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**Ministry of District Administration,  
Tourism and Transport**

*Prepared for*



*Potential Impact on Cruise Passenger  
Onshore Visitation and Spending*

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## INTRODUCTION

Business Research and Economic Advisors ("BREA") was engaged by the Ministry of District Administration, Tourism and Transport ("the Ministry") to conduct an analysis of the potential impact of the development of the proposed Cruise Berthing Facility ("CBF") in George Town harbor on the attributes of cruise passenger onshore visits and spending.

Currently cruise ships calling at Grand Cayman are required to anchor at one of four offshore anchorages with passengers using tenders to transit between the ship and the tender jetty at the George Town Terminal. The proposed CBF consists of two piers that combined can accommodate four cruise ships. On those occasions when more than four ships call at Grand Cayman, the additional ships will be able to anchor at one of two offshore anchorages. Thus, cruise passengers on those ships that are able to berth at the CBF will be able to disembark at the pier and walk to the departure point for shore excursions and/or to the George Town shopping district.

During 2014, the Caribbean Tourism Organization reported that 1,609,555 cruise passengers arrived at Grand Cayman (see **Table 1**). This was a 17% increase over 2013 and placed Grand Cayman as the fifth highest cruise destination in the Caribbean. Of these five destinations three (Bahamas, St. Maarten and the U.S. Virgin Islands) are located in the Eastern Caribbean while Cozumel and Grand Cayman are located in the Western Caribbean.

**Table 1 – Five Largest Cruise Destinations in the Caribbean - 2014**

Destination	Passenger Arrivals
Bahamas	4,804,701
Cozumel	3,404,858
U.S. Virgin Islands	2,083,890
St. Maarten	2,001,996
Grand Cayman	1,609,555
	<b>13,905,000</b>

Source: Caribbean Tourism Organization, Latest Statistics 2014, June 19, 2015

With the exception of the Bahamas, cruise ships calling at these destinations are sailing on cruise itineraries of 5 or more days, with the typical cruise being seven days. These ships will generally call at three or four destinations during the itinerary. In fact, Cozumel and Grand Cayman will host cruise ships on most Western Caribbean itineraries while St. Maarten and the U.S. Virgin Islands are both included in most Eastern Caribbean itineraries. The islands of the Bahamas are distinctly different. Most cruises to the Bahamas are three or four days in length with most itineraries including calls at either Nassau or Freeport and one of the private islands owned by the cruise lines. Thus, the significantly higher volume of passenger arrivals in the Bahamas is due to the larger number of calls associated with the shorter cruise length.

A major distinction between Grand Cayman and the other four destinations is that Grand Cayman is the only destination without a berthing pier. In fact, over the past 5 to 10 years the other four destinations have expanded their berthing facilities. This difference shows up in the five and 10 year growth statistics for the

five destinations. As shown in **Table 2**, the growth in passenger arrivals in Grand Cayman has lagged significantly behind the other four destinations. In fact, Grand Cayman cruise passenger arrivals in 2014 were 5% lower than reported for 2004. The lower growth rates for the ten-year period are, in part, the consequence of recessionary conditions during the 2004-2009 period.

**Table 2 – Five Largest Cruise Destinations in the Caribbean – Growth from 2009 and 2004**

Destination	Passenger Arrivals from 2009 to 2014	Growth	Growth from 2004 to 2009
Bahamas	4,804,701	48%	43%
Cozumel	3,404,858	53%	19%
U.S. Virgin Islands	2,083,890	32%	6%
St. Maarten	2,001,996	65%	49%
Grand Cayman	1,609,555	6%	-5%
<b>13,905,000</b>			

Source: Caribbean Tourism Organization, Latest Statistics 2014, June 19, 2015.  
Caribbean Tourism Organization, Latest Statistics 2010, July 27, 2012.  
Caribbean Tourism Organization, Latest Statistics 2005, January 8, 2008.

## CRUISE VISIT ATTRIBUTES – 2014/15 CRUISE YEAR

BREA has prepared analyses of the economic impact of cruise tourism throughout the Caribbean on behalf of the Florida Caribbean Cruise Association ("FCCA"). These studies have analyzed passenger visits, expenditures by the cruise lines and their passengers and crew and their subsequent economic impact on each participating destination. These studies have been released in 2006, 2009 and 2012. The current study for the 2014/2015 cruise year<sup>1</sup> will be released in October of this year.<sup>2</sup> The FCCA has granted BREA permission to utilize the data from this study for the purpose of assessing the potential impact of the CBF on cruise passenger onshore visits and expenditures.

Data on cruise passenger arrivals for the 2014/2015 cruise year were provided by the participating ports. These data were supplemented with data on destination-specific passenger disembarkation rates provided by the FCCA member cruise lines and data on passenger average hours ashore that were derived from passenger surveys in each of the destinations.

As shown in **Table 3**, passenger disembarkation rates among the four destinations fell within a fairly narrow range between 85.4% in Cozumel to 90.4% in St. Maarten. However, one distinction is evident, the disembarkation rate in the two Western Caribbean destinations are under 90% while the rates are just over 90% in the two Eastern Caribbean destinations. Also the disembarkation rate in Cozumel is significantly lower than in the other three destinations. Multiplying the

<sup>1</sup> The 2014/2015 cruise year is defined as the 12-month period from May 2014 through April 2015. This twelve month definition of a cruise year has been used in all of the FCCA studies.  
<sup>2</sup> BREA, Economic of Cruise Tourism to the Destination Economies, 2014/2015 Cruise Year, October 2015.

passenger arrivals by the disembarkation rates, we have the passenger onshore visits. It is these visits that generate the onshore spending that impacts the local economies.

Surveys were placed in all passenger cabins during the day of selected calls at each participating destinations. Among the information requested were the number of hours passengers spent ashore. As indicated in Table 3, visiting passengers reported a significantly lower average in Grand Cayman than in the other three. The average of four hours reported for Grand Cayman was 13% lower than the 4.6 hours average for the other three destinations and 16% lower than average for Cozumel. Again, Grand Cayman is the only destination of the four that requires the tendering of cruise passengers. In fact, the difference of 6-tenths of an hour (36 minutes) is consistent with the time it takes to tender back and forth between the ship and the tender pier under the best of conditions.

**Table 3 – Destination Visit Attributes – 2014/2015 Cruise Year**

Destination	Passenger Arrivals	Percent Disembark	Passenger Onshore Visits	Average Hours Ashore	Passenger Hours Ashore
Cozumel	2,972,000	85.4%	2,538,100	4.77	12,106,700
St. Maarten	2,051,300	90.4%	1,854,400	4.68	8,678,600
U.S. Virgin Islands	2,039,600	90.2%	1,839,700	4.32	7,947,500
<b>Three Destinations</b>	<b>7,062,900</b>	<b>88.2%</b>	<b>6,232,200</b>	<b>4.61</b>	<b>28,732,800</b>
Grand Cayman	1,611,000	89.8%	1,446,300	4.00	5,785,200

As shown in Table 4, the average spend per passenger in Grand Cayman is lower than any of three other destinations. It is 23% lower than the three destination average and 40% lower than the highest rate of \$191.26 in St. Maarten. When adjusted for hours ashore the difference is somewhat smaller. Still, the average hourly spend of \$28.90 in Grand Cayman is 11% lower than the three destination average of \$32.55 and 29% lower than the hourly average of \$40.87 in St. Maarten.

**Table 4 – Destination Passenger Spend Attributes – 2014/2015 Cruise Year**

Destination	Passenger Onshore Visits	Average Spend per Passenger (US\$)	Total Passenger Expenditures (US\$ Millions)	Passenger Hours Ashore	Average Spend per Passenger Hour
Cozumel	2,538,100	\$119.89	\$304.3	12,106,700	\$25.13
St. Maarten	1,854,400	\$191.26	\$354.7	8,678,600	\$40.87
U.S. Virgin Islands	1,839,700	\$150.21	\$276.3	7,947,500	\$34.77
<b>Three Destinations</b>	<b>6,232,200</b>	<b>\$150.08</b>	<b>\$935.3</b>	<b>28,732,800</b>	<b>\$32.55</b>
Grand Cayman	1,446,300	\$115.60	\$167.2	5,785,200	\$28.90

These data on the attributes of cruise passenger visits and expenditures clearly show that the lack of a berthing pier in Grand Cayman has had several negative impacts:

1. Over the past 5- and 10-year periods, the growth in cruise passenger arrivals in Grand Cayman has significantly lagged the growth in the three destinations with berthing piers.
  2. Cruise passengers spend less time ashore in Grand Cayman than in any of the other three destinations.
  3. Cruise passengers visiting Grand Cayman spend less per passenger and per hour while ashore than in any of the three destinations with piers.
- Thus, it is reasonable to assume that following the development of the CBF cruise passengers will be able to 1) spend more time ashore since the need to tender will be eliminated and 2) average and total spend during the visit will increase and be more in line with spending rates in the other three destinations.

## IMPACT ANALYSIS ON CRUISE PASSENGER VISITS AND SPEND

To analyze the potential impact on passenger visits and expenditures three impact scenarios were developed as follows.

1. **Low Impact Scenario:** At a minimum the average hours that cruise passengers will be able to spend in Grand Cayman will increase following the development of the CBF. Thus, in this scenario it is assumed that the average hours spent ashore in Grand Cayman increase to 4.61 hours (the three destination average) but total spend per hour remains unchanged at \$28.90 per hour.
2. **Medium Impact Scenario:** In addition to an increase in average hours ashore, the medium impact assumes that average spend per hour increases to the three destination average of \$32.55. Thus, in this scenario passenger visit spend attributes increase to the average attributes for the three destinations with berthing piers.
3. **High Impact Scenario:** In this scenario it is assumed that the average hours ashore and average spend per hour in Grand Cayman increase to the average for St. Maarten, 4.68 hours ashore and an average spend of \$40.87 per hour.

**Table 5** shows the impact on cruise passenger visits and expenditures for the three scenarios. The impacts are compared to passenger attributes developed for the FCCA impact study. The analysis of the data to be included in the FCCA study showed that 1.45 million passenger visited Grand Cayman during the 2014/2015 cruise year. They spent an average of 4.0 hours ashore and generated total expenditures of US\$160.9 million during the cruise year. This implied an average passenger spend of \$115.60 per passenger visit and \$28.90 per passenger visit hour.

Compared to this base, under the most conservative assumption of an increase in average hours ashore to 4.61 hours only, total passenger expenditures would increase to US\$192.7 million, 15% above the base and an increase of US\$25.5 million. A more likely outcome is that in addition to hours increasing to the average for the three destinations with berthing piers, the average

Destination	Passenger Onshore Visits	Average Ashore Hours	Passenger Hours Ashore	Average Passenger Spend per Hour (US\$ Millions)	Total Passenger Expenditures (US\$)	Average Spend per Passenger (US\$)
Grand Cayman 2014/2015	1,446,300	4.00	5,785,200	\$28.90	\$167.2	\$115.60
Low Impact	1,518,600	4.61	7,000,700	\$28.90	\$202.3	\$133.23
Medium Impact	1,518,600	4.61	7,000,700	\$32.55	\$227.9	\$150.06
High Impact	1,518,600	4.68	7,107,000	\$40.87	\$290.5	\$191.26
<b>Percent Increase from 2014/2015</b>						
Low Impact	5%	15%	21%	0%	21%	15%
Medium Impact	5%	15%	21%	13%	36%	30%
High Impact	5%	17%	23%	41%	74%	65%

**Table 6 – Impact of CBF on Passenger Visits and Expenditures – 5% Increase in Visits**

It should be noted that in none of these scenarios have passenger visits been increased. As noted previously, the historical data on passenger arrivals show that the growth in Grand Cayman has lagged significantly behind those destinations with berthing piers. Thus, it is also likely that cruise passenger visits will also increase to some extent as additional cruise ship calls are scheduled in response to the ability to berth at the cruise pier. Table 6 shows the additional impact for the three scenarios if passenger visits were also increased by 5%, or 72,300 additional annual passenger visits.

Destination	Passenger Onshore Visits	Average Ashore Hours	Passenger Hours Ashore	Average Passenger Spend per Hour (US\$ Millions)	Total Passenger Expenditures (US\$)	Average Spend per Passenger (US\$)
Grand Cayman 2014/2015	1,446,300	4.00	5,785,200	\$28.90	\$167.2	\$115.60
Low Impact	1,446,300	4.61	6,667,400	\$28.90	\$192.7	\$133.24
Medium Impact	1,446,300	4.61	6,667,400	\$32.55	\$217.0	\$150.03
High Impact	1,446,300	4.68	6,768,700	\$40.87	\$276.6	\$191.25
<b>Percent Increase from 2014/2015</b>						
Low Impact	0%	15%	15%	0%	15%	15%
Medium Impact	0%	15%	15%	13%	30%	30%
High Impact	0%	17%	17%	41%	65%	65%

**Table 5 – Impact of CBF on Passenger Visits and Expenditures**

spend per passenger visit hour would also increase to the three destination average of \$32.55 per hour. In this scenario, total passenger expenditure would rise to US\$217.0 million, 30% above the base and representing an increase of US\$49.8 million. Finally under the most optimistic assumptions that brings average hours ashore and average spend per hour to the averages for St. Maarten, total passenger expenditures would increase to US\$276.6 million, 65% higher than the base and an increase of US\$109.4 million.



With the 5% increase in visits in each scenario, total passenger expenditures would increase by at least 6% in the low and medium impact scenarios and by 9% in the high impact scenario.



BREA specializes in custom market analyses for clients throughout the private and public sectors. These unique market analyses integrate economic, financial, and demographic trends with primary market research, proprietary client data, and advanced statistical and modeling techniques. This approach results in comprehensive and actionable analysis, databases and models, designed to support planning, sales and marketing, and education within client organizations.

Dr. Moody, President of BREA, has more than twenty-five years of experience in consulting and forecasting with a wide range of international product and service companies, including consumer products, leisure, retailing, gaming, business services, telecommunications, and utility and financial services. Typical consulting assignments provide critical analysis and insight into market dynamics, product demand, economic trends, consumer behavior and public policy.

BREA has provided specialized consulting support, including market research, economic impact studies and demand analyses, to the cruise lines, port service providers and industry associations. Among BREA's recent clients are: Port of Philadelphia and Camden, Tampa Port Authority, Port of San Diego, Royal Caribbean Cruises Ltd., Carnival Corp., P&O Ports of North America, and the International Council of Cruise Lines. Since studies are designed to meet the specific needs of each client, they can incorporate many dimensions of the market and include a variety of ancillary services.

BREA provides the following services:

*Market Research:* design and implementation of primary market research instruments using telephone, mail, and intercept surveys. Test instruments are designed to collect information on product demand, attributes of consumers and users, perceived product attributes, and customer satisfaction.

*Economic Impact Studies:* thorough analysis of industries and consumption behavior and their contribution to or impact on national and regional (state, metropolitan areas, counties, etc.) economies.

*Statistical and Economic Modeling:* developing quantitative models relating market and product demand to key economic factors and demographic market/consumer attributes. Models can be used for forecasting, trend analysis and divergence/convergence analysis.

*Market Studies and Trend Analyses:* detailed descriptions of markets (defined as products, regions, industries, consumer segments, etc.) and comprehensive analyses of underlying market forces (such as economic and financial conditions, competitive environment, technology, etc.).