft toward Olympic Heights. Spoke to corporate office, no reply from crew, but will reach out to PIC next visit.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4776

COMPLAINT TYPE: Off Course

OPERATION TYPE: Arrival

RUNWAY: 20

A/C TYPE: BE9T

DATE AND TIME: Mar 08 2015, 03:41 PM

POINT OF CLOSEST APPROACH(PCOA): 0.02 nm

ALTITUDE AT PCOA: 7000 ft



Visual arrival to 20 which does line up directly over Glenshire. Spoke to pilots and requested for visual approaches to 20 avoid overflight of Glenshire. This particular scenario would be excellent for compliance discussion as a visual approach to 20 is compliant.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4783
COMPLAINT TYPE: Low
OPERATION TYPE: Arrival
RUNWAY: 29
A/C TYPE: C550

DATE AND TIME: Mar 20 2015, 05:05 PM
POINT OF CLOSEST APPROACH(PCA): 0.09 nm
ALTITUDE AT PCA: 7200 ft



Spoke to PIC. Peak gusts from WSW at 25. Aircraft stayed wide on downwind to turn final on centerline and not overshoot. Pilot completely receptive to flying NAPs and fully aware of them.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4786

COMPLAINT TYPE: Low

OPERATION TYPE: Departure

RUNWAY: 29

A/C TYPE: AC95

DATE AND TIME: Mar 21 2015, 07:46 AM

POINT OF CLOSEST APPROACH(PCA): 0.05 nm

ALTITUDE AT PCA: 6600 ft



Aerocommander departure on 29. Attempt to fly bypass failed. Spoke to PIC via telephone.

NOISE COMPLAINT REPORT

COMPLAINT ID: 4790

COMPLAINT TYPE:

OPERATION TYPE: UNKNOWN

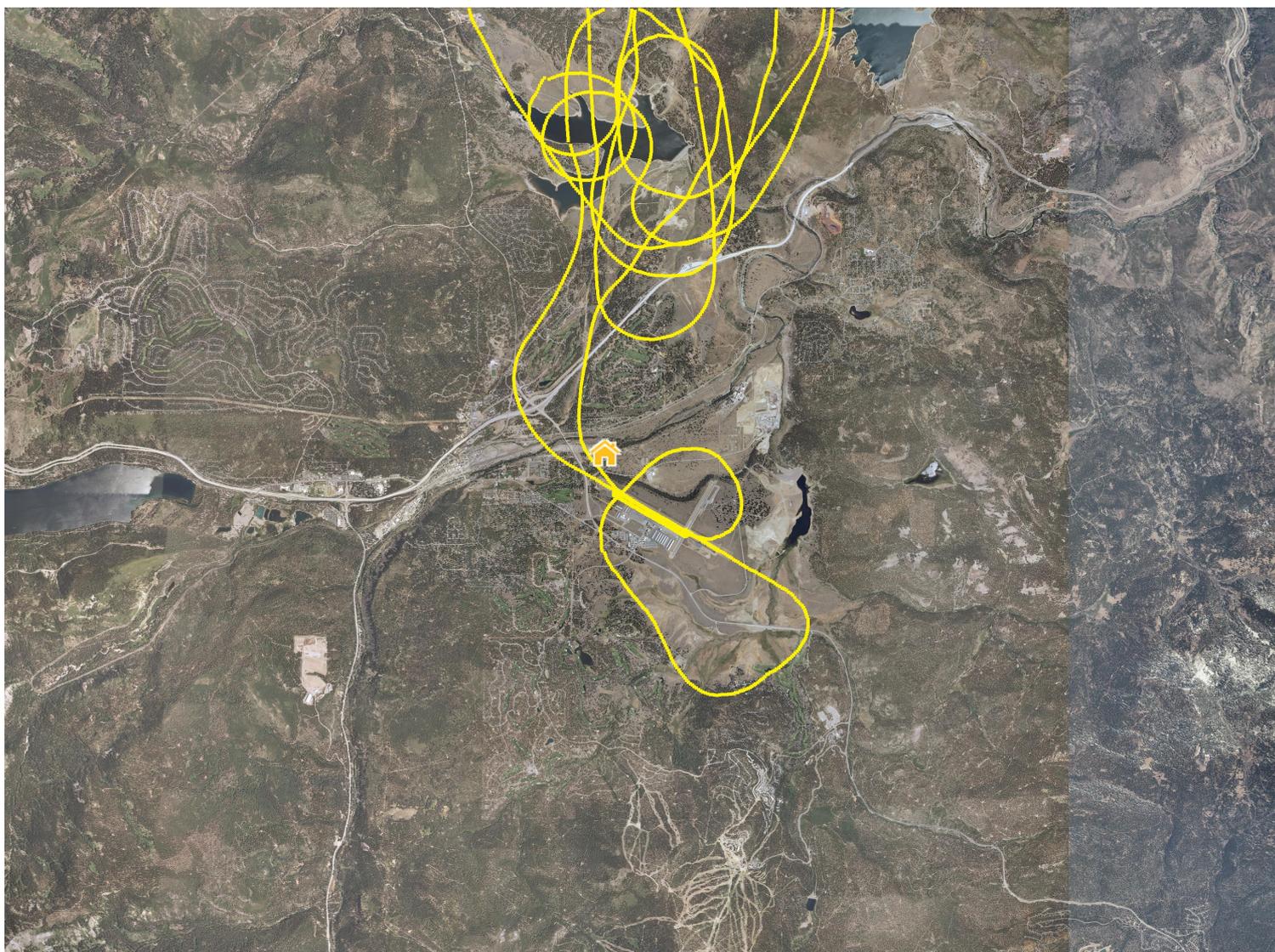
RUNWAY: 29

A/C TYPE: UNK

DATE AND TIME: Mar 29 2015, 07:45 PM

POINT OF CLOSEST APPROACH(PCOA): 0.02 nm

ALTITUDE AT PCOA: 6500 ft



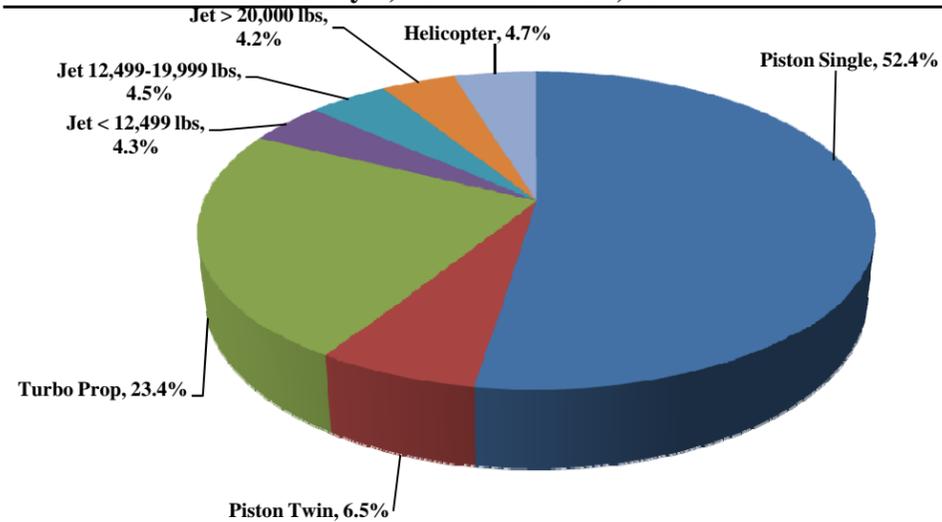
Local piston aircraft pilot working on night currency. Spoke at length with pilot and requested practice maneuvers occur over Stampede or farther away from residential areas. Pilot agreed to comply.



TRUCKEE TAHOE AIRPORT DISTRICT Operations and Community Comment Report as of 3/31/15

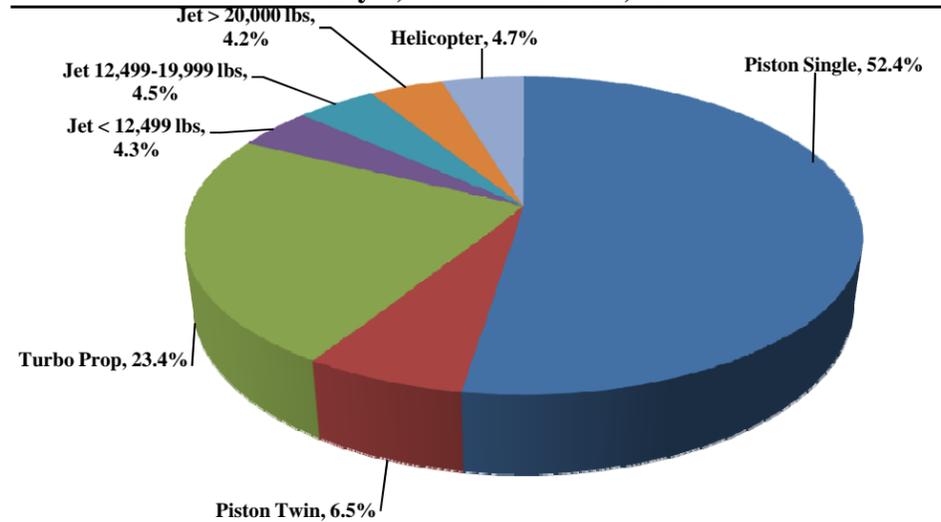


Current Quarter | Operations
January 1, 2015 - March 31, 2015



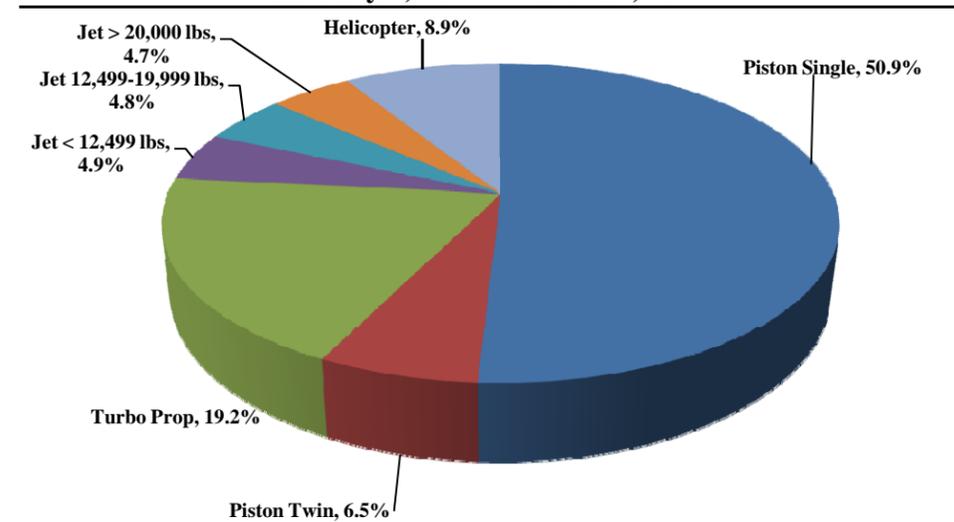
Total Powered Aircraft 5,011

Year-to-Date | Operations
January 1, 2015 - March 31, 2015



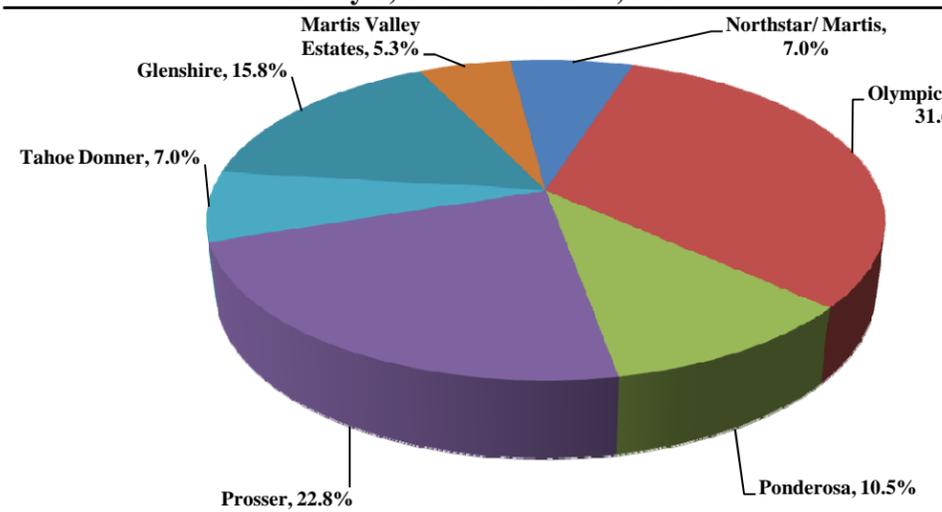
Total Powered Aircraft 5,011

Historic | Operations
January 1, 2011 - March 31, 2015



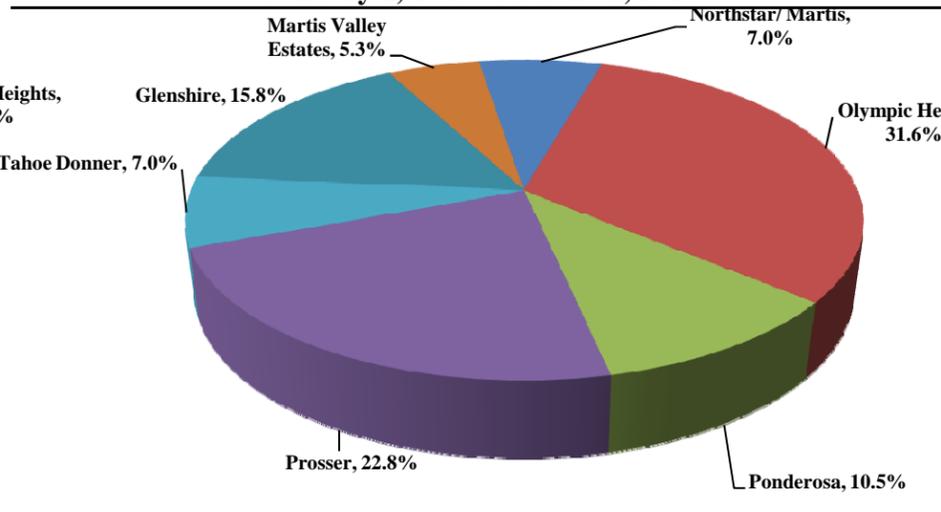
Total Powered Aircraft 70,876

Current Quarter | Comments
January 1, 2015 - March 31, 2015



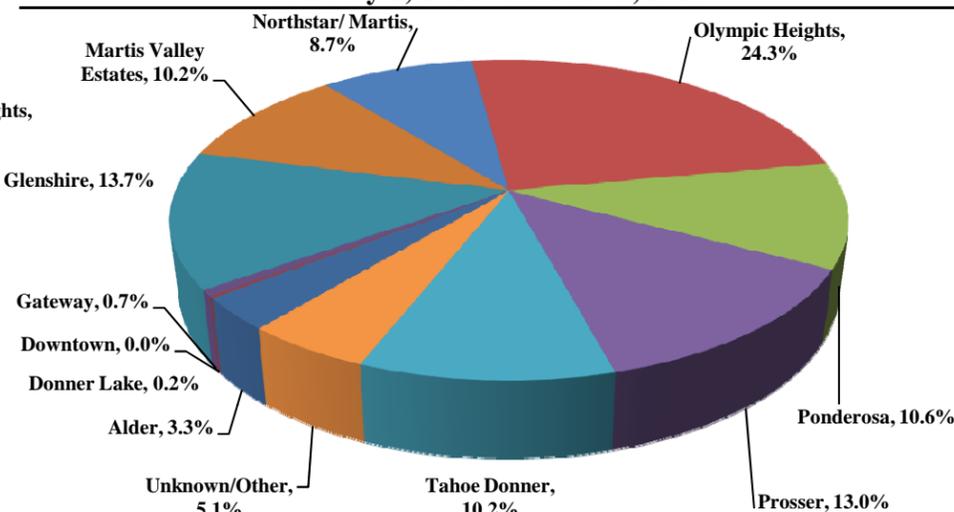
Total Comments 57
Operations / Comment 88

Year-to-Date | Comments
January 1, 2015 - March 31, 2015



Total Comments 57
Operations / Comment 88

Historic | Comments
January 1, 2011 - March 31, 2015



Total Comments 606
Operations / Comment 151

Notes

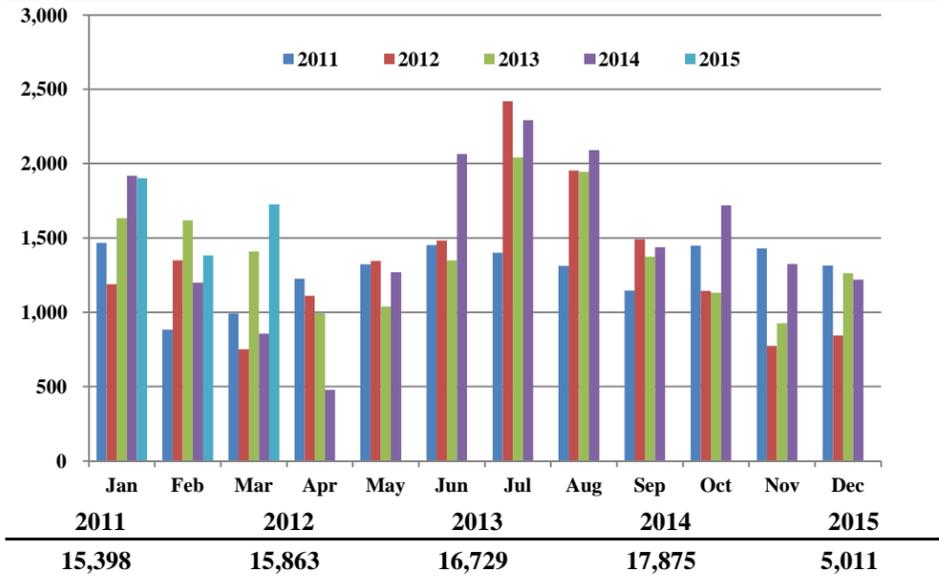
April 2014 - Launched new TTAD Website with 'Report Noise' link.
Operations graphs above use Total Powered Aircraft. Glider operations are not included.



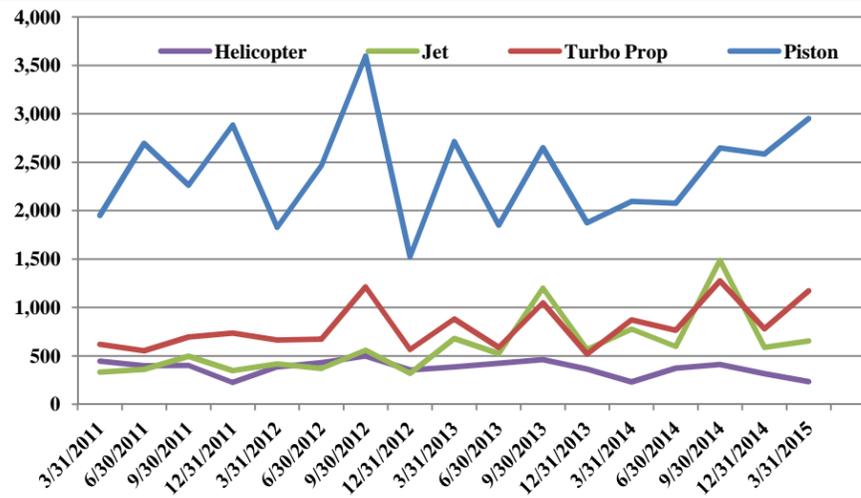
TRUCKEE TAHOE AIRPORT DISTRICT Operations and Community Comment Report as of 3/31/15



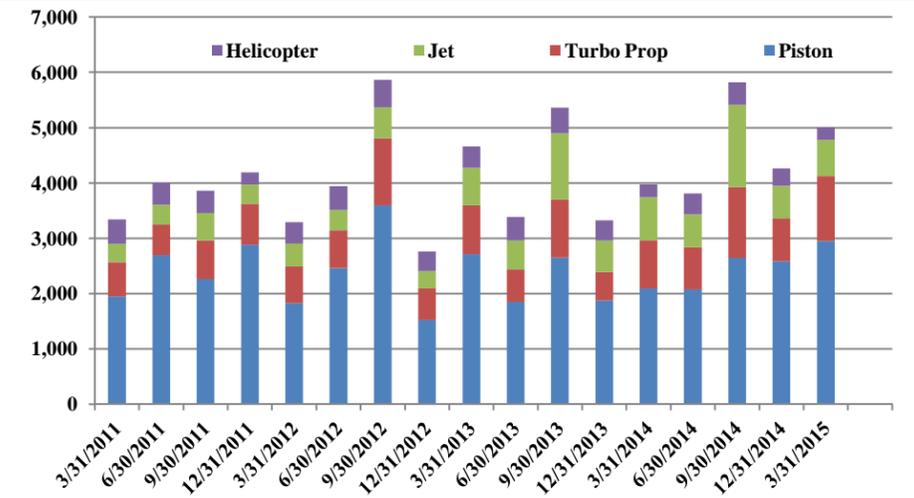
Operations | by Month by Year
January 1, 2011 - March 31, 2015



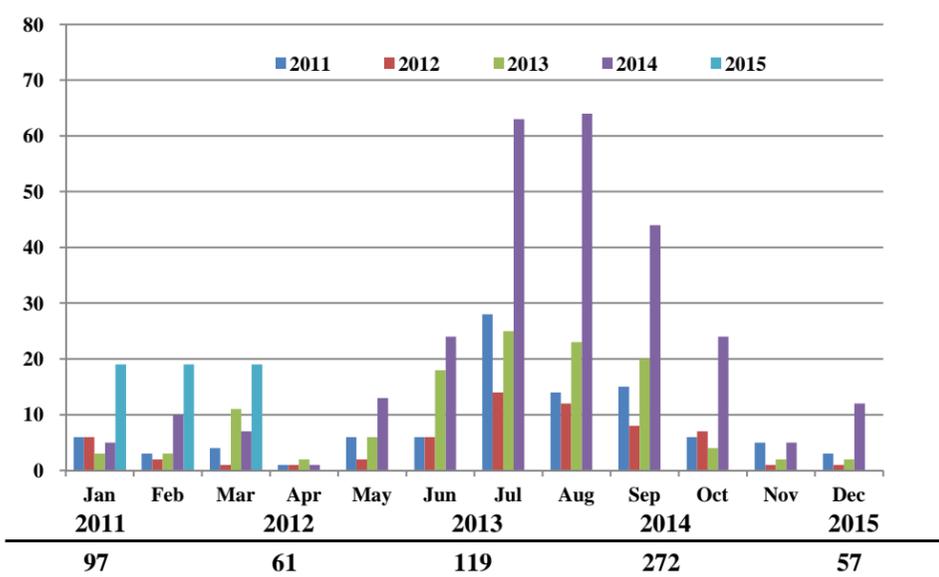
Operations | by Type by Quarter
January 1, 2011 - March 31, 2015



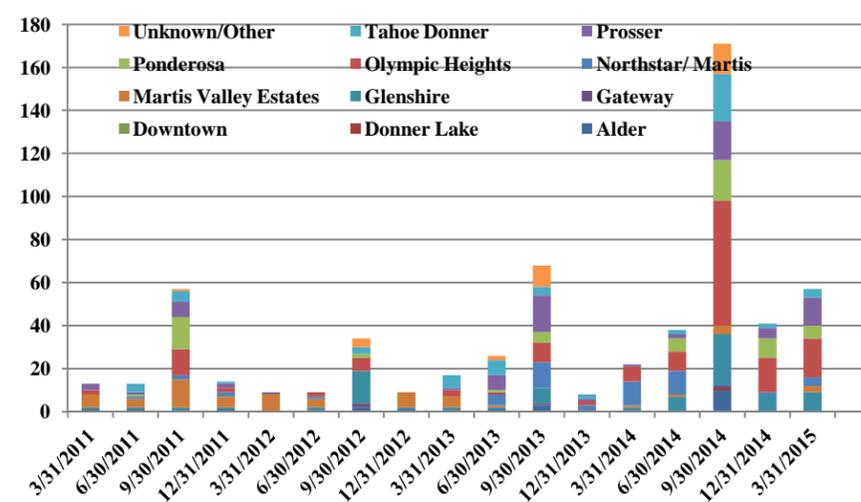
Operations | Mix by Type by Quarter
January 1, 2011 - March 31, 2015



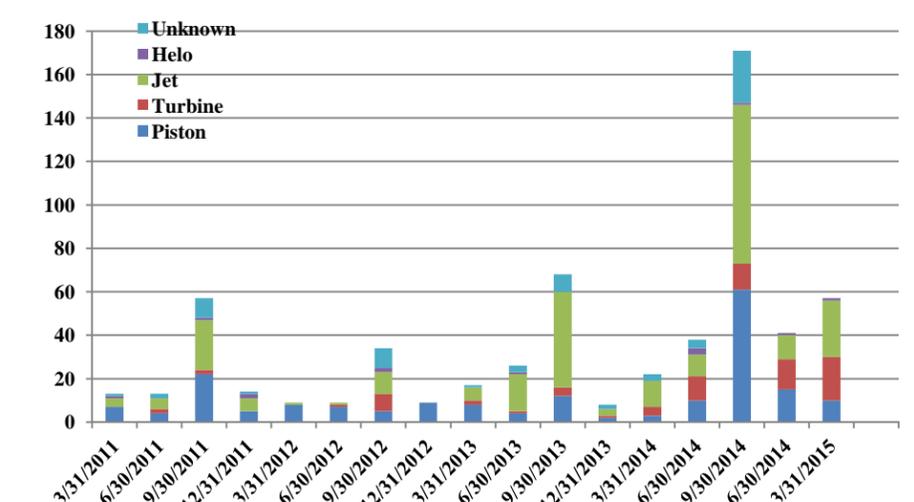
Comments | by Month by Year
January 1, 2011 - March 31, 2015



Comments | by Locale by Quarter
January 1, 2011 - March 31, 2015



Comments | by Type by Quarter
January 1, 2011 - March 31, 2015



Notes

April 2014 - Launched new TTAD Website with 'Report Noise' link.
Operations graphs above use Total Powered Aircraft. Glider operations are not included.



Truckee Tahoe Airport District Operations and Community Comment Report as of 3/31/15



	OPERATIONS										Year over Year				Notes
	2014				2015				difference	%	4/1/13-3/31/14	4/1/14-3/31/15	difference	%	
	Jan	Feb	Mar	Q1	Jan	Feb	Mar	Q1							
Operations Detail															
Piston Single	957	497	350	1,804	979	703	944	2,626	822	45.57%	7,429	9,115	1,686	22.69%	
Piston Twin	140	72	80	292	123	86	117	326	34	11.64%	1,042	1,144	102	9.79%	
Turbo Prop	392	260	220	872	424	348	399	1,171	299	34.29%	3,026	3,990	964	31.86%	
Jet < 12,499 lbs	168	132	64	364	101	47	67	215	(149)	(40.93%)	1,174	1,127	(47)	(4.00%)	
Jet 12,499-19,999 lbs	88	76	28	192	94	69	64	227	35	18.23%	934	1,062	128	13.70%	
Jet > 20,000 lbs	100	80	40	220	95	56	60	211	(9)	(4.09%)	956	1,136	180	18.83%	
Helicopter	74	83	75	232	86	74	75	235	3	1.29%	1,483	1,336	(147)	(9.91%)	
Total Powered Aircraft	1,919	1,200	857	3,976	1,902	1,383	1,726	5,011	1,035	26.03%	16,044	18,910	2,866	17.86%	
Gliders	-	-	-	-	-	-	-	-	-	0.00%	4,889	4,889	-	0.00%	
Total Operations	1,919	1,200	857	3,976	1,902	1,383	1,726	5,011	1,035	26.03%	20,933	23,799	2,866	13.69%	

	COMMENTS										Year over Year				Notes	
	2014				2015				difference	%	4/1/13-3/31/14	4/1/14-3/31/15	difference	%		
	Jan	Feb	Mar	Q1	Jan	Feb	Mar	Q1								
Comment Location																
Alder	-	-	-	-	-	-	-	-	-	0.00%	4	10	6	150.00%		
Donner Lake	-	-	-	-	-	-	-	-	-	0.00%	-	1	1	100.00%		
Downtown	-	-	-	-	-	-	-	-	-	0.00%	-	-	-	0.00%		
Gateway	-	-	-	-	-	-	-	-	-	0.00%	1	1	-	0.00%		
Glenshire	-	-	2	2	1	5	3	9	7	350.00%	10	48	38	380.00%		
Martis Valley Estates	-	-	1	1	2	1	-	3	2	200.00%	2	8	6	300.00%		
Northstar/ Martis	4	6	1	11	-	3	1	4	(7)	(63.64%)	31	16	(15)	(48.39%)		
Olympic Heights	1	3	3	7	8	3	7	18	11	157.14%	19	101	82	431.58%		
Ponderosa	-	-	-	-	4	2	-	6	6	100.00%	6	40	34	566.67%		
Prosser	-	1	-	1	3	4	6	13	12	1200.00%	26	38	12	46.15%		
Tahoe Donner	-	-	-	-	1	1	2	4	4	100.00%	13	30	17	130.77%		
Unknown/Other	-	-	-	-	-	-	-	-	-	0.00%	12	14	2	16.67%		
Total Comments	5	10	7	22	19	19	19	57	35	159.09%	124	307	183	147.58%	-	
Comment Type																
Piston	1	1	1	3	7	2	1	10	7	233.33%	21	96	75	357.14%		
Turbine	1	1	2	4	5	6	9	20	16	400.00%	10	57	47	470.00%		
Jet	3	7	2	12	6	11	9	26	14	116.67%	76	120	44	57.89%		
Helo	-	-	-	-	1	-	-	1	1	100.00%	1	6	5	500.00%		
Unknown	-	1	2	3	-	-	-	-	(3)	(100.00%)	16	28	12	75.00%		
Total Comments	5	10	7	22	19	19	19	57	35	159.09%	124	307	183	147.58%	-	
Operations per Comment																
				181				88			(93)			(51.36%)		