



# THE TRUCKEE TAHOE AIRPORT

How Do We Solve the Noise Annoyance Problem?

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TTAD Board President

# SPECIAL DISTRICT LEADERSHIP ACADEMY CONFERENCE — NOV. 2013 — NAPA VALLEY

Moderator — Brent Ives — Mayor Tracy, Calif.

- When We Assume a Public Trust, We Should Consider Ourselves as Public Property. Page P2
- Our Mission, as Directors, is a Public Mission not a personal mission. JJ's Views
- Boards Need to be Aligned with the Mission and the GM. JJ notes
- The Boards Role is to Represent the Public. JJ's notes & Page P2
- Our Mission Should be the Driver Behind Our Decision Making for Our Public. JJ's notes
- The Mission is Why We Are Here as an Organization: Page P7
  - The Mission Justifies our Existence. Page P7
  - The Mission is the Engine of the Organization. Page P7
  - The Mission must be Right. Page P7
  - The Mission only Rarely Changes. Page P7
    - Everything This District or Anyone Attached to it can be Linked Back to the Mission. Page P7
    - Each Part of the Direction Must Support The Mission. Page P7
- “Legislators represent people, not trees or acres. Legislators are elected by voters, not farms or cities or economic interests.” Chief Justice Earl Warren — 1964 Page P17.

## OUR **MISSION** STATEMENT

The Truckee Tahoe Airport is a community airport that provides high-quality aviation facilities and services to meet local needs. We strive for low impact on our neighbors while enhancing the benefit to the community-at-large.

# PUBLIC/CONSTITUENTS /STAKEHOLDERS

- WHO ARE THEY: VOTERS? TAXPAYERS? USERS or ??
  - Permanent Population Approx. 31,704
  - Permanent Voting Population Approx. 25,100 – See Exhibit 7
  - Primary Housing Units Approx. 13,039 – See Exhibit 7
  - Second Homes Approx. 18,595 or – See Exhibit 7
  - Annual Visitors to TTAD Approx. 2 million
- TAXPAYERS
  - 2016 Approx. \$4.765 million in tax revenue to TTAD
  - Nevada County – \$1,660,000 or 35% - See Exhibit 2
  - Placer County – \$3,105,000 or 65% - See Exhibit 2
  - Resident Voters Approx. 40% - See Exhibit 7
  - 2<sup>nd</sup> Home Owners Approx. 50% - See Exhibit 7
  - Commercial Entities Approx. 10% - See Exhibit 7
  - Truckee Zip Codes Approx. 49% or \$2.335M - See Note 1 & Exhibit 7
    - Residents Approx. 40%-\$934,000- See Note 1 & Exhibit 7
    - 2<sup>nd</sup> Homes Owners Approx. 50% or \$1,167,500
    - Commercial Entities Approx. 10% or \$233,500
  - Non-Truckee Zip Codes Approx. 51% or \$2.430M
    - Resident Voters Approx. 40% or \$972,000
    - 2<sup>nd</sup> Homes Owners Approx. 50% or \$1,215,000
    - Commercial Entities Approx. 10% or \$243,000

Note 1: 45% Includes Truckee, Northstar, Martis Camp, Lahontan and Schaffer's Mill.

Note 2: Per John McLaughlin Residential Housing in Truckee is 50.5% of Housing Stock.

# WHAT HAVE OUR SURVEY'S & OUTREACH EFFORTS HAVE TOLD US?

- THEY ARE EXPENSIVE:
  - Godbe; Master Plan; Freshtracks; et. al.
  - Over \$145,000 in the last two years.
- There are lots of differing opinions.
- Also a number of Common Views Supported by Significant Representation, meaning Our Public, Including the following:
  - 52% of those surveyed have used the TT Airport.
  - 69% have favorable opinions of the TT Airport.
  - 91% indicated the Airport is an important component of the area's economy.
  - 88% want us to manage the growth of the Airport Operations to be consistent with the community (Stakeholder) needs.
  - 76% Support a multiuse hangar.
- What is the genesis of the topic "Managing Growth"? It's not in the input we have received from Stakeholders.
- Noise Mitigation should be our focus & with Increased \$\$\$.
- Community Growth can be seen everywhere.
  - RailYard Project: 75 Acres; 130,000 sq.ft. non-residential & 100 + Res. Units.
  - School Bonds - \$100M+; PUD expansion: Liberty Utilities expansions.
  - Teichert's Coldstream Project - South of Donner Lake 300 Dwelling Units.
  - Kings Beach and TRPA's focus on Kings Beach & Tahoe City.
  - Joerger PC-3 planning on 450,000 sq.ft. non-residential & 80 housing units
  - Truckee plans for expansion: 2013 Population was 15,918. A forecast of 28,262 in 2025. Housing unit on 1/1/15 were 13,031 with 760 in process and a 19,901 forecast for 2025. (See Exhibit 6 and the Town of Truckee 2014 Annual Report – May 2015)
  - Economics & the Tahoe Experience are driving this growth and the growth of our tax base.

# STAFF TIME SPENT ON NOISE COMPLAINTS-

## We Need More!!!!

- 5 Staff Members focused on Noise Reduction & Fly Quiet Programs.
  - Hardy B; Mike C; Marc L; Mike B and Jon VR. (See Exhibit 4)
- There are approximately 368 staff hours allocated to the Noise Reduction & Flying Quiet Programs, Jet Traffic up 113% and forecasts expect significant increases over next 20 years. (See Exhibit 1&5)
- In June approximately 85% of this staffs time was spent Reacting to noise comments. Time was spent on:
  - The Call or web complaint is filed with the airport.
  - Vector VNOMS Flight tracking entry.
  - Track evaluation and data gathering.
  - Internal and external exhibit creation (map).
  - Staff discussion, response coordination.
  - Response to commenter. This may go on for some time with explanation for the aviation portion of the operation then a community portion related to noise abatement procedures etc.
  - Occasionally Kevin or Hardy will get involved for various reasons directly with the commenter.
- June 2015 Community Comments totaled 43 from 18 households.
- Staff spent approx. 312 hours or 85% of the 368 staff hours focused on Fly Quiet and Noise Reduction Programs in June 2015. That's an average of 7 hours 15 minutes of staff time or \$3,690.85 per complaint. (See Exhibit 3)
- How much time should be spent on the top 5 Households?
- If we really want to tackle the Noise Problem we need Proactive Fly Quiet activities and programs.
- We need to staff for Peak Periods like the summer and have an expanded staff that is dedicated to Proactive Fly Quiet Programs.
- Most pilots who know the preferred flight paths into Truckee will fly them if they know, or are requested to fly those procedures. We need more Proactive Outreach Programs to mitigate noise.

# PROACTIVE FLY QUIET/NOISE REDUCTION PROGRAMS COULD INCLUDE THE FOLLOWING

- A Pilot Outreach Staffing Full Time: 40 hours / week. Duties include: Walking the ramp, calling aviation companies, handing out maps and flyers, attending trade shows, working in the UNICOM office directly with pilots etc.
- Enhance UNICOM so every single operations and maintenance staff member talks about community annoyance and counsels pilots as they fuel and service aircraft.
- We need to get Visual Approaches that are published and updated every 56 days. To do that we need Surveillance around our Airport. We can get Surveillance with an ADSB Ground Station. There are 650 ADSB Ground Stations in the US. We need one operational by 2020 and/or our interrogator adopted by Oakland Center ASAP.
- Commercial Operator Outreach: Attend trade shows, advertise in commercial publications such as Flying, AOPA, Flight Training, and the NBAA Business Journal. Schedule sit down, face to face visits with commercial aircraft operators here or there with Director of Aviation or GM.
- Investigate a temporary or seasonal tower to direct pilots where to exactly fly or to clear pilots to fly visual flight procedures.
- Invest in quiet technology such as diesel powered aircraft that reduce noise from existing rental aircraft.

## PROACTIVE FLY QUIET/NOISE REDUCTION PROGRAMS COULD INCLUDE THE FOLLOWING (Continued)

- Invest in upgrading the glider tow planes so they climb faster with less community annoyance.
- Set up a residential sound insulation program.
- Enhance UNICOM to include training for “noise sensitive” advisories service.
- Enhance AWOS to place additional noise sensitive language on the recording.
- Build and PROMOTE good straight in approaches to runway 20; also widen and lengthen that runway so planes can execute a straight in and never fly over the bulk of the residential areas. Also get ZOA to clear pilots for that approach by default.
- Develop a straight out procedure either IFR or visual off runway 11. Even in an OEI scenario most large jets can make the climb gradient with a one engine out bailout turn to the north then direct truck intersection. We may want to explore a displaced threshold on 11 giving them a longer take off surface.
- Community wide airport education campaign so people in our community understand airplanes, airports, and aviation.



# IN SUMMARY

1. Remind ourselves this is the Truckee Tahoe Airport and we should be representing all our Stakeholders.
2. Our Mission Statement should be the Driver behind our decision making for our public.
3. Stakeholder input via our survey work wants us to manage Airport Operations consistent with community needs.
4. Increased Turbine and Jet Traffic is coming in spite of almost anything we can do legally. We need to step up our planning for how to handle the traffic.
5. Almost all of Truckee Zip Code resident voter property tax dollars (our conservative est. is \$934K) is being spent on Fly Quiet and Noise Reduction Prgms (total \$961,329) (Exhibit 2).
6. We should be adding staff and \$\$'s to the Fly Quiet and Noise Reduction Programs.
7. We should be spending much more time on Proactive Fly Quiet and Noise Reduction Activities and Programs, especially an Active Surveillance capability for our Airport.

## EXHIBIT 1

# WE ARE A PART OF THE NATIONAL AVIATION COMMUNITY

## OUR CURRENT FORECAST FOR 2012 to 2033

- TTAD MASTER PLAN
  - General Aviation Jet Fleet is Growing:
    - Fleet size by 3.5% annually.
    - Operations by 4.3%.
    - Jet Fleet size in 2012 is 5.4% of GA Fleet
    - Jet Fleet size est. 2033 at 10% of GA Fleet
- WHY THE GROWTH IN JET BASED OPERATIONS:
  - Increasing Corporate Profits
  - Continued Concern About:
    - Safety
    - Security
    - Delays with Commercial Flights.

## EXHIBIT 1 (cont.)

### THIS IS WHAT'S NOW BEING FORASTED BY THE FAA

#### ○ FAA AEROSPACE FORECAST 2014-2034

- Long-Term Growth Rates Unchanged From TTAD's Master Plan
- GA Fleet Grew 3% in 2013 and forested to grow 1/2% over forecast period
- GA Fleet 2013 Totals 202,865 Aircraft:
  - Piston Powered Aircraft = 141,325
  - Turbine Powered Aircraft = 30,435 or 15% of the Fleet
    - Jets totaled 12,575 & are a Subset of Turbines.
  - Other (experimental/light sport/etc.) = 31,105
- GA Fleet Estimates for 2034 are 225,700:
  - Piston Powered Aircraft = 131,615
  - Turbine Powered Aircraft = 49,325 or 21% of the Fleet
    - Jets totaled 22,050 & are a Subset of Turbines.
    - GA Jet growth of 3% annually.
    - Jets are forecasted to grow 75% by 2034.
  - Other (experimental/light sport/etc.) = 44,760
- Active General Aviation Pilots:
  - 2013 a total of 449,425
  - 2034 is estimating 484,425 or an 8% increase.

# EXHIBIT 2

## TTAD SOURCES AND USES OF REVENUE

TTAD February 2015 Budget Projections

- REVENUE SOURCES OF FUNDS ESTIMATED

Airside Operations		\$ 5,318,000	44.5%	Incl. \$3.4M in grant money
Hangars		\$ 1,346,500	11.3%	
Warehouse & Other		\$ 465,700	3.9%	
Placer Cty. Tax Rev.		\$ 3,105,000	26.0%	
Nevada Cty. Tax Rev.		\$ 1,660,000	13.9%	
Interest Income.		\$ 52,100	0.4%	
Total Sources of Revenue		\$11,947,300	100%	

- USES OF REVENUE ESTIMATED

Airside Operations		\$ 5,760,190	51.0%	Incl. \$3.060M in pavement project
Hangars		\$ 608,115	5.4%	
Warehouse & Other		\$ 270,662	2.4%	
Administration		\$ 1,488,557	13.2%	
Aviation & Comm. Svcs.		\$ 2,190,166	19.4%	Incl. Fly Quiet & Noise Reduction
Maintenance		\$ 583,839	5.2%	
Land Management		\$ 397,583	3.5%	
Total Uses of Revenue		\$11,299,112	100.0%	

- Net Income Est. \$648,189

- CAPITAL EXPENDITURES Est. CAPITAL PROJECTS

Grant Eligible Projects		\$ -			
Est. Grant Proceeds		\$ -			
Other Capital Projects		\$ 6,305,400	WOB, helipad, beacon, cat loader, plow truck,		
Cash Req for Cap. Expenditures		\$ 6,305,400	Maintenance	Building Expansion	

- Net Estimated Cash Sources/Uses \$(5,657,211)

## EXHIBIT 2 (cont.)

# AVIATION & COMMUNITY SERVICES-BREAKDOWN

<b>Fly Quiet &amp; Noise Reduction Programs</b>				
ACAT-Programs - 90%		\$ 103,500		
ACAT - Director Fees - 90%		\$ 16,200		
Annoyance Reduction - Fly Quiet		\$ 126,000		
Operations Monitoring Prgms - 99%		\$ 257,400		
Communications & Conferences - 39%		\$ 3,500		
Hang 3 Design & Consulting 50%		\$ 46,000		
Other Prof. Consulting - 39%		\$ 90,000		
Office Equipment Expensed - 40%		\$ 21,200		
Reg. Air Services Corp. - 75%		\$ 9,750		
Geographic Information Sys. 25%		\$ 3,750		
Public Relations Outreach -37%		\$ 72,335		
MISC. Empl. Rel./Office Sup./Legal/Postage/Fiscal Analyst -4		\$ 18,420		
Salaries & Administration - 55.6%		\$ 139,046		
<b>TOTAL Fly Quiet/Noise Red.</b>		\$ 907,101	44%	
<b>Aviation &amp; Comm. Svcs. W/O Fly Q./Noise Reduction Programs</b>				
Airshow		\$ 140,000		
ACAT-Programs - 10%		\$ 11,500		
ACAT - Director Fees - 10%		\$ 1,800		
Operations Monitoring Prgms - 1%		\$ 2,600		
Communications & Conferences - 61%		\$ 5,500		
Aviation Safety Initiatives		\$ 275,000		
Hang 3 Design & Consulting 50%		\$ 46,000		
Other Prof. Consulting - 61%		\$ 140,000		
Office Equipment Expensed - 60%		\$ 31,800		
Reg. Air Services Corp. - 25%		\$ 3,250		
Geographic Information Sys. 75%		\$ 11,250		
Public Relations Outreach -63%		\$ 123,165		
Community Sponsorship		\$ 40,000		
Community/Agency/Partnerships		\$ 215,000		
MISC. Empl. Rel./Office Sup./Legal/Postage/Fiscal Analyst -6		\$ 27,630		
Salaries & Administration - 60%		\$ 208,570		
<b>TOTAL Aviation &amp; C. S. W/O Fly Q./N.R.</b>		\$ 1,283,065	56%	
<b>TOTAL Aviation &amp; Comm. Svcs.</b>		\$ 2,190,166	100%	
Total Aviation & C. S. W/O Sal. & Adm.		\$ 1,842,550		

### EXHIBIT 3

TTAD Staff on F.Quiet & Noise R				
	Monthly I	Sal. & Benefits		
Mike Barret - 10%	16	Pvt. Available		
Mike Cooke - 100%	144	Pvt. Available		
Marc Lamb - 25%	40	Pvt. Available		
Hardy Bullock - 30%	48	Pvt. Available		
Jon Van Roo - 100%	120	Pvt. Available		
TOTALS	368	\$ 183,336		
June Hours Spent on 43 Community Complaints				
Mike Barret - 0%	0	Pvt. Available		
Mike Cooke - 90%	144	Pvt. Available		
Marc Lamb - 25%	0	Pvt. Available		
Hardy Bullock - 30%	48	Pvt. Available		
Jon Van Roo - 75%	120	Pvt. Available		
TOTALS	312	\$ 158,707		
Cost Per June Complaints =		\$ 3,690.85		

## EXHIBIT 4

### Fly Quiet/Noise Abatement Staff Duties and Allocations

Staff	% Noise Response	% Other & Description	
<b>Mike Barrett</b>	10%	90%	
		Special Community Events	
		Community Outreach	
		Safety & Risk Management	
		Employee Training	
		Workers Comp Admin	
		Storm Water	
		Haz Mat	
		UNICOM	
<b>Mike Cooke</b>	90%	IT	
		Security & Surveillance	
		NOMS & FT Maint	
		GIS	
		Telecom	
		ACAT	
<b>Marc Lamb</b>	25%	Community Outreach	
		Hangars	
		Special Projects	
		Social Media	
		UNICOM	
		Advertising	
<b>Hardy Bullock</b>	30%	Board Initiatives Support	
		SMS	
		Demand Drivers Study	
		Hangar Study	
		Airspace Study	
		Makers Space	
		Sky Diving	
		Tenant Lease & Business	
		FAA Integration	
		Obstructions & Procedures	
		Commercial Op Outreach	
		Communication & Community Outreach	
		ACAT	
		Employee Staff Admin	
		Hangars	
<b>Jon Van Roo</b>	75%	Direct Pilot Outreach	

## EXHIBIT 5

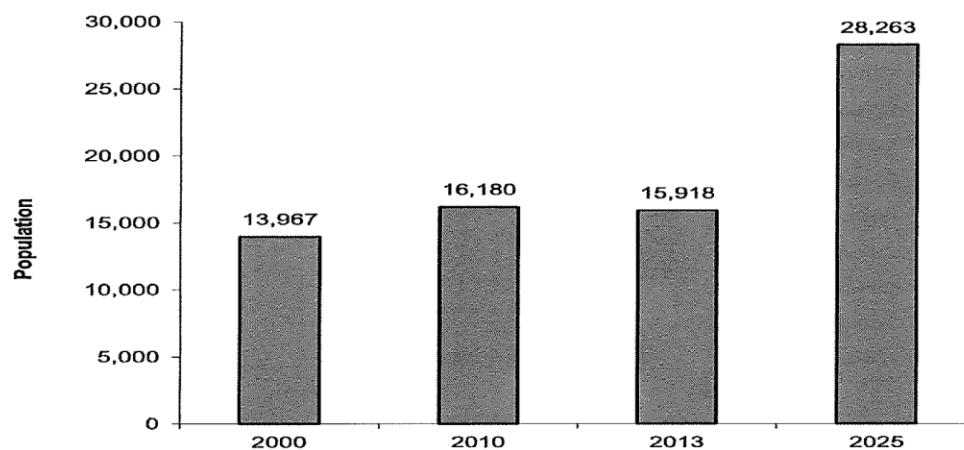
<b>JET &amp; TURBOPROP ACTIVITY</b>					
2009 TO 2014					
		<u>2009</u>	<u>2014</u>	<u>5 Yr. ^</u>	<u>% ^</u>
TurboProp		2,941	3,691	750	26%
Jet 3 - 12.5K & Below		661	1,276	615	93%
Jet 4 - 12.5K to 20K		355	1,027	672	189%
Jet 5 - 20K & Up		600	1,145	545	91%
Total Jet		1,616	3,448	1,832	113%
Total Jet&T		4,557	7,139	2,582	57%
Source: Hardy Bullock TTAD					



# EXHIBIT 6

## TOWN OF TRUCKEE HOUSING ELEMENT APPENDIX HA - HOUSING PROFILE

FIGURE HA-1 TOWN OF TRUCKEE POPULATION FORECAST 2000-2025



Source: State of California, Department of Finance, 2013 and 2025 General Plan

### b. Age Composition

In 2010, the prime working age group (25 to 54 years) comprised the largest percentage (53.6 percent) of the Town's population. The second largest group was school age (5 to 19 years) with 18.6 percent of the population. Refer to Table HA-3 for the distribution of age in 2010. Figure HA-2 shows the breakdown of population by age and sex in 2010 where males comprised 52.1 percent of the total population and the female population was 47.9%.

TABLE HA-3 AGE DISTRIBUTION 2010

Age Group	2000		2010	
	Number	% of Population <sup>1</sup>	Number	% of Population <sup>1</sup>
Preschool (0-4 years)	875	6.3%	1,061	6.6%
School (5-19 years)	3,075	22.2%	3,006	18.6%
Young Adult (20-24 years)	715	5.2%	841	5.2%
Prime Working (25-54 years)	7,407	53.4%	8,679	53.6%
Retirement (55-64 years)	1,027	7.4%	2,178	13.5%
Senior Citizen (65+ years)	765	5.5%	1,256	7.8%
<b>Total</b>	<b>13,864</b>	<b>100%</b>	<b>13,967</b>	<b>100%</b>

Notes:

<sup>1</sup> Percentages may not add up to 100% due to rounding.

Source: U.S. Census 2010 DP-1

HA-3

## EXHIBIT 7

AIRPORT DISTRICT HOUSING UNIT & POPULATION SUMMARY - 2010									
COMMUNITY Org. by Zip Code	HOUSING UNITS	%	OCCUPIED	%	2nd H.	%	T. POPULATION	POP. 18 & OVER	%
Soda Springs/Norden/Floriston	1186	4%	282	2%	790	4%	573	508	2%
Carnelian Bay	1,640	5%	549	4%	1028	6%	1,170	996	4%
Homewood	1,649	5%	367	3%	1241	7%	744	628	3%
Tahoma	2,105	6%	484	4%	1544	8%	1,037	856	3%
Kings Beach	3,110	9%	1,658	13%	1205	6%	4,414	3,403	14%
Tahoe City	4,764	14%	1,500	12%	3038	16%	3,161	2,727	11%
Olympic Valley	1,726	5%	588	5%	1057	6%	1366	1118	4%
Tahoe Vista	677	2%	318	2%	323	2%	788	613	2%
Truckee	16,285	49%	7,293	56%	8369	45%	18,451	14,251	57%
<b>TOTALS</b>	<b>33,142</b>	<b>100%</b>	<b>13,039</b>	<b>100%</b>	<b>18,595</b>	<b>100%</b>	<b>31,704</b>	<b>25,100</b>	<b>100%</b>
Source: Andrew Terry and the US Census Bureau <a href="http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml###">source of Andrew's data ... http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml###</a>									
<ul style="list-style-type: none"> <li>o Primary Residents = 13,039 or 39% of the Total Housing Units</li> <li>o Second Home Owners = 18,595 or 61% of the Total Housing Units</li> </ul>									
<b>One could make make the following case regarding taxpayer contributions to the TTAD:</b>									
Commercial Tax base	5%	10%	15%	20%					
Resident Tax Base	37%	35%	33%	31%					
Second Home Tax Base	58%	55%	52%	49%					
	100%	100%	100%	100%					
Regardless what assumption is used for Commercial Contribution to Property Taxes,									
using 40% is quite conservative for determining resident tax payer total contributions to TTAD.									
TTAD. And, with this new data I would argue for a 35% contribution rate.									