



**City of Santa Barbara**  
Airport Department

**DATE:** September 21, 2016  
**TO:** Airport Commission  
**FROM:** Hazel Johns, Airport Director  
**SUBJECT:** Aviation Forecasting at Santa Barbara Airport

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**RECOMMENDATION:**

That Airport Commission receive a presentation on forecasted activity at the Santa Barbara Airport.

**DISCUSSION:**

2012 Airport Master Plan Aviation Forecast

The Airport Master Plan Aviation Forecast (2012) considered historic data, previous forecasts, Federal Aviation Administration (FAA)'s 2011 Terminal Area Forecast (TAF), as well as local economic data. The purpose of aviation forecasting is to have an evidence-based rationale for planned improvements. It is not intended to predict future aviation activity as there are too many variables to do so with certainty.

Through a historical regression analysis, Staff found the closest correlation between annual enplanements and total Santa Barbara County employment. Projecting County employment based on its historic growth rate provided a 2.5% per year annual enplanement growth rate. This produced similar data to the FAA's 2011 TAF which projected a 2.3% per year growth rate. The Airport Master Plan Advisory Committee agreed that both of these projections were reasonable and supported a 2.3% per year projected growth rate.

While the Aviation Master Plan Forecast projected a 2.3% growth rate for 2012-2015, the actual data shows a 4.7% per year decline in annual enplanements. Many of the declines in enplanements can be attributed to industry-wide trends such as airline mergers, pilot shortages, and consolidation of flights at large hub airports.

2016 Draft TAF

The TAF is the official FAA forecast of aviation activity for U.S. airports. It contains active airports in the National Plan of Integrated Airport Systems (NPIAS) including FAA towered airports, Federal contract towered airports, nonfederal towered airports, and non-towered airports. Forecasts are prepared for major users of the National Airspace System including air carrier, air taxi/commuter, general aviation, and military. The forecasts are prepared to meet the budget and planning needs of FAA and provide information for use by state and local authorities, the aviation industry, and the public.

The TAF is also an important tool that the FAA utilizes when approving forecasts. When an airport completes an aviation forecast as part of a Planning Study, the aviation forecast is compared to the FAA's TAF for consistency before it is approved.

The TAF is prepared annually by the FAA for Group I airports (i.e. airports with >100,000 annual enplanements). The Santa Barbara Airport is one of 30 Group I airports in the FAA Western-Pacific Region and one of 17 in California.

The 2016 Draft TAF uses 2015 as a baseline and projects a 1.8% annual growth rate, which is slightly more conservative than the 2.3% used in the Airport Master Plan Aviation Forecast.

### Commercial Airline Industry Changes

Ten years ago 80% of US domestic enplanements were on the 8 largest carriers. Following recent airline consolidation, 86% of current US domestic enplanements are on the 4 largest carriers. Over the same period, pilot shortages caused by new FAA regulations for training and rest time and fuel costs have driven regional airline fleets to upgauge from 30-seat to 50- or 70-seat aircraft.

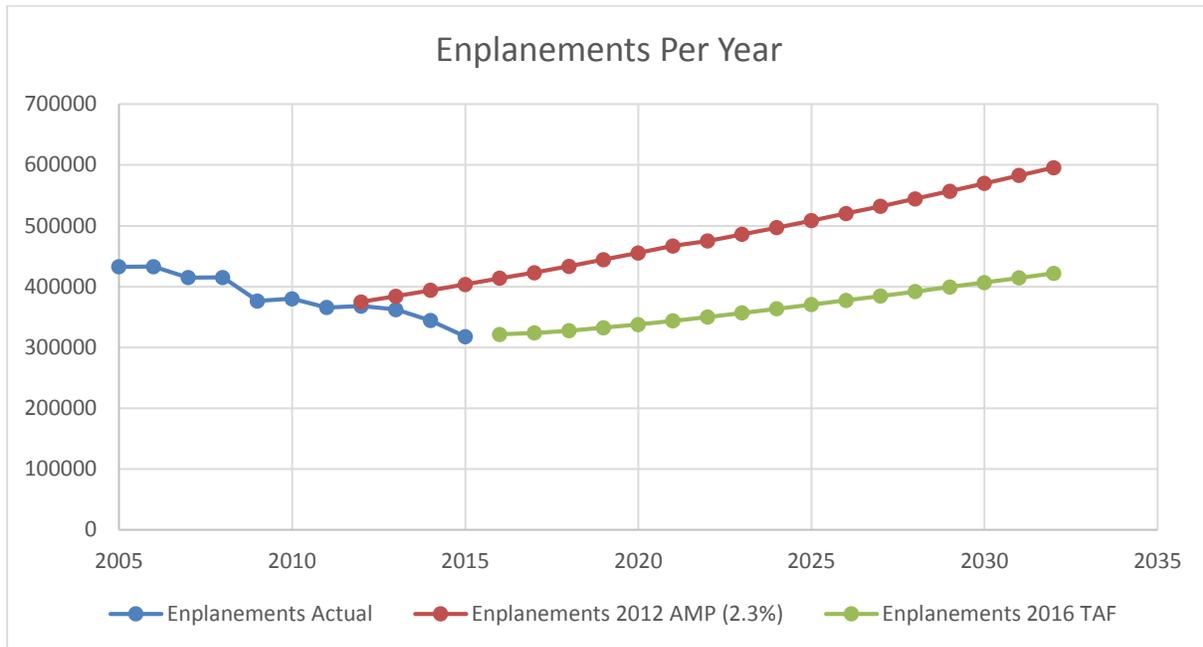
Generally these industry trends have resulted in higher load factors for aircraft, greater profitability for airlines, and slow, stable growth in the domestic airline market. However, following the recession growth only surpassed 2008 enplanements in 2015, with greater focus on service to and between large hub airports, and less competition on routes. As a result, market share has grown at large hub airports and has diminished at small and non-hub airports like Santa Barbara.

Annual enplanements at the Santa Barbara Airport prior to 2008 had been consistently 0.065% of US nationwide enplanements. Since 2008, the Airport has seen a gradual decline in market share, currently at 0.046% (2015). According to the 2016 Draft TAF, Santa Barbara's market share would drop to 0.044%.

### Differences between Forecasts

Actual enplanements in recent years differ greatly from the 2012 Airport Master Plan Aviation Forecast. The past 4 years have presented 4.7% annual reductions in enplaned passengers rather than the forecasted 2.3% growth, which can be attributed to the airline industry changes above. The 2016 Draft TAF uses 2015 actual enplanements as a baseline and projects a similar, slightly more conservative 1.8% annual growth rate than the Airport Master Plan Aviation Forecast.

If the next 15 years follow the Draft 2016 TAF, the Airport will return to 2006-level of annual enplanements. As the Airport Master Plan is a demand-based plan, the Airport Master Plan's proposed Terminal improvements would not be constructed in that scenario. However, the difference in the forecasts narrows slightly since the TAF does not include approximately 21,000 annual enplanements added with the commencement of service to Dallas-Fort Worth.

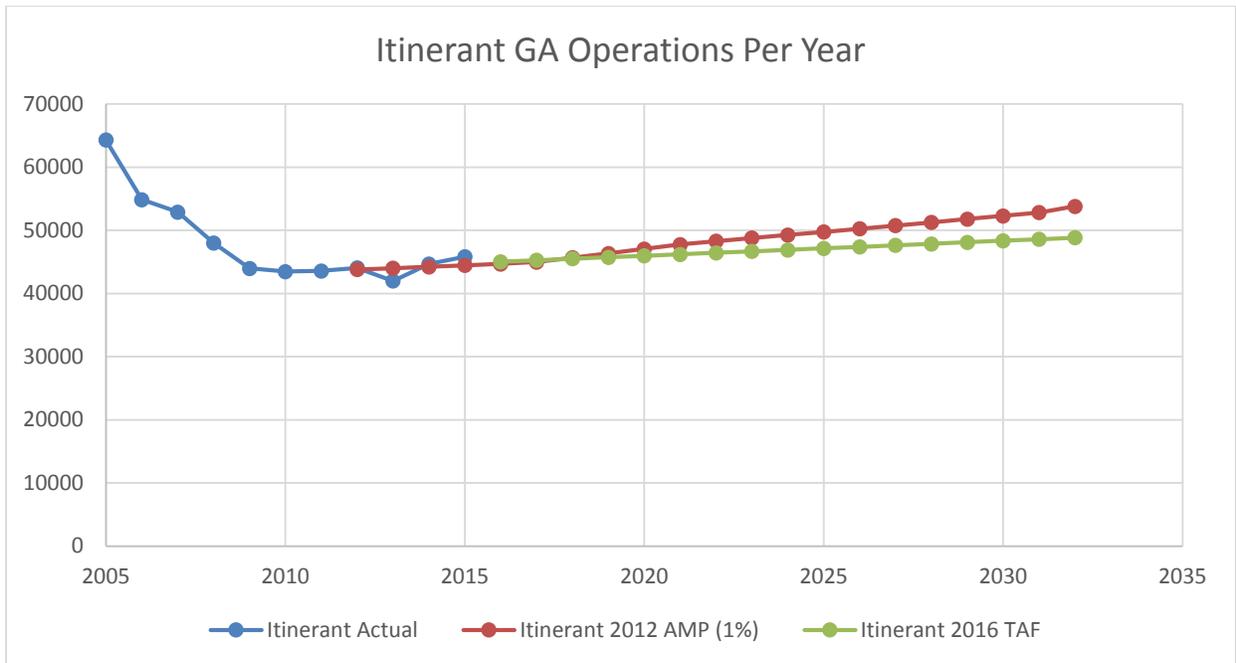


### General Aviation

Both the Airport Master Plan Aviation Forecast and the 2016 Draft TAF also project long-term trends in the private aircraft sector.

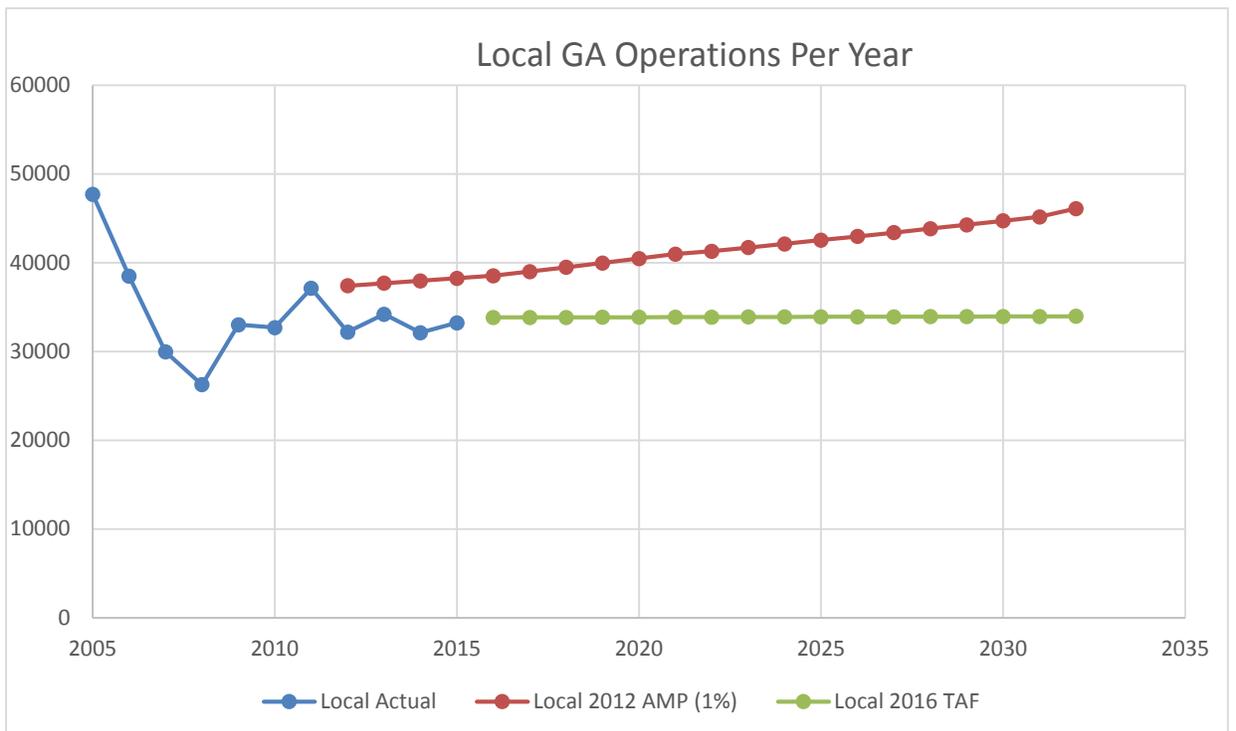
#### *Itinerant GA*

Generally there has been less volatility in itinerant General Aviation (GA) operations. Actual itinerant operations have been consistent with the Airport Master Plan Aviation Forecast of 1% annual growth.



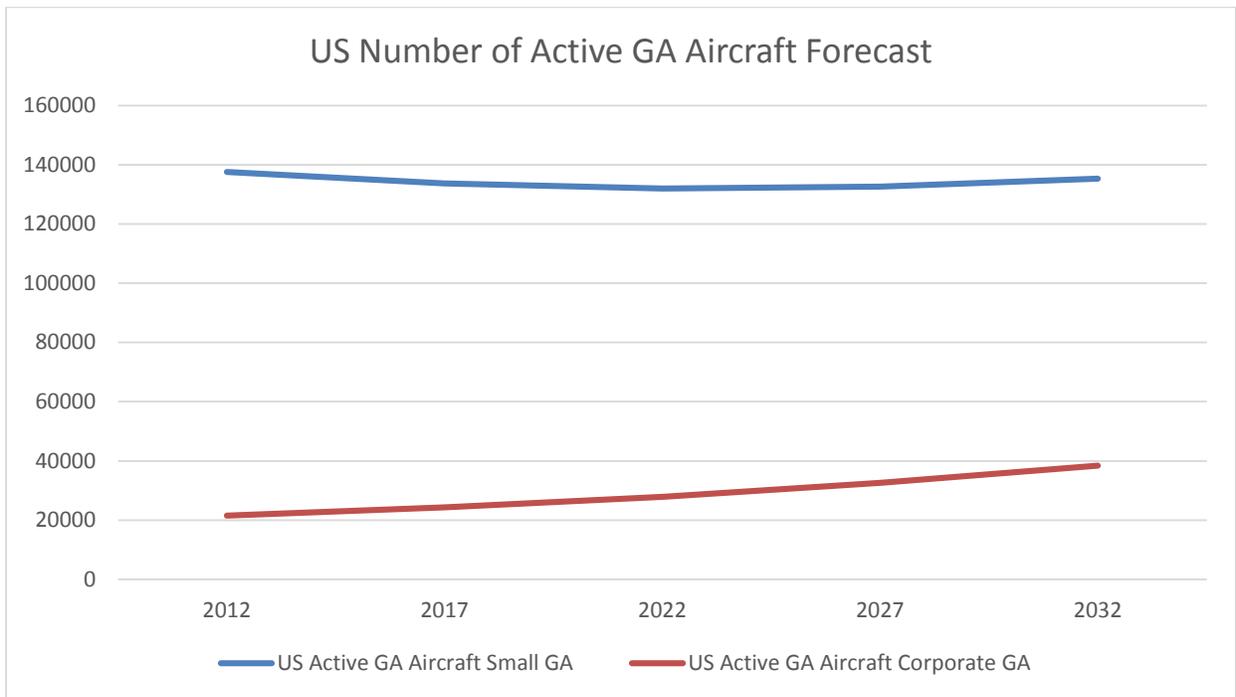
### Local GA

Local GA operations is more vulnerable to economic and demographic changes. In recent years local GA operations have been relatively consistent. While the Airport Master Plan Aviation Forecast projected a 1% per year growth rate, the 2016 Draft TAF projects stability in local GA activity.



### GA Fleet Mix

An important distinction within the GA sector is between small/medium private aircraft and larger corporate turboprop and jet aircraft. While the Airport did not prepare a local forecast of this mix, the TAF projects small private GA aircraft nationwide declining in the short term and growing to current levels of activity in the 2030s. Large GA aircraft, by comparison are expected to nearly double in the United States during that time period. The FAA defines active aircraft as any aircraft that has flown at least 1 hour in a calendar year.



### Conclusion

While the Airport Master Plan Aviation Forecast and 2016 TAF forecast differ significantly in terms of passenger enplanements, both forecasts provide an evidence-based rationale for orderly, cost-effective development of the Airport.

**PREPARED BY:** Administration Division and Facilities Planning Division