SD Airports

Airport Master Plan

Brown Field Municipal Airport

Working Paper 2—Forecast of Aviation Demand

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C&S COMPANIES®

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2.1 Forecast Overview

Forecasts of aviation demand are an essential element to the airport planning process that require Federal Aviation Administration (FAA) review and approval. Demand forecasts, based upon the desires and needs of the service area, provide a basis for determining the type, size and timing of aviation facility development and a platform upon which this master planning study will be based. As the operation and construction of future airport facilities require FAA and local investment, accurate forecasts are essential for effective airport planning and decision-making and influence all subsequent steps of the planning process. As stated in FAA Order 5090.3C, *Field Formulation of the National Plan of Integrated Airport Systems (NPIAS)*, dated December 4, 2004, forecasts should:

- Be realistic,
- Be based on the latest available data,
- Reflect current conditions at the airport,
- Be supported by information in the study,
- Provide adequate justification for the airport planning and development.

Forecasts of Brown Field Municipal Airport's (SDM or Airport) future aviation activity and demand were developed for the planning period extending through 2037 using various data sources provided by the FAA, the California Department of Transportation (Caltrans), Woods & Poole Economics, Inc., San Diego County, and the City of San Diego. The forecast was developed based on the best practice standards as defined in FAA Advisory Circular (AC) 150-5070-6B, *Airport Master Plans*. Consistent with the report *Forecasting Aviation Activity by Airport*, prepared for the FAA in July 2001 by GRA, Incorporated, this forecasting effort was broken into the following steps:

- Identification of Aviation Demand Elements
- Data Sources
- Historical and Existing Aviation Activity
- Review of Aviation Forecasts
- Collection of Data
- Development of the Forecast Framework
- Development of the Forecast
- Demand Forecast Summary
- Comparison with FAA Terminal Area Forecast (TAF)

Additional information specific to SDM and pertinent to future planning is also included.

2.2 Identification of Aviation Demand Elements

Forecasts of aviation demand can be developed for a number of elements or parameters. The key demand elements for Brown Field Municipal Airport include General Aviation (GA) activity, based aircraft, and military operations. Aviation demand forecasts were therefore developed for the following:

- Number of Based Aircraft and Associated Fleet Mix
- Annual General Aviation Operations
- Annual Military Operations

2.3 Data Sources

Information factored into the forecasting effort included FAA GA fleet trends, anticipated changes in the aircraft fleet mix operating at SDM, and local and regional socioeconomic trends. The data and assumptions used to define baseline conditions and future activity trends were derived from several data sources. The following provides a brief description of these data sources:

- ***City of San Diego:*** The City provided historical documentation that was prepared for the Airport that included aviation forecasts such as the airport master plans that were prepared in 1992 and 2010. Information also included forecasts that were prepared as part of the proposed Metropolitan Airpark environmental review process.

- ***FAA Terminal Area Forecast (TAF):*** The TAF is the official FAA forecast of aviation activity for U.S. airports. Activity estimates are derived from national estimates of aviation activity that are then assigned to individual airports based upon multiple market and forecast factors. The FAA looks at local and national economic conditions, as well as trends within the aviation industry, to develop each forecast. The latest TAF was published in January 2017.

- ***FAA Air Traffic Activity Data System (ATADS):*** The Air Traffic Activity Data System contains the official air traffic operations data available for public release. ATADS can be used in this instance because the Airport has an Air Traffic Control Tower (ATCT) so there is no need to estimate operation counts.

- ***FAA Traffic Flow Management System County (TFMSC):*** TFMSC contains data derived from the FAA's Air Traffic Airspace Lab's Traffic Flow Management System. The data provides historical records of aircraft operations that can be reviewed and filtered to provide specific historical information on the aircraft types operating at SDM during a defined period of time.

- ***Noise Monitoring System:*** The City operates a noise monitoring system that records noise levels in communities near Montgomery-Gibbs Executive Airport but can also provide aircraft operations data associated with SDM via NextGen surveillance data feed. This data includes historical records of aircraft operations and the aircraft types operating at SDM during a defined period of time.

- ***Woods & Poole Economics, Inc.:*** Woods & Poole is an independent firm that specializes in developing long-term economic and demographic projections. Their database includes every state, Metropolitan Statistical Area (MSA), and county in the U.S. and contains historic data and projections through 2050 utilizing more than 900 economic and demographic variables.

2.4 Historical and Existing Aviation Activity

Historical aviation activity at the Airport was gathered using the FAA's ATADS program. General Aviation makes up the majority of aircraft activity at 93.1 percent of the total 2016 traffic, while military and air taxi operations make up a combined 6.9 percent. The operations indicate an overall decrease in total aviation activity since 2007 (see **Table 2.1**). Military operations reached a 10-year peak in 2011, but have decreased every year since. The different types of activity are described below:

- ***General Aviation:*** All operations not including air carrier, air taxi and commuter, scheduled commercial cargo, and military. These operations are generally conducted under Federal Aviation Regulations (FAR) Part 91 (General Operating and Flight Rules). GA represents the largest percentage of civil aircraft in the U.S. and accounts for the majority of operations handled by towered and non-towered airports, as well as the majority of certificated pilots. Its activities include flight training, sightseeing, aerial photography, light cargo, recreational, law enforcement, and medical flights, as well as business, corporate, and personal travel via air taxi charter operations. GA aircraft encompass a broad range of types, from single-engine piston aircraft to large corporate jets, as well as rotorcraft, gliders, and amateur-built aircraft.

- ***Military:*** Operations conducted by the nation's military forces. According to airport management, at SDM these typically include C-130 and F-18 aircraft that frequent the Airport to purchase fuel.

- ***Air Taxi and Commuter:*** Carriers that operate aircraft with 60 or fewer seats or have a cargo payload capacity of less than 18,000 pounds, and carries passengers on an on-demand basis only (charter service) and/or carries cargo or mail on either a scheduled or charter basis. Commuter operators provide scheduled passenger service (five or more round trips per week on at least one route according to published flight schedules) while utilizing aircraft of 60 or fewer seats. Air taxi and commuter carriers are governed under FAR Part 135 (Commuter and On Demand Operations).

Airport operations are classified as local and itinerant. Local operations are those operations performed by aircraft that remain in the local traffic pattern, execute simulated instrument approaches or low passes at the airport, and operations to or from the airport and a designated practice area within a 20-mile radius of the ATCT. Itinerant operations are operations performed by an aircraft, under either instrument flight rules (IFR)1, visual flight rules (VFR)2, or special visual flight rules (SVFR)3, that lands at an airport, arriving from outside the airport area, or departs an airport and leaves the airport area.

As shown in **Table 2.1**, the FAA ATADS recorded a decrease of 3.9 percent in the average annual growth rate (AAGR) for total airport operations over the 10-year reporting period. This is consistent with many similar airports with the economic collapse that occurred in 2008/2009 when aircraft activity saw steep declines. Since this time, aircraft activity has been seeing positive trends. When looking at the data for the previous five years at SDM compared to the 10-year reporting period, the negative growth rate has begun to slow down. In fact, there were three consecutive years of growth prior to 2016.

[1] IFR apply when visibility is poor and cloud ceilings are low.
[2] VFR apply when weather is clear (cloud ceiling greater than 3,000 feet AGL and visibility greater than five statute miles).
[3] A VFR flight cleared by air traffic control to operate within a control zone in meteorological conditions below visual meteorological conditions.

Table 2.1 – SDM Historical and Existing Aircraft Operations Data

	Itinerant				Local			
Calendar Year	**Air Taxi**	**GA**	**Military**	**Sub-Total**	**Civil**	**Military**	**Sub-Total**	**Total Operations**
2006	3,360	33,181	3,901	40,487	91,203	3,795	94,998	135,485
2007	3,610	37,690	4,260	45,565	96,440	3,656	100,096	145,661
2008	2,969	36,558	2,423	41,965	65,146	2,947	68,093	110,058
2009	2,063	35,230	825	38,138	50,559	2,898	53,457	91,595
2010	2,249	32,773	1,114	36,136	49,875	3,719	53,594	89,730
2011	1,858	32,760	1,920	36,539	51,874	12,544	64,418	100,957
2012	1,867	27,445	2,648	31,962	50,169	8,640	58,809	90,771
2013	1,559	27,835	3,009	32,416	49,170	8,005	57,175	89,591
2014	1,565	28,468	2,902	32,935	52,323	4,881	57,204	90,139
2015	1,836	31,781	2,198	35,927	53,885	2,864	56,749	92,676
2016	1,832	32,167	1,809	35,839	47,701	2,240	49,941	85,780
AAGR (5-year trend)				**-0.13%**			**-4.58%**	**-3.08%**
AAGR (10-year trend)				**-0.93%**			**-5.19%**	**-3.86%**

Source: FAA ATADS, March 2017

AAGR: Average Annual Growth Rate, used when data is available for consecutive years

Note: Total operations for Air Carrier service over the 10-year period range from 0 to 112 per year and are included in the Total Airport Operations.

2.5 Review Aviation Forecasts

Historical aviation activity forecasts were reviewed to evaluate projected forecasting trends and methodologies used to prepare those analyses.

Forecast Data specific to SDM

Future forecast data was reviewed from the 2010 Airport Master Plan Update (**Table 2.2**), the FAA TAF for years 2016 to 2037 (**Table 2.3**), the Regional Aviation System Plan (RASP) for San Diego County for years 2007 to 2030 (**Table 2.4**), the California Aviation System Plan (CASP), and the Metropolitan Airpark Project (MAP) environmental review documents and correspondence. This forecast data is shown as reported in those documents and has not been adjusted.

2010 Airport Master Plan Update

An Airport Master Plan Update (Master Plan) for SDM was completed in 2010. The 2010 Master Plan included an evaluation of future forecast activity at the Airport. The forecast covered a 20-year planning period with the base year beginning in 2008 and the forecast ending in 2030. **Table 2.2** provides a breakdown of the Master Plan forecast. Overall, the operations forecast projected a compound annual growth rate (CAGR) of 2.9 percent through 2030. Growth was somewhat evenly distributed across all types of activity excluding military, which was projected to remain steady at 5,364 operations per year.

Table 2.2—2010 Airport Master Plan Update for SDM

Year	Air Taxi	GA	Military*	Law Enforce. & Govt.	Total Operations
2008	2,893	96,544	5,364	5,081	109,882
2010	3,096	106,400	5,364	5,600	120,460
2015	4,511	131,100	5,364	6,900	147,875
2020	4,530	152,950	5,364	8,050	170,894
2025	5,072	168,530	5,364	8,870	187,836
2030	5,556	183,825	5,364	9,675	204,420
CAGR	**3.01%**	**2.97%**	**0.00%**	**2.97%**	**2.86%**

Source: Brown Field Municipal Airport Master Plan Update – April 2010, page 2-22
CAGR: Compound Annual Growth Rate, used when data is not available for consecutive years
*Includes both itinerant and local operations

As previously noted, actual 2016 operations totaled 85,780. Therefore, the 2010 Airport Master Plan Update forecast has not yet been met.

Terminal Area Forecast

The FAA TAF provides forecast data for passenger enplanements, airport operations, Terminal Radar Approach Control Facilities (TRACON) operations, and based aircraft, and as such serves as the benchmark against which the FAA compares all airport activity forecasts. The TAF for Brown Field Municipal Airport projects an average annual increase of 0.07 percent for total airport operations, both itinerant and local, from 2016 to 2037. See **Table 2.3**.

Table 2.3—TAF Operations Forecast for SDM

Year	Air Taxi & Commuter	GA*	Military*	Total Operations
2016	1,838	81,191	4,535	87,627**
2017	1,838	79,063	4,535	85,499
2018	1,838	79,226	4,535	85,662
2019	1,838	79,389	4,535	85,825
2020	1,838	79,554	4,535	85,990
2021	1,838	79,719	4,535	86,155
2022	1,838	79,884	4,535	86,320
2023	1,838	80,050	4,535	86,486
2024	1,838	80,216	4,535	86,652
2025	1,838	80,382	4,535	86,818
2026	1,838	80,549	4,535	86,985
2027	1,838	80,716	4,535	87,152
2028	1,838	80,884	4,535	87,320
2029	1,838	81,052	4,535	87,488
2030	1,838	81,220	4,535	87,656
2031	1,838	81,389	4,535	87,825
2032	1,838	81,559	4,535	87,995
2033	1,838	81,729	4,535	88,165
2034	1,838	81,900	4,535	88,336
2035	1,838	82,071	4,535	88,507
2036	1,838	82,243	4,535	88,679
2037	1,838	82,415	4,535	88,851
AAGR	**-**	**0.07%**	**-**	**0.07%**

Source: FAA TAF, January 2017
AAGR: Average Annual Growth Rate, used when data is available for consecutive years
Total operations include 63 air carrier operations per year
*Includes both itinerant and local operations

** 2016 was forecast, not actual conditions, and reflects activity that was greater than occurred. Further, the forecast is established according to the federal fiscal year rather than the calendar year. The 2016 totals will likely be adjusted during the next FAA update.

Regional Aviation Strategic Plan (San Diego County)

The Regional Aviation Strategic Plan (RASP) was prepared for the San Diego County Regional Airport Authority in 2011 for the 12 public-use airports located within San Diego County (the Airport System) to identify current and projected aviation activity in the San Diego region. The RASP utilized forecasts prepared for the baseline year 2007 out to 2037 to then determine the region's long-range air transportation needs and the roles of each airport within the larger Airport System. This included preparing forecasts for each of the 12 individual public-use airports.

According to the RASP, while Brown Field Municipal Airport experienced negative growth trends in the earlier part of the past 10 years, recent years have shown a modest growth increase in the AAGR. The RASP forecast that this trend would continue in the future. See **Table 2.4** below for the RASP developed aircraft operations forecasts.

Table 2.4— RASP Aircraft Operations Growth Rates Forecast for SDM

	SDM
1990-2000 AAGR	-6.1%
2000-2007 AAGR	3.7%
2007-2010 AAGR	-4.6%
2010-2020 AAGR	1.6%
2020-2030 AAGR	1.8%
2007-2030 AAGR	**0.8%**

Source: Regional Aviation Strategic Plan, San Diego County, Table 1-2
AAGR: Average Annual Growth Rate, used when data is available for consecutive years
Note: Military forecasts anticipate no growth in annual county-wide operations and no change in share by airport

California Aviation System Plan

In 2003, the California Department of Transportation Aeronautics Division prepared an update to the CASP. The purpose of the CASP is to provide a vehicle for which the Aeronautics Division can conduct continuous aviation system planning and provide an estimate on the development needs of airports in the California system. As part of the 2003 CASP, forecasting was completed for San Diego County. The forecasts provided two general county-wide predictions. The CASP forecast that the total number of based GA aircraft would increase 28.9 percent and GA operations would increase by 28.6 percent from 1999 totals to 2015. Based on the forecast growth improvements to the airport infrastructure were proposed in the CASP. However, as indicated in published FAA ATADS data, the forecasts were not met (there was a six-percent decrease in aircraft operations from 1999 to 2015). The Aeronautics Division is currently in the process of updating their system-wide forecasts and plan to have those published by 2019.

Metropolitan Airpark Project

The proposed MAP is poised as an economic catalyst to Brown Field Municipal Airport and the surrounding Otay Mesa community. The multi-phased development will take place on the Airport's property and is forecast to provide 4,000 permanent jobs, and approximately $500 million annually in revenue for the region. To meet National Environmental Policy Act (NEPA) requirements, an Environmental Assessment (EA) is currently under review by the FAA. In order to address the environmental impacts associated with the anticipated growth in aircraft operations generated by the proposed MAP development, an aviation demand forecast was submitted to the FAA for review and approval. The MAP-prepared forecast projected an annual growth rate of approximately 2.9 percent in aircraft operations at SDM between 2014 and 2023. The forecast was approved by the FAA for purposes in the environmental review on April 18, 2016.

The proposed MAP development is currently under review and a definitive date on construction has not been decided. Due to the potential impacts that the proposed development will have on aircraft activity at SDM, this forecast will be presented as a separate scenario discussed in detail under Section 2.13 below.

Aviation Industry Trends

Industry data sources in addition to those described previously were used to identify aviation trends that are anticipated to influence aircraft activity at SDM over the forecast period (2017 to 2037).

The FAA Aerospace Forecast, Fiscal Years (FY) 2017-2037

The FAA Aerospace Forecast provides an overview of aviation industry trends and expected growth for commercial passenger carrier, cargo carrier, and GA segments. National growth rates in enplanements, operations, fleet growth and fleet mix for commercial fleets and the GA fleet are provided over a 20-year forecast period. With no commercial service at SDM, a closer look at national GA trends was the focus of the review.

Below are several key elements regarding GA activity:

- The active GA fleet is projected to increase over the forecast period. This fleet includes several types of aircraft, each of which are projected to grow or decline at varying rates over the planning period:
  - o The turbine-powered fleet (including rotorcraft) is projected to grow at an average annual growth rate of 1.9 percent a year.
  - o Fixed-wing piston-powered aircraft are projected to decrease by an average annual growth rate of -0.8 percent.
  - o Light sport aircraft[4] are anticipated to increase annually by approximately 4.1 percent per year.
- The number of GA hours flown is projected to increase by 0.9 percent yearly over the forecast period.
- The number of active GA pilots is projected to decrease by 7,500 (down 0.1 percent annually) through the forecast period. However, student pilot training is projected to increase at 0.4 percent annually. This in combination with an increase in the much smaller category of sport pilots would result in an additional 15,500 pilots over the forecast period.

According to the FAA Aerospace Forecast for Fiscal Years (FY) 2017-2037, at airports with FAA or contracted traffic control service, GA is projected to remain optimistically stable with a 0.3 percent increase in operations per year over the forecast period. This will be driven by increases in turbine-powered aircraft activity (see **Table 2.5** and **Figure 2.1**). Other activity types represented at SDM (air taxi and military) are forecast to slightly decrease or show no growth through 2037.

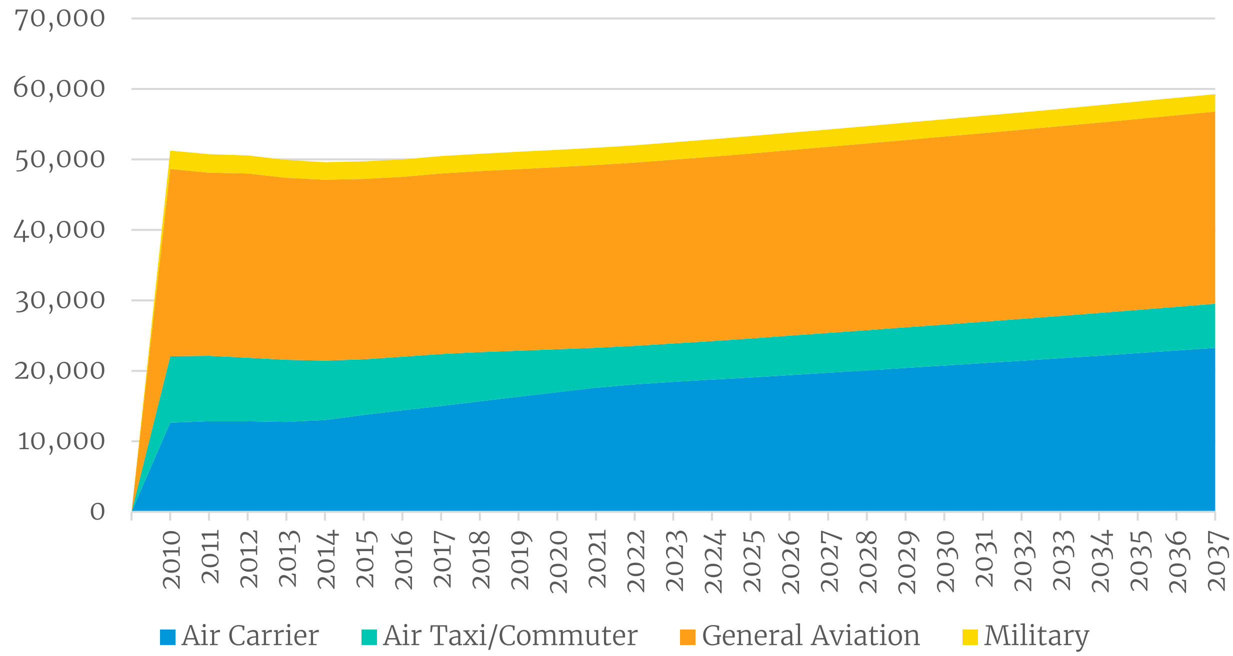
Table 2.5— Total Combined Aircraft Operations Growth Rates

	Air Carrier	Air Taxi/ Commuter	General Aviation*	Military*	Total Operations
2010-2016 AAGR	2.2%	-3.5%	-0.7%	-0.9%	-0.4%
2016-2037 AAGR	2.3%	-0.9%	0.3%	0.0%	0.8%

Source: FAA Aerospace Forecast for FY 2017 – 2037, Table 32
AAGR: Average Annual Growth Rate, used when data is available for consecutive years
*Includes Local and Itinerant

[4] Light sport aircraft (LSA) are defined as small aircraft that are simple to fly and meet FAA airworthiness requirements or are built to an industry consensus standard.

Figure 2.1 – Combined Aircraft Operations Growth



Source: FAA Aerospace Forecast for FY 2017 – 2037, Table 32
Note: Aircraft operations are specific to airports with contract towers

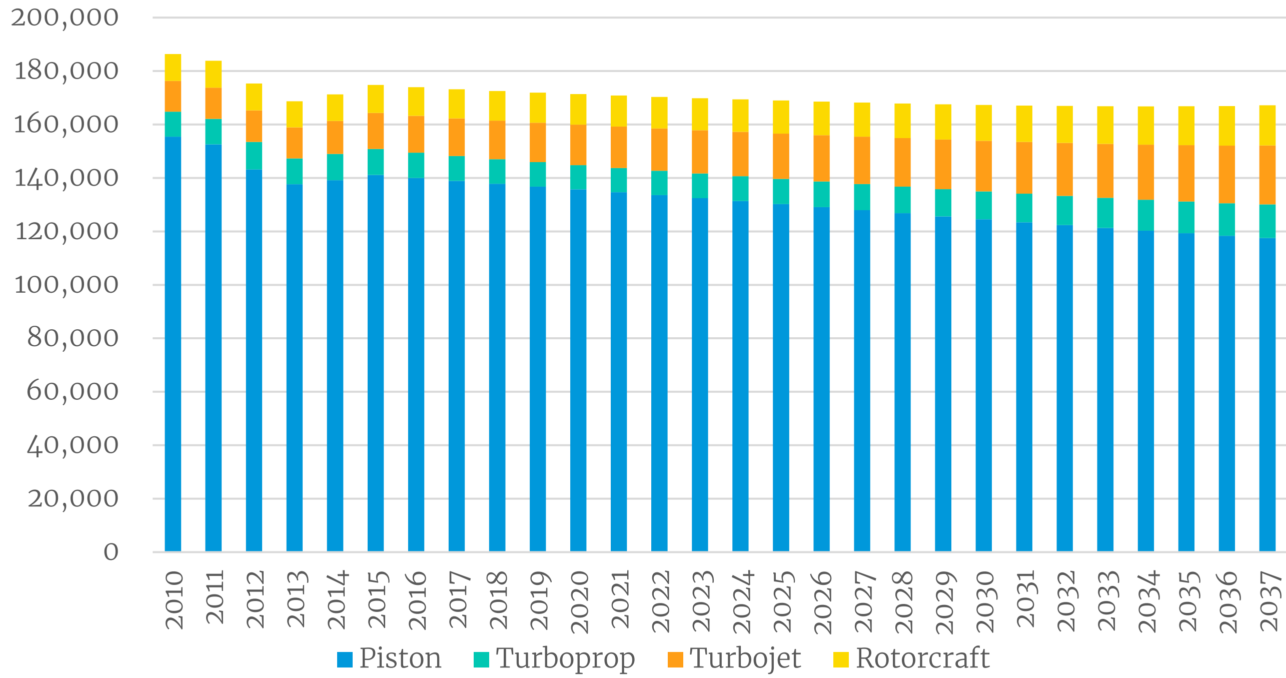
Although the largest section of the national GA fleet, fixed-wing piston aircraft are forecast to shrink annually by 0.08 percent over the forecast period. According to the FAA Aerospace Forecast, this decline can be attributed to disadvantageous pilot demographics, increases in cost of aircraft ownership, and the inability of new aircraft deliveries to keep up with the retirement of an aging fleet. However, growth in the U.S. economy's gross domestic product (GDP) and continuous growth of turbine and rotorcraft fleets help to offset the decline (see **Table 2.6** and **Figure 2.2**). Increases in the total number of aircraft that make up the GA fleet are forecast to increase from 209,905 in 2016 to 213,420 aircraft in 2037, which portrays a 0.1 percent average annual growth rate over the forecast period.

Table 2.6 – Active GA and Air Taxi Aircraft Growth Rates

	Single-Engine Piston	Multi-Engine Piston	Turboprop	Turbojet	Rotorcraft
2010-2016 AAGR	-1.6%	-3.1%	0.2%	3.1%	1.0%
2016-2037 AAGR	-0.9%	-0.5%	1.4%	2.3%	1.6%

Source: FAA Aerospace Forecast for FY 2017 – 2037, Table 28
AAGR: Average Annual Growth Rate, used when data is available for consecutive years

Figure 2.2 – Active GA and Air Taxi Aircraft Growth



Source: FAA Aerospace Forecast for FY 2017 – 2037, Table 28
Note: Experimental and Sport Aircraft totals not included

2.6 Collection of Other Data

This step involves the gathering of all applicable and pertinent information/data that may be used in the forecast development.

Socioeconomic Trends Affecting Aviation

Airports are often affected by their prominence, national and regional trends in population, per capita income, and employment. While socioeconomic activity more directly correlates with airports supporting commercial passenger service like San Diego International, it is still important to review and have a clear understanding of local demographic and economic forces that can influence and provide context for an aviation activity forecast.

San Diego County Population and Income Trends

San Diego County is the second largest county in California, Los Angeles being the first, with a per capita income of approximately $55,000 in 2016. Population growth over the forecast period is projected at 1.1 percent for San Diego County (see **Table 2.7**). While this growth rate is forecast to slow versus recent trends, it is still above rates forecast for state and federal levels.

Table 2.7—Historic and Projected Population Growth Rates

Year	San Diego County	California	U.S
2005-2010 AAGR	1.41%	1.01%	0.84%
2011-2016 AAGR	1.21%	0.95%	0.78%
2017-2037 AAGR	1.13%	0.95%	0.89%

Source: Woods & Poole Economics, Inc. 2017; C&S Engineers, Inc.
AAGR: Average Annual Growth Rate, used when data is available for consecutive years

With a population of over three million people, San Diego County saw an employment increase from 2005 to 2016. Annually, San Diego County employment is predicted to grow 1.4 percent (see Table 2.8) between the forecast period of 2017-2037.

Table 2.8—Historic and Projected Employment Growth Rates

Year	San Diego County	California	U.S
2005-2010 AAGR	-1.23%	-1.24%	-0.69%
2011-2016 AAGR	2.19%	2.63%	1.84%
2017-2037 AAGR	1.42%	1.35%	1.25%

Source: Woods & Poole Economics, Inc. 2017; C&S Engineers, Inc.
AAGR: Average Annual Growth Rate, used when data is available for consecutive years

As employment increased in San Diego County during the 2017-2037 forecast period, per capita income showed an increase of 4.2 percent (see **Table 1.9**) for the same period.

Table 2.9—Historic and Projected Income Per Capita Growth Rates

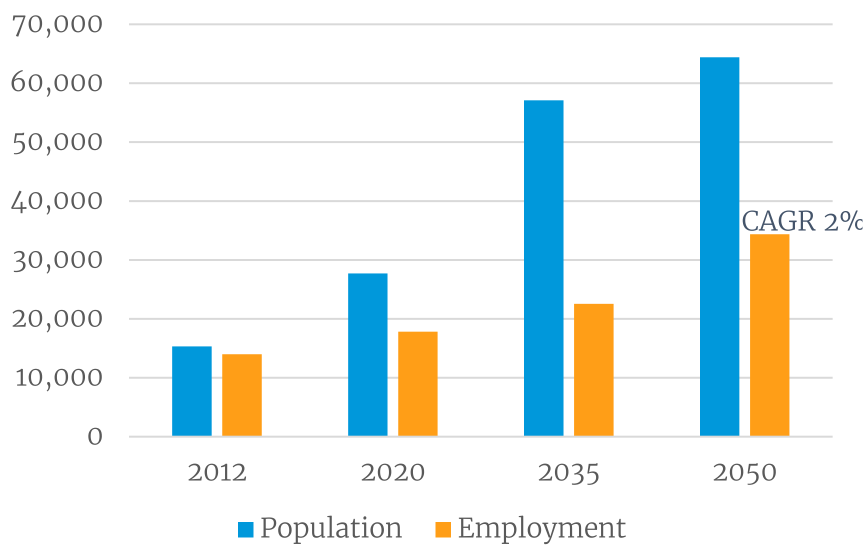
Year	San Diego County	California	U.S
2005-2010 AAGR	1.68%	2.58%	2.29%
2011-2016 AAGR	3.70%	4.09%	3.48%
2017-2037 AAGR	4.23%	4.28%	4.37%

Source: Woods & Poole Economics, Inc. 2017; C&S Engineers, Inc.
AAGR: Average Annual Growth Rate, used when data is available for consecutive years

Community Plans

Airports play a major role in the communities that surround them, and are affected by changes in population, income, infrastructure, etc., within these communities. Brown Field Municipal Airport is included in the Otay Mesa Community Plan that establishes the framework for development to enhance the qualities of the area. The Otay Mesa Community Plan recorded a 2010 population at 15,001 and projected an increase to 51,329 in the year 2030. In addition to a growing population, Otay Mesa's employment base is forecast to grow from 8,000 to 42,000 between 2000 and 2030 according to the San Diego Association of Governments (SANDAG). See Figure 2.3 for the latest population and employment growth forecast for the Otay Mesa Community.

Figure 2.3 – Otay Mesa Community Employment and Population Growth



Source: SANDAG Series 13 Regional Growth Forecast 2013; C&S Engineers, Inc.
CAGR: Compound Annual Growth Rate, used when data is not available for consecutive years

2.7 Development of the Forecast Framework

The following presents the forecast frameworks that were considered for projecting activity at SDM, as well as the selected framework.

Socioeconomic Regression Analysis

Regression analysis is a statistical methodology that connects factors of aviation demand (dependent variables) such as based aircraft or operations to socioeconomic measures (independent variables) such as population, employment or income. This is useful when reliable forecasts are available for the independent variables. Specifically, a regression analysis comparing socioeconomic factors (independent variables) and the total number of based aircraft (dependent variable) within the Airport's service area (San Diego County) can be used to project future totals.

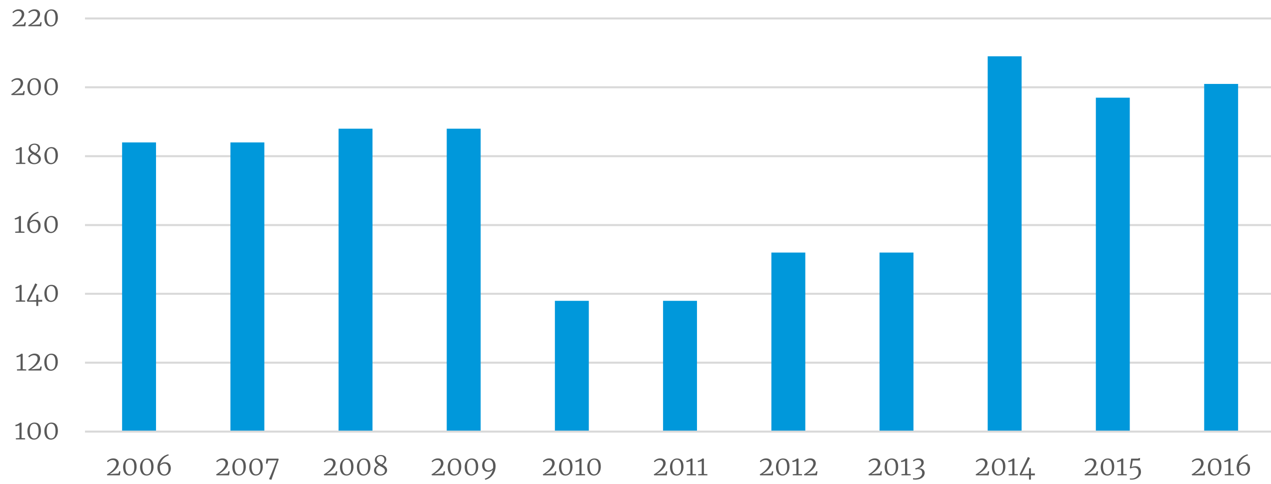
The three major socioeconomic factors of San Diego County (population, income and employment) were analyzed to determine which had the highest correlation to the number of based aircraft, represented by the resultant R^2 value (an R^2 of 0 means there is no statistical correlation between the independent and dependent variables, while an R^2 value of one indicates a perfect correlation). The same analysis was done for aircraft operations. Historical employment yielded the highest R^2 value related to based aircraft, while population presented the highest R^2 value related to operations. However, in both cases the R^2 value is not significant enough to consider the independent variables comparable. The growth rates for the San Diego County socioeconomic factors do not correlate significantly to based aircraft nor operations and will not be used for the Brown Field Municipal Airport forecast.

Trend Analysis

Trend analysis involves the evaluation of historical data to develop projections of future activity. This method will deliver a straight-line projection for future activity at SDM.

Historical based aircraft information for SDM was retrieved from the FAA TAF, and is presented on **Figure 2.4**. The data provided by the TAF shows growth in the 10-year historical period with an average annual growth rate of two percent for based aircraft at Brown Field Municipal Airport from the years 2006 to 2016. The five-year trend in the average annual growth rate shows significant improvement from the 10-year trend in based aircraft, with a growth rate of 8.8 percent. This growth was due to the large increase in based aircraft at SDM between 2013 and 2014. Due to the fluctuations in based aircraft over the 10-year period and the high rate of growth in the five-year period, trend analysis will not be used to project future based aircraft.

Figure 2.4 — SDM Based Aircraft History



Source: FAA TAF, January 2017

AAGR: Average Annual Growth Rate, used when data is available for consecutive years

Historical trends in operations were also reviewed to determine the applicability of trend analysis for the Airport's activity forecast. Both the five- and ten-year historical periods reflect a negative growth rate. Again, due to the inconsistency of operations over these time periods, trend analysis will not be used for future projections.

Market Share Projection

Market share analysis or ratio analysis assumes a top-down correlation between national, regional, and local forecasts. Historical market shares are used as a basis for projecting future market shares. Market share projections are often used for commercial airports unlike SDM. Due to the unique character of the Airport and the variety of activity types represented at the facility, market share projection will not be used for either based aircraft or operations forecasting.

Application of Previously Developed Forecast Growth Rates

Given the recent preparation of several forecasts specifically developed for SDM considering current activity levels and other pertinent factors, these sources were considered and compared to determine a preferred growth rate that could be applied to existing activity levels. In addition, the FAA Aerospace Forecast growth rate was included as it is developed on an annual basis and reflects the most recent trends and shifts in the aviation industry. The resultant forecasts are reviewed and compared to select a preferred projection.

2.8 Development of the Forecast for SDM

Based Aircraft Forecast

Based on the national trends showing an increase in the general aviation fleet and the improvement in growth rates between the last 10-year and 5-year trends for the historical based aircraft at SDM, the preferred based aircraft forecast is the FAA Terminal Area Forecast with an annual average growth rate of 1.4 percent.

Operations Forecast

As noted, several forecasts have been developed specifically for SDM or national aviation activity that are worth considering. **Table 2.10** shows the growth rates used in these sources and applies the increase or decrease to existing activity to compare future projections. The results are presented on **Figure 2.5**, which also shows the resultant decrease in activity based on the trend analysis for reference.

Table 2.10—Operations Forecast Scenarios (Applying Noted Growth Rates to Existing Activity)

Operations Forecast Scenario	Annual Growth Rate	2016 Base Year	2022 Forecast	2027 Forecast	2037 Forecast
SDM Preferred Forecast*	**0.07%**	**85,780**	**86,141**	**86,443**	**87,050**
FAA Aerospace Forecast for GA	0.30%	85,780	87,598	88,920	91,623
**National Trends Forecast ** **	0.80%	85,780	89,981	93,638	101,404
Regional Aviation Strategic Plan	0.80%	85,780	90,701	94,387	102,216
2010 Master Plan Forecast (2016-2021)	2.86%	85,780	101,593	116,976	155,083

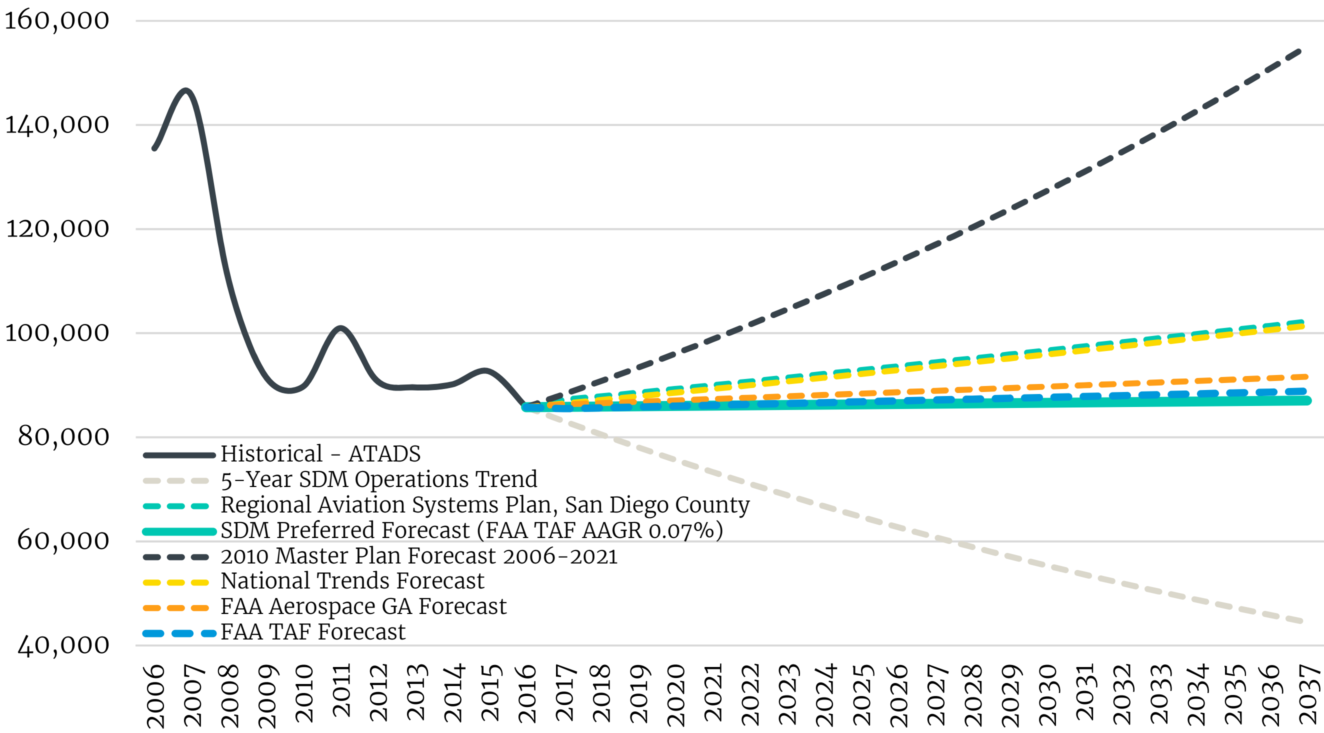
Source: C&S Engineers, Inc.; FAA; SDM Airport Master Plan 2010, and Airport records.

Note: Some percentages and forecast numbers vary as a result of rounding.

*SDM Preferred Forecast applies the FAA TAF 0.07% growth rate to existing operations.

**The National Trends Forecast utilizes the 0.8% growth rate, which is a combination of all fleet mix growth rates described in the FAA Aerospace Forecast. For separate growth rates per fleet mix aircraft type, see Table 1.12.

Figure 2.5 — SDM Operations Forecast Scenarios
(Applying Noted Growth Rates to Existing Activity)



Source: C&S Engineers, Inc.; FAA; SDM 2010 Airport Master Plan, RASP 2011, and Airport records.

While historical trends at SDM have shown declines as well as positive growth, the improvement in average annual growth rates over the past five years when compared to the previous 10 years, shows a general uptick in operations.

Based on the FAA Aerospace Forecast showing stability in GA activity and the positive trends represented nationally and regionally, the preferred operations forecast is the FAA TAF and is depicted in bold on **Figure 2.5**.

Fleet Mix Forecast

The fleet mix of an airport is made up of aircraft that are based at the facility as well as the transient aircraft that operate to and from it. In addition, the fleet mix plays an important part in the development of the forecast because certain aircraft types (jet versus single-engine) are experiencing different growth rates that need to be applied during the development of the forecast. Ultimately, the forecast operations activity at SDM are allocated by aircraft category based on available information.

Historical based aircraft information for SDM was retrieved from the FAA TAF to ascertain the average annual growth rates and trends, while existing information was collected from the FAA National Based Aircraft Inventory Program. The SDM fleet mix identified from the National Based Aircraft Inventory Program for based aircraft and the FAA TFMSC for operations data are shown in **Table 2.11** and **Table 2.12** respectively.

Table 2.11 – Existing Based Aircraft at SDM

Aircraft Type	Aircraft Count	Fleet Percentage
Single Engine	176	79%
Multi Engine	25	11%
Jet	13	6%
Helicopter	9	4%
Total	**223**	**100%**

Source: National Based Aircraft Inventory Program, State Counts 6/6/2017

Table 2.12 – Existing Operations at SDM

Aircraft Type	Aircraft Count	Fleet Percentage
Single Engine	66,148	77%
Multi Engine	8,316	10%
Turboprop	1,233	1%
Jet	5,054	6%
Military	4,049	5%
Rotorcraft	980	1%
Total	**85,780**	**100%**

Source: TFMSC 2016, ATADS 2016 and C&S Engineers, Inc.

The aviation demand forecast can be broken down further by aircraft category. Aircraft categories are defined as a grouping of aircraft types that have similar characteristic. These categories include single-engine propeller, multi-engine propeller, turboprop, jet, military and rotorcraft (helicopters). Each aircraft category was evaluated to determine specific growth rates over the 30-year planning period. The rates were based off a review of historical trends at SDM, conversations with airport management and tenants, and forecasting trends provided by the FAA Aerospace Forecast. Growth rates for the operations fleet mix are anticipated to be relatively consistent with the FAA Aerospace Forecast (see **Table 2.13**).

Military operations at SDM have fluctuated significantly over the last 10-years from a low of 3,709 combined local and itinerant operations in 2009 to a high of over 12,000 in 2011. The average annual military operations over the period is 7,687. The FAA TAF indicates forecast annual military operations of 4,535 every year looking forward. Given the annual fluctuations, and the SDM 10-year average of 7,687, it is reasonable to accept the FAA TAF forecast of 4,535 military operations per year for the SDM forecast.

Table 2.13 – Estimated Future Fleet Mix Growth Rates

Fleet Mix Aircraft Type	Annual Growth Rate
Single Engine	-0.9%
Multi-Engine	-0.5%
Turboprop	1.4%
Jet	2.3%
Military	-
Rotorcraft	1.6%

2.9 Recommended Demand Forecast Summary

A summary of the recommended aviation forecast for Brown Field Municipal Airport is provided in **Table 2.14**.

Table 2.14— Brown Field Municipal Airport Demand Forecast Summary

	2017	2022	2027	2032	2037
Based Aircraft	226	242	259	277	296
Annual Operations	85,840	86,141	86,443	86,746	87,050

Source: C&S Engineers, Inc.

2.10 Comparison with FAA Terminal Area Forecast

Table 2.15 presents a comparison between the preferred forecast for Brown Field Municipal Airport as developed herein and the FAA TAF.

Table 2.15— Comparison between SDM Operations Forecast and FAA TAF

Forecast Year	Airport Forecast	FAA TAF	% Difference from TAF
2017	85,840	85,499	0.40%
2022	86,141	86,320	-0.21%
2027	86,443	87,152	-0.81%
2032	86,746	87,995	-1.42%
2037	87,050	88,851	-2.03%

Source: FAA TAF, January 2017 and C&S Engineers, Inc.

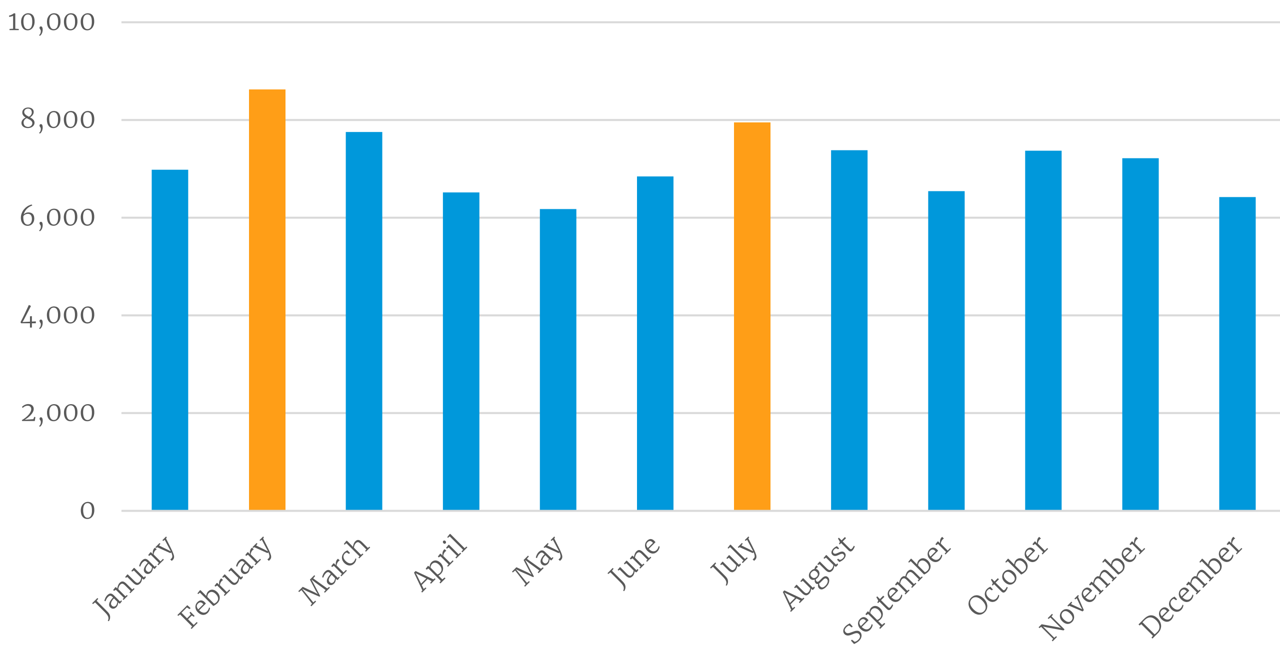
2.11 Peak Period Characteristics

Defining peak periods for aviation demand is an essential step in the planning process. Peak activity refers to specific sets of time (e.g. seasonal, monthly, daily, etc.) in which the number of aircraft operations (arrivals and departures) is at its highest frequency, putting increased demand on airport facilities. At SDM, understanding peak period demands assists in determining where specific airfield improvements may be needed to address increased aircraft departure queue times or to determine if adequate transient parking exists during specific times. This evaluation only considers the existing conditions at SDM. However, based on the aviation demand forecasts presented in **Section 2.10** it is anticipated that peak periods will become more saturated as operations continue to increase.

Peak periods of aviation demand were calculated using aircraft activity information provided by the City operated noise monitoring system. The noise data provides a record of the date and time an operation took place, but does not record every operation that takes place. To correct for this, available data was interpolated to meet the annual number of operations that were recorded under the FAA ATADS data in 2016.

Peak periods of aviation demand were broken down by the following; monthly operations, daily operations, and hourly operations. **Figure 2.6** provides a breakdown of the monthly operations at SDM. The Airport's primary runway, Runway 8L/26R, was under construction and shortened during the months of April and May. As a result, F18s did not make use of the runway during that period. Despite these disruptions, 2016 is deemed an adequate baseline year and for determining peaking information based on coordination with the City and a comparison to 2017 data, which showed even lower activity for the months of April and May than was experienced in 2016.

Figure 2.6 – Operations by Month (2016)

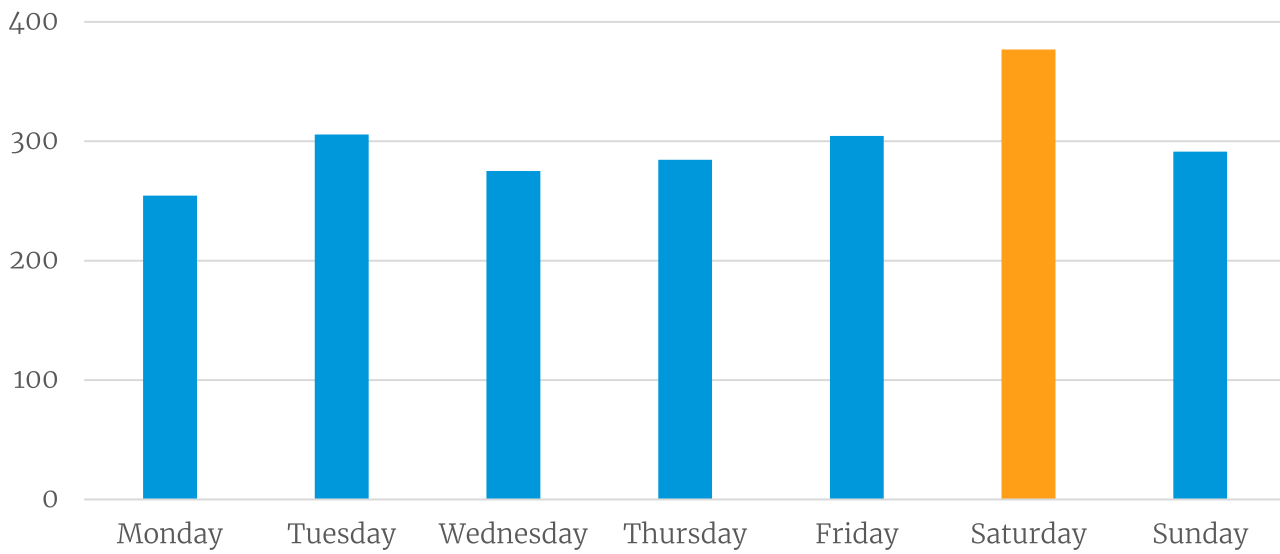


Source: City noise monitoring data from 01/01/2016 to 12/31/2016

Based on feedback provided by PAC, specifically the expectations that July and August would be the highest-activity months, 2017 operations were reviewed to determine if 2016 February data was an anomaly. 2017 operations for the month of February are down over 19 percent so this spike in activity shown in 2016 will not be considered for facility requirements. Instead, July data will be considered.

Figure 2.7 provides a breakdown of the average number of peak day operations at SDM. According to the data, Saturday is by far the most active day of the week.

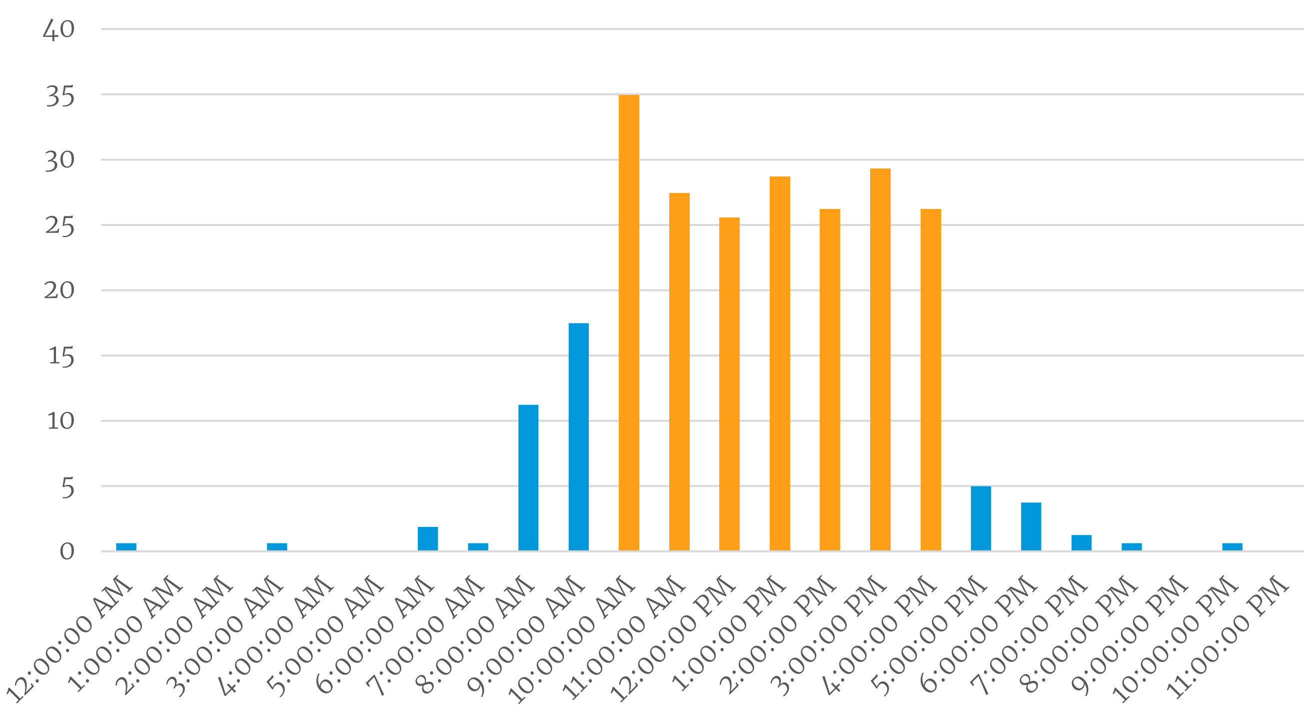
Figure 2.7 - Operations by Day (2016)



Source: City Noise Monitoring System data from 01/01/2016 to 12/31/2016

Figure 2.8 provides a breakdown on the peak daily hours of demand for aircraft departures. According to the data the midday hours between hours 10:00 am and 4:00 pm reflect the highest number of aircraft operations. This is likely driven by flight training and skydiving operations conducted at the Airport.

Figure 2.8 - Departures by Time of Day (2016)



2.12 Critical Aircraft

In order to maintain and develop an airport that meets FAA defined design standards, as well as the needs of the airport users, it is critical to have a clear understanding of the specific types of aircraft (e.g. manufacturer and model) that operate at the airport. Due to the varying size and speed characteristics of each aircraft type the airport must be planned and designed to properly accommodate them. An essential step in the airport master plan process is the identification of the critical aircraft or design aircraft that will guide the standards used for separation and geometric design of the airport facilities. As noted in Working Paper 1 – Inventory, Surveys, & Data Collection, the critical aircraft is defined by the FAA as the most demanding aircraft that performs, or is projected to perform, at least 500 annual operations at the airport facility. This can be recognized as a specific aircraft model or composite of similar aircraft models that currently or are forecast to operate at the facility. In the case of an airport with multiple runways, a critical aircraft is selected for each runway. The following sections discuss both the existing and forecast critical aircraft.

Determining the Critical Aircraft

In order to select the appropriate FAA design standards, the critical aircraft must be verified for both existing and future conditions. In the most recent FAA approved Airport Layout Plan (ALP), the critical aircraft is identified as a composite of the characteristics of the Gulfstream 550 and the Lockheed C-130 for Runway 8L/26R, while the Beechcraft Baron 58 was listed as the critical aircraft for Runway 8R/26L. A combination of based aircraft reports, FAA aircraft operations data, and information collected from the City-operated noise monitoring system were used to determine if changes to the critical aircraft under the existing and future conditions was necessary.

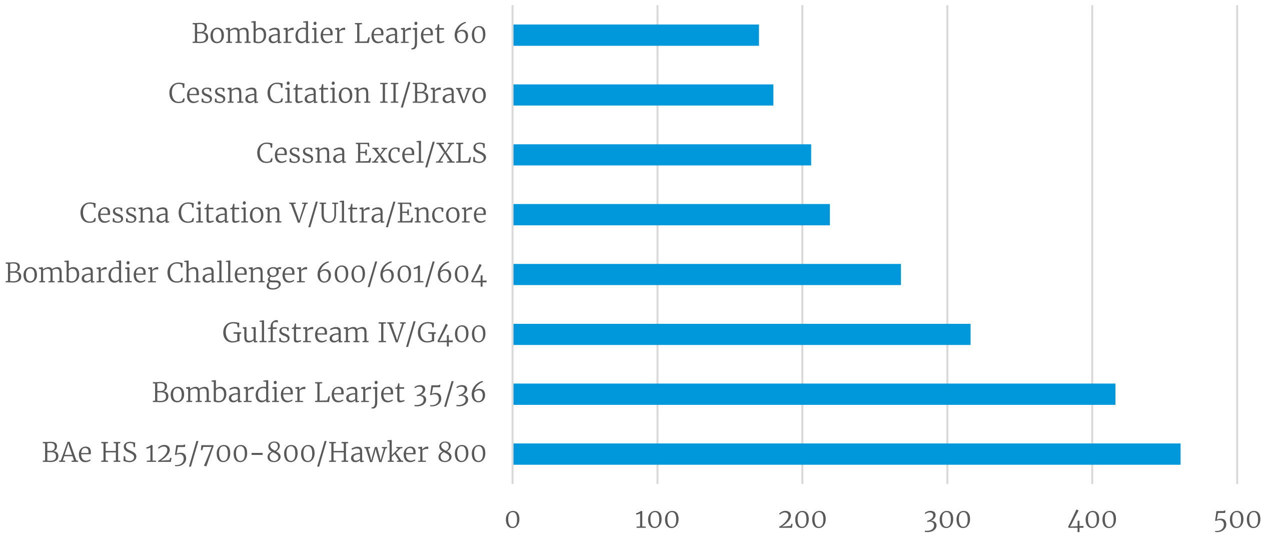
Based Aircraft

The National Based Aircraft Inventory Program reports an FAA verified count of 197 based aircraft at SDM. While the vast majority of these aircraft are single-engine aircraft, there are 22 multi-engine, and 12 jet aircraft based at the Airport.

Aircraft Operations

Aircraft operations data collected in calendar year 2016 and the beginning of 2017 was reviewed to determine if larger aircraft than those based at the Airport were operating frequently at SDM. The FAA TFMSC indicated that jet aircraft accounted for 71 percent of the instrument operations at SDM, turboprop aircraft for 17 percent, and piston aircraft for 12 percent. In 2016, the TFMSC reported 461 operations by the Hawker 800, 416 operations by the Learjet 35, and 316 by the Gulfstream IV, all of which are Aircraft Approach Category D consistent with the Gulfstream 550. Although the TFMSC reported less than 100 operations by the Gulfstream 500 series, this was retained for inclusion in the critical aircraft composite given that there were well over 500 combined operations by aircraft with an equivalent approach category. In addition, the forecast for San Diego International Airport (SAN), to which SDM is a reliever airport, projects significant air carrier and air taxi growth in a constrained facility. This may result in some of the larger business jet activity being diverted to Brown Field Municipal Airport. **Figure 2.9** identifies the most frequently operated jet aircraft at SDM according to the TFMSC. Data collected from the noise monitor system during the 2016 calendar year supported the TFMSC information. In validating the Airplane Design Group, discussions with Airport staff confirmed that the C-130, which is one of the most demanding aircraft to use the Airport, continues to operate at SDM on an almost daily basis. This aircraft will therefore continue to be used for planning purposes. Additional analysis will be conducted as part of the Facility Requirements.

Figure 2.9 – Most Frequently Operated Jet Aircraft



Source: 2016 calendar year TFMSC data, C&S Engineers, Inc.

Gulfstream 550

Source: http://www.gulfstream.com/aircraft/gulfstream-g550

Lockheed C-130
Source: http://www.airpowerworld.info/transport-aircraft/lockheed-c-130-hercules-c5.htm

Due to the smaller size of Runway 8R/26L (width of 75 feet) it is unsuitable for use by aircraft the size of the Gulfstream 550 or C-130 and has been assigned a separate critical aircraft. In 2016, the TFMSC reported 104 operations by the Cessna Skyhawk 172, and 83 operations by the Cessna Skylane 182. However, the TFMSC and the noise monitoring data confirmed that the most demanding aircraft able to operate on a 75-foot wide runway and having the highest number of operations was the Beechcraft Baron 58, which was therefore selected as the critical aircraft for this runway.

Beechcraft Baron 58
Source: http://american-jet.com/n2333b-beech-baron-58

Critical Aircraft Characteristics – Existing Conditions

The Gulfstream 550 has a wingspan of 93.50 feet, a tail height of 25.83 feet, a maximum takeoff weight (MTOW) of 91,000 pounds, and an approach speed of 145 knots. These characteristics classify it as an Aircraft Approach Category (AAC) D and Airplane Design Group (ADG) III aircraft. The D family of ACC consists of a number of aircraft types commonly flown at the Airport including the Gulfstream IV and the Learjet 35. The Lockheed C-130 has a wingspan of 132.60 feet, a tail height of 39.30 feet, a MTOW of 155,000 pounds, and an approach speed of 129 knots. These characteristics classify it as an AAC of C and an ADG of IV. The previous ALP indicated that the critical aircraft for Runway 8L/26R was a composite of the characteristics of the Gulfstream 550 and the Lockheed C-130. This was done in order to accommodate the faster approach speeds of the Gulfstream 550 while still accounting for the larger wingspan of the Lockheed C-130. These characteristics classify the runway as one able to accommodate Aircraft Approach Category C and Airplane Design Group IV aircraft. This family of aircraft is categorized[5] as having approach speeds of 121 knots or more but less than 141 knots, wingspans 118 feet or more but less than 171 feet, and tail heights 45 feet or more but less than 60 feet.

The Beechcraft Baron 58 has a wingspan of 37.83 feet, a tail height of 9.75 feet, a MTOW of 5,500 pounds, and an approach speed of 96 knots. These characteristics classify it as a B-I(Small)[6] aircraft. The B-I(Small) family of aircraft consists of a number of aircraft types commonly flown at the Airport including the Cessna 182, the Cessna 421, and the Cessna 414. This family of aircraft is categorized as having approach speeds of 91 knots or more but less than 121 knots, wingspans up to 49 feet, and tail heights up to 20 feet.

Critical Aircraft Characteristics – Future Conditions

The critical aircraft is expected to remain unchanged for both runways for the duration of the planning period. Runway 8L/26R will continue to identify the critical aircraft as a composite of the characteristics of the Gulfstream 550 and the Lockheed C-130, representing an AAC of D and an ADG of IV. According to the 2016 TFMSC, there were well over 500 combined operations by aircraft with an equivalent approach speed to the Gulfstream 550 by aircraft including the Gulfstream IV and the Learjet 35. The projection for jet aircraft activity to increase supports the continued use of the Gulfstream 550 as the representation of AAC D due to the faster approach speeds of these class of aircraft. Military aircraft activity is projected to remain constant, which supports the continued use of the Lockheed C-130 as the representation of ADG IV due to its larger wingspan.

Runway 8R/26L will continue to identify the Beechcraft Baron 58 as the critical aircraft, representing an AAC of B and an ADG of I, with a designation as a small aircraft (one with a MTOW under 12,500 pounds). Although the 2016 TFMSC reported 104 operations by the Cessna Skyhawk 172, 83 operations by the Cessna Skylane 182, and only listed nine operations by the Beechcraft Baron, the Beechcraft Baron 58 was confirmed to be the most demanding aircraft accommodated by the dimensions of Runway 8R/26L. This is anticipated to continue to be the most demanding aircraft operating at the Airport that is accommodated by the dimensions of Runway 8R/26L.

5 FAA Advisory Circular (AC) 150/5300-13A, Airport Design.
6 According to AC 150/5300-13A, (S) is defined as a small aircraft with a maximum certificated takeoff weight of 12,500 lbs. or less.

2.13 Metropolitan Airpark Environmental Assessment Forecast

In August 2013, the forecast contained in the 2010 SDM Airport Master Plan was updated in order to reflect the economic recession starting in 2008 and to provide a projection for SDM aviation activity with the assumption that Phase 1 of the Metropolitan Airpark Project (Proposed Project) is implemented. The 2013 Airport Forecast reflected national, regional, and local forecasts and trends, as well as local market considerations. The forecast projected a 2.7-percent compounded annual average growth rate (CAAGR) in operations at SDM between 2012 and 2020, and a 2.0-percent annual growth rate between 2012 and 2030. The 2013 Airport Forecast update was reviewed and approval was granted for "Phase 1 [National Environmental Policy Act] evaluation only" by the FAA in July 2014.

The forecast was updated with the Metropolitan Airpark Environmental Assessment Aviation Activity Forecast Update and Validation (Update), dated August 25, 2015, in order to address the FAA's comments on the 2013 Airport Forecast. The FAA requested that, as part of the Update, the existing condition study year be changed from 2013 to 2014, that inconsistencies be resolved, and that specificity be provided as to the expected increase in based aircraft and annual aircraft operations resulting from the Proposed Project. In addition, the Update was to provide a recommendation as to whether to retain the 2013 Airport Forecast or update and refine the projection of induced aviation activity for use in the Environmental Assessment (EA) for the Proposed Project. The Update produced aircraft operation levels and growth rates very similar to the 2013 Airport Forecast and both presented similar deviations from the FAA TAF. As a result, the 2013 Airport Forecast was determined to be valid. The update also stated, "The updated estimate of aviation activity produced useful information that can be used to adjust the previously approved forecast, if the decision is made to do so."[7] The 2015 induced aviation estimate developed in the Update was reviewed and approved by the FAA as stated in their letter dated April 8, 2016. As noted by the FAA in this letter, the "FAA recognizes the forecast is higher than the FAA Terminal Area Forecast because the forecast assumes construction of the proposed project will induce additional aviation activity."

The Update used an alternate method to estimate the potential number of aircraft operations likely to be to be generated by each of the major elements of the Proposed Project, based on facility type. These major elements included the new FBO terminal building, 10 new FBO executive hangars, 16 large T-hangars, and 35 small T-hangars. Changing the existing condition study year from 2013 to 2014, the Update estimated the number of induced aircraft operations for the first full year of operation, 2018, and the fifth year of operation after the first full year, 2023. The following assumptions were considered in the analyses of the Proposed Project's influence on aviation activity:

- Operating costs would remain relatively stable and competitive through 2018, resulting in minimal effect on small aircraft activity.
- The new T-hangars would be used by both business and private/individual aircraft owners.
- The economic and business conditions would remain relatively stable through 2018, resulting in minimal effect on business jet activity.
- Lease and rental rates for the new hangars and facilities would be reasonable and competitive.
- All Proposed Project facilities would be available and occupied by the beginning of 2018, and the FBO and Helicopter Business Center operator would be building business and establishing contracts during the first years of operation.
- The establishment and operation of a helicopter flight training school was not assumed to occur between 2018 and 2023.

According to the updated estimate of aviation activity induced by the Proposed Project, the CAAGR

[7] Metropolitan Airpark Environmental Assessment Aviation Activity Forecast Update and Validation, August 25, 2015

between 2014 and 2023 is approximately 2.9 percent. The updated estimates were then compared to the 2015 TAF. The Update showed 17,400 (19.1-percent increase) additional annual aircraft operations at SDM in 2018 and 23,400 (25.2-percent increase) additional annual aircraft operations in 2023, as compared to the 2015 TAF estimates for each respective year. The Update also provided an estimate of additional based aircraft induced by the Proposed Project. The Update projected based aircraft to increase at a CAARG of 5.4 percent between 2014 and 2023, resulting in 228 aircraft in 2018 and 248 aircraft in 2023.

Although the forecast developed in the Update was approved only for use in preparing the federal Environmental Assessment for the proposed project, it helps to inform one scenario of future activity at the Airport. For the purposes of the Brown Field Municipal Airport Master Plan, the Update's 2015 induced activity estimate will be considered as Scenario 1B in order to understand potential growth associated with the Proposed Project. The forecast developed herein will be considered Scenario 1A, which is put forth for FAA approval in conjunction with the Airport Master Plan. **Table 2.16** provides a comparison of the two forecasts.

Table 2.16 – Comparison of Scenario 1B and Scenario 1A

Year*	2015 Induced Activity Estimate (Scenario 1B)	Year*	Recommended Demand Forecast (Scenario 1A)	Difference
2014	89,692	-	-	-
2018	108,337	2017	85,840	22,497
2023	116,138	2022	86,141	29,997
		2027	86,443	-

* The years forecasted for Scenario 1B and 1A are different, but the closest years are matched here for the purpose of comparison.
Source: Aviation Activity Forecast Update and Validation, August 25, 2015, and C&S Engineers, Inc., 2017

Appendix 1 – FAA Approval Letter

U.S. Department
of Transportation
Federal Aviation Administration

Western-Pacific Region
Airports Division
Los Angeles Airports District Office

P.O. Box 92007
Los Angeles, CA 90009-2007

August 2, 2017

Wayne J. Reiter
Airports Program Manager, City of San Diego
3750 John J. Montgomery Drive
San Diego, CA 92123

Brown Field Airport (SDM)
Aviation Activity Forecast Approval

Dear Mr. Reiter,

The Federal Aviation Administration (FAA) has reviewed the aviation forecast for the Brown Field Airport (SDM) dated June 30, 2017. The FAA approves the preferred alternative scenario for airport planning purposes, including Airport Layout Plan development.

It is important to note that the approval of this forecast does not guarantee future funding for capital improvements that you may propose at SDM. Future projects will need to be justified by current activity levels reached at the time the projects are proposed for implementation. In addition, any projects proposed based on activity levels of military aircraft will need to be further analyzed for Airport Improvement Program eligibility purposes.

If you have any questions about this forecast approval, please call me at 310-725-3633.

Sincerely,

/s/

Brenda Pérez
Community Planner

Appendix 2 – Forecast Working Data

Appendix 2A - FAA Terminal Area Forecast for SDM

APO TERMINAL AREA FORECAST DETAIL REPORT
Forecast Issued January 2017
Brown Field Municipal Airport

				AIRCRAFT OPERATIONS									
	Enplanements			Itinerant Operations					Local Operations				
Fiscal Year	Air Carrier	Commuter	Total	Air Carrier	Air Taxi & Commuter	GA	Military	Total	Civil	Military	Total	Total Ops	Based Aircraft
1990	146	0	146	2	74	46,286	3,706	50,068	96,812	14,175	110,987	161,055	230
1991	0	0	0	5	371	61,797	5,611	67,784	118,891	23,218	142,109	209,893	218
1992	0	0	0	11	1,045	54,149	6,846	62,051	108,398	29,995	138,393	200,444	218
1993	0	0	0	0	1,043	39,817	3,394	44,254	102,427	19,334	121,761	166,015	218
1994	0	0	0	0	906	35,562	2,643	39,111	94,433	13,578	108,011	147,122	203
1995	134	0	134	2	310	29,230	1,855	31,397	88,938	14,579	103,517	134,914	202
1996	69	0	69	5	137	26,808	1,157	28,107	74,365	7,453	81,818	109,925	202
1997	0	8	8	1	34	23,256	806	24,097	69,073	5,296	74,369	98,466	202
1998	155	0	155	0	28	23,185	513	23,726	67,050	4,023	71,073	94,799	202
1999	0	0	0	10	3	21,873	297	22,183	67,346	2,874	70,220	92,403	169
2000	0	0	0	3	130	15,637	442	16,212	87,813	4,480	92,293	108,505	169
2001	0	0	0	3	268	21,219	1,266	22,756	96,868	5,960	102,828	125,584	146
2002	0	0	0	0	383	33,748	2,721	36,852	92,889	7,040	99,929	136,781	146
2003	0	0	0	0	938	34,031	2,647	37,616	70,883	6,107	76,990	114,606	147
2004	0	0	0	0	1,607	28,412	2,199	32,218	65,999	5,119	71,118	103,336	126
2005	0	15	15	1	2,078	26,114	2,323	30,516	72,577	4,341	76,918	107,434	184
2006	0	0	0	45	3,449	31,648	3,649	38,791	94,635	4,648	99,283	138,074	184
2007	0	0	0	6	3,045	36,496	4,124	43,671	96,766	4,016	100,782	144,453	184
2008	0	0	0	13	3,648	37,101	2,979	43,741	72,802	2,615	75,417	119,158	188
2009	0	28	28	23	2,190	34,834	938	37,985	49,676	2,771	52,447	90,432	188
2010	24	108	132	0	2,200	34,202	1,043	37,445	50,056	3,761	53,817	91,262	138
2011	0	65	65	0	1,860	33,078	1,588	36,526	53,275	10,882	64,157	100,683	138
2012	0	94	94	3	1,949	27,967	2,488	32,407	49,207	9,094	58,301	90,708	152
2013	0	24	24	0	1,639	27,790	2,992	32,421	50,884	8,733	59,617	92,038	152
2014	0	83	83	13	1,521	28,021	2,881	32,436	51,528	5,728	57,256	89,692	209
2015	0	13	13	76	1,795	31,740	2,222	35,833	52,487	2,873	55,360	91,193	197
2016*	0	32	32	63	1,838	31,154	2,043	35,098	50,037	2,492	52,529	87,627	201
2017*	0	32	32	63	1,838	31,268	2,043	35,212	47,795	2,492	50,287	85,499	204
2018*	0	32	32	63	1,838	31,372	2,043	35,316	47,854	2,492	50,346	85,662	205
2019*	0	32	32	63	1,838	31,476	2,043	35,420	47,913	2,492	50,405	85,825	210
2020*	0	32	32	63	1,838	31,581	2,043	35,525	47,973	2,492	50,465	85,990	213

APO TERMINAL AREA FORECAST DETAIL REPORT
Forecast Issued January 2017
Brown Field Municipal Airport

	Enplanements			AIRCRAFT OPERATIONS									
				Itinerant Operations					Local Operations				
Fiscal Year	Air Carrier	Commuter	Total	Air Carrier	Air Taxi & Commuter	GA	Military	Total	Civil	Military	Total	Total Ops	Based Aircraft
2021*	0	32	32	63	1,838	31,686	2,043	35,630	48,033	2,492	50,525	86,155	217
2022*	0	32	32	63	1,838	31,791	2,043	35,735	48,093	2,492	50,585	86,320	222
2023*	0	32	32	63	1,838	31,897	2,043	35,841	48,153	2,492	50,645	86,486	225
2024*	0	32	32	63	1,838	32,003	2,043	35,947	48,213	2,492	50,705	86,652	228
2025*	0	32	32	63	1,838	32,109	2,043	36,053	48,273	2,492	50,765	86,818	231
2026*	0	32	32	63	1,838	32,216	2,043	36,160	48,333	2,492	50,825	86,985	234
2027*	0	32	32	63	1,838	32,323	2,043	36,267	48,393	2,492	50,885	87,152	237
2028*	0	32	32	63	1,838	32,431	2,043	36,375	48,453	2,492	50,945	87,320	240
2029*	0	32	32	63	1,838	32,539	2,043	36,483	48,513	2,492	51,005	87,488	243
2030*	0	32	32	63	1,838	32,647	2,043	36,591	48,573	2,492	51,065	87,656	246
2031*	0	32	32	63	1,838	32,756	2,043	36,700	48,633	2,492	51,125	87,825	249
2032*	0	32	32	63	1,838	32,865	2,043	36,809	48,694	2,492	51,186	87,995	252
2033*	0	32	32	63	1,838	32,974	2,043	36,918	48,755	2,492	51,247	88,165	255
2034*	0	32	32	63	1,838	33,084	2,043	37,028	48,816	2,492	51,308	88,336	258
2035*	0	32	32	63	1,838	33,194	2,043	37,138	48,877	2,492	51,369	88,507	261
2036*	0	32	32	63	1,838	33,305	2,043	37,249	48,938	2,492	51,430	88,679	264
2037*	0	32	32	63	1,838	33,416	2,043	37,360	48,999	2,492	51,491	88,851	267
2038*	0	32	32	63	1,838	33,527	2,043	37,471	49,060	2,492	51,552	89,023	270
2039*	0	32	32	63	1,838	33,639	2,043	37,583	49,121	2,492	51,613	89,196	273
2040*	0	32	32	63	1,838	33,751	2,043	37,695	49,182	2,492	51,674	89,369	276
2041*	0	32	32	63	1,838	33,863	2,043	37,807	49,243	2,492	51,735	89,542	279
2042*	0	32	32	63	1,838	33,976	2,043	37,920	49,304	2,492	51,796	89,716	282
2043*	0	32	32	63	1,838	34,089	2,043	38,033	49,366	2,492	51,858	89,891	285
2044*	0	32	32	63	1,838	34,203	2,043	38,147	49,428	2,492	51,920	90,067	288
2045*	0	32	32	63	1,838	34,317	2,043	38,261	49,490	2,492	51,982	90,243	291

Appendix 2B - ATADS for SDM

ATADS : Airport Operations : Standard Report

From 01/1989 To 01/2017 | Facility=SDM

Calendar Year	Itinerant Air Carrier	Itinerant Air Taxi	Itinerant General Aviation	Itinerant Military	Itinerant Total	Local Civil	Local Military	Local Total	Total Operations
1990	2	117	62,620	4,935	67,674	125,804	18,815	144,619	212,293
1991	9	511	60,452	6,266	67,238	116,670	27,145	143,815	211,053
1992	7	1,144	50,015	5,629	56,795	108,307	26,721	135,028	191,823
1993	0	976	37,743	3,438	42,157	97,713	17,164	114,877	157,034
1994	0	837	35,683	2,558	39,078	95,240	13,819	109,059	148,137
1995	4	207	26,783	1,477	28,471	83,273	13,290	96,563	125,034
1996	3	113	25,853	1,157	27,126	71,493	6,997	78,490	105,616
1997	1	26	23,637	680	24,344	73,638	4,550	78,188	102,532
1998	0	17	22,585	449	23,051	62,102	3,521	65,623	88,674
1999	11	28	20,697	314	21,050	73,455	4,091	77,546	98,596
2000	2	131	16,291	522	16,946	91,888	3,966	95,854	112,800
2001	3	296	21,397	1,404	23,100	94,512	6,149	100,661	123,761
2002	0	542	38,457	3,206	42,205	91,199	7,418	98,617	140,822
2003	0	972	31,024	2,420	34,416	65,297	5,614	70,911	105,327
2004	0	1,837	27,330	2,011	31,178	68,007	5,007	73,014	104,192
2005	3	2,423	27,014	2,352	31,792	79,987	5,119	85,106	116,898
2006	45	3,360	33,181	3,901	40,487	91,203	3,795	94,998	135,485
2007	5	3,610	37,690	4,260	45,565	96,440	3,656	100,096	145,661
2008	15	2,969	36,558	2,423	41,965	65,146	2,947	68,093	110,058
2009	20	2,063	35,230	825	38,138	50,559	2,898	53,457	91,595
2010	0	2,249	32,773	1,114	36,136	49,875	3,719	53,594	89,730
2011	1	1,858	32,760	1,920	36,539	51,874	12,544	64,418	100,957
2012	2	1,867	27,445	2,648	31,962	50,169	8,640	58,809	90,771
2013	13	1,559	27,835	3,009	32,416	49,170	8,005	57,175	89,591
2014	0	1,565	28,468	2,902	32,935	52,323	4,881	57,204	90,139
2015	112	1,836	31,781	2,198	35,927	53,885	2,864	56,749	92,676
2016	31	1,832	32,167	1,809	35,839	47,701	2,240	49,941	85,780
2017	2	139	2,380	135	2,656	3,472	200	3,672	6,328
Total:	**291**	**35,084**	**885,849**	**65,962**	**987,186**	**2,060,402**	**225,775**	**2,286,177**	**3,273,363**

Report created on Thu Mar 2 18:07:47 EST 2017

Sources: Air Traffic Activity System (ATADS)

Appendix 2C - National Based Aircraft Inventory Program data for SDM

☑ Condensed Header **Aircraft List:** ☐ Only Commented Tail Numbers ☐ Only Duplicates ☐ All Others

Federal Aviation Administration

National Based Aircraft Inventory Program

BasedAircraft.com - Login page has FAQ's and link for User Support.

BROWN FIELD MUNI

SAN DIEGO, CA

Loc ID: SDM **Site Number:** 02180.*A **S/L:** R

	In 5010 04/27/2017 (A)	In Inventory* (B)	Currently Validated** (C)
Single Engine	157	164	157
Multi Engine	21	22	22
Jet	12	12	12
Helicopter	7	6	6
Single, Multi, Jet, Heli	**197**	**204**	**197**

N-Number Duplicates: **0** N-Numbers Reported by Other Apts: **1**
Commented N-Numbers: **7** Acft Not in Acft Reg: **1**

Confirmation of Counts **Date:** 4/27/2017 3:27:02 PM **By:** Cathe Johnson

*Type derived from FAA Aircraft Registration data.

**Total verified aircraft counts, excluding dups and aircraft not found in FAA Aircraft Registration data.

Data Entered by Inventory Users			Date Added	Reported by Other Apts	FAA Data (If N Number is found)		
N Number	**Type/Make/Model**	**Owner**			**FAA BA Type**	**Registrant**	**Make/Model**
N100GS	Multi Engine Beech B-60		3/2/2017		Multi Engine Cert: 02/16/2017 Airw: Standard		BEECH B-60
N10AE	Single Engine AIRMOTIVE ENGINEERS INC EOS/001		7/28/2015		Single Engine Cert: 04/04/2013 Airw: Experimental		AIRMOTIVE ENGINEERS INC EOS/001 (DEREG)
N10KP	Single Engine BOEING PT-17		5/25/2010		Single Engine Cert: 03/02/2017 Airw: Standard		BOEING A75N1(PT17)
N11085	Single Engine CHAMPION 7ECA		6/17/2010		Single Engine Cert: 08/16/2016 Airw: Standard		CHAMPION 7ECA
N1110R	FAIRCHILD M62A		7/27/2015		Single Engine Cert: 11/29/2016 Airw: Experimental		FAIRCHILD M-62A
N1121Q	Multi Engine CESSNA 310H		7/27/2015		Multi Engine Cert: 04/21/2015 Airw: Standard		CESSNA 310H
N120BW	Single Engine Cessna 195A		7/6/2007		Single Engine Cert: 06/27/2014 Airw: Standard		CESSNA 195A
N124EH	Helicopter MESSERSCHMITT-BOELKOW-BLOHM BO-105S		7/28/2015		Helicopter Cert: 01/14/2016 Airw: Standard		MESSERSCHMITT-BOELKOW-BLOHM BO-105S
N129MM	Jet AEROVODOCHODY L-29 Delfin		7/6/2007		Jet Cert: 08/16/2016 Airw: Experimental		AEROVODOCHODY L-29 DELFIN
N1347B	Single Engine LUSCOMBE 8E		7/28/2015		Single Engine Cert: 04/20/2015 Airw: Standard		LUSCOMBE 8E
N140BH *PART TIME?	Glider SCHEMPP-HIRTH DISCUS 2B *		7/28/2015	**0E0-NM**	Glider Cert: 11/12/2014 Airw: Experimental		SCHEMPP-HIRTH DISCUS-2B
N142GX	Single Engine MOONEY M20R		7/27/2015		Single Engine Cert: 10/19/2015 Airw: Standard		MOONEY M20R
N1451J	Single Engine ROCKWELL 112A COMMANDER		7/6/2007		Single Engine Cert: 10/27/2016 Airw: Standard		ROCKWELL INTERNATIONAL 112A
N1487V	Single Engine CESSNA 172M		7/28/2015		Single Engine Cert: 01/16/2015		CESSNA 172M

			Airw: Standard	
N16JL	Single Engine Experimental Starduster	7/6/2007	Single Engine Cert: 01/23/2017 Airw: Experimental	EDWARDS JULIUS L STOLP-ADAMS STRDSTR
N17154	Single Engine STINSON SR-9B	7/28/2015	Single Engine Cert: 12/05/2015 Airw: Standard	STINSON SR-9B (DEREG)
N183J	Single Engine JEREMIAH GEORGE AVID	5/12/2014	Single Engine Cert: 02/28/2017 Airw: Experimental	JEREMIAH GEORGE AVID (DEREG)
N1909R	Helicopter BELL 206B	5/12/2014	Helicopter Cert: 06/15/2016 Airw: Standard	BELL 206B
N19346	Single Engine Cessna 150L	4/18/2008	Single Engine Cert: 03/17/2015 Airw: Standard	CESSNA 150L
N2004	Single Engine LUSCOMBE 8E	5/27/2010	Single Engine Cert: 03/17/2015 Airw: Standard	LUSCOMBE 8E
N201JM	MOONEY M20J	7/6/2007	Single Engine Cert: 02/14/2015 Airw: Standard	MOONEY M20J
N2026D	Beechcraft C-35 Bonanza	7/6/2007	Single Engine Cert: 12/13/2016 Airw: Standard	BEECH C35
N20675	Single Engine CESSNA 172M	6/17/2010	Single Engine Cert: 04/23/2015 Airw: Standard	CESSNA 172M
N210HA	Cessna 210L Based at SDM - Visually verified in long term tie-down.	7/6/2007	Single Engine Cert: 02/22/2017 Airw: Standard	CESSNA 210L (DEREG)
N210Z	Multi Engine CESSNA 411A	5/12/2014	Multi Engine Cert: 11/07/2016 Airw: Standard	CESSNA 411A
N217AT	Single Engine MATHIS MELVIN R BUSHBY MUSTANG II 2015 Apt: visually verified the plane in long term parking. verified also plane is currently disabled.	7/28/2015	Single Engine Cert: 07/07/2016 Airw: (blank)	MATHIS MELVIN R BUSHBY MUSTANG II
N2192	Helicopter BELL 206	5/12/2014	Helicopter Cert: 07/18/2016 Airw: Standard	BELL 206B
N21NS	Single Engine STARDUSTER SA-300	5/27/2010	Single Engine Cert: 07/11/2014 Airw: Experimental	NEMYO THOMAS SA 300
N220JJ	Jet RAYTHEON AIRCRAFT COMPANY HAWKER 800XP	7/28/2015	Jet Cert: 03/10/2016 Airw: Standard	RAYTHEON AIRCRAFT COMPANY HAWKER 800XP
N22140	North American SNJ-5	7/6/2007	Single Engine Cert: 12/08/2015 Airw: Standard	NORTH AMERICAN SNJ-5
N222GM	Multi Engine BEECH B-60	5/12/2014	Multi Engine Cert: 06/15/2015 Airw: Standard	BEECH B-60
N227MP	Single Engine CIRRUS DESIGN CORP SR22	7/28/2015	Single Engine Cert: 10/04/2016 Airw: Standard	CIRRUS DESIGN CORP SR22
N227WA	Single Engine PILATUS AIRCRAFT LTD PC-12	7/28/2015	Single Engine Cert: 01/30/2017 Airw: Standard	PILATUS AIRCRAFT LTD PC-12/47E
N234LR	Jet GULFSTREAM AMERICAN CORP. G-1159A	7/28/2015	Jet Cert: 01/17/2017 Airw: Standard	GULFSTREAM AMERICAN CORP. G-1159A
N235BG	Single Engine MAULE MT-7-235	5/12/2014	Single Engine Cert: 05/19/2015 Airw: Standard	MAULE MT-7-235
N2384B	Single Engine TEMCO GC-1B	7/28/2015	Single Engine Cert: 08/20/2014 Airw: Standard	TEMCO GC-1B
N2414T	Single Engine PIPER PA-38-112	5/12/2014	Single Engine Cert: 08/03/2011 Airw: Standard	PIPER PA-38-112 (DEREG)
N2468L	Single Engine CESSNA 172H	7/28/2015	Single Engine Cert: 10/04/2015 Airw: Standard	CESSNA 172H
N2552L	Cessna 172H	7/6/2007	Single Engine Cert: 06/08/2015 Airw: Standard	CESSNA 172H
N25AB	Single Engine MAULE MXT-7-180A	6/17/2010	Single Engine Cert: 09/30/2016 Airw: Standard	MAULE MXT-7-180A
N261BG	Single Engine GLASAIR	5/12/2014	Single Engine	GILLESPIE BRIGGS

	RG		Cert: 05/01/2014 Airw: Experimental	A GLASAIR RG
N261RS	Single Engine PIPER PA-32-300	5/12/2014	Single Engine Cert: 01/04/2016 Airw: Standard	PIPER PA-32-300
N276SH	Helicopter ROBINSON R22	7/28/2015	Helicopter Cert: 04/03/2015 Airw: Standard	ROBINSON HELICOPTER R22 BETA
N2778E	Single Engine Aeronca 7AC	3/11/2010	Single Engine Cert: 09/22/2014 Airw: Standard	AERONCA 7AC
N27XD	Single Engine WHEELER KIRK C CLASSIC 2010	7/28/2015	Single Engine Cert: 06/19/2015 Airw: Experimental	WHEELER KIRK C CLASSIC 2010
N28220	Single Engine GRUMMAN AA-5B	5/12/2014	Single Engine Cert: 08/19/2015 Airw: Standard	GULFSTREAM AMERICAN CORP AA-5B
N2TM	Single Engine TM SPECIAL	5/12/2014	Single Engine Cert: 10/17/2015 Airw: Experimental	MORGAN TODD TM SPECIAL
N300DZ	Multi Engine DEHAVILLAND DHC-6-300 TWIN OTTER	7/31/2008	Multi Engine Cert: 05/11/2016 Airw: Standard	DEHAVILLAND DHC-6-300
N3063N	Single Engine PIPER PA-28RT-201T	7/28/2015	Single Engine Cert: 06/11/2016 Airw: Standard	PIPER PA-28RT-201T
N3067Q	Single Engine PIPER PA32R	5/27/2010	Single Engine Cert: 09/04/2015 Airw: Special Flight Permit	PIPER PA-32R-300
N30812	Single Engine CESSNA 210L	7/28/2015	Single Engine Cert: 01/06/2015 Airw: Standard	CESSNA 210L
N308FP	Single Engine PORTO FRANK VARI EZE visually verified in long term parking. In hangar.	7/28/2015	Single Engine Cert: 03/06/2017 Airw: Experimental	PORTO FRANK VARI EZE
N3096J	Single Engine CESSNA 152	7/28/2015	Single Engine Cert: 08/21/2015 Airw: Standard	CESSNA 150E
N316RF	Jet BAE T.MK.1 Gnat	7/6/2007	Jet Cert: 08/26/2013 Airw: Experimental	FOLLAND (BRITISH AEROSPACE) GNAT T.MK.1
N3360S	Single Engine CESSNA 210J	7/28/2015	Single Engine Cert: 03/31/2014 Airw: Standard	CESSNA 210J
N3370E	Single Engine Aeronca 7AC Champ	7/6/2007	Single Engine Cert: 08/31/2016 Airw: Standard	AERONCA 7AC
N33W	Single Engine ACRO SPORT	5/27/2010	Single Engine Cert: 11/14/2016 Airw: Experimental	SILLIMAN DANIEL B ACRO SPORT
N341L	Helicopter GAZELLE SA341G	5/27/2010	Helicopter Cert: 12/22/2016 Airw: Standard	AEROSPATIALE SA341G GAZELLE
N3545N	Single Engine PIPER J-3C	5/12/2014	Single Engine Cert: 11/13/2014 Airw: (blank)	PIPER J-3C
N357K	Multi Engine CESSNA 421C	5/12/2014	Multi Engine Cert: 10/13/2016 Airw: Standard	CESSNA 421C
N3594F	Single Engine Cessna 182J	7/6/2007	Single Engine Cert: 05/12/2014 Airw: Standard	CESSNA 182J
N3635P	Multi Engine Piper 601P Aerostar	4/18/2008	Multi Engine Cert: 03/16/2016 Airw: Standard	PIPER AEROSTAR 601P
N37028	Single Engine LUSCOMBE 8A	5/27/2010	Single Engine Cert: 05/27/2015 Airw: Standard	LUSCOMBE 8A
N3927R	Single Engine Cessna 172H	7/6/2007	Single Engine Cert: 09/09/2014 Airw: Standard	CESSNA 172H
N3992G	Single Engine CESSNA TU206	7/28/2015	Single Engine Cert: 06/04/2014 Airw: Standard	CESSNA TU206C
N3PY	Multi Engine DEHAVILLAND DHC-6 TWIN OTTER	7/31/2008	Multi Engine Cert: 05/11/2016 Airw: (blank)	DEHAVILLAND DHC-6 TWIN OTTER
N40348	Single Engine MAULE M-	6/17/2010	Single Engine	MAULE M-4-220C

	4-220C		Cert: 12/05/2016 Airw: Standard	
N411DC	Multi Engine Cessna 411	7/6/2007	Multi Engine Cert: 02/22/2016 Airw: Standard	CESSNA 411
N41210	Single Engine PIPER PA-32-300	7/28/2015	Single Engine Cert: 12/12/2015 Airw: Standard	PIPER PA-32-300
N4195W	Single Engine PIPER PA32-300	5/27/2010	Single Engine Cert: 08/10/2016 Airw: Standard	PIPER PA-32-300
N41LT	Single Engine ADAMS STARDUST	5/27/2010	Single Engine Cert: 02/07/2017 Airw: (blank)	GRAY LLOYD T STOLP-ADAMS STARDUST
N42017	Single Engine CESSNA 182	5/27/2010	Single Engine Cert: 01/03/2017 Airw: Standard	CESSNA 182L
N421GN	Single Engine Pietenpol - Experimental Air Camper	7/24/2008	Single Engine Cert: 11/17/2014 Airw: Experimental	HUBBARD EUGENE N PIETENPOL AIR CAMPER
N426R	Single Engine Beechcraft C35 Bonanza	7/6/2007	Single Engine Cert: 12/08/2015 Airw: Standard	BEECH C35
N428DM	Single Engine DOWNING CHARLES E GLASAIR FT	7/28/2015	Single Engine Cert: 03/09/2016 Airw: Experimental	DOWNING CHARLES E GLASAIR FT
N4337W	Multi Engine BEECHCRAFT BARON B55	5/27/2010	Multi Engine Cert: 05/11/2014 Airw: Standard	BEECH 95-B55
N4361V	RV6	7/6/2007	Single Engine Cert: 01/11/2017 Airw: (blank)	JOHNSON J C/JOHNSON N L RV-6A
N4544D	Single Engine BEECH G35	6/17/2010	Single Engine Cert: 05/20/2015 Airw: Standard	BEECH G35
N4563J	ARROW	7/6/2007	Single Engine Cert: 05/05/2016 Airw: Standard	PIPER PA-28R-180
N463SR	Single Engine BEECH E33A	7/28/2015	Single Engine Cert: 02/13/2017 Airw: Standard	BEECH E33A
N468KC	Single Engine PIPER PA32-301FT	7/28/2015	Single Engine Cert: 08/28/2015 Airw: Standard	PIPER AIRCRAFT INC PA32-301FT
N4708F	Single Engine CESSNA P206B	5/12/2014	Single Engine Cert: 07/25/2011 Airw: Restricted	CESSNA P206B
N4741P	Multi Engine Piper Aztec PA-23-250	3/11/2010	Multi Engine Cert: 04/17/2007 Airw: Standard	PIPER PA-23-250 (DEREG)
N4807F	Single Engine CESSNA TU206A	5/12/2014	Single Engine Cert: 02/06/2017 Airw: Standard	CESSNA TU206A
N4936Z	Single Engine Piper PA22-108 Colt	7/6/2007	Single Engine Cert: 05/11/2016 Airw: Standard	PIPER PA-22-108
N4947F	Single Engine PIPER PA32R-300	5/27/2010	Single Engine Cert: 02/08/2017 Airw: Standard	PIPER PA-32R-300
N4949P	Multi Engine AZTEC	7/6/2007	Multi Engine Cert: 05/13/2014 Airw: Standard	PIPER PA-23-235
N4977F	Single Engine PIPER PA-28-140	7/28/2015	Single Engine Cert: 06/18/2013 Airw: Standard	PIPER PA-28-140 (DEREG)
N5015P	Single Engine PIPER PA-24	5/12/2014	Single Engine Cert: 09/09/2014 Airw: Standard	PIPER PA-24
N5046G	Single Engine BELLANCA 8KCAB	7/28/2015	Single Engine Cert: 03/02/2015 Airw: Standard	BELLANCA 8KCAB
N5058U	C206	7/6/2007	Single Engine Cert: 12/20/2016 Airw: Standard	CESSNA 206
N505DL	Single Engine Fisher - Experimental 505	7/24/2008	Single Engine Cert: 12/29/2014 Airw: Experimental	CULLUM DENNIS F FISHER 505
N51029	Single Engine CESSNA 150J	7/28/2015	Single Engine Cert: 11/23/2016 Airw: Standard	CESSNA 150J

N51219	Single Engine CESSNA 150	5/12/2014		Single Engine Cert: 06/03/2016 Airw: Standard	CESSNA 150J
N5124V	Single Engine MORRISEY 2150A	5/27/2010		Single Engine Cert: 08/20/2014 Airw: Standard	MORRISEY 2150A
N5161U	Single Engine CESSNA 206	7/6/2007		Single Engine Cert: 10/13/2015 Airw: Standard	CESSNA 206
N51895	Single Engine CESSNA 172R	7/28/2015		Single Engine Cert: 09/19/2016 Airw: Standard	CESSNA 172R
N525JT	Helicopter BELL 206B	5/12/2014		Helicopter Cert: 01/17/2017 Airw: Standard	BELL HELICOPTER TEXTRON 206B
N52620	Single Engine CESSNA 182P	6/17/2010		Single Engine Cert: 03/21/2017 Airw: Standard	CESSNA 182P
N52689*MOVED?	Single Engine CESSNA 182P	7/28/2015	**MYF-CA** C-182	Single Engine Cert: 09/09/2015 Airw: Standard	CESSNA 182P
	*2017 03 24 HelpDeskAJ: Reported to be at MYF since 2016. With 0 IFR in 2016 at SDM assuming it has moved. Pls provide addl info if needed. Tks.				
N52WN	Single Engine AEROSTAR S A YAK-52	7/28/2015		Single Engine Cert: 02/02/2015 Airw: Experimental	AEROSTAR S A YAK-52
N535CB	Single Engine Sonex - Experimental Sonex	7/6/2007		Single Engine Cert: 08/11/2015 Airw: Experimental	PUNTIS CHRISTOPHER P SONEX
N5364J	Single Engine CALDWELL JAMES S KR 2	7/28/2015		Single Engine Airw: (blank)	CALDWELL JAMES S KR 2 (DEREG)
N5444K	Single Engine NAVION	7/6/2007		Single Engine Cert: 02/11/2017 Airw: Standard	RYAN NAVION B
N5477L	Single Engine GRUMMAN AA-5 TIGER	7/6/2007		Single Engine Cert: 11/10/2015 Airw: Standard	GRUMMAN AMERICAN AVN. CORP. AA-5
N5501K	Single Engine JODAL - Experimental D11	7/6/2007		Single Engine Cert: 01/18/2015 Airw: Experimental	JODEL D-11
N55089	Single Engine PIPER PA32-300	7/6/2007		Single Engine Cert: 11/14/2016 Airw: Standard	PIPER PA-32-300
N55289	Single Engine PIPER PA32-260	5/27/2010	**L18-CA**	Single Engine Cert: 11/17/2015 Airw: Standard	PIPER PA-32-260
N554LR	Multi Engine Beechcraft 55 Baron	4/18/2008		Multi Engine Cert: 08/15/2016 Airw: Standard	BEECH D55
N556JD	Single Engine Frank-Ralph VARIEZE	6/10/2010		Single Engine Cert: 06/08/2015 Airw: Experimental	FRANK-RALPH VARIEZE
N5636C	C140	7/6/2007		Single Engine Cert: 06/17/2008 Airw: Standard	CESSNA 140A
N5668D	Multi Engine BEECH 18	7/6/2007		Multi Engine Cert: 08/24/2015 Airw: Standard	BEECH E18S
	Same owner as n129mm....Aircraft is based at SDM. I have spoken to the owner.				
N579TT	Helicopter Bell 206B Jet Ranger	4/18/2008		Single Engine Cert: 02/07/2017 Airw: (blank)	CESSNA T206H
N584MB	Multi Engine BEECH 58TC	7/28/2015		Multi Engine Cert: 08/01/2012 Airw: Standard	BEECH 58TC
N5969Z	Single Engine Piper PA-22/20-108 Colt	4/18/2008		Single Engine Cert: 09/02/2015 Airw: Standard	PIPER PA-22-108
N6011M	Single Engine Stinson 108-3	3/11/2010		Single Engine Cert: 12/11/2012 Airw: Standard	UNIVERSAL STINSON 108-3
N601DP	Multi Engine SMITH AEROSTAR 601	7/28/2015		Multi Engine Cert: 04/29/2015 Airw: Standard	SMITH AEROSTAR 601
N6025W	PA28-140	7/6/2007		Single Engine Cert: 06/09/2016 Airw: Standard	PIPER PA-28-140
N6026L	Single Engine	5/12/2014		Single Engine	AMERICAN AA-5

	AMERICAN AA-5		Cert: 11/09/2016 Airw: Standard	
N6036J	Single Engine CESSNA 182	6/10/2010	Single Engine Cert: 01/04/2017 Airw: Standard	CESSNA 182P (DEREG)
N6056S	Multi Engine BEECH 58P	5/12/2014	Multi Engine Cert: 10/29/2014 Airw: Standard	BEECH 58P (DEREG)
N6168	Single Engine WAGNER TUHOLER	5/12/2014	Single Engine Cert: 02/11/2013 Airw: Experimental	WAGNER WAGNER TUHOLER (DEREG)
N6192J	Single Engine Piper PA28	6/10/2010	Single Engine Cert: 08/18/2014 Airw: Standard	PIPER PA-28-140
N6299P	Single Engine CESSNA P210N	7/28/2015	Single Engine Cert: 11/10/2015 Airw: Standard	CESSNA P210N
N63495	Single Engine STEARMAN A75N1(PT17)	7/6/2007	Single Engine Cert: 05/11/2016 Airw: Standard	BOEING A75N1(PT17)
N6360G	Single Engine NORTH AMERICAN SNJ4	5/12/2014	Single Engine Cert: 04/19/2016 Airw: Experimental	NORTH AMERICAN SNJ-4
N64153	Single Engine CESSNA 180K	7/28/2015	Single Engine Cert: 08/20/2015 Airw: Standard	CESSNA 180K
N6428S	BONANZA V35	7/6/2007	Single Engine Cert: 02/13/2017 Airw: Standard	BEECH V35B
N671A	COMANCHE	7/6/2007	Single Engine Cert: 04/05/2012 Airw: Standard	PIPER PA-24-250
N6843Y	Multi Engine Piper PA23-250	6/10/2010	Multi Engine Cert: 12/15/2014 Airw: Standard	PIPER PA-23-250
N68686	Single Engine BABY ACE D	7/28/2015	Single Engine Cert: 06/07/2016 Airw: Experimental	BABY ACE D
N689VP	Jet CITATION II	7/6/2007	Jet Cert: 11/21/2016 Airw: Standard	CESSNA 550
N6AB	Single Engine CESSNA 172K	5/12/2014	Single Engine Cert: 03/23/2016 Airw: Standard	CESSNA 172K
N7051L	Multi Engine Cessna 310K	9/10/2010	Multi Engine Cert: 01/19/2010 Airw: Standard	CESSNA 310K
N7087Y	Multi Engine COMANCHE	7/6/2007	Multi Engine Cert: 08/20/2013 Airw: Standard	PIPER PA-30 (DEREG)
N711AS	Multi Engine DEHAVILLAND DHC-6 TWIN OTTER	7/28/2015	Multi Engine Cert: 05/11/2016 Airw: Standard	DEHAVILLAND DHC-6 TWIN OTTER
N7189P	COMANCHE	7/6/2007	Single Engine Cert: 08/11/2014 Airw: Standard	PIPER PA-24-250
N723KF	KITFOX	7/6/2007	Single Engine Cert: 01/15/2008 Airw: (blank)	DANO JOHN T KITFOX II
N72448	Single Engine PIPER PA18	7/28/2015	Single Engine Cert: 07/13/2015 Airw: Standard	PIPER PA-18
N7249X	Single Engine CESSNA 150A	7/28/2015	Single Engine Cert: 07/01/2015 Airw: Standard	CESSNA 150A
N727M	Single Engine ALLEN F MULDERINK/DAVID R MULD JABIRU 170	7/28/2015	Single Engine Cert: 06/10/2015 Airw: (blank)	ALLEN F MULDERINK/DAVID R MULD JABIRU 170
N727ML	Jet RAYTHEON Premier 390	6/10/2010	Jet Cert: 03/24/2015 Airw: (blank)	RAYTHEON AIRCRAFT COMPANY 390
N728BL	Single Engine PIPER PA-28-235	5/12/2014	Single Engine Cert: 11/27/2016 Airw: Standard	PIPER PA-28-235
N733W	MARCHETTI	7/6/2007	Single Engine Cert: 12/30/2016 Airw: Experimental	SIAI-MARCHETTI S.205/22R
N738AZ	Single Engine CESSNA	7/28/2015	Single Engine	CESSNA 172N

	172N				Cert: 10/28/2014 Airw: Standard	
N7456V	Single Engine Mooney M20F		3/11/2010		Single Engine Cert: 06/10/2015 Airw: Standard	MOONEY M20F
N74643	Single Engine GRUMMAN AMERICAN AVN. CORP. AA-5B		7/28/2015		Single Engine Cert: 04/14/2014 Airw: Standard	GRUMMAN AMERICAN AVN. CORP. AA-5B
N747SP *MOVED?	EZ		7/6/2007	**SBD-CA** Acft has been based on SBD's ramp for at least the past 12 months.	Single Engine Cert: 08/26/2013 Airw: Experimental	LINDROS EDDIE RUTAN
	*2016 04 22 HelpDeskAJ: SBD reports that acft has been on SBD's ramp for over 12 months. (No mention of whether it was there for repair or permanent move.) Pls provide addl info if needed. Tks for your help.					
N748JX	Jet GULFSTREAM AMERICAN CORP. G-1159A		7/28/2015		Jet Cert: 10/04/2016 Airw: Standard	GULFSTREAM AMERICAN CORP. G-1159A
N76403	C140		7/6/2007		Single Engine Cert: 08/11/2014 Airw: Standard	CESSNA 140
N76534 *PART TIME?	Single Engine CESSNA 120		7/28/2015	**SEE-CA** visually verifed w/ airport staff on 12/07/2012	Single Engine Cert: 08/23/2016 Airw: Standard	CESSNA 120
	verified in long term parking. In Hangar					
N7772L	Single Engine MOONEY M20R		6/10/2010		Single Engine Cert: 06/06/2016 Airw: Standard	MOONEY M20R
N7779X	Single Engine JEFFREY P SCHUSTER VELOCITY XLRG		7/28/2015		Single Engine Cert: 02/08/2017 Airw: Experimental	JEFFREY P SCHUSTER VELOCITY XLRG
N7840K	Single Engine Cessna P210N		7/6/2007		Single Engine Cert: 03/08/2017 Airw: Standard	CESSNA P210N
N78708	PA12		7/6/2007		Single Engine Cert: 03/14/2017 Airw: Standard	PIPER PA-12
N800SM	Multi Engine CESSNA 421B		7/28/2015		Multi Engine Cert: 01/13/2015 Airw: Standard	CESSNA 421B
N8043S	C150		7/6/2007		Single Engine Cert: 12/16/2016 Airw: Standard	CESSNA 150F
N807BF	Jet Israel Aircraft Westwind 1124		12/17/2008		Jet Cert: 02/17/2015 Airw: Standard	ISRAEL AIRCRAFT INDUSTRIES 1124
N81024	Single Engine PIPER PA-28-161		7/28/2015		Single Engine Cert: 04/06/2015 Airw: Standard	PIPER PA-28-161
N8138R	BONANZA A36		7/6/2007		Single Engine Cert: 02/09/2017 Airw: Standard	BEECH A36
N8172N *SOLD/MOVED?	PA28-181		7/6/2007	**SEE-CA** PIPER PA-28-181 San Diego Aircraft Holdings, Inc.	Single Engine Cert: 09/29/2015 Airw: Standard	PIPER PA-28-181
	*2016 05 05 HelpDeskAJ: Acft Reg indicates sale after listed here. Appears sold and moved. Can comment or delete. Tks for your help.					
N8188	Single Engine Acro Sport - Experim Nesmith Cougar		7/6/2007		Single Engine Cert: 04/21/2011 Airw: Experimental	HANSON PAUL C OFFSHOOT
N81WM	Single Engine BONANZA F33		7/6/2007		Single Engine Cert: 08/02/2016 Airw: Standard	BEECH F33A
	Based at SDM - Visually verified in hangar. Know owner.					
N83CD	Single Engine CIRRUS DESIGN CORP SR20	GLOBAL INNOVATION GROUP INC 6020	3/2/2017		Single Engine Cert: 12/09/2015 Airw: Standard	CIRRUS DESIGN CORP SR20

	PROGRESSIVE AVE STE 800 San Diego Ca 92154 Moved to SDM on 2/4/16 it is hangared in B24				SAN DIEGO, CA 921546633	
N8427R	Single Engine PIPER PA-28-140	5/12/2014		Single Engine Cert: 03/17/2015 Airw: Standard		PIPER PA-28-140
N8442A	Single Engine PIPER PA-28-236	7/28/2015		Single Engine Cert: 07/29/2016 Airw: Standard		PIPER PA-28-236
N850VY	Single Engine CESSNA 208B	5/12/2014		Single Engine Cert: 07/07/2016 Airw: Standard		CESSNA 208B
N858SP	Jet DASSAULT-BREGUET FALCON 10	7/28/2015		Jet Cert: 11/02/2016 Airw: Standard		DASSAULT-BREGUET FALCON 10
N85974	Single Engine AERONCA 11AC Chief	7/6/2007		Single Engine Cert: 08/10/2015 Airw: Standard		AERONCA 11AC
N8618J	Single Engine CESSNA 150G	5/12/2014		Single Engine Cert: 06/17/2013 Airw: Standard		CESSNA 150G
N86270	AERONCA	7/6/2007		Single Engine Cert: 12/13/2016 Airw: Standard		AERONCA 11AC
N8659E	Single Engine PIPER PA-28-140	7/28/2015		Single Engine Cert: 10/06/2015 Airw: Standard		PIPER PA-28-140
N8692C	Single Engine Vans - Experimental RV3	7/6/2007		Single Engine Cert: 04/22/2015 Airw: Experimental		CULLUM DENNIS F RV-3
N8716D	Single Engine Piper PA22-160 Tri-Pacer	7/6/2007		Single Engine Cert: 07/31/2016 Airw: Standard		PIPER PA-22-160
N8740E	Single Engine PIPER PA-28-181	7/28/2015		Single Engine Cert: 08/20/2014 Airw: Standard		PIPER PA-28-181
N8820C	Single Engine Piper PA22-135	6/10/2010		Single Engine Cert: 03/19/2013 Airw: Standard		PIPER PA-22-135
N8883N *PART TIME?	Single Engine PIPER PA-28-140 verified in long term parking. In Hangar	7/28/2015	**SEE-CA** Based at SEE FBO verified w/airport staff 12/12/2012	Single Engine Cert: 02/28/2017 Airw: Standard		PIPER PA-28-140
N888SY	Single Engine CASSON KEVIN PAUL HORNET	6/10/2010		Single Engine Cert: 07/08/2009 Airw: Experimental		CASSON KEVIN PAUL HORNET
N894CJ	Jet GATES LEAR JET 24E	7/28/2015		Jet Cert: 01/28/2016 Airw: Standard		GATES LEAR JET 24E
N905CK	Jet LEAR 35A	5/12/2014		Jet Cert: 08/11/2014 Airw: Standard		GATES LEAR JET CORP. 36
N90HT	Single Engine VAN WORMER HAROLD H TAILWIND W-10	7/28/2015		Single Engine Cert: 09/11/2014 Airw: Experimental		VAN WORMER HAROLD H TAILWIND W-10
N912JA	Single Engine JUST HIGHLANDER	5/12/2014		Single Engine Cert: 08/21/2016 Airw: Experimental		BARRY J BROCATO JUST ACFT HIGHLANDER
N9151H	Single Engine CESSNA 172M	5/12/2014		Single Engine Cert: 04/13/2015 Airw: Standard		CESSNA 172M
N919DS	Single Engine ISRAEL AIRCRAFT INDUSTRIES ASTRA SPX	7/28/2015		Jet Cert: 05/28/2015 Airw: Standard		ISRAEL AIRCRAFT INDUSTRIES ASTRA SPX
N9210V	Single Engine MOONEY M20E	5/12/2014		Single Engine Cert: 09/06/2016 Airw: Standard		MOONEY M20E (DEREG)
N9268A	Single Engine CESSNA	6/10/2010		Single Engine		

	140			Cert: 12/03/2014 Airw: Standard	
N9346G	Single Engine CESSNA 182P	7/28/2015		Single Engine Cert: 08/28/2014 Airw: Standard	CESSNA 182P
N9408N	Single Engine PIPER PA-28R-200	5/12/2014		Single Engine Cert: 05/08/2014 Airw: Standard	PIPER PA-28R-200
N940JB	C182	7/6/2007		Single Engine Cert: 12/30/2013 Airw: Standard	CESSNA 182P
N9417V	Single Engine MOONEY M20C	7/28/2015		Single Engine Cert: 09/15/2016 Airw: Standard	MOONEY M20C
N95173	Single Engine PIPER PA-28-140	7/28/2015		Single Engine Cert: 02/26/2015 Airw: Standard	PIPER PA-28-140
N9518V*SOLD/MOVED?	Single Engine MOONEY M10	7/28/2015	**AWO-WA**	Single Engine Cert: 11/10/2015 Airw: Standard	MOONEY M10
	*2016 04 20 HelpDeskAJ: Acft Reg shows pending sale. Appears to have been sold and moved. Pls provide addl info to HelpDesk if needed, or delete if moved. Tks for your help.				
N951G	RGEZX	5/12/2014		Single Engine Cert: 06/09/2016 Airw: Experimental	GEISZ GILBERT A RGEZX
N9581G	C172	7/6/2007		Single Engine Cert: 10/12/2016 Airw: Standard	CESSNA 172R
N9625E	Single Engine AERONCA 11AC Chief	7/6/2007		Single Engine Cert: 12/15/2009 Airw: Standard	AERONCA 11AC
N9665E	Single Engine AERONCA 11AC	6/17/2010		Single Engine Cert: 08/11/2016 Airw: Standard	AERONCA 11AC
N9724L	Single Engine Beechcraft A24R	6/10/2010		Single Engine Cert: 12/15/2014 Airw: Standard	BEECH A24R
N9727E	Single Engine AERONCA 11AC	6/10/2010		Single Engine Cert: 11/13/2016 Airw: Standard	AERONCA 11AC
N9753W	Single Engine Piper PA28-140	6/10/2010		Single Engine Cert: 02/02/2017 Airw: Standard	PIPER PA-28-140
N97551	Single Engine STINSON 108	5/12/2014		Single Engine Cert: 02/13/2017 Airw: Standard	STINSON 108 (DEREG)
N97AH	Single Engine Beechcraft A36TC	6/10/2010		Single Engine Cert: 12/09/2014 Airw: Standard	BEECH A36TC
N97TP	Single Engine CESSNA 172RG	5/12/2014		Single Engine Cert: 02/09/2017 Airw: Standard	CESSNA 172RG
N9922T	Single Engine Piper PA24	6/10/2010		Single Engine Cert: 05/16/2016 Airw: Standard	PIPER PA-24-260
N9923B	Single Engine C182	7/6/2007		Single Engine Cert: 08/13/2013 Airw: Standard	CESSNA 182A
N9923U	GRUMMAN LINX	7/6/2007		Single Engine Cert: 12/01/2016 Airw: Standard	GRUMMAN AMERICAN AVN. CORP. AA-1C
N995JH	STINSON	7/6/2007		Not found in FAA Aircraft Registration Airw: (blank)	

Total Currently Validated Aircraft Excluding Duplicates & Acft. Not Found in FAA Acft. Reg. Data: 197

SECURITY SENSITIVE INFORMATION WARNING: This data contains Sensitive Security Information that is controlled under 49 CFR parts 15 and 1520. No part of this record may be disclosed to persones without a "need to know", as defined in 49 CFR parts 15 and 1520, except with the written permission of the Administrator of the Transportation Security Adminstration or the Secretary of Transportation. Unauthorized release may result in civil penalty or other action. For U.S. Government agencies, public disclosure is governed by 5 U.S.C. 552 and 49 CFR parts 15 and 1520.

Appendix 2D - Traffic Flow Management System Counts for SDM

TFMSC Report (SDM)

From 01/2016 To 12/2016 | Airport=SDM

#	Date	Aircraft	Physical	User	Departures	Arrivals	Total	Departure	Average	Arrival	Average
1	Jan-16	-1 - unknown	-	?	0	1	1	0	0	0	0
2	Jan-16	-1 - unknown	-	Air Carrier	1	0	1	1	1	0	0
3	Jan-16	-1 - unknown	-	General Aviation	6	1	7	0	0	0	0
105	Jan-16	LJ75 - Learjet 75	-	Other	3	1	4	0	0	0	0
124	Feb-16	-1 - unknown	-	General Aviation	2	0	2	0	0	0	0
125	Feb-16	-1 - unknown	-	Air Taxi	1	0	1	0	0	0	0
130	Feb-16	AS50 - Aérospatiale AS-550	-	General Aviation	1	0	1	10	10	0	0
186	Feb-16	CL35 - Bombardier Challenger 300	-	Air Taxi	0	1	1	0	0	0	0
220	Feb-16	GTWN - Aerospatiale AS 355 N - 2 engine	-	General Aviation	1	0	1	0	0	0	0
240	Feb-16	LJ75 - Learjet 75	-	Other	3	2	5	0	0	0	0
265	Mar-16	-1 - unknown	-	General Aviation	3	3	6	0	0	0	0
266	Mar-16	-1 - unknown	-	Other	0	1	1	0	0	0	0
267	Mar-16	-1 - unknown	-	Air Taxi	1	0	1	0	0	0	0
302	Mar-16	C240 - Cessna TTx Model T240	-	Other	1	1	2	0	0	0	0
331	Mar-16	CL35 - Bombardier Challenger 300	-	General Aviation	1	1	2	0	0	0	0
332	Mar-16	CL35 - Bombardier Challenger 300	-	Air Taxi	1	1	2	0	0	0	0
344	Mar-16	E550 - Eclipse 550	-	Air Taxi	1	1	2	6	6	6	6
349	Mar-16	EMBJ - unknown	-	Other	0	1	1	0	0	0	0
377	Mar-16	H60 - Sikorsky SH-60 Seahawk	-	Military	0	1	1	0	0	4	4
395	Mar-16	LJ75 - Learjet 75	-	Other	1	1	2	0	0	0	0
419	Apr-16	-1 - unknown	-	Air Carrier	1	0	1	1	1	0	0
420	Apr-16	-1 - unknown	-	General Aviation	7	2	9	0	0	0	0
421	Apr-16	-1 - unknown	-	Other	1	0	1	0	0	0	0
480	Apr-16	CL35 - Bombardier Challenger 300	-	General Aviation	0	1	1	0	0	0	0
481	Apr-16	CL35 - Bombardier Challenger 300	-	Air Taxi	2	0	2	0	0	0	0
488	Apr-16	E35L - Embraer 135 LR	-	Other	1	1	2	0	0	0	0
541	Apr-16	R22 - Robinson R-22 Mariner	-	General Aviation	0	1	1	0	0	2	2
546	May-16	-1 - unknown	-	General Aviation	2	2	4	0	0	0	0
585	May-16	C27 - Alenia C-27J Spartan	-	Military	0	1	1	0	0	4	4
642	May-16	H500 - Boeing MD-500	-	General Aviation	0	3	3	0	0	12	4
657	May-16	LJ75 - Learjet 75	-	Other	2	0	2	0	0	0	0
681	Jun-16	-1 - unknown	-	General Aviation	4	1	5	0	0	0	0
682	Jun-16	-1 - unknown	-	Other	1	0	1	0	0	0	0
770	Jun-16	LJ75 - Learjet 75	-	Other	1	0	1	0	0	0	0
793	Jul-16	-1 - unknown	-	General Aviation	3	3	6	0	0	0	0
794	Jul-16	-1 - unknown	-	Air Taxi	0	1	1	0	0	0	0
889	Jul-16	H60 - Sikorsky SH-60 Seahawk	-	Military	0	1	1	0	0	4	4
900	Jul-16	LJ75 - Learjet 75	-	Other	1	0	1	0	0	0	0
920	Aug-16	-1 - unknown	-	General Aviation	2	2	4	0	0	0	0
1055	Sep-16	-1 - unknown	-	General Aviation	1	1	2	0	0	0	0
1056	Sep-16	-1 - unknown	-	Other	0	1	1	0	0	0	0
1113	Sep-16	F18 - Boeing FA-18 Hornet	-	Military	4	7	11	4	1	7	1
1167	Oct-16	-1 - unknown	-	General Aviation	2	2	4	0	0	0	0
1172	Oct-16	B06 - Agusta AB-206 LongRanger	-	General Aviation	0	1	1	0	0	4	4
1198	Oct-16	C25M - Cessna Citation M2	-	General Aviation	1	1	2	0	0	0	0
1237	Oct-16	F18 - Boeing FA-18 Hornet	-	Military	1	1	2	1	1	1	1
1240	Oct-16	F19 - unknown	-	Military	0	1	1	0	0	0	0
1287	Oct-16	R22 - Robinson R-22 Mariner	-	General Aviation	1	1	2	2	2	2	2
1288	Oct-16	R44 - Robinson R-44 Raven	-	General Aviation	0	1	1	0	0	4	4

TFMSC Report (SDM)

From 01/2016 To 12/2016 | Airport=SDM

#	Date	Aircraft	Physical	User	Departures	Arrivals	Total	Departure	Average	Arrival	Average
1304	Nov-16	-1 - unknown	-	General Aviation	4	3	7	0	0	0	0
1305	Nov-16	-1 - unknown	-	Other	1	0	1	0	0	0	0
1385	Nov-16	F18 - Boeing FA-18 Hornet	-	Military	1	0	1	1	1	0	0
1442	Dec-16	-1 - unknown	-	General Aviation	5	6	11	0	0	0	0
1517	Dec-16	F18 - Boeing FA-18 Hornet	-	Military	1	0	1	1	1	0	0

Report created on Thu Mar 2 19:03:33 EST 2017

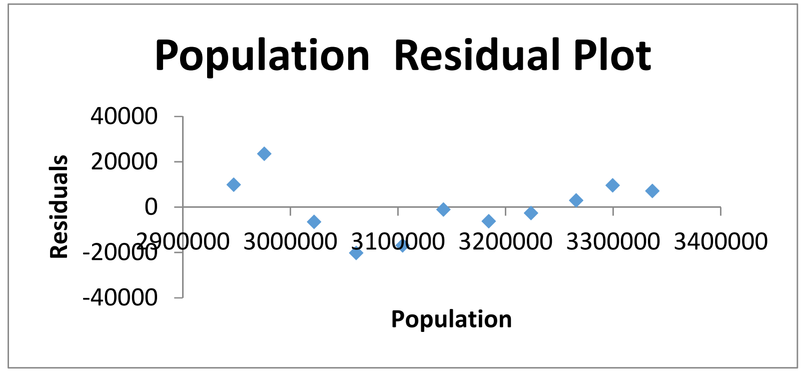
Sources: Traffic Flow Management System Counts (TFMSC), Aviation System Performance Metrics (ASPM)

Appendix 2E - SDM Socioeconomic Regression Analysis

Regression Analysis - SDM Operations v. Population (San Diego County)

SUMMARY OUTPUT

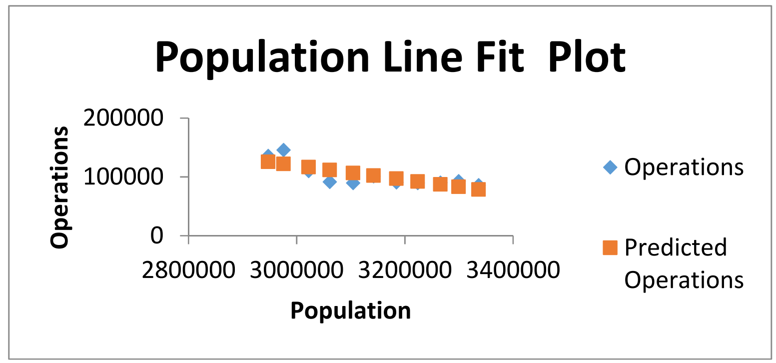
Regression Statistics	
Multiple R	0.784271749
R Square	0.615082177
Adjusted R Square	0.57231353
Standard Error	13279.33142
Observations	11



ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	2536063075	2.54E+09	14.38161408	0.00426748
Residual	9	1587065787	1.76E+08		
Total	10	4123128862			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	481109.3298	100037.4576	4.809292	0.000961196	254808.8785	707409.781	254808.8785	707409.781
Population	-0.120643579	0.03181269	-3.79231	0.00426748	-0.192608884	-0.04867827	-0.192608884	-0.048678274

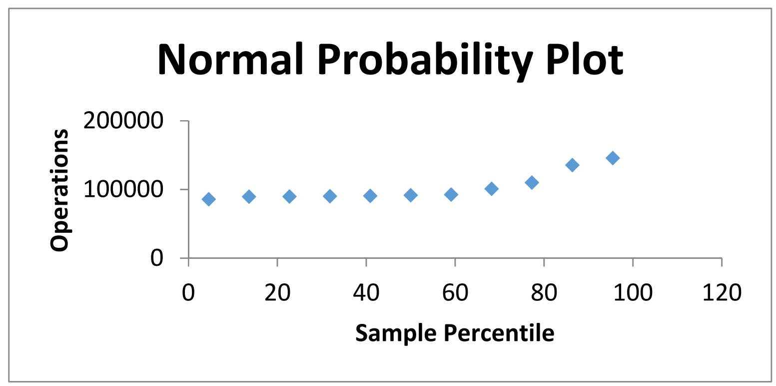


RESIDUAL OUTPUT

Observation	*Predicted Operations*	*Residuals*
1	125537.8362	9947.163822
2	122105.1644	23555.83558
3	116510.4391	-6452.439085
4	111794.8435	-20199.84351
5	106585.0918	-16855.09183
6	102016.3195	-1059.319493
7	96936.98353	-6165.983526
8	92197.25923	-2606.259234
9	87123.59352	3015.406484
10	83043.30703	9632.692973
11	78592.16218	7187.837823

PROBABILITY OUTPUT

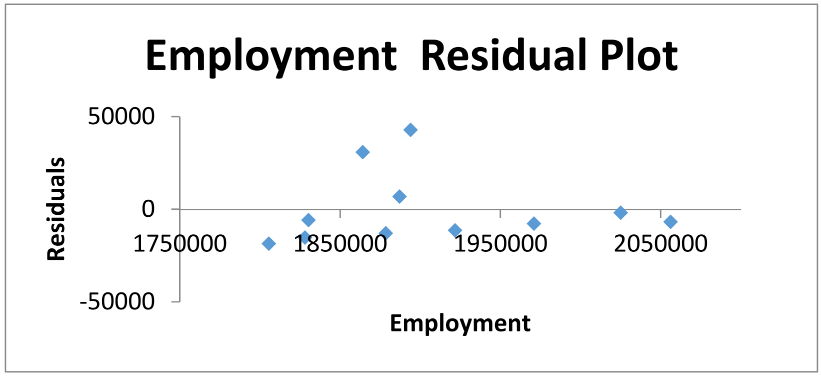
Percentile	*Operations*
4.545454545	85780
13.63636364	89591
22.72727273	89730
31.81818182	90139
40.90909091	90771
50	91595
59.09090909	92676
68.18181818	100957
77.27272727	110058
86.36363636	135485
95.45454545	145661



Regression Analysis - SDM Operations v. Employment (San Diego County)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.25204214
R Square	0.06352524
Adjusted R Square	-0.040527511
Standard Error	20712.86801
Observations	11



ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	261922752	261922752	0.610509954	0.454657686
Residual	9	3861206110	429022901		
Total	10	4123128862			

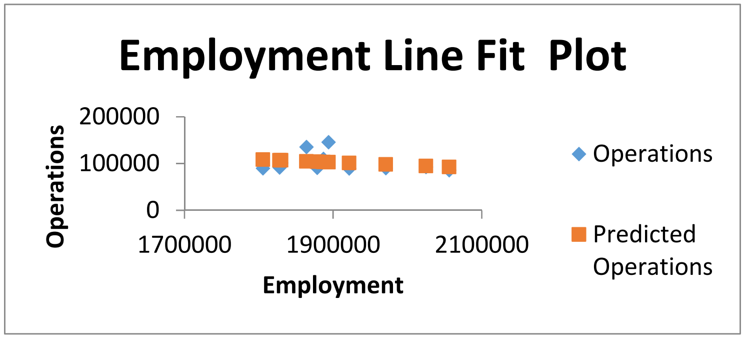
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	221988.2481	153640.47	1.4448553	0.182398449	-125570.6408	569547.1371	-125570.6408	569547.137
Employment	-0.062945451	0.08055972	-0.781351	0.454657686	-0.245184209	0.119293307	-0.245184209	0.11929331

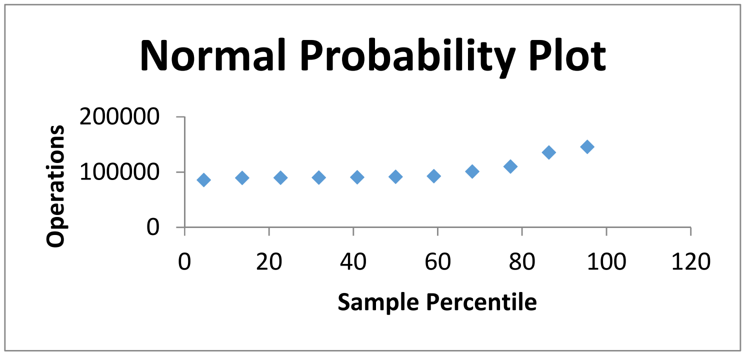
RESIDUAL OUTPUT

Observation	*Predicted Operations*	*Residuals*
1	104647.8567	30837.1433
2	102774.1595	42886.8405
3	103205.3358	6852.6642
4	106921.824	-15326.824
5	108336.2083	-18606.208
6	106782.8405	-5825.8405
7	103744.5895	-12973.589
8	101021.9469	-11430.947
9	97926.10084	-7787.1008
10	94522.38854	-1846.3885
11	92559.74939	-6779.7494

PROBABILITY OUTPUT

Percentile	*Operations*
4.545454545	85780
13.63636364	89591
22.72727273	89730
31.81818182	90139
40.90909091	90771
50	91595
59.09090909	92676
68.18181818	100957
77.27272727	110058
86.36363636	135485
95.45454545	145661

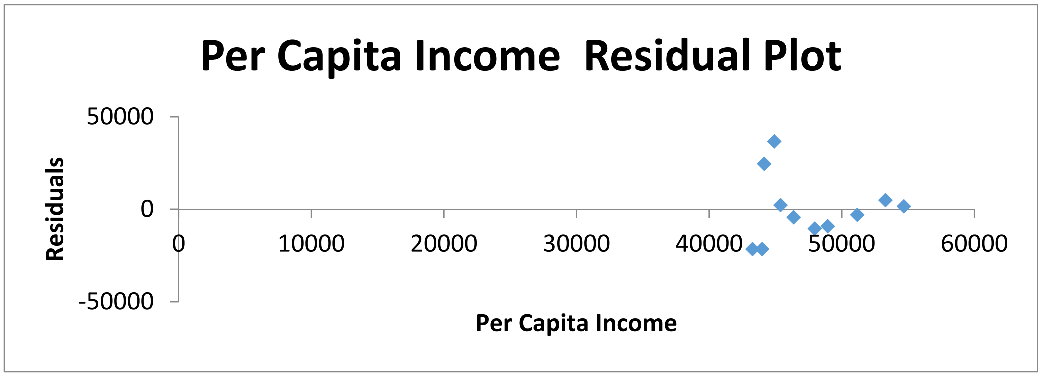




Regression Analysis - SDM Operations v. Per Capita Income (San Diego County)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.490040232
R Square	0.240139429
Adjusted R Square	0.155710477
Standard Error	18657.74504
Observations	11



ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	990125811.3	9.9E+08	2.844278208	0.125976532
Residual	9	3133003051	3.48E+08		
Total	10	4123128862			

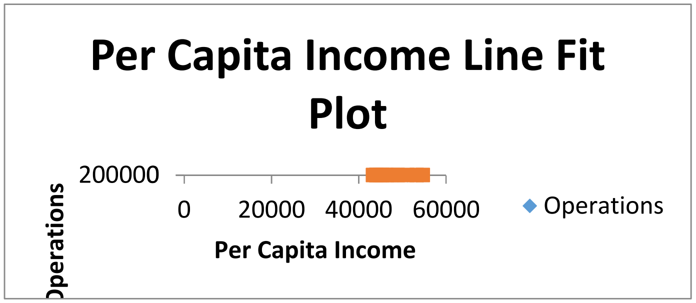
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	222602.681	71707.80679	3.104302	0.012634455	60388.35222	384817.0097	60388.35222	384817.0097
Per Capita Income	-2.530209411	1.500273471	-1.6865	0.125976532	-5.924063789	0.863644968	-5.924063789	0.863644968

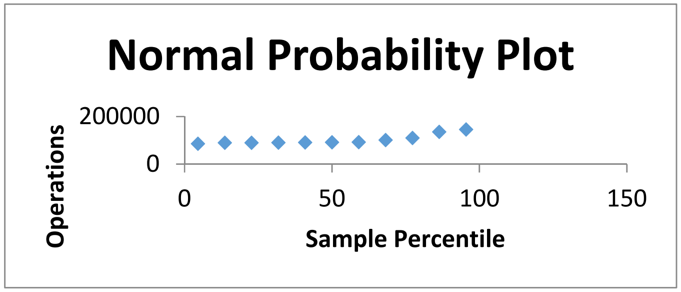
RESIDUAL OUTPUT

Observation	*Predicted Operations*	*Residuals*
1	110893.9355	24591.06451
2	108965.9159	36695.08408
3	107774.1873	2283.81271
4	113123.05	-21528.04998
5	111286.118	-21556.11795
6	105266.7498	-4309.749764
7	101251.3074	-10480.30743
8	98779.29284	-9188.292835
9	93121.74459	-2982.744593
10	87747.5798	4928.420195
11	84233.11893	1546.881067

PROBABILITY OUTPUT

Percentile	*Operations*
4.545454545	85780
13.63636364	89591
22.72727273	89730
31.81818182	90139
40.90909091	90771
50	91595
59.09090909	92676
68.18181818	100957
77.27272727	110058
86.36363636	135485
95.45454545	145661

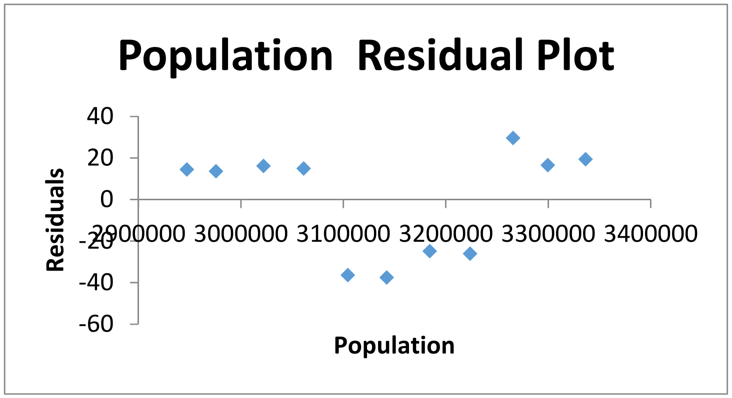




Regression Analysis - SDM Based Aircraft v. Population (San Diego County)

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.159083525
R Square	0.025307568
Adjusted R Square	-0.082991591
Standard Error	26.75293641
Observations	11



ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	167.250815	167.2508	0.233682036	0.640350184
Residual	9	6441.47646	715.7196		
Total	10	6608.72727			

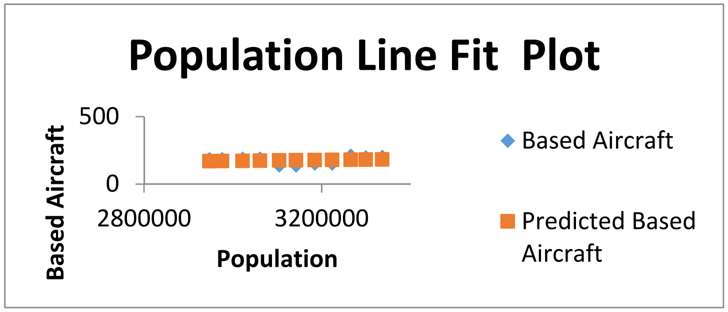
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	78.19848618	201.53844	0.388008	0.707028099	-377.7131399	534.1101123	-377.7131399	534.1101123
Population	3.09819E-05	6.4091E-05	0.483407	0.640350184	-0.000114002	0.000175965	-0.000114002	0.000175965

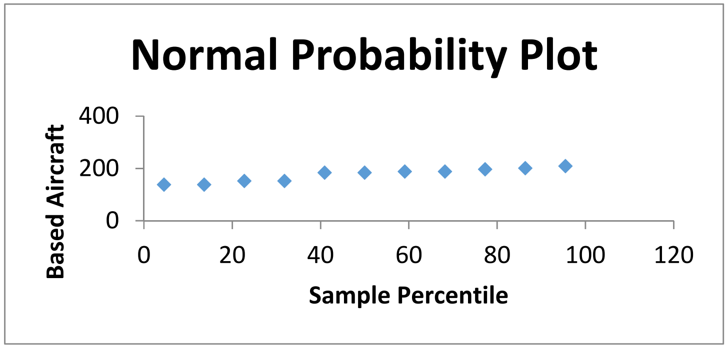
RESIDUAL OUTPUT

Observation	*Predicted Based Aircraft*	*Residuals*
1	169.5111541	14.4888459
2	170.3926827	13.6073173
3	171.8294382	16.1705618
4	173.0404284	14.9595716
5	174.3783206	-36.3783206
6	175.5516059	-37.5516059
7	176.8560066	-24.8560066
8	178.0731932	-26.0731932
9	179.3761378	29.6238622
10	180.4239773	16.5760227
11	181.5670552	19.4329448

PROBABILITY OUTPUT

Percentile	*Based Aircraft*
4.545454545	138
13.63636364	138
22.72727273	152
31.81818182	152
40.90909091	184
50	184
59.09090909	188
68.18181818	188
77.27272727	197
86.36363636	201
95.45454545	209

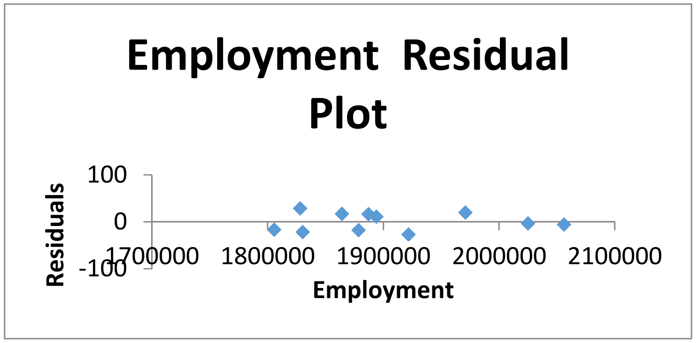




Regression Analysis - SDM Based Aircraft v. Employment (San Diego County)

SUMMARY OUTPUT

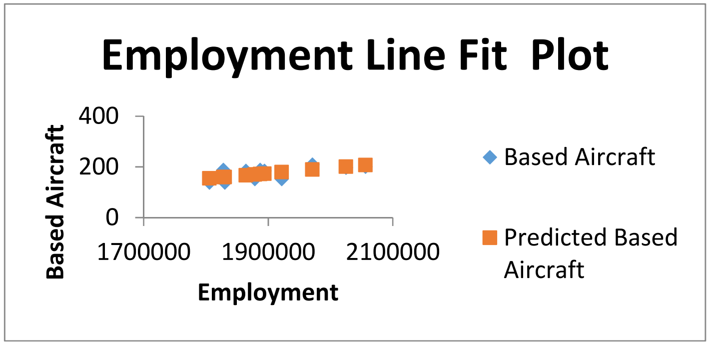
Regression Statistics	
Multiple R	0.659204041
R Square	0.434549968
Adjusted R Square	0.371722187
Standard Error	20.37674341
Observations	11



ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	2871.822226	2871.822	6.916526	0.027361845
Residual	9	3736.905047	415.2117		
Total	10	6608.727273			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-221.632455	151.1472205	-1.46633	0.176606	-563.5512224	120.2863124	-563.5512224	120.2863124
Employment	0.000208428	7.92524E-05	2.629929	0.027362	2.91468E-05	0.00038771	2.91468E-05	0.00038771

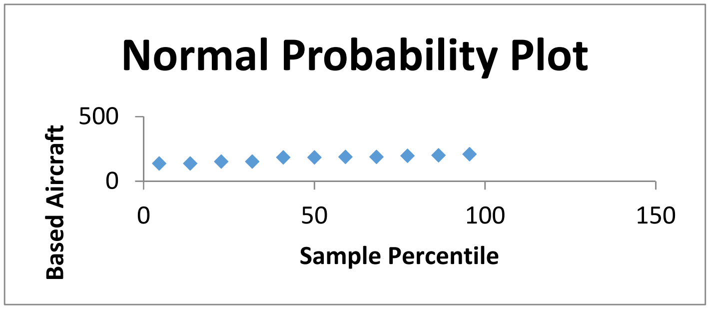


RESIDUAL OUTPUT

Observation	*Predicted Based Aircraft*	*Residuals*
1	166.9110883	17.08891168
2	173.115371	10.88462897
3	171.6876377	16.31236225
4	159.3814106	28.61858942
5	154.6980286	-16.69802857
6	159.8416201	-21.84162008
7	169.9020332	-17.90203322
8	178.9173873	-26.91738728
9	189.1685122	19.83148777
10	200.4390596	-3.439059587
11	206.9378514	-5.937851365

PROBABILITY OUTPUT

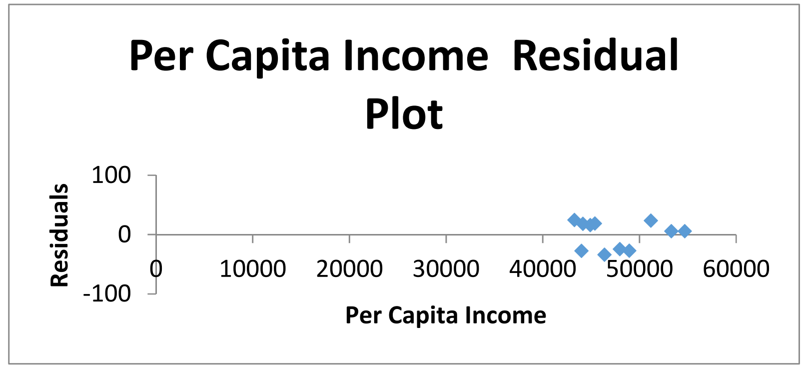
Percentile	*Based Aircraft*
4.545455	138
13.63636	138
22.72727	152
31.81818	152
40.90909	184
50	184
59.09091	188
68.18182	188
77.27273	197
86.36364	201
95.45455	209



Regression Analysis - SDM Based Aircraft v. Per Capita Income (San Diego County)

SUMMARY OUTPUT

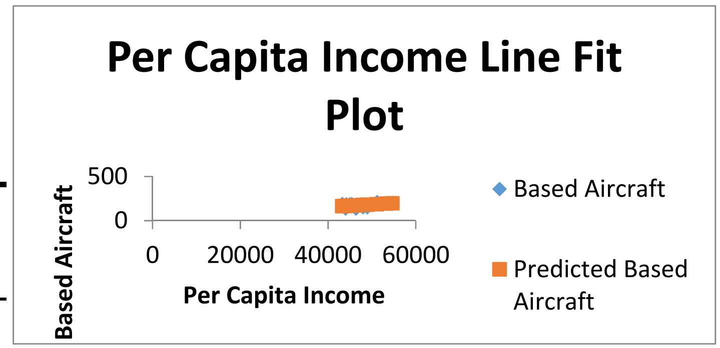
Regression Statistics	
Multiple R	0.42546626
R Square	0.18102154
Adjusted R Square	0.09002393
Standard Error	24.523017
Observations	11



ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	1196.321994	1196.322	1.989300023	0.192027623
Residual	9	5412.405279	601.3784		
Total	10	6608.727273			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	43.0226046	94.24996231	0.456473	0.658865827	-170.1856227	256.230832	-170.1856227	256.230832
Per Capita Income	0.00278122	0.001971901	1.410425	0.192027623	-0.001679531	0.007241971	-0.001679531	0.007241971



RESIDUAL OUTPUT

Observation	*Predicted Based Aircraft*	*Residuals*
1	165.813461	18.18653936
2	167.93275	16.06724984
3	169.242705	18.75729529
4	163.363206	24.63679404
5	165.382372	-27.38237157
6	171.998894	-33.99889357
7	176.412689	-24.41268946
8	179.129941	-27.12994125
9	185.348749	23.65125119
10	191.25606	5.743940243
11	195.119174	5.880825882

PROBABILITY OUTPUT

Percentile	*Based Aircraft*
4.545454545	138
13.63636364	138
22.72727273	152
31.81818182	152
40.90909091	184
50	184
59.09090909	188
68.18181818	188
77.27272727	197
86.36363636	201
95.45454545	209