

The following is a condensed version of the TRUCKEE TAHOE AIRPORT DISTRICT BOARD OF DIRECTORS special meeting held Thursday, November 12, 2015 in the Truckee Tahoe Airport District Community Room A, located at the Truckee Airport, 10356 Truckee Airport Road, Truckee, California at 8:00 a.m.

**CALL MEETING TO ORDER:** 8:01 a.m.

**PLEDGE OF ALLEGIANCE**

**DIRECTORS PRESENT:** President John B. Jones, Jr.  
Vice President Lisa Wallace  
Director Mary Hetherington  
Director Tom Van Berkem  
Director Jim Morrison

**STAFF PRESENT:** Mr. Kevin Smith, General Manager  
Mr. Phred Stoner, Director of Operations & Maintenance  
Ms. Sally Lyon, Director of Finance and Administration  
Mr. Hardy Bullock, Director of Aviation and Community Services  
Mr. Brent Collinson, District Legal Counsel  
Ms. Lauren Tapia, District Clerk

**VISITORS PRESENT:** 2

**SPECIAL ORDERS OF BUSINESS**

Mr. Smith stated that the Board is placed in its traditional set up, which is not normally how workshops are conducted. This is due to the request of two Board members to have today's workshop televised. Mr. Smith advised to Board to be intentional in using their microphones so the audience at home can hear them.

**PUBLIC COMMENT:** District Counsel Brent Collinson, Truckee resident and member of the Tahoe Flying Club, stated that there is a group of pilots that will be flying to Quincy, Ca for breakfast. The Tahoe Flying Club will be joining that group of pilots. District Counsel Collinson stated that there are two open seats available for anyone who wishes to join them.

President Jones stated that he ran across an article regarding a turboprop aircraft engine that produces less noise and is more fuel efficient. President Jones expressed that there is technology changing happening in the jet business, and that it might help a lot of noise sensitive areas. Director Hetherington stated the article was interesting, but that most of it pertains to commercial aircraft. President Jones stated that it is, but it will eventually bleed into private jet aircraft in time.

**WELCOME, OVERVIEW OF AGENDA, FRAMEWORK FOR MANAGED GROWTH DISCUSSION**

Mr. Smith thanked the Board in taking the time to have a special Board meeting to discuss managed growth. Also the long awaited Demand Driver Study (Draft) will be presented and comment taken from the Board. Mr. Smith stated a lot of the information in the Demand Driver Study will give nuggets of information that will aid the managed growth conversation that will occur later in the meeting. Mr. Smith gave an overview of the infographics that were created for the managed growth discussion. Mr. Smith thanked staff for their input on the infographics as well as Ms. Lauren Tapia, District Clerk, for creating them. Meeting agreements were discussed to help create a productive morning. The Board members stated amongst one another that they should have active listening, to not talk over one

another, limit talking time so the group can make progress, focus on the District's charter/mission, and to not feel rushed as the topic "managed growth" is big.

**PUBLIC COMMENT:** None

#### **DEMAND DRIVER STUDY PRESENTATION**

Mr. Mitch Hooper, Project Manager with Mead & Hunt, introduced himself as well as introduced Mr. Jeff Colman and Mr. Bob Trimborn from AMCG. Mr. Hooper stated that the Demand Driver Study has two core components: Aviation and Non-Aviation. Mr. Colman and Mr. Trimborn lead the aviation study, and Ms. Seana Doherty (with Fresh Tracks) and Mr. Mark Wasley let the non-aviation study. The primary sources used for both components of the study are interviews, surveys, and correlation analysis and market assessments. Mr. Hooper informed the Board of what makes up the appendices of the study, which is the aviation demand background, aviation interview questionnaire, aviation survey results, and non-aviation market assessment. Mr. Hooper explained the difference between demand influencers and demand drivers. Mr. Hooper stated that activity at the airport is in line with national trends and that pricing and services may influence usage. The study also found that the primary demand driver for the Truckee Tahoe Airport is proximity to user's homes and businesses. The economy is driven by Lake Tahoe and Resort Communities, as well as the GDP and the stock market.

Mr. Hooper discussed the summary of findings on the aviation survey where there is a correlation between based aircraft and itinerant operations. A few items that were prominent in the results was, again, the location of the airport. The amount of individuals on a hangar waitlist, and that activities including instrument procedures, deicing, and cheaper fuel may increase operational traffic. On the non-aviation side of the survey where there is a strong based aircraft and itinerant operations correlation is community growth (income, housing supply, population), local economic growth (visitor spending, total tax revenue) and national economic growth (oil price, gross domestic product, stock market).

Mr. Hooper explained the non-aviation market assessment. It was explained that the customer base is predominantly made up of affluent Bay Area residents, whose ages range from young families to retirees. These people are coming for recreational activities and proximity to their secondary home, they have the means to utilize the Airport if they choose to.

Mr. Colman stated that typically three perspectives come out of these research projects: the "smoking gun", the "ah hahs", and the "hmmms". Mr. Colman explained that there were no "smoking guns" found, a few "ah hahs" and a lot of "hmmms." Mr. Colman cautioned the Board about the "hmmms" as they require more research to really understand.

Mr. Colman stated that his team did a correlation analysis on based aircraft at the Airport that were here for the last 10 years. The numbers, historically, was not reflective as a pure demand driven number, as it was a supply limited number. Which was dependent on aircraft storage limits of the Airport. During 2011-2014 the Airport started to see a change in demand of the type of aircraft storage units it had available (larger box hangars). Mr. Colman explained to the Board that industry data is not limited by storage supply, they are truly dependent on demand drivers. It was also explained that just because something correlates, does not mean it is a change factor (cause and effect), it just shows there is a similar trend. Director Hetherington inquired about negative correlation. Mr. Colman stated that the highest negative correlation on the itinerant operations table is the California Active Pilots. It is interpreted as, the operations are going up California active pilots are going down. Mr. Colman stated

that they shouldn't draw a conclusion to implement a program to actively stop individuals to become pilots to decrease operations.

Please refer to the Demand Driver presentation located on the website for further detail.

Mr. Colman stated that they did a market assessment and compared the Truckee Tahoe Airport to the seven competitive airports within a 60 minute driving distance from the Truckee Tahoe Airport. It found that while the Airport ranked 6<sup>th</sup> in itinerant operations the Airport ranked 4<sup>th</sup> in fuel volumes and 1<sup>st</sup> in based aircraft. Many of the competitive airports have a broader range of general aviation products, services and facilities. Four of the competitive airports have longer runways. Director Hetherington stated that the Airport is 4<sup>th</sup> in fuel volumes, but that is a sum, and is not separated by Jet A and 100LL. Also, Jet operators are purchasing fuel at a corporate level. The accuracy of operation numbers at other airports was discussed as well as operations that are repositioned for fuel, and the dynamics of fuel pricing at airports.

Mr. Colman stated that for the aviation interviews, ten based and transient customers were interviewed. The based customers had a primary or secondary home within forty-five minutes from the Airport. The transient customers were a mix of Part 91, Part 135 and fractional aircraft operators. These customers are using the Airport due to Location. There is a desire to increase safety with aircraft deicing services/facilities and instrument approaches. They do not want to see flight restrictions, and they have concerns regarding cost of fuel and aircraft storage.

451 based and transient aircraft customers were surveyed. There was a 22.84% response rate, 95% confidence, and a 4.25% margin of error. The survey found, again, the Airport is preferred due to its location. The most important item for based customers was aircraft storage (and pricing) and the General Aviation Terminal was most important to transient aircraft customers. Instrument procedures, aircraft deicing services/facilities, and cheaper fuel would increase operations (statistically). The survey also found that decreasing the runway (length), elimination of fueling services and increased fuel prices would decrease operations (statistically).

Mr. Hooper stated there were three components to the Non-Aviation Demand Driver Study: Research Approach and Methodology, Correlation Analysis, and Non-Aviation Market Assessment and Survey. Mr. Hooper presented a map of the non-aviation demand drivers study area. This area goes beyond District boundaries, as several users of the Airport live in Incline Village and on the East Shore of Lake Tahoe Basin. A correlation analysis of both Based aircraft and Itinerant aircraft was conducted. Itinerant operations is growing, not based aircraft. There is much more of a stronger correlation for itinerant aircraft and non-aviation demand drivers (i.e.: residential housing units, population, visitor spending, oil prices, US GDP, Stock Market, etc.). Please refer to the Demand Driver presentation located on the website for further detail.

Ms. Seana Doherty, Fresh Tracks Communication, conducted the non-aviation market assessment and survey. The interviewees represented local business leaders, developers, plus on the ground Airport staff. The constituency or customer base is made up of second homeowners, tourists, young families to retirees primarily from the Bay Area. The visitors to the Truckee Region are drawn to the recreation and mountain lifestyle, as well as the ease of access from the Bay Area (driving and flying). Some home associations estimate 5-25% up to 40% of constituents utilize the Airport to access our region. Martis Camp estimated the completion of homes has directly resulted in an increase of activity at the Airport. The question of what has driven demand recently was asked, which resulted in the following responses: growth in the luxury real estate product, improvements in the Bay Area Economy, and Truckee-Tahoe region is a destination for operators like NetJets and Surf Air.

127 Director Hetherington thought the summary in the appendix was insightful. Mr. Smith stated that the  
128 biggest repeating theme is the economy in the Bay Area. Ms. Doherty noted that if Silicon Valley is doing  
129 well, the Truckee Tahoe region will be doing well.

130 Director Van Berkem questioned if Managed Growth becomes a goal of the Board, does that mean the  
131 Airport should start taking stands on future high end developments. Director Hetherington stated that  
132 they should make comments on developments which could increase operations at the Airport. Director  
133 Hetherington gave the example of the Town of Truckee making comments on the Olympic Valley  
134 development based on increase vehicle traffic that would impact the Town. President Jones stated that  
135 if they want to slow growth, they have already missed the train and that it is already here. President  
136 Jones expressed that they should concentrate on specific problems that are occurring in present time.  
137 Director Van Berkem stated he agrees, but thinks they should do both.

138 Director Morrison stated that he would like the mantra of "location, location, location" to have a bigger  
139 emphasis in the executive summary. Director Hetherington noted that she would like to see the home  
140 valuations to be more specific than just +\$1 million. Director Hetherington stated she would like \$5  
141 million and \$10million to be a category. Mr. Colman stated that the study looks at total operations,  
142 which are operations made up of broader audiences. Director Hetherington stated it would be a better  
143 analysis to have it broken out. Mr. Hooper offered another view point in that second homeowners' may  
144 have a \$5-\$10 million dollar primary residence someplace else, but their second home, where they only  
145 visit a weekend a month is much cheaper (i.e.: \$1 million dollar homes/condos). Vice President Wallace  
146 stated that the summary should mention the demand drivers, but also the demand influencers as the  
147 Airport has more control over the influencers than the drivers (location and economy).

148 President Jones questioned if the Airport should be taking actions that negatively impact the economic  
149 growth of the communities within its District.

150 Director Hetherington stated the research results on page two should be expanded in the summary.

151 Mr. Hooper stated that they will take all the notes given, dive deeper into the numbers and adjust the  
152 executive summary accordingly.

153 **PUBLIC COMMENT: None**

154 **BREAK**

155 At 10:12 AM President Jones requested a 10 minute break. The Board went back into session at 10:26  
156 AM

157 **FRAMEWORK: CREATING AN INTEGRATED PLAN FOR ADRESSING GROWTH, SUSTAINABILITY, AND**  
158 **TRANQUILITY AT THE AIRPORT**

159 Mr. Smith clarified some of the acronyms that are listed on the infographics, which is the discussion tool  
160 that will be used for the managed growth discussion. Mr. Smith stated that the infographics are staffs  
161 prospective of the process they see is going on. Mr. Smith suggested the Board start discussing the  
162 "Principle" infographic, which are the laws or truths everyone should agree on. The principles should be  
163 the basis to eventually come up with goals. Mr. Smith expressed that there is not currently any  
164 consensus on common goals. Please refer to the attached notes from Ms. Seana Doherty and the  
165 infographics themselves for additional information. Mr. Smith noted that the infographics are currently

166 very busy, with a lot of information and questions, it is staffs goal to have a more concise one page  
167 document eventually.

168 Ms. Doherty suggested the Board use the multiple infographics to frame their conversation, it has been  
169 designed for the issues the Board needs to discuss to attempt to find consensus. Ms. Doherty started  
170 with the principle infographic and questioned the Board if they all agree with the truths listed.  
171 Discussion and deliberation ensued amongst the Board members regarding the truths listed. There was  
172 Board consensus on the following truths: Support impacted communities and neighborhoods,  
173 discourage night operations, being constantly vigilant as to what might affect operations, the Airport is  
174 subject to meet its FAA Grant Assurances, US and Regional economy impacts operations, reducing  
175 impact and annoyance, Influence when and where aircraft fly, enhance safety for all, environmental  
176 economy and sustainability, quality of staff. The Board was divided on the following truths, which they  
177 felt needed further deliberation and discussion: TTAD's Mission statement is still relevant,  
178 Understand/Acknowledge the Airport's impact on the local economy, and maintain quality facilities (the  
179 term quality needs to be defined).

180 A conversation ensued about Board members representing their constituents. Mr. Smith stated that he  
181 started to draft strategy area seven for the District's strategic plan. Mr. Smith shared a definition of  
182 constituency, "to achieve balance, the Board honors, respects and recognizes that individual Directors  
183 have unique assessments about the definition of District constituents as it relates to managed growth."  
184 President Jones stated that Board members are supposed to try to balance the demands of all of the  
185 District's constituents. Mr. Colman expressed that once an official is elected, without disrespecting the  
186 constituents that elected them, the official has a broader role beyond their constituency that elected  
187 them. They have a broader body of stakeholders that they have to acknowledge and/or support. For the  
188 Airport Board it includes their District constituents, based customers, transient customers, the FAA, etc.

189 The Board discussed the infographic pertaining to "goals." Director Morrison stated that the Venn  
190 Diagram of "well balanced growth" should have an additional circle which states "growth" which  
191 overlaps "reasonable and responsible growth" which overlaps "sustainability and tranquility". Mr. Smith  
192 clarified this Venn Diagram pertains to regional growth and how the District wants to involve themselves  
193 in those discussions. President Jones stated that he has a goal of focusing on a proactive noise reduction  
194 program, which includes a full time employee solely dedicated to doing that, as well as a temporary  
195 control tower coupled with surveillance to the ground. Director Hetherington stated that she is in favor  
196 of striving to avoid increasing operations, and would like that added to the goal infographic. Director  
197 Morrison replied that they should be responding to forecasted growth as well. A discussion ensued  
198 amongst the Board members regarding the two and which one should take preference.

199 The Board discussed the next offsite retreat where they would continue the managed growth  
200 discussion. Director Hetherington expressed that she does not feel it is an appropriate topic to have  
201 offsite, as she believes it's a subject that should be recorded and streamed. President Jones stated that  
202 he is not in favor of attending an offsite retreat and a managed growth special meeting, it's either one or  
203 the other. District Counsel Collinson informed the Board that the offsite retreat is still considered a  
204 special meeting.

205 **PUBLIC COMMENT:** None.

## 206 **NEXT STEPS**

207 Ms. Doherty inquired about what worked today and what didn't with the Board. Director Wallace stated  
208 that the Demand Driver Study was very helpful, the infographics were helpful. Director Wallace

209 questioned whether they need consensus on everything and what the expectation for the time period  
210 needs to lapse. Director Van Berkem expressed that the Board needs to start getting tactical, and make  
211 strategic and important decisions, which might include some debates on specific subjects. Director  
212 Morrison expressed agreement with Director Van Berkem. President Jones would like to see the Board  
213 tackle the noise mitigation program. Director Hetherington wishes to have authentic conversations, and  
214 that it is difficult for small governments to not to build and not to grow. Director Hetherington wishes  
215 staff to be aware that they present topics with a neutral standpoint (not pro-growth or anti-growth).

216 **PUBLIC COMMENT:** None

217 **ADJOURNMENT OF MEETING**

218 **MOTION #1 NOVEMBER-12-15:** Director Morrison motioned to adjourn the meeting. Director Van  
219 Berkem seconded the motion. President Jones, Vice President Wallace, Directors Van Berkem, Morrison  
220 and Hetherington voted in favor of the motion. The motion passed.

221 **TO WATCH THE MEETING IN its ENTIRTY, IT CAN BE FOUND HERE UNDER "BOARD MEETING**  
222 **ARCHIVES":** <http://ktrk-live.s3-website-us-west-2.amazonaws.com/>

223 At 12:04 p.m. the November 12, 2015 special meeting of the Truckee Tahoe Airport Board of Directors  
224 adjourned.





# WELCOME

## DEMAND DRIVERS STUDY



November 12, 2015

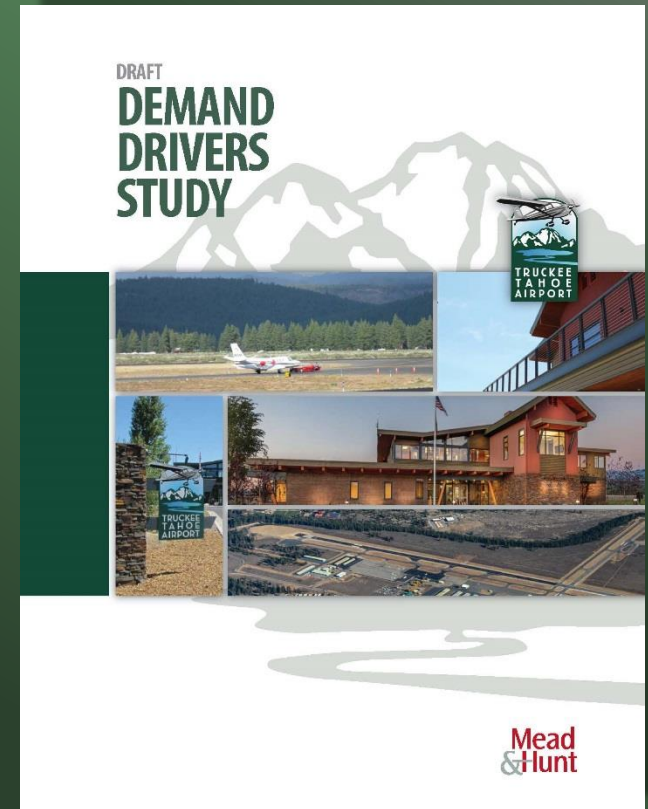
# DEMAND DRIVERS STUDY

## Aviation Demand Drivers

- Interviews & Pilot's Survey
- Correlation Analysis
- Market Assessment

## Non-Aviation Demand Drivers

- Interviews
- Correlation Analysis
- Market Assessment

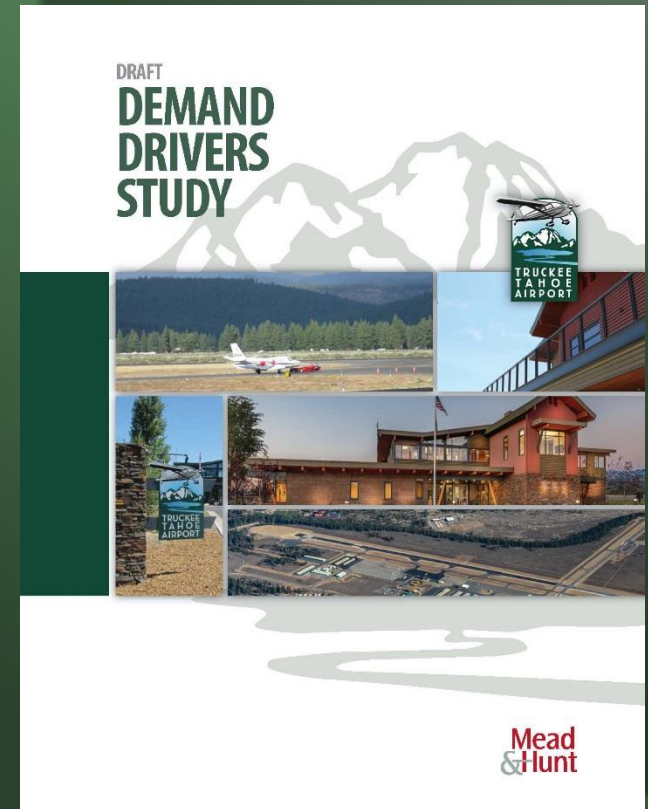




# DEMAND DRIVERS STUDY

## Appendices

- Aviation Demand Background
- Aviation Interview Questionnaire
- Aviation Survey Results
- Non-aviation Market Assessment



# DEMAND INFLUENCERS AND DEMAND DRIVERS

Influencers: Indirectly cause changes in demand  
(ex. Aircraft Deliveries, Pilot Age, Stock Market)

Drivers: directly cause changes in demand  
(ex. Home Sales, Snow Removal and Deicing)

May or may not be under the control of TTAD



# SUMMARY OF FINDINGS

- Activity in the region is not spread evenly
- Activity at TRK in line with national trends
- Pricing and services may influence usage
- Primary demand driver for TRK is proximity



# SUMMARY OF FINDINGS

- Primary demand driver for TRK is proximity





# SUMMARY OF FINDINGS - AVIATION

## Based Aircraft and Itinerant Operations Correlation

- Aircraft Deliveries
  - Single Engine and Jet
- Active Pilots
  - California and the U.S.
- General Aviation and On-Demand Activity
  - Active Aircraft and Hours Flown



# SUMMARY OF FINDINGS - AVIATION

## Aviation Interviews

- Common driver for operating at TRK
  - Proximity to users homes and business
- Users driven to area for local characteristics
  - Recreational areas, resorts





# SUMMARY OF FINDINGS - AVIATION

## Aviation Survey

- Location of an airport is a demand driver
- 17 of 76 based respondents are on hangar wait list
  - 13 of 17 waiting for box hangar
- Activities that may increase traffic
  - instrument procedures, deicing, cheaper fuel



# SUMMARY OF FINDINGS – NON-AVIATION

## Based Aircraft and Itinerant Operations Correlation

- Community Growth
  - Income, Housing Supply, Population
- Local Economic Growth
  - Visitor Spending, Total Tax Revenue
- National Economic Growth
  - Oil Price, Gross Domestic Product, Stock Market



# SUMMARY OF FINDINGS – NON-AVIATION

## Non-Aviation Market Assessment

- Primarily Affluent Bay Area Residents
- Coming for recreational activities and proximity to primary and secondary home
- Affluent people have chosen to build homes here, and have the means to utilize TRK, if they choose to.



# AVIATION DEMAND DRIVERS

- Research Approach and Methodology
- Correlation Analysis
- Aviation Market Assessment
- Aviation Interview
- Aviation Survey



# AVIATION DEMAND DRIVERS

## Correlation Analysis: Based Aircraft

Truckee Tahoe Airport Correlation Analysis (Based Aircraft)											
Demand Influencers	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	TREND CC
Based Aircraft (Total)	233	233	233	233	233	234	223	218	214	212	N/A
New Aircraft Deliveries (U.S.)											
SE Piston	2,326	2,513	2,417	1,943	893	781	761	817	908	986	0.57
ME Piston	139	242	258	176	70	108	137	91	122	143	0.32
Turboprop	375	412	465	538	446	368	526	584	645	603	-0.87
Business Jet	750	887	1,137	1,317	874	767	696	672	678	722	0.58
Active Pilots											
California	68,693	65,867	64,129	65,116	61,709	64,529	62,606	61,185	59,841	59,213	0.81
Nevada	6,874	6,757	6,654	6,886	6,677	7,008	6,954	6,927	6,811	6,841	-0.19
United States*	609,735	597,109	590,349	613,746	594,285	627,588	617,128	610,576	599,086	593,499	0.19
General Aviation and On-Demand 14 CFR Part 135 Active Aircraft											
California	25,337	23,854	23,813	25,292	24,811	22,830	N/A	21,316	20,560	N/A	0.87
Nevada	2,990	3,374	3,512	3,093	2,022	2,030	N/A	2,246	2,322	N/A	0.39
United States*	224,352	221,943	231,607	228,663	223,876	223,370	N/A	213,665	204,085	N/A	0.91
General Aviation and On-Demand 14 CFR Part 135 Hours Flown (in Thousands)											
California	2,871	3,201	2,540	2,651	2,555	2,350	N/A	2,309	2,331	N/A	0.54
Nevada	413	625	573	377	276	343	N/A	319	323	N/A	0.40
United States*	26,982	27,705	27,851	26,009	23,763	24,802	N/A	24,554	23,009	N/A	0.62

\*Includes other U.S Territories



# AVIATION DEMAND DRIVERS

## Correlation Analysis: Itinerant Operations

Truckee Tahoe Airport Correlation Analysis ( General Aviation Itinerant Operations)

Demand Influencers	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	TREND CC
General Aviation Itinerant Operations	10,213	14,307	15,618	11,031	14,908	15,533	15,398	15,863	16,729	17,875	N/A
New Aircraft Deliveries (U.S)											
SE Piston	2,326	2,513	2,417	1,943	893	781	761	817	908	986	-0.59
ME Piston	139	242	258	176	70	108	137	91	122	143	-0.15
Turboprop	375	412	465	538	446	368	526	584	645	603	0.50
Business Jet	750	887	1,137	1,317	874	767	696	672	678	722	-0.46
Active Pilots											
California	68,693	65,867	64,129	65,116	61,709	64,529	62,606	61,185	59,841	59,213	-0.85
Nevada	6,874	6,757	6,654	6,886	6,677	7,008	6,954	6,927	6,811	6,841	-0.09
United States*	609,735	597,109	590,349	613,746	594,285	627,588	617,128	610,576	599,086	593,499	-0.31
General Aviation and On-Demand 14 CFR Part 135 Active Aircraft											
California	25,337	23,854	23,813	25,292	24,811	22,830	N/A	21,316	20,560	N/A	-0.79
Nevada	2,990	3,374	3,512	3,093	2,022	2,030	N/A	2,246	2,322	N/A	-0.42
United States*	224,352	221,943	231,607	228,663	223,876	223,370	N/A	213,665	204,085	N/A	-0.50
General Aviation and On-Demand 14 CFR Part 135 Hours Flown (in Thousands)											
California	2,871	3,201	2,540	2,651	2,555	2,350	N/A	2,309	2,331	N/A	-0.55
Nevada	413	625	573	377	276	343	N/A	319	323	N/A	-0.10
United States*	26,982	27,705	27,851	26,009	23,763	24,802	N/A	24,554	23,009	N/A	-0.46

\*Includes other U.S Territories





# AVIATION DEMAND DRIVERS

## Aviation Market Assessment

- Looked at 7 competitive airports within a 60 minute driving distance from TRK.
- While TRK ranked 6<sup>th</sup> in itinerant operations\*, TRK ranked 4<sup>th</sup> in fuel volumes and 1<sup>st</sup> in based aircraft.
- Many of the competitive airports have a broader range of general aviation products, services, and facilities.
- 4 of the competitive airports have longer runways.



# AVIATION DEMAND DRIVERS

## Aviation Interviews

- 10 based and transient TRK customers.
  - Based customers had a primary or second home within 45 minutes of TRK.
  - Transient customers mix of Part 91, Part 135, and fractional aircraft operators.
- Using TRK due to location, location, location.
- Desire to increase safety with aircraft deicing services/facilities and instrument approaches.
- Do not want to see flight restrictions.
- Concerns regarding cost of fuel and aircraft storage.



# AVIATION DEMAND DRIVERS

## Aviation Survey

- 451 based and transient aircraft customers surveyed.
  - 22.84% response rate, 95% confidence, 4.25% margin of error
- TRK preferred airport – location, location, location.
- The General Aviation Terminal is most important to transient aircraft customers and aircraft storage (and pricing) is most important to based aircraft customers.
- Instrument procedures, aircraft deicing services & facilities, and cheaper fuel would increase operations.
- Decreased runway length, elimination of fueling services, and increased fuel pricing would decrease operations.



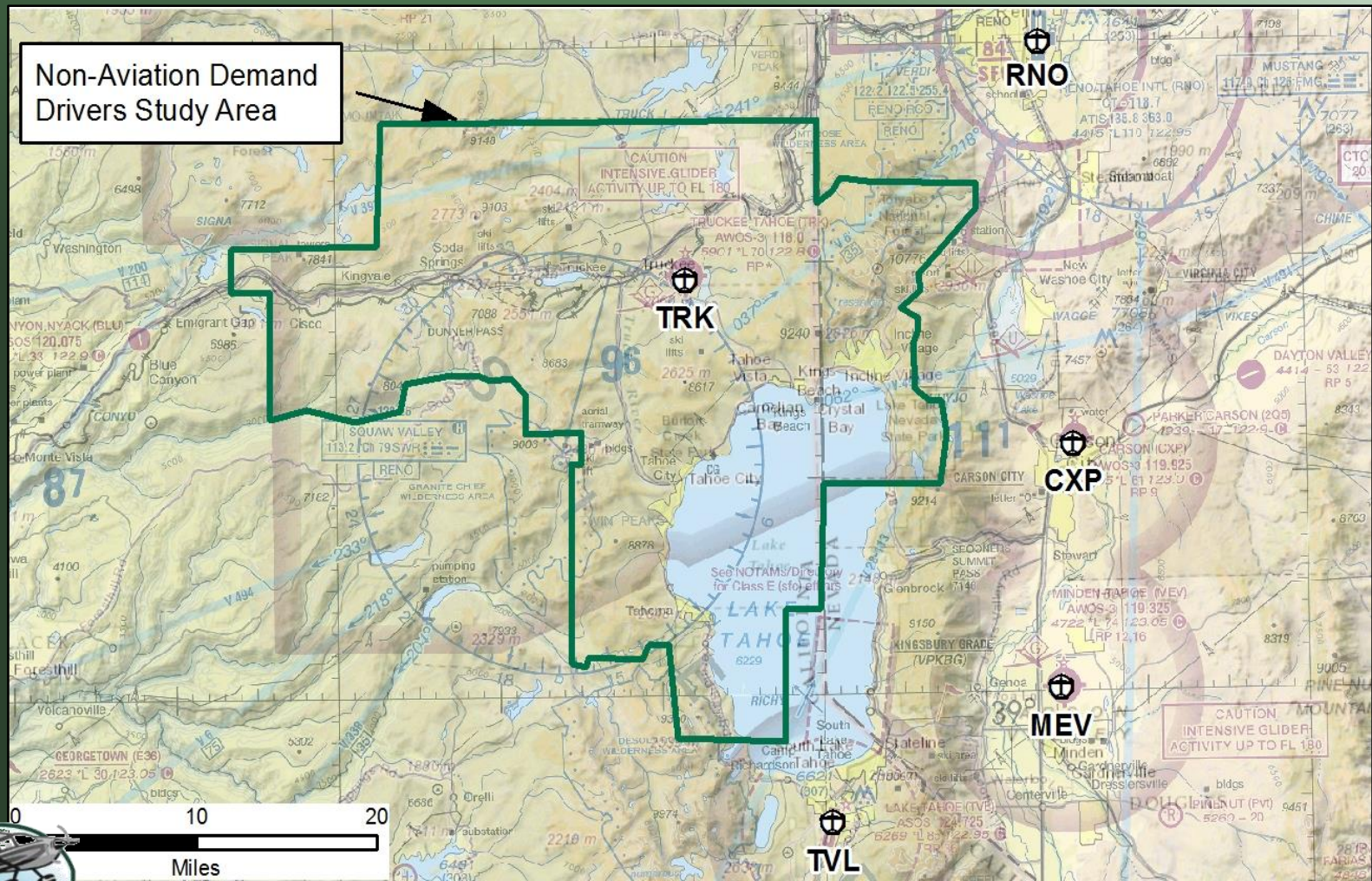
# NON-AVIATION DEMAND DRIVERS

- Research Approach and Methodology
- Correlation Analysis
- Non-Aviation Market Assessment and Survey





# NON-AVIATION DEMAND DRIVERS



# NON-AVIATION DEMAND DRIVERS

## Correlation Analysis: Based Aircraft

Truckee Tahoe Airport Correlation Analysis (Based Aircraft)

Demand Influencers	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	TREND CC
Based Aircraft (Total)	233	233	233	233	233	234	223	218	214	212	N/A
Residential Housing Units											
Unit Sales (All)	2,841	1,795	1,529	1,128	1,274	1,515	1,562	1,871	2,266	1,958	-0.32
Unit Sales (Greater than \$1M)	419	354	314	216	134	181	131	182	310	361	-0.08
Unit Sales (New)	265	158	204	114	52	55	30	17	42	61	0.57
Unit Sales (New Greater than \$1M)	24	41	57	36	3	N/A	N/A	N/A	6	20	0.47
Total Units	41,183	41,341	41,545	41,659	41,711	41,766	41,796	41,813	41,855	41,916	-0.67
Estimated Data											
Households	16,512	16,604	16,697	16,790	16,882	16,975	17,143	17,311	17,478	17,646	-0.93
Population	40,719	40,740	40,761	40,782	40,803	40,824	41,349	41,874	42,398	42,923	-0.98
Median Age	40	40	40	40	40	40	41	41	41	42	-0.98
Average Household Income	\$82,298	\$82,665	\$83,033	\$83,400	\$83,768	\$84,135	\$85,178	\$86,221	\$87,263	\$88,306	-0.96
Median Household Income	\$61,001	\$61,735	\$62,469	\$63,204	\$63,938	\$64,672	\$64,810	\$64,949	\$65,087	\$65,226	-0.71
Population (Census)	N/A	N/A	N/A	N/A	N/A	16,164	16,171	16,122	16,144	16,297	-0.36
Visitor Spending (Millions)	\$355	\$383	\$386	\$405	\$411	\$464	\$486	\$487	\$509	\$530	-0.87
TOT Revenue (NLTRA)	\$7,362,800	\$7,047,600	\$6,632,300	\$7,432,700	\$8,598,300	\$9,558,700	\$9,976,900	\$10,629,200	\$11,462,500	\$11,840,600	-0.89
TOT Revenue (Truckee)	\$1,070,400	\$1,300,000	\$1,342,300	\$1,433,700	\$1,339,900	\$1,433,700	\$1,450,900	\$1,520,200	\$1,827,900	\$1,959,000	-0.86
Average Crude Oil Spot Price	\$56.49	\$66.02	\$72.32	\$99.57	\$61.65	\$79.40	\$94.87	\$94.11	\$97.91	\$93.26	-0.67
United States GDP (Billions)	\$13.10	\$13.90	\$14.50	\$14.70	\$14.40	\$15.00	\$15.50	\$16.20	\$16.80	\$17.40	-0.91
S&P 500 Average Close	1,208	1,318	1,478	1,215	946	1,131	1,281	1,387	1,652	1,944	-0.79
Truckee Sales Tax (Base)	\$2,889,900	\$3,297,000	\$3,453,000	\$3,520,000	\$2,664,000	\$2,530,000	\$2,868,000	\$2,869,000	\$3,086,000	\$3,457,000	-0.15





# NON-AVIATION DEMAND DRIVERS

## Correlation Analysis: Itinerant Operations

Truckee Tahoe Airport Correlation Analysis ( General Aviation Itinerant Operations)

Demand Influencers	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	TREND CC
General Aviation Itinerant Operations	10,213	14,307	15,618	11,031	14,908	15,533	15,398	15,863	16,729	17,875	N/A
Residential Housing Units											
Unit Sales (All)	2,841	1,795	1,529	1,128	1,274	1,515	1,562	1,871	2,266	1,958	-0.13
Unit Sales (Greater than \$1M)	419	354	314	216	134	181	131	182	310	361	-0.18
Unit Sales (New)	265	158	204	114	52	55	30	17	42	61	-0.64
Unit Sales (New Greater than \$1M)	24	41	57	36	3	N/A	N/A	N/A	6	20	-0.21
Total Units	41,183	41,341	41,545	41,659	41,711	41,766	41,796	41,813	41,855	41,916	0.74
Estimated Data											
Households	16,512	16,604	16,697	16,790	16,882	16,975	17,143	17,311	17,478	17,646	0.77
Population	40,719	40,740	40,761	40,782	40,803	40,824	41,349	41,874	42,398	42,923	0.68
Median Age	40	40	40	40	40	40	41	41	41	42	0.69
Average Household Income	\$82,298	\$82,665	\$83,033	\$83,400	\$83,768	\$84,135	\$85,178	\$86,221	\$87,263	\$88,306	0.75
Median Household Income	\$61,001	\$61,735	\$62,469	\$63,204	\$63,938	\$64,672	\$64,810	\$64,949	\$65,087	\$65,226	0.74
Population (Census)	N/A	N/A	N/A	N/A	N/A	16,164	16,171	16,122	16,144	16,297	0.76
Visitor Spending (Millions)	\$355	\$383	\$386	\$405	\$411	\$464	\$486	\$487	\$509	\$530	0.77
TOT Revenue (NLTRA)	\$7,362,800	\$7,047,600	\$6,632,300	\$7,432,700	\$8,598,300	\$9,558,700	\$9,976,900	\$10,629,200	\$11,462,500	\$11,840,600	0.70
TOT Revenue (Truckee)	\$1,070,400	\$1,300,000	\$1,342,300	\$1,433,700	\$1,339,900	\$1,433,700	\$1,450,900	\$1,520,200	\$1,827,900	\$1,959,000	0.75
Average Crude Oil Spot Price	\$56.49	\$66.02	\$72.32	\$99.57	\$61.65	\$79.40	\$94.87	\$94.11	\$97.91	\$93.26	0.38
United States GDP (Billions)	\$13.10	\$13.90	\$14.50	\$14.70	\$14.40	\$15.00	\$15.50	\$16.20	\$16.80	\$17.40	0.78
S&P 500 Average Close	1,208	1,318	1,478	1,215	946	1,131	1,281	1,387	1,652	1,944	0.57
Truckee Sales Tax (Base)	\$2,889,900	\$3,297,000	\$3,453,000	\$3,520,000	\$2,664,000	\$2,530,000	\$2,868,000	\$2,869,000	\$3,086,000	\$3,457,000	-0.03



# NON-AVIATION DEMAND DRIVERS

## Non-Aviation Market Assessment and Survey

- Interviewees represented local business leaders and developers, plus on-the-ground TRK staff.
- Questions asked:
  - Who their constituency or customer base is?
  - Why they visit the Truckee/Tahoe region?
  - How they get to the area?
  - If their constituency use TRK?
  - If their constituency use TRK more or less than 10 years ago, what has driven that trend (internal or external to TTAD)
  - What might drive an increase or decrease in operations at TRK in the future?



# NON-AVIATION DEMAND DRIVERS

## Non-Aviation Market Assessment and Survey

- Constituency or Customer Base
  - Second homeowners
  - Tourists
  - Primarily Bay Area
  - Young families to retirees
- Visitors to the Truckee-Tahoe Region
  - Recreation and mountain lifestyle
  - Ease of access to Bay Area (driving and flying)



# NON-AVIATION DEMAND DRIVERS

## Non-Aviation Market Assessment and Survey

- Access to the Area
  - Flying to TRK was a significant response,
  - Some associations estimate 5%-25%, up to 40% of constituents utilize TRK to access the area
  - Martis Camp estimated the completion of homes has directly resulted in an increase of activity at TRK
- What has Driven Demand Recently?
  - Growth in the luxury real estate product
  - Improvements in the Bat Area economy
  - Truckee-Tahoe Region as a destination for events

NetJets and Surf Air







# THANK YOU





**TTAD Board of Directors  
Managed Growth Workshop #3  
November 12, 2015  
SUMMARY NOTES**

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**Attendees:**

Board: John Jones, Mary Heatherington, Jim Morrison, Tom VanBerkem  
Lisa Wallace

Staff: Kevin Smith, Hardy Bullock, Phred Stoner, Lauren Tapia, Sally Jones

Consultants: Mead & Hunt

Meeting Facilitation: Seana Doherty, Freshtracks

**I. MEETING SUMMARY + OUTCOMES**

How the Airport grows on both the aviation and non-aviation side over the next 10 years is a critical, strategic topic for the Board of Directors. In order to allow ample time to study this topic, discuss and craft policy direction for staff, the Board of Directors have been meeting for several hours over the past several months to discuss the topic of managed growth. The attached set of notes is a summary of the result of the third workshop on this topic and was compiled by outside facilitation firm, Freshtracks.

An important set of data presented at this managed growth workshop was the results of the demand driver study. The demand driver study looked at the external and internal factors that could have an influence on airport operations. The Board commissioned this study as to way to understand what factors they have influence over and which they do not in impacting operations. Though consultants from Mead & Hunt, who conducted the study, made it clear that there was not a direct correlation between internal demand influencers such as hangars and fuel price and prediction of increased operations, it was valuable data for the Board to consider when making decisions.

The demand driver study helped provide some of the background information to help inform the discussion about growth at the airport.

The main summary of the study is that the two top demand drivers for increasing operations at the airport are place (the regional popularity, recreation, etc.) and the national economy. The top demand influencers---factors that may increase operations---were stated as: de-icing facility, size of runway, hangar options, fuel price and instrument procedures (i.e. Tower). It was added that future development could also factor in as a demand influencer though the study did not focus on this.





In short, the demand driver study helped frame the board discussion around growth in spotlighting what they do, and do not have influence over as far as increasing or decreasing operations.

Additionally, staff created a managed growth policy infographic to help map the development of policy to the current work taking place at the airport. The above mentioned infographic is contained in this package with the staff summary.

### **Meeting Outcome**

The Board drafted two managed growth policy statements:

***Respond to forecasted, expected growth and strive to avoid increasing operations***

**OR**

***Strive to avoid increased operations while responding to forecasted growth.***

### **Actions from Workshop #3**

Following is a summary of next steps from the managed growth workshop #3:

- Staff to take input collected on the managed growth infographic and update per feedback
- Next workshop to finalize above policy statements into one version
- Next workshop to focus on using the agreed upon managed growth policy language and make decision on the key topics
- Define decision-making process for workshop #4
- Requested format of next workshop to include:
  - Topic-based roundtable discussion + decisions, timed
  - Background info to be provided by staff (i.e. pros/cons, cost, impacts, benefits to community, studies/data to date)
  - Topics to include: tower, hangar 3, etc.

## **SUMMARY NOTES**

### **AGENDA**

**I. Presentation by Mead & Hunt of Demand Drivers Study**

**II. Managed Growth at TTAD**

**a. Meeting agreements**

**b. Continued conversation from previous two meetings**

**III. Close/Next Steps**

## I. Presentation by Mead & Hunt of Demand Drivers Study

- Fuel price  Operations
- Q: Do fuel prices impact operations?
  - A: yes
- Q: Worth focusing on as a growth management strategy?
  - A: Not a priority over other factors/areas
- Q: Will future developments impact operations?
- Topic: Q: As a board, should we take actions that negatively impact the economic growth of our communities within our District?
- Topic: Agreement - we should limit development that will be impacted by operations/noise – similar to our Open Space policy
- Point: DD study helped us understanding segments in community that likely impact operations
- Clarity around Definitions
  - Demand Drivers = can't control
  - Demand Influencers = can be controlled

<b>Demand Drivers</b> (reference pg. 30 in study)	<b>vs.</b>	<b>Demand Influencers</b> (Fig. 16 in Study)
Location		
Economy		De-icing Facility
		Runway (width/length)
		Hangars
		Fuel price
		Instrument Procedures
		Unit sales (1 vs. 5M), future development (not in study)

- Demand influencers
  - Additional Board Discussion
  - Our work today + in the future
  - Our response to Demand Drivers
- Concluding thoughts regarding Demand Drivers
  - Add: Look at correlation - 5M homes
  - No correlation between 1M homes + operations
- Summary
  - What does drive demand TRK
    1. Location
    2. Economy

- Other influencers
  - Proposed development
- Executive Summary additions:
  - Make point about Location more clear
  - Pg. 2: regarding Fig 16 (check) - Mitch
  - Reference figures/pages for Demand Drivers + Demand Influencers

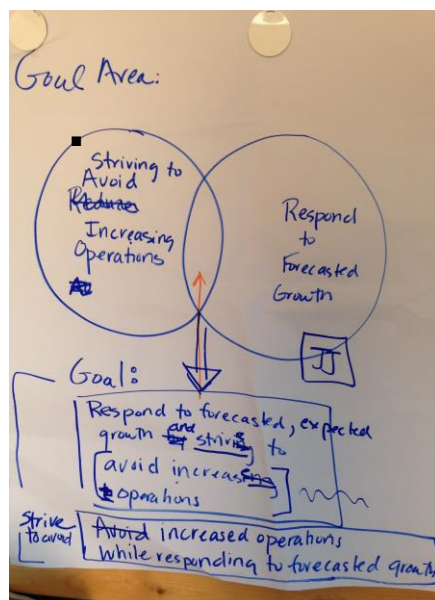
## II. Managed Growth at TTAD

### a. Meeting agreements

- Big topic - be succinct
- Bring our best thinking
- No wrong/bad ideas
- Acknowledge: big topic, don't rush
- Active listening (let others finish)
- Be respectful of each other
- Action—let's get things done

### b. Managed Growth: Continued conversation from previous two meetings

- Who We Serve
  - The constituency we serve:
    - Defined: To achieve balance, the Board honors, respects, and recognizes that individual Directors have unique assessments about the definition of District constituents as if relates to managed growth.
  - Drafting policy language to define managed growth at TTAD. See below for visual capture of conversation.
  - Draft managed growth policy language per board discussion (2 options on the table):



***Respond to forecasted, expected growth and strive to avoid increasing operations***

***Strive to avoid increased operations while responding to forecasted growth.***

### III. Close/Next Steps

- Things that worked well
  - Demand Drivers study draft - Revision capture
  - Validation - we (TTAD) are not driving growth
  - Infographic
  - Respect/honor variety of viewpoints
- Things to change
  - Still don't feel that we are doing enough to deal with noise
  - Clarity on decision-making
  - How are we making decisions? Consensus? Vote?
  - Timing? Now + draft?
  - Need to move to tactics (less on philosophical)
  - Let's debate it
  - Topic debate:
    - Data requested
    - Be neutral
  - What are these topics - Difficult topics (50%)
    - Hangar
    - Tower
    - Surveillance
    - FTE/Pilot Education
    - Time + decision-making process
- Other Comments
  - Caution us to be honest in our assessments when reviewing + creating studies, i.e. broader master plan process