
CHAPTER 3 AVIATION AND PASSENGER FORECAST (2015-2035)



3.1 OVERVIEW

This chapter summarizes historical aviation and passenger activity at OGG and presents annual aviation demand forecasts through the 2035 planning period. The base forecast year for this study is 2014. The forecast, together with information on existing and presently planned facilities presented in **Chapter 2** are used in **Chapter 4** to evaluate and identify modifications and/or additions to existing airport facilities that are necessary and appropriate for development.

3.2 PASSENGER ACTIVITY AND FORECAST

Figure 3-1 on Page 3-2 shows total historic inter-island air passenger levels between 1990 and 2014. Data for 2015 (last quarter) is estimated and passenger activity levels are for both enplanements and deplanements.

The events of September 11, 2001 saw a significant decrease in passengers. A second

significant decrease occurred in 2007 due to a recession. From 2007 to 2010, an 18% decrease was observed totaling 5,346,694 passengers in 2010. Although this represents an 8.29% increase over a 20-year period from 1990 to 2010, a larger increase was previously seen from 1970 to 1990 which saw a 323% increase. According to passenger forecasts by Martin Associates, LLC, (See **Appendix A, "Passenger and Operations Level Projections, Kahului Airport, October 2011"**), passenger levels will not return to pre-recession (2007) levels until after 2025. Air operations from 2001 to 2007, reflects the decline in passenger counts. See **Figure 3-2** on Page 3-2.

Regularly scheduled direct overseas service to OGG started in January 1983. Prior to this date, overseas flights to OGG were occasionally chartered. The number of overseas flights has increased while inter-island traffic has declined from 1990 to 2014. See **Figure 3-3** on Page 3-3.

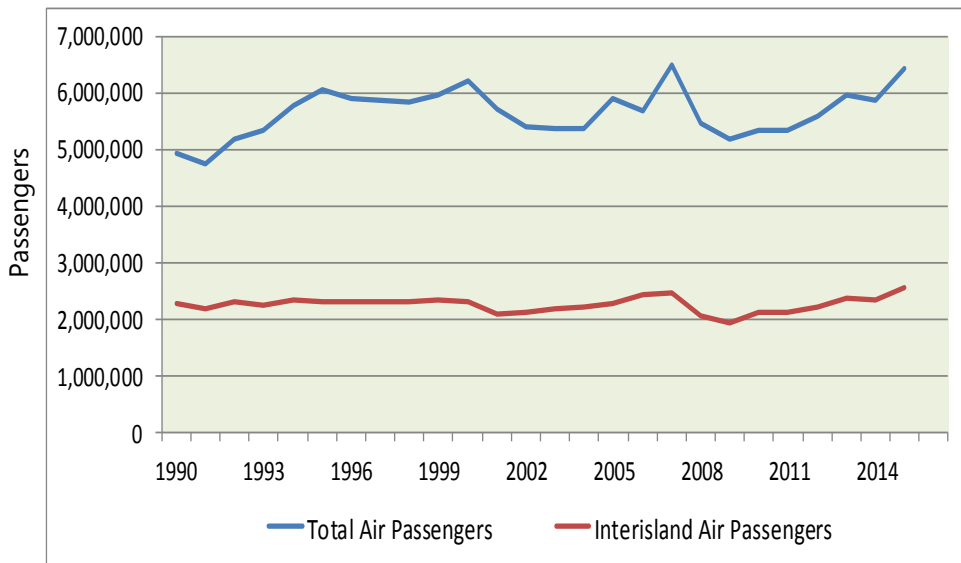


Figure 3-1 Historical Passenger Levels at Kahului and Maui Passenger Levels

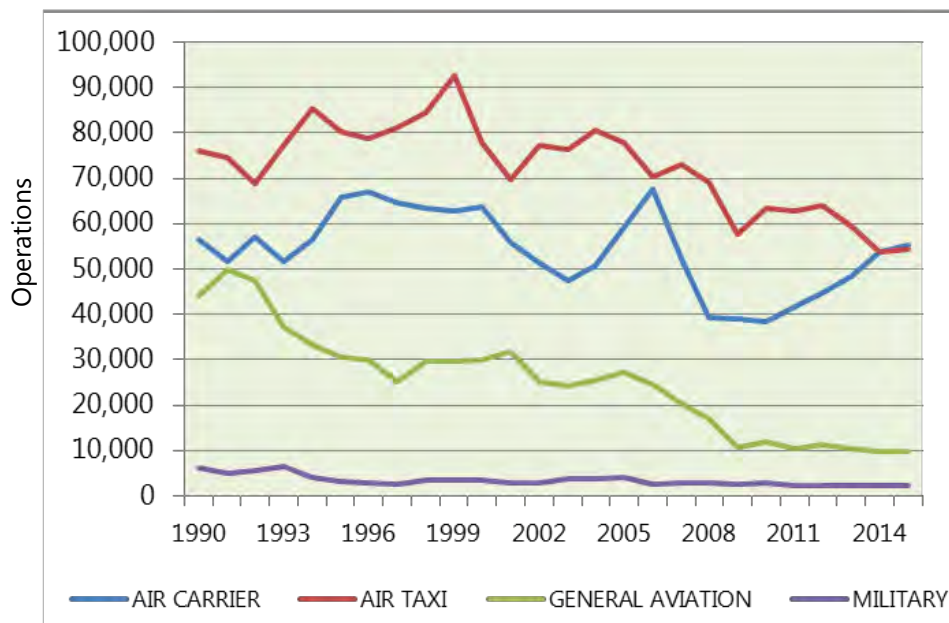


Figure 3-2 Operations at Kahului Airport 1990-2014

Scheduled overseas air carrier service is currently provided by Air Canada, Alaska Airlines, American Airlines, Continental Airlines, Delta Airlines, Hawaiian Airlines, United Airlines, U. S. Airways, and WestJet, using Boeing 737 (B-737), Boeing 757 (B-757), Boeing 767 (B-767), and Boeing 777 (B-777) aircrafts. Non-stop domestic overseas service is provided to Dallas, Denver, Las Vegas, Los Angeles, Oakland, Phoenix, Portland, San Diego, San Francisco, San Jose, Seattle/Tacoma, and Vancouver. Service between the OGG and other domestic and foreign

overseas points is provided through the Honolulu International Airport (HNL).

Scheduled inter-island air carrier service is provided primarily by Hawaiian Airlines on Boeing 717 (B-717) aircraft. American Airlines and Continental Airlines offer some passenger flight services to Honolulu.

Hawaiian Airlines, Mokulele Airlines, Island Air, and Makani Kai Air provide regularly scheduled inter-island commuter airline service. Additional

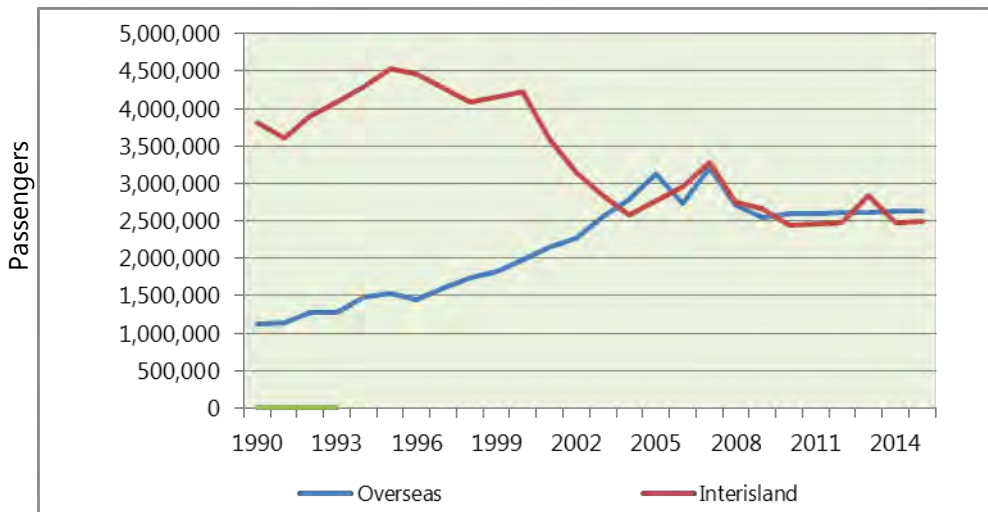


Figure 3-3 Overseas Flights versus Inter-Island Flights to Kahului

inter-island flights are provided by nonscheduled sightseeing air taxis with passenger origins primarily from HNL.

The number of inter-island passengers increased slightly from 1990 to 2001 from 3,343,653 to 3,582,229. Over the last decade, the inter-island passenger volumes presented in **Figure 3-3** include passengers transported by regularly scheduled commuter airlines and nonscheduled, sightseeing air taxis. Most inter-island passengers during this period used regularly scheduled flight services. A number of sightseeing tour operators are based at HNL and park their aircraft at OGG's East Ramp for the duration of the sightseeing tour. Some air taxi flights are also provided by OGG's fixed base operators.

3.2.1 HELICOPTER/AIR TAXI ACTIVITY

In addition to the inter-island sightseeing air taxi services, a number of helicopter sightseeing companies offer tours of Haleakalā, Hāna, 'Iao Valley, and other scenic attractions on Maui from OGG's East Ramp. These companies include Papillon Helicopters, Alex Air, Maui Helicopters, Hawai'i Helicopters, Sunshine Helicopters, Kenai Air of Hawai'i, Cardinal Helicopters, Pacific Helicopter Tours, Makani Kai Helicopters, and Blue Hawaiian Helicopters.

Helicopter operations, categorized as air taxi at OGG, numbered approximately 56,030 in 1990.

See **Figure 3-2** on Page 3-2. Air taxi operations increased from 1990 to 1999 by approximately 91,000. There was a sharp decline in 2001, followed by a gradual increase in 2010 to 59,387 operations (Department of Business, Economic Development and Tourism (DBEDT), Hawai'i Tourism Authority (HTA, 2010)).

The helicopter sightseeing tour companies primarily use four (4) to six (6) passenger Bell 206, Hughes 500, and Aerospatiale AS-350 helicopters. These companies do not file passenger data with the State; consequently no official annual passenger counts are available. However, discussions with representatives of the helicopter companies suggest that most flights operate at, or close to, their passenger seating capacity.

3.2.2 INTRA STATE PASSENGER ORIGIN-DESTINATION DATA

Statistics on inter-island and overseas operations between the OGG and other airports from 1990 to 2014 are presented in **Figure 3-3**. During this period, overall aircraft operations have been decreasing for inter-island travel. However, overseas aircraft traffic to OGG increased during the same period.

3.2.3 AIR CARGO ACTIVITY

The historical volume of air cargo, enplaned and deplaned, at OGG are presented in **Figure 3-4**.



Figure 3-4 Air Cargo Activity at Kahului Airport (1990-2014)

on Page 3-4. The figures include cargo carried by both air taxi and scheduled air carriers

Most of the all-cargo inter-island flights occur at night, with Aloha Air Cargo B-737-200 aircrafts handling the bulk of the loads. Incoming flights to OGG deliver a wide variety of perishable food items, newspapers, and manufactured goods. Outgoing cargo consists primarily of perishables such as fruits and vegetables. United Parcel Service (UPS) is another all-cargo carrier using B-767 aircraft.

From 2010 to 2014, air cargo on signatory inter-island carriers was moved on B-767 aircraft. Non-signatory cargo mainly used B-737-200 and B-737-300 aircraft. In 2010, there were no overseas signatory cargo operations. Cargo tonnage handled at OGG peaked at about 46,000 tons in 2003 and has been steadily decreasing. As shown in **Figure 3-4**, air cargo operations have shown no growth, overall. Some factors inhibiting growth on air cargo operations include the increased use of inter-island maritime shipping as well as decreased pineapple shipments.

3.2.4 MAIL

Figure 3-5 on Page 3-5 shows the volume of mail handled at OGG. Since 1990, there has been a consistent increase in mail volume.

3.2.5 AIRCRAFT OPERATIONS

Total aircraft operations reported at the OGG declined from 182,686 in 1990 to 118,896 in 2010. This constitutes a 35% decrease over a 20 year period. See **Figure 3-6** on Page 3-5. Some of the changes in air carrier, air taxi, and general aviation operations indicated by the data are due to changes in the way aircraft operations are classified rather than to actual changes in the number of aircraft flying. An example of this change is the de Havilland Canada Dash 7 (DHC-7). Since 1989, the FAA counts the DHC-7 aircraft operations as “commuter/air taxi operations”, whereas they were previously included in the “air carrier” category.

From 1990 to 2014, air carrier and air taxi operations at OGG have been declining with projected increases occurring after 2015. General aviation operations have been sharply decreasing from 1990 to 2014. However, military aircraft operations have been relatively stable compared to other operations over the last 20 years. The military operations consist primarily of training flights by the Hawai’i Air National Guard and U. S. Navy and Marine Corps aircrafts based on O’ahu. **Figure 3-2** on Page 3-2 shows a breakdown of the total operations, both historical and forecasted, for air carriers, air taxi, general aviation, and military flights.



Figure 3-5 Air Mail Handled at Kahului Airport
 Source: DOTA. State of Hawaii Airport Activity Statistics by Calendar Year. (2014)

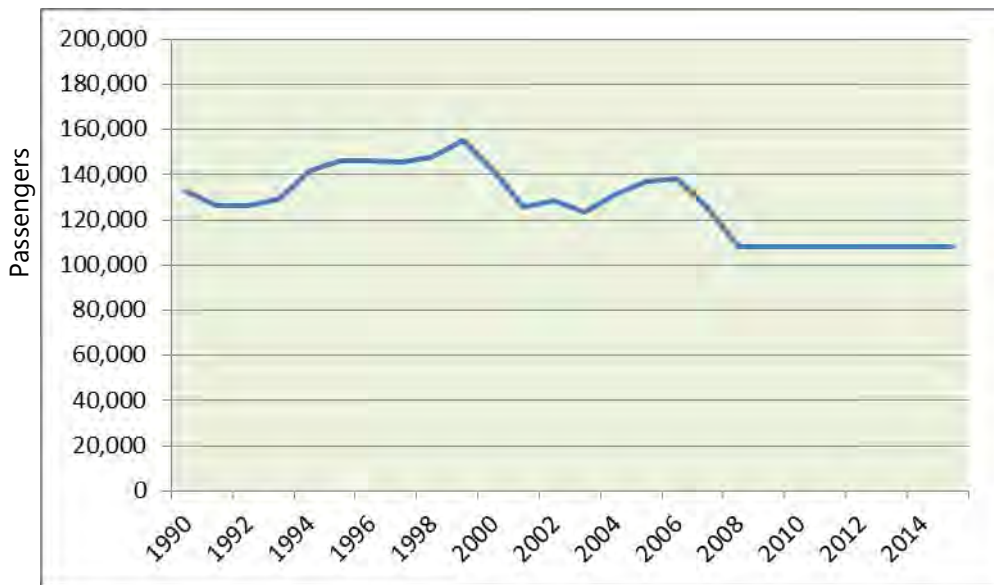


Figure 3-6 Total Annual Operations at Kahului
 Source: DOTA. (2014)

3.2.6 BASED AIRCRAFT

There are currently 71 fixed base aircraft operations at OGG; 36 helicopters and 35 fixed wing aircraft, situated along the East Ramp. Aircraft are housed in T-hangars or utilize tiedowns fronting the T-hangars.

3.3 AVIATION DEMAND FORECAST

The DOTA Hawai'i Aviation Demand Forecasts, updated in 2004, provides forecasts for passengers, air cargo and mail, aircraft operations, and based aircraft for all of the major airports in the State. **Appendix A** contains a description of the methodology used in developing the forecasts. It is expected that OGG

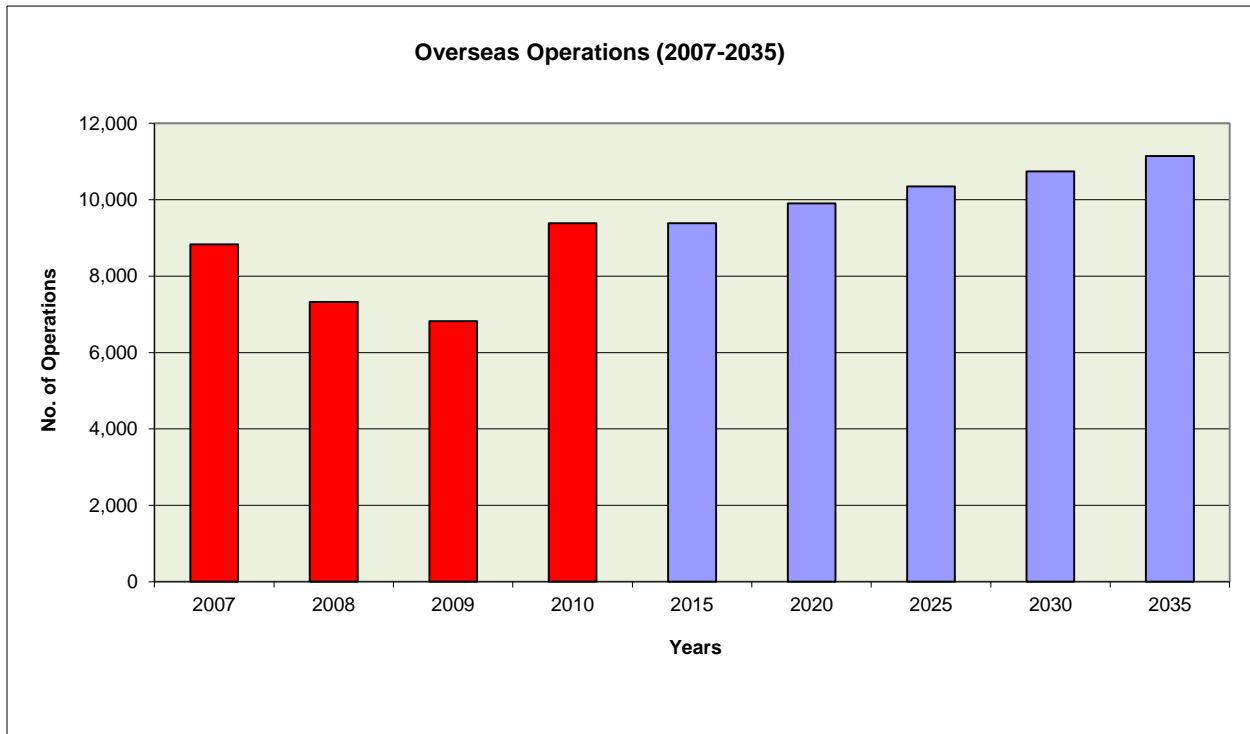


Figure 3-7 Overseas Operations Historical Data from 2007 to 2014 and Forecast Data from 2015 to 2035

Source: *Hawaii Aviation Demand Forecasts*

will remain the principal airport on the island of Maui and should be expanded as needed to support the island's growth. The aviation activity forecasts for OGG are presented in **Figure 3-7** and **Figure 3-8** on Page 3-7.

3.3.1 Overseas and Inter-island Operations

The aviation demand forecasts contained in this MP Update were prepared by analyzing the historical aviation activity and the State of Hawai'i DBEDT socioeconomic projections. The historical and projected population and visitor data, an overview of Hawai'i's visitor industry, the updated aviation demand forecasts for the State, and the individual counties and the forecast methodology and assumptions are discussed in the *Hawai'i Aviation Demand Forecasts*. See **Appendix A**. The *Hawai'i Aviation Demand Forecasts* represent "unconstrained" demand, i.e., they assume the necessary transportation, visitor accommodations, and other facilities will be available. Other important assumptions include consistent population

growth rate increases and that no policies would be implemented to constrain aviation growth. **Figure 3-7** shows historic aviation data (2007–2014) and forecasted overseas operations (2015–2035). **Figure 3-8** on Page 3-7 shows historic data for inter-island operations (2007 – 2014), and forecasted inter-island operations (2015 – 2035).

3.3.2 Passengers

The *Hawaii Aviation Demand Forecasts* (2004) indicates that total statewide passengers would increase from 31,959,439 in 2002 to 43,848,600 by 2025, an annual average increase of 1.4%. County of Maui passengers were forecasted to increase to 5,857,220 in 2025. Overseas domestic passengers were estimated to increase to 7,924,100 by 2025 from 5,416,503 in 2002. This represents a growth rate of 1.7% in County of Maui and an overall increase of 46%. In addition, international passenger service was expected to commence by 2005. In order to accommodate additional international operations, security improvements and passenger handling facilities

will need to be added. OGG will also need to obtain a certification with the U.S. Department of Transportation (DOT) Office of International Aviation.

The economic downturn that began in 2007, severely impacted air travel nationwide. **Figure 3-9** shows historic overseas passenger activity (2007-2014) and forecast passenger activity

(2015 – 2035) with a slight increase in passengers by 2035. The forecasted planning period assumed that aircraft arriving at OGG would be operating at a 79% load factor. **Figure 3-10** on Page 3-8 shows historical inter-island passenger activity (2007-2014) and forecasted passenger activity (2015–2035).

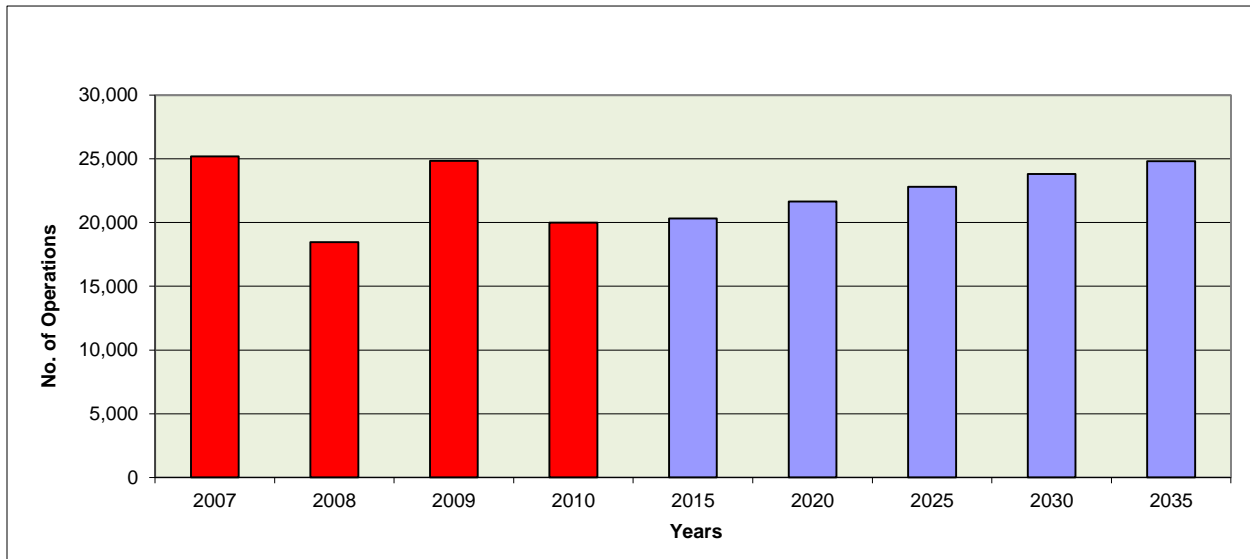


Figure 3-8 Inter-island Operations Historical Data from 2007 to 2014 and Forecasted Data from 2015 to 2035

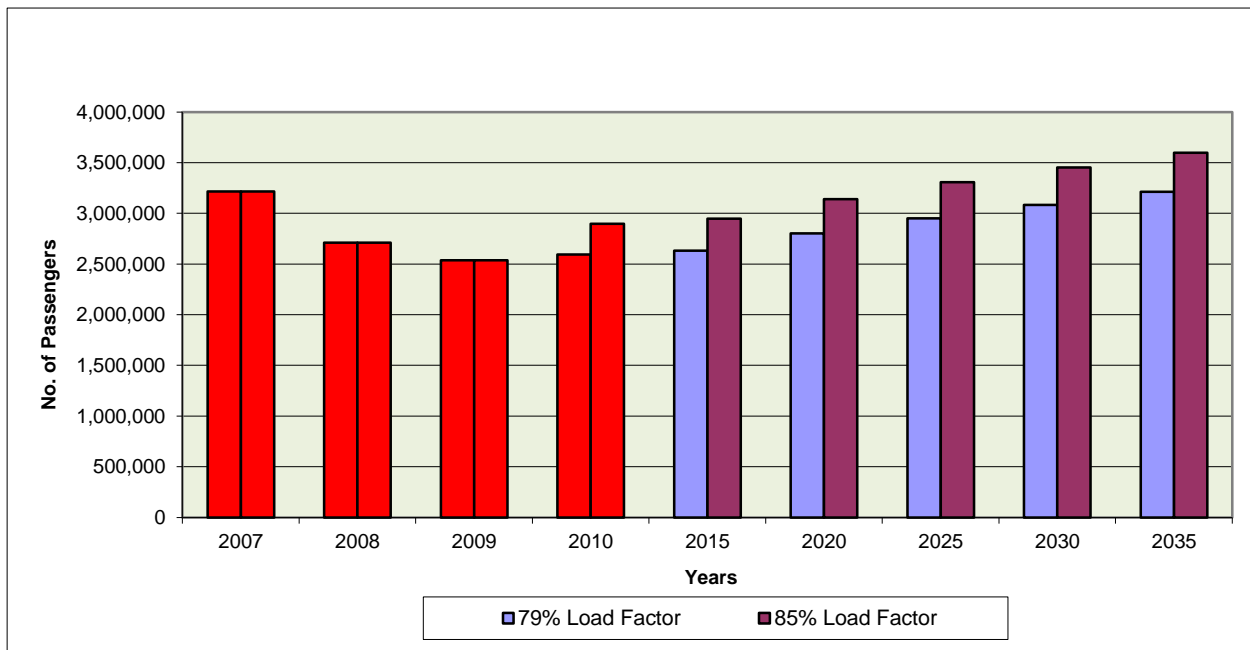


Figure 3-9 Overseas Passengers Historical Data from 2007 to 2014 and Forecasted Data from 2015 to 2035
 Source: Hawaii Aviation Demand Forecasts

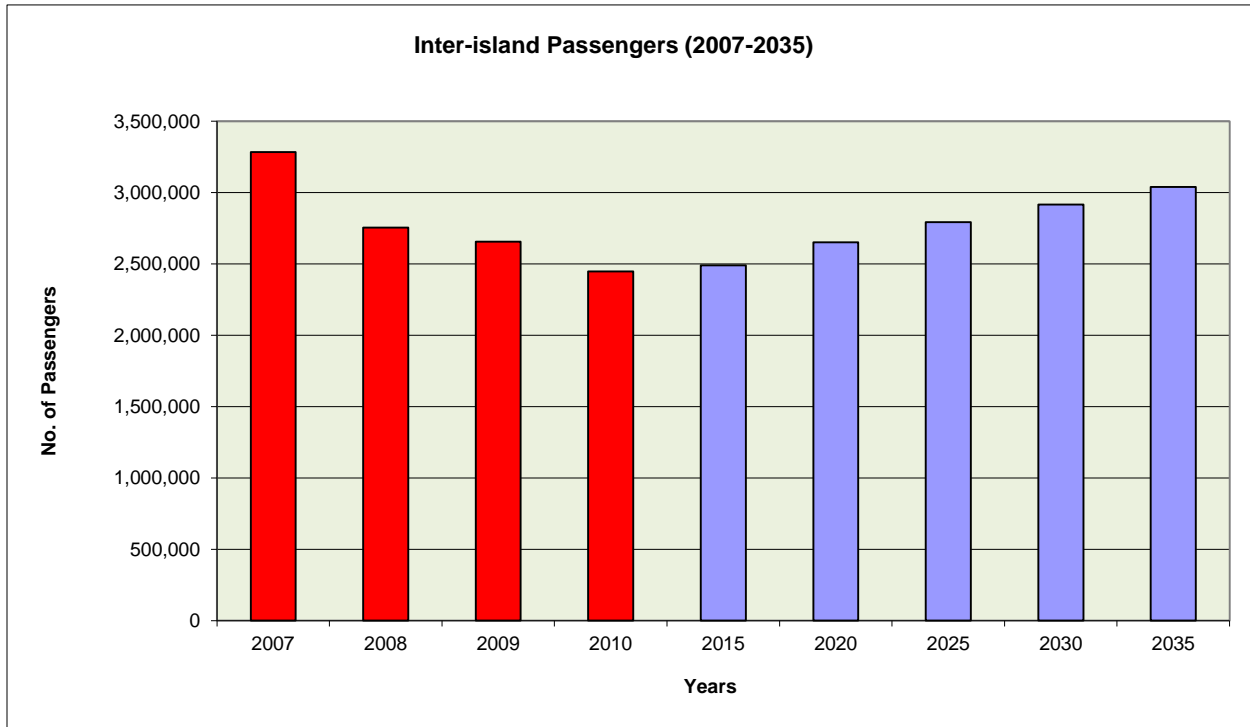


Figure 3-10 Inter-island Passengers Historical Data from 2007 to 2014 and Forecasted Data from 2015 to 2035

3.3.3 AIR CARGO AND MAIL FORECAST ACTIVITY

The total volume of air cargo is anticipated to remain consistent during the forecast period, while mail volumes are projected to increase at an annual rate of 2.5% as shown in **Figure 3-4** on Page 3-4.

3.3.4 POTENTIAL FOR INTERNATIONAL AIR TRAFFIC

Presently, there are no scheduled international flights to or from the OGG, and there are no Federal Inspection Service (FIS) facilities for the processing of arriving international passengers. Consequently, all incoming passengers from international destinations must clear customs and immigration at HNL or mainland airports before flying on to Maui. The historical absence of international flights to and from the OGG is a function of many factors including existing international agreements, airlines' assessments of the market potential for such a service, and a lack of airport facilities.

An exception to this is passengers on charter flights between Canada to Maui. These charters are the principal users of a pre-clearance arrangement between Canada and the United States. This pre-clearance occurs from airports where FIS facilities and personnel are present. Overseas passengers from these flights are included in the "overseas" category in **Table 3-3** on Page 3-10.

3.4 PEAK PERIOD FORECAST

Peak-period passenger and aviation demand forecasts have been prepared for the average day of the busiest month. These forecasts influence airfield, terminal area, access, automobile parking, and infrastructure requirements for the OGG. Peak-hour aviation demand forecasts for enplaned passenger activity, airline activity, and aircraft operations are summarized in **Table 3-1** to **Table 3-6** on Pages 3-10 and 3-11 and are discussed below.

3.4.1 PASSENGER AND AIRLINE ACTIVITY

August is typically the busiest month for airline passenger traffic at the OGG. The peak month's share of the annual total has remained constant over many years. The planning period forecasts for both inter-island and overseas passenger volumes will continue to assume that 10-11% of the annual total will continue to occur in the month of August.

The methodology to estimate the future level of operations by aircraft type for overseas and inter-island flights consists of the following steps:

- The baseline passenger forecasts for inter-island and overseas operations assume the 2010 distribution of passengers are:
 - 54.2% overseas
 - 45.8% inter-island
- An estimate of the number of seats by type of aircraft deployed in 2010 was developed from industry standard aircraft seating configurations. The projected passengers were next allocated across seating capacity by aircraft type for overseas and inter-island flights.

Three (3) scenarios were then developed for the overseas flights as follows.

A. Baseline Scenario 1 consists of the following assumptions:

- The 2010 seating capacity allocation by aircraft type will remain constant over the projection period.
- That 2010 seating capacity utilization of 79% will remain constant over the projection period.

B. Scenario 2 assumes seating capacity utilization increases. The assumptions are:

- The 2010 seating allocation by aircraft type will remain constant over the projection period.

- The seating capacity utilization will increase to 85% by 2011.

C. Scenario 3 assumes the addition of overseas flights based on target markets now under consideration by DOTA. The key assumptions underlying Scenario 3 include:

- In 2012 add one (1) daily Pacific Northwest flight, using B-737-800 series aircraft, to accommodate the growing Canadian market and to provide another U. S. mainland gateway.
- In 2012 add one (1) daily Asian flight using B-767-300 series aircraft, consistent with marketing Maui to the high end Japanese/Korean visitor market.
- In 2014 add one (1) additional daily Pacific Northwest flight and one (1) additional Asian Flight.
- The number of overseas passengers will grow to reflect new added flights with a seating capacity utilization of 85%.

Table 3-1 on Page 3-10 presents the projected landings by aircraft type for the Baseline Scenario 1 for the overseas market. The highlighted rows in the table are actual operations and passenger levels.

The overseas projections under Scenario 2, are presented in **Table 3-2** on Page 3-10.

The overseas projections by aircraft type under Scenario 3 are presented in **Table 3-3** on Page 3-10. The orange shaded rows indicate the result when two (2) daily Pacific Northwest flights and one (1) daily Japanese/Korean flight are added.

Table 3-4 and **3-5** on Page 3-10 show historic and projected inter-island operations and passenger activities through the planning period.

For all tables included in this chapter, 2010 represents actual data and 2015 serves as the base year.

Year	Total PAX	Overseas PAX	B737-700	B737-800	B757	B757-200	B757-300	B757-ERL	B767	B767-209	B767-300	B767-300E	B767-CL	B767-ER	B777-200A	Total
2007	6,500,384	3,215,786	1,410	897	902	998	578	205	1,236	131	1,018	477	484	8	491	8,835
2008	5,463,787	2,709,061	249	742	1,068	1,069	423	210	982	152	1,320	0	615	8	486	7,324
2009	5,192,693	2,536,552	8	1,075	875	1,020	95	461	732	177	1,478	4	417	11	471	6,824
2010	5,346,694	2,898,090	188	2,397	1,020	1,168	0	581	936	230	972	6	431	18	440	8,387
2015	5,438,392	2,947,793	192	2,438	1,037	1,188	0	591	952	234	989	6	438	18	448	8,531
2020	5,791,283	3,139,072	204	2,596	1,105	1,265	0	629	1,014	249	1,053	6	467	19	477	9,084
2025	6,099,048	3,305,891	215	2,734	1,164	1,332	0	663	1,068	262	1,109	7	492	21	502	9,569
2030	6,367,786	3,451,556	224	2,855	1,215	1,391	0	692	1,115	274	1,158	7	513	21	524	9,989
2035	6,640,259	3,599,246	234	2,977	1,267	1,451	0	722	1,162	286	1,207	7	535	22	546	10,416

Table 3-1 Projected Overseas Landings and Passengers by Aircraft Type – Scenario 1

Year	Total PAX	Overseas PAX	B737-700	B737-800	B757	B757-200	B757-300	B757-ERL	B767	B767-209	B767-300	B767-300E	B767-CL	B767-ER	B777-200A	Total
2007	6,500,384	3,215,786	1,410	897	902	998	578	205	1,236	131	1,018	477	484	8	491	8,835
2008	5,463,787	2,709,061	249	742	1,068	1,069	423	210	982	152	1,320	0	615	8	486	7,324
2009	5,192,693	2,536,552	8	1,075	875	1,020	95	461	732	177	1,478	4	417	11	471	6,824
2010	5,346,694	2,898,090	188	2,397	1,020	1,168	0	581	936	230	972	6	431	18	440	8,387
2015	5,438,392	2,947,793	178	2,266	964	1,104	0	549	885	217	919	6	407	17	416	7,928
2020	5,791,283	3,139,072	190	2,413	1,027	1,176	0	585	942	232	979	6	434	18	443	8,445
2025	6,099,048	3,305,891	200	2,541	1,081	1,238	0	616	992	244	1,031	6	457	19	466	8,891
2030	6,367,786	3,451,556	209	2,653	1,129	1,293	0	643	1,036	255	1,076	7	477	20	487	9,285
2035	6,640,259	3,599,246	218	2,767	1,177	1,348	0	671	1,080	265	1,122	7	497	21	508	9,681

Table 3-2 Projected Overseas Landings, and Passengers, by Aircraft Type – Scenario 2

Year	Total PAX	Overseas PAX	B737-700	B737-800	B757	B757-200	B757-300	B757-ERL	B767	B767-209	B767-300	B767-300E	B767-CL	B767-ER	B777-200A	Total
2007	6,500,384	3,215,786	1,410	897	902	998	578	205	1,236	131	1,018	477	484	8	491	8,835
2008	5,463,787	2,709,061	249	742	1,068	1,069	423	210	982	152	1,320	0	615	8	486	7,324
2009	5,192,693	2,536,552	8	1,075	875	1,020	95	461	732	177	1,478	4	417	11	471	6,824
2010	5,346,694	2,898,090	188	2,397	1,020	1,168	0	581	936	230	972	6	431	18	440	8,387
2015	5,438,392	2,947,793	178	2,996	964	1,104	0	549	885	217	1,649	6	407	17	416	9,388
2020	5,791,283	3,139,072	190	3,143	1,027	1,176	0	585	942	232	1,709	6	434	18	443	9,905
2025	6,099,048	3,305,891	200	3,271	1,081	1,238	0	616	992	244	1,761	6	457	19	466	10,351
2030	6,367,786	3,451,556	209	3,383	1,129	1,293	0	643	1,036	255	1,806	7	477	20	487	10,745
2035	6,640,259	3,599,246	218	3,497	1,177	1,348	0	671	1,080	265	1,852	7	497	21	508	11,141

Table 3-3 Projected Overseas Landings and Passengers by Aircraft Type – Scenario 3

Year	Total PAX	Interisl. PAX	B717	B737	B757	B767	B767-300	Cessna 208B	CRJ-200	Embraer 170	Dash 8-100	Total
2007	6,500,384	3,284,598	8,364	6,851	68	24	0	2,540	2,870	0	4,469	25,186
2008	5,463,787	2,754,726	9,214	1,735	0	284	346	0	3,255	0	3,628	18,462
2009	5,192,693	2,656,141	11,609	0	0	5	1	5,514	2,806	1,629	3,286	24,850
2010	5,346,694	2,448,604	10,622	1	0	1	0	4,960	2,604	0	1,796	19,984
2015	5,438,392	2,490,599	10,804	2	0	2	0	5,046	2,649	0	1,827	20,330
2020	5,791,283	2,652,211	11,505	2	0	2	0	5,373	2,821	0	1,946	21,649
2025	6,099,048	2,793,156	12,117	2	0	2	0	5,658	2,971	0	2,049	22,799
2030	6,367,786	2,916,229	12,651	2	0	2	0	5,908	3,102	0	2,139	23,804
2035	6,640,259	3,041,013	13,192	2	0	2	0	6,161	3,235	0	2,231	24,823

Table 3-4 Projected Inter-island Landings and Passengers by Aircraft Type – 77% Seating Utilization

Year	Total PAX	Interisl. PAX	B717	B737	B757	B767	B767-300	Cessna 208B	CRJ-200	Embraer 170	Dash 8-100	Total
2007	6,500,384	3,284,598	8,364	6,851	68	24	0	2,540	2,870	0	4,469	25,186
2008	5,463,787	2,754,726	9,214	1,735	0	284	346	0	3,255	0	3,628	18,462
2009	5,192,693	2,656,141	11,609	0	0	5	1	5,514	2,806	1,629	3,286	24,850
2010	5,346,694	2,448,604	10,622	1	0	1	0	4,960	2,604	0	1,796	19,984
2015	5,438,392	2,490,599	9,913	1	0	1	0	4,629	2,431	0	1,677	18,652
2020	5,791,283	2,652,211	10,557	1	0	1	0	4,930	2,588	0	1,785	19,862
2025	6,099,048	2,793,156	11,118	2	0	2	0	5,192	2,726	0	1,880	20,920
2030	6,367,786	2,916,229	11,608	2	0	2	0	5,420	2,846	0	1,963	21,841
2035	6,640,259	3,041,013	12,104	2	0	2	0	5,652	2,968	0	2,047	22,775

Table 3-5 Projected Inter-island Landings and Passengers by Aircraft Type – 85% Seating Utilization

The recorded 2009 overseas air carrier summer schedules showed that approximately 10-11% of the daily inter-island flights occurred during the peak hour. Since this percentage has also been consistent over the years, the forecasts assume that the peak will continue at this level throughout the forecast period. The forecasts assume that about 15% of total daily inter-island passengers will travel during the busiest hour because passenger load factors are higher during the peak hour than they are during the remainder of the day. Currently, approximately 20% of the daily overseas flights occur during the peak hour. As the number of overseas flights increase, this percentage is forecasted to decrease to 16% by the year 2035.

In 2010, the percentages of enplaning and deplaning passengers were nearly equal. Therefore, this study assumes that the number of enplaned and deplaned passenger volumes

will continue to be approximately the same through the year 2035.

3.4.2 AIRCRAFT OPERATIONS AND PASSENGER FORECAST

Table 3-6 presents operations terminal area forecasts (TAF) for passenger enplanements at OGG. As noted earlier, August is typically the busiest month for aircraft operations as well as passengers. Approximately 10-11% of the total operations recorded in previous years occur in August. The forecasts presented in this report assume that this relationship will continue through the year 2035 planning period.

Date	TAF Enplanements	Martin Base Enplanements	Martin Increased PNW and Asian Flights Enplanements	Martin Base/TAF % Difference	Martin Increased PNW and Asian Flights/TAF-% Difference
2010	2,474,597	2,673,347	2,673,347	8.0%	8.0%
2015	2,803,852	2,719,196	2,986,632	-3.0%	6.5%
2020	3,077,040	2,895,642	3,163,077	-5.9%	2.8%
2025	3,379,703	3,049,524	3,316,959	-9.8%	-1.9%
2030	3,715,433	3,183,893	3,451,328	-14.3%	-7.1%

Table 3-6 Comparison of Master Plan Passenger Projections with the FAA Terminal Area Forecasts

Source: *Martin and Associates, Passenger and Operations Activity Level Projections for Kahului Airport, October 2011 (Martin) Pacific Northwest (PNW)*

Table 3-6 presents a comparison of the MP Update passenger projections for the OGG with those developed by the FAA TAF. As this table indicates, the passenger projections are typically within 5% through the year 2020, under both the baseline and high passenger projection scenarios developed under the current MP. In later years of the projection period, the MP Update projections are within 10% of the TAF projections through 2025 under the baseline and high passenger projections, with the MP projections being lower in the later years of the

projection period. Under the increased overseas flight scenario (Scenario 3) developed in this MP Update, the projections are within 8% of the TAF projections in 2010, and in fact, are nearly identical to the TAF projections in the years 2015 through 2021.

Table 3-7 shows the projected aircraft operations from 2010 to 2030. The projected annual total increase in operations is approximately 1% annually. The total change projected to occur between 2015 and 2030 is approximately 14%.

	Itinerant Air Carrier	Itinerant Air Taxi	Itinerant General Aviation	Itinerant Military	Itinerant SubTotal	Local General Aviation	Local Military	Local SubTotal	Total Operations
2010	39,400	59,387	10,989	2,375	112,151	6,298	447	6,745	118,896
2011	38,793	58,472	10,989	2,375	110,629	6,298	447	6,745	117,374
2012	39,914	60,162	10,989	2,375	113,440	6,298	447	6,745	120,185
2013	40,026	60,331	10,989	2,375	113,721	6,298	447	6,745	120,466
2014	41,155	62,032	10,989	2,375	116,550	6,298	447	6,745	123,295
2015	41,271	62,207	10,989	2,375	116,842	6,298	447	6,745	123,587
2016	41,768	62,956	10,989	2,375	118,087	6,298	447	6,745	124,832
2017	42,272	63,716	10,989	2,375	119,353	6,298	447	6,745	126,098
2018	42,782	64,485	10,989	2,375	120,631	6,298	447	6,745	127,376
2019	43,296	65,259	10,989	2,375	121,920	6,298	447	6,745	128,665
2020	43,821	66,050	10,989	2,375	123,235	6,298	447	6,745	129,980
2021	44,254	66,703	10,989	2,375	124,320	6,298	447	6,745	131,065
2022	44,691	67,362	10,989	2,375	125,417	6,298	447	6,745	132,162
2023	45,136	68,033	10,989	2,375	126,532	6,298	447	6,745	133,277
2024	45,585	68,710	10,989	2,375	127,659	6,298	447	6,745	134,404
2025	46,036	69,390	10,989	2,375	128,790	6,298	447	6,745	135,535
2026	46,419	69,967	10,989	2,375	129,751	6,298	447	6,745	136,496
2027	46,804	70,547	10,989	2,375	130,715	6,298	447	6,745	137,460
2028	47,195	71,137	10,989	2,375	131,696	6,298	447	6,745	138,441
2029	47,584	71,722	10,989	2,375	132,670	6,298	447	6,745	139,415
2030	47,979	72,318	10,989	2,375	133,661	6,298	447	6,745	140,406

Table 3-7 Projected Annual Operations by Type of Activity