



Midway Atoll National Wildlife Refuge

Visitor Program Market Analysis and Feasibility Study



Pandion Systems, Inc.

2005

Midway Atoll National Wildlife Refuge
***Visitor Program Market Analysis
and Feasibility Study***

Prepared for:

U.S. Fish and Wildlife Service
911 Northeast Eleventh Avenue
Portland, OR 97232-4181

Prepared by:

Pandion Systems, Inc.
5200 NW 43rd Street
Suite 102-314
Gainesville, FL 32606

April 12, 2005

Acknowledgements

Pandion Systems, Inc. would like to thank the U.S. Fish and Wildlife Service staff who provided information for the completion of this project. Special thanks go to Jean Harrison, Region I Division Chief of Visitor Services and Communication, and Barbara Maxfield, Pacific Region External Affairs, for providing valuable information and a detailed review of the study. A number of Service staff interviewed also gave insight into Midway: Jerry Leinecke, Bob Dieli, Ann Bell, John Klavitter, Mike Johnson, Tim Bodeen, Beth Flint, Steve Barclay, and Rob Shallenberger (retired). Chugach McKinley manager John Hanna also provided insight into the current operation needs for Midway.

Thanks also go to several concessionaires who graciously donated time for interviews that provided information on how the past visitor program worked: Bob Tracey, Midway Phoenix Corporation; Birgit Winning, Oceanic Society; Keoki Stender, former Dive Master; and John Bone, Maritime Air Charter.

In addition, Pandion spoke with many similar destinations and similar providers and would like to thank them for the time and information they shared.

Finally, we would like to thank our team of advisors from the University of Florida, Dr. Alan Hodges, Dr. Taylor Stein, and Dr. Lori Pennington-Gray for their review and expertise.

Table of Contents

1. Executive Summary	1
2. Introduction	4
2.1. Study Parameters	4
2.2. Study Constraints and Limitations	5
2.3. Historical Overview of Midway	5
2.4. Related Goals and Mandates for Midway	5
3. Market Analysis	7
3.1. Midway Visitor Program (1996-2002)	7
3.1.1. Midway Data Collection.....	7
3.1.2. Midway Visitor Packages and Marketing Efforts.....	7
3.1.3. Visitation Rates.....	8
3.1.4. Visitor Costs.....	9
3.1.5. Visitor Facilities and Services	10
3.1.6. Visitor Package Descriptions.....	13
3.1.7. Visitor Survey Analysis	18
3.2. SWOT Analysis	20
3.3. Market Segments for Midway	23
3.3.1. Overall Tourism Market	23
3.3.2. Sustainable Market Segments for Midway.....	26
3.4. Similar Ecotourism Destinations and Providers	28
3.4.1. Similar Ecotourism Destinations	29
3.4.2. Similar Tourism Providers.....	33
4. Feasibility Study	36
4.1. Current Status of Visitor Program	36
4.1.1. Current Contracting Relationship	36
4.1.2. Current Visitor Related Facilities and Services.....	36
4.1.3. Interpretation and Environmental Education	38
4.2. Key Logistical Constraints	38
4.2.1. Service and Refuge System Mandates.....	38
4.2.2. Physical Facilities	39
4.2.3. Transportation to Midway.....	40
4.3. Target Visitors to Midway and Visitor Marketing	41
4.4. Visitor Program Options	43
4.4.1. Diving/Snorkeling.....	48
4.4.2. Formal Education.....	50
4.4.3. Wildlife Watching.....	51
4.4.4. Service Learning.....	52

4.4.5.	Photography	54
4.4.6.	Workshops	55
4.4.7.	Cruises.....	56
4.4.8.	Education Tours.....	58
4.5.	Potential Visitor Program Options.....	59
4.5.1.	Option 1: Visitor Program Run by the Service.....	61
4.5.2.	Option 2: A Service Coordinator Works with One (1) Concessionaire....	62
4.5.3.	Option 3: A Service Coordinator Works with Multiple Specialty Concessionaires.....	63
4.6.	Economic Analysis	66
5.	<i>Conclusions and Recommendations</i>	71
6.	<i>Literature Cited</i>	74
7.	<i>Appendices</i>.....	77
7.1.	Appendix A. List of People Interviewed	77
7.2.	Appendix B. Similar Ecotourism Destination Profiles	78
7.3.	Appendix C. Similar Tourism Provider Profiles	84

Table of Tables

Table 3-1. Midway Visitation by Year, 1997-2001	8
Table 3-2. Midway Visitor Costs, 1997-2001	9
Table 3-3. SWOT Analysis	22
Table 3-4. Benefits Sought by Ecotourists and Rating of Midway Visitor Program on Benefits Provision	27
Table 3-5. Destinations Comparable to Midway.....	31
Table 3-6. Tourism Providers Comparable to Potential Midway Providers	34
Table 4-1. Current Facilities	36
Table 4-2. Marketing Methods for Midway	43
Table 4-3. Comparison of Potential Midway Programs.....	46
Table 4-4. Potential Visitor Program Options	60
Table 4-5. Midway Pro Forma Visitor Program Income and Expenses in Relation to Lodging Occupancy*	69
Table 4-6. Past Visitor Program Expenses from MPC for 1999-2000 and Expenses Per Visitor for Model.....	70

Table of Figures

Figure 3-1. Midway Visitation by Month and Year, 1997-2001	9
Figure 3-2. Sustainable and Unsustainable Tourism, Mass Tourism, Alternative Tourism, and Ecotourism	24
Figure 3-3. Nature Tourism, Cultural Tourism, and Ecotourism.....	25
Figure 4-1. Program Opportunities and Potential Visitor Types for Midway.....	45

This page intentionally left blank.

1. Executive Summary

Introduction

Midway Atoll National Wildlife Refuge (Midway) is a remote coral atoll located about 1,250 miles west-northwest of Honolulu, Hawaii. Midway offers remarkable wildlife – nearly 2 million seabirds and a diversity of other marine life. Midway has also played a notable role in human history from its first settlement in the early 1900s through its many years as a U.S. Navy base.

With these two remarkable resources, both natural and historical, the U.S. Fish and Wildlife Service (Service) recognizes that Midway is a national treasure that has the potential to offer memorable and unique experiences. The Service understands, however, that a visitor program on Midway is constrained by many regulatory, logistical, physical, and financial factors. Due to the importance placed on careful planning and management of any future visitor program on Midway, the Service funded this *Midway Atoll National Wildlife Refuge Visitor Program Market Analysis and Feasibility Study*.

The goal of this study is to provide the Service with background information to complete a *Visitor Services Plan* for Midway for fiscal years 2006-2010, which requires a market analysis and feasibility study of potential visitor programs over a five-year horizon. The purpose of this study is to complete these two analyses. Together, these analyses will explore a range of options and the costs associated with developing, maintaining, and sustaining the various options that the Service, with a contractor or concessionaire, could provide.

Background

In 1993, Midway Island Naval Air Facility was closed under the Base Realignment and Closure Act. In 1996, Midway was transferred to the Service, creating the Midway Atoll National Wildlife Refuge. Since then, the Service has been restoring Midway's biological diversity, conserving its historic and natural resources, and providing compatible public education and visitation opportunities.

In 1996, the Service and Midway Phoenix Corporation (MPC) entered into a cooperative agreement in which MPC was responsible for developing and providing a visitor program. That same year, Midway was opened to the public for the first time in 60 years.

In 2002, the Service and MPC ended their cooperative agreement and MPC left Midway. With MPC's departure, the active visitor program ended. Since that time, the visitor program has been very limited, constrained to periodic cruise ship visits, transient aircraft and boat visits, and emergency airplane and boat stopovers.

Related Goals and Mandates for Midway

Any visitor program at Midway must operate under a variety of constraints. All operations must conform to the National Wildlife Refuge Administration Act of 1966 (U.S.C. 688dd-688jj), as amended, as well as the established purposes of Midway Atoll National Wildlife Refuge (Executive Order 13022).

The Refuge Recreation Act (16 U.S.C. 460k-460k-4) permits compatible recreation as secondary uses on National Wildlife Refuges if such use does not interfere with the refuge's primary purposes and provided funds for recreational use are available.

The National Wildlife Refuge System Improvement Act of 1997 described six wildlife-dependent recreation and compatible uses for the National Wildlife Refuge System (Refuge System) that should receive enhanced consideration in refuge management, which include: Hunting, Fishing, Wildlife Observation, Photography, Environmental Education, and Interpretation.

The Service is also obligated to comply with a number of Federal laws, Executive Orders, and departmental policies (see Section 2.4).

Market Analysis

MPC developed and implemented a visitor program in cooperation with the Service that included three main types of visitor packages: Sport fishing, Scuba Diving/Snorkeling, and Service Learning. Other related visitor packages also occurred during the five years MPC managed the site, including cruise ship visitation and environmental education. Visitation rates ranged from 1,500 to 3,900, with the average visitation around 200 people per month from 1997 to 2001, or 46.2 visitors per week.

During the past visitor program, wildlife viewing was the primary reason for coming to Midway, and Midway's history was not a prime motivator. However, it should be noted that cruise ships do visit specifically to learn about Midway's history. Almost 95% of survey respondents indicated that they would return or consider returning to Midway.

In comparison with what Midway has to offer, there are many similar destinations that offer similar experiences in different parts of the world. The level of services provided at these destinations is comparable to Midway. In addition, there are several kinds of providers offering programs that are compatible with Midway, such as wildlife viewing and photography, diving and snorkeling, historical tours, and various education opportunities.

The market analysis determined that Midway could cater to a small but growing segment of the sustainable alternative tourism markets, ecotourism. There is also a growing market for sustainable mass tourism where visitors are looking for "soft" ecotourism experiences. These markets are compatible with the mission, goals, and objectives of the Refuge System as stated for their six wildlife-dependent recreation uses. In addition, the socio-demographics of these markets indicate that people are willing and able to pay for the experiences that Midway has to offer.

Feasibility Study

A visitor program on Midway is feasible because it will not take a lot to start a new program and the economic analysis shows that a program on Midway is financially sustainable. Most facilities are adequate, with only a few facilities requiring renovation.

However, there are some key logistical constraints, including Service and Refuge System mandates, lodging capacity, and air transportation to Midway.

When looking at the opportunities on Midway, two main types of visitors emerge 1) those that are interested in water activities, the “aquatic adventure” group and 2) those visitors interested in land activities, the “terrestrial nature” group. Based on these types of visitors, eight (8) historical and wildlife dependent opportunities are recommended for a Midway visitor program: Diving/Snorkeling, Formal Education, Wildlife Viewing, Service Learning, Photography, Workshops, Cruises, and Education Tours.

Results of the feasibility study suggest three program options for Midway that are within the mission and goals of refuge management at Midway.

Option 1: Visitor program Run by the Service

Option 2: A Service Coordinator Works with One (1) Concessionaire

Option 3: A Service Coordinator Works with Multiple Specialty Concessionaires

Conclusions and Recommendations

An economically sustainable visitor program is feasible for Midway. The primary experience that Midway offers visitors is to view and interact with abundant and unique wildlife. There is a market for the experiences that Midway has to offer. The overall market segment is defined as sustainable tourism, especially ecotourism. Current facilities are adequate for the potential market segments and there are abundant and varied providers (potential concessionaires) that specialize in providing tour packages to Midway’s target market segments.

It is recommended that the Service implement the proposed Visitor Program Option 3 where a Service coordinator works with multiple concessionaires who in turn bring visitors to Midway. Over the next five years, the contractor that runs Midway’s day-to-day operations should also be responsible for providing lodging and food services. Finally, for this program to be most successful, the Service needs to make a long-term commitment to keep Midway open and running.

2. Introduction

Midway Atoll National Wildlife Refuge (Midway) is a remote coral atoll located about 1,250 miles west-northwest of Honolulu, Hawaii. Midway offers remarkable wildlife – nearly 2 million seabirds, shorebirds, Hawaiian spinner dolphins, endangered Hawaiian monk seals, threatened green sea turtles, a mature coral reef, and a diversity of other marine life.

Midway has also played a notable role in human history from its first settlement in the early 1900s as a link in the trans-Pacific communication cable through its many years as a U.S. Navy base. Midway is designated as a National Memorial to the Battle of Midway, the turning point of World War II in the Pacific. In 1996, jurisdiction of Midway was transferred from the U.S. Navy to the U.S. Department of Interior, creating the Midway Atoll National Wildlife Refuge.

With these remarkable natural and historical resources, the U.S. Fish and Wildlife Service (Service) recognizes that Midway is a national treasure that has the potential to offer memorable and unique experiences for visitors. The Service understands, however, that a visitor program on Midway is constrained by many regulatory, logistical, physical, and financial factors. Having managed Midway for almost a decade, the Service has learned that they must thoroughly plan and assess the feasibility and sustainability of any potential visitor program.

Due to Midway's natural, historical, and collective emotional value to the U.S. and the world, it is important for the site to put forward an effective and informative visitor program. Because of the importance placed on careful planning and management of any future visitor program on Midway, the Service funded this *Midway Atoll National Wildlife Refuge Visitor Program Market Analysis and Feasibility Study*.

2.1. Study Parameters

The goal of this project is to provide the Service with background information to complete a *Visitor Services Plan* for Midway for fiscal years 2006-2010. The comprehensive Visitor Services Plan requires a market analysis and feasibility study of potential visitor programs over a five-year horizon. The purpose of this study is to complete these market and feasibility analyses.

The Market Analysis looks at the previous and similar visitor programs, and identifies and analyzes potential markets for a visitor program on Midway. The Feasibility Study identifies feasible options for a visitor program on Midway, and analyzes the costs, facilities, and human resources needed to develop, market, implement, maintain, and sustain some of these options. It also identifies the types of visitor opportunities and the audiences that would be interested in such opportunities at Midway. Together, these analyses will explore the costs associated with developing, maintaining, and sustaining a range of options that the Service – with or without a contractor or concessionaire – could provide.

2.2. Study Constraints and Limitations

This report primarily represents secondary data. Information was collected from past visitor program data supplied by the Service, personal interviews with key staff and past stakeholders, academic literature, currently available data for comparative value gathered from the internet, and other standard forms of business to business contact. Due to logistical constraints imposed on the design of the project, the project team was unable to collect primary data that could be gained through the direct survey of a statistically significant cross-section of the identified visitor markets.

2.3. Historical Overview of Midway

Placed under Navy Control in 1903, Midway is best known for the pivotal role it played in a June 1942 battle that changed the dynamic of World War II in the Pacific. Many of the buildings, runways, gunnery pillboxes, and other structures predate the battle and provide a compelling reminder of this important period in world military history.

Nine defensive positions on Sand Island and Eastern Island were designated a National Historic Landmark in 1986. Reminders of the role that Midway played as a commercial telegraph station and an overnight stop for Pan American Airlines Flying Clippers are also evident.

In 1988, the Navy invited the U.S. Fish and Wildlife Service to establish an “overlay” National Wildlife Refuge to protect Midway’s abundant wildlife resources. In 1993, Midway Island Naval Air Facility was closed under the Base Realignment and Closure Act. After an intensive multi-year environmental cleanup, Midway was transferred from the Navy to the Service through Executive Order 13022, dated October 31, 1996. Since then, the Service has been restoring Midway’s biological diversity, conserving its historic and natural resources, and providing compatible public education and visitation services.

In 1996, the Service and Midway Phoenix Corporation (MPC) entered into a cooperative agreement to jointly manage and run Midway. As part of the cooperative agreement, MPC was responsible for developing and providing a visitor program. That same year, Midway Atoll National Wildlife Refuge was opened to the public for the first time in 60 years.

In 2002, the Service and MPC ended their cooperative agreement and MPC left Midway. With MPC’s departure, an active visitor program ended. Since that time, the visitor program has been very limited, constrained to periodic cruise ship visits, transient aircraft and boat visits, emergency airplane and boat stopovers, and the Battle of Midway 60th Anniversary Celebration.

2.4. Related Goals and Mandates for Midway

A visitor program at Midway must operate under a variety of constraints. First and foremost is that Midway is a National Wildlife Refuge and all operations must conform to the National Wildlife Refuge Administration Act of 1966 (U.S.C. 688dd-688jj, as

amended). In 1996, Executive Order 13022 established the purposes of Midway Atoll National Wildlife Refuge as the following.

- ✓ Maintaining and restoring biological diversity within the refuge.
- ✓ Providing for the conservation and management of fish and wildlife and their habitats within the refuge.
- ✓ Fulfilling the international treaty obligations of the United States with respect to fish and wildlife.
- ✓ Providing opportunities for scientific research, environmental education, and compatible wildlife-dependent recreational activities.
- ✓ Recognizing and maintaining Midway's historic significance in a manner compatible with refuge purposes.

The Refuge Recreation Act (16 U.S.C. 460k-460k-4) permits compatible recreation as a secondary use on National Wildlife Refuges if such use does not interfere with the refuge's primary purpose(s), and provided funds for said recreational use are available.

In 1997, the National Wildlife Refuge System Improvement Act reaffirmed that wildlife conservation is the mission of the National Wildlife Refuge System (Refuge System) and provided direction for compatibility analysis and planning. The Act describes wildlife-dependent recreation uses that should receive enhanced consideration in refuge management; these are: hunting, fishing, wildlife observation, photography, environmental education, and interpretation.

The Service is also obligated to comply with a number of Federal laws, Executive Orders, and Department policies, including the following.

- National Environmental Policy Act of 1969, as amended
- Executive Order 12372: Intergovernmental Review of Federal Programs
- Endangered Species Act of 1973, as amended
- Migratory Bird Treaty Act of 1918, as amended
- Executive Order 11593: Protection of Historical, Archaeological, and Scientific Properties
- National Historic Preservation Act of 1966, as amended
- Archaeological Resources Protection Act
- Federal Water Pollution Control Act ("Clean Water Act") of 1948, as amended
- Marine Mammal Protection Act of 1972, as amended; and other authorities
- Executive Order 13089: Coral Reef Protection
- Executive Order 13158: Marine Protected Areas

3. Market Analysis

3.1. Midway Visitor Program (1996-2002)

The visitor program started in 1996 when the Service and Midway Phoenix Corporation (MPC) signed a cooperative agreement to operate and manage services and facilities on Midway. That agreement stipulated that MPC would be responsible for developing and implementing a visitor program in cooperation with the Service. MPC identified three main types of visitor packages that it would promote for Midway: sport fishing, scuba diving/snorkeling, and service learning. Related visitor packages also were offered during the five years MPC managed the site, including cruise ship visitation and environmental education programs. In 2002, the Service and MPC ended their cooperative agreement and the active Midway visitor program ended.

3.1.1. Midway Data Collection

Information on the Midway visitor program was collected in a number of ways. In October 2004, Pandion researchers spent three days interviewing key Service staff and reviewing visitor-related documents at the U.S. Fish and Wildlife Service-Pacific Islands office in Honolulu, HI. Pandion researchers subsequently flew with Service staff to Midway and spent seven days reviewing documents, interviewing key personnel, and investigating Midway. Following their visit to Hawaii and Midway, Pandion continued to gather and review documents related to the Midway visitor program and interviewed key stakeholders from the program. The complete list of interviewees can be found in Appendix A.

3.1.2. Midway Visitor Packages and Marketing Efforts

Visitor Packages

Between 1996 and 2002 the main visitor packages for the visitor program included the following.

- Recreational Fishing (Midway Sport Fishing, subsidiary of MPC)
- Scuba Diving and Snorkeling (Midway Dive-N-Snorkel, subsidiary of MPC)
- Service Learning and Natural History Programs (Oceanic Society Expeditions)
- Environmental Education Programs (University of Hawaii-Hilo)
- Cruise Ship Visits (various companies)
- Independent Visitors

Each provider sold the packages to visitors, but MPC coordinated all logistics for Midway visitation. MPC contracted with Aloha Airlines and seats were booked directly through MPC and, for a limited time, through Aloha Airlines. Lodging, meals, and other on-atoll charges were also paid to MPC. MPC was the prime contractor for the visitor program, and it had considerable involvement in fishing and diving operations at Midway. Oceanic Society Expeditions (Oceanic) was a sub-contractor to MPC and provided the service learning and natural history programs. University of Hawaii at Hilo

and Waikiki Aquarium ran environmental education programs on Midway in coordination with MPC. California State University at Northridge also sponsored summer sessions for science educators. Two cruise ship companies worked through MPC to arrange visitation. There were some independent travelers, but most came through specific packages. Independent travelers were able to pay for atoll activities, such as diving and fishing and take advantage of Service interpretive programs and tours.

Midway Marketing Efforts

MPC implemented several strategies to market Midway visitation, which included familiarization (“FAM”) tours for a limited number of travel agents. These tours involve hosting travel agents, travel writers, and filmmakers interested in promoting visitation or producing print and video materials (i.e., articles, brochures, video clips) about the destination. MPC and their subcontractors also developed brochures and websites for the Midway Sport Fishing and Midway Dive-N-Snorkel operations. MPC promoted Midway Sport Fishing at fishing and sports trade shows. MPC also had a marketing manager in Hawaii and in Japan to market programs. The Japan office of MPC brought some media visitors to Midway. Oceanic included Midway offerings in their brochures and websites, developed separate flyers for each of their programs, and included Midway in Elderhostel publications.

Several articles were written about Midway in various publications, including fishing and nature magazines, and mainstream newspapers, such as the *Honolulu Advertiser* and the *New York Times*. Several videos were made, including a British Broadcasting Corporation production about the naval history and wildlife of Midway, and Dr. Robert Ballard’s documentary of his search for two World War II aircraft carriers at Midway. Several television programs, mostly related to fishing and travel, featured Midway as a destination. A limited number of print advertisements ran in publications, such as *Islands Magazine*, the *Honolulu Advertiser*, and various sport-fishing magazines.

3.1.3. Visitation Rates

The exact number of people who visited Midway as part of the visitor program is unknown. MPC did not provide figures for their visitor programs. Some visitor data was found in travel manifests that were kept by Service staff, but these numbers included visitors who were working on Midway in addition to tourists. Table 3-1 gives the approximate number of visitors to the refuge from 1997-2001. These figures also include transient flights or visitors on Midway for employment purposes.

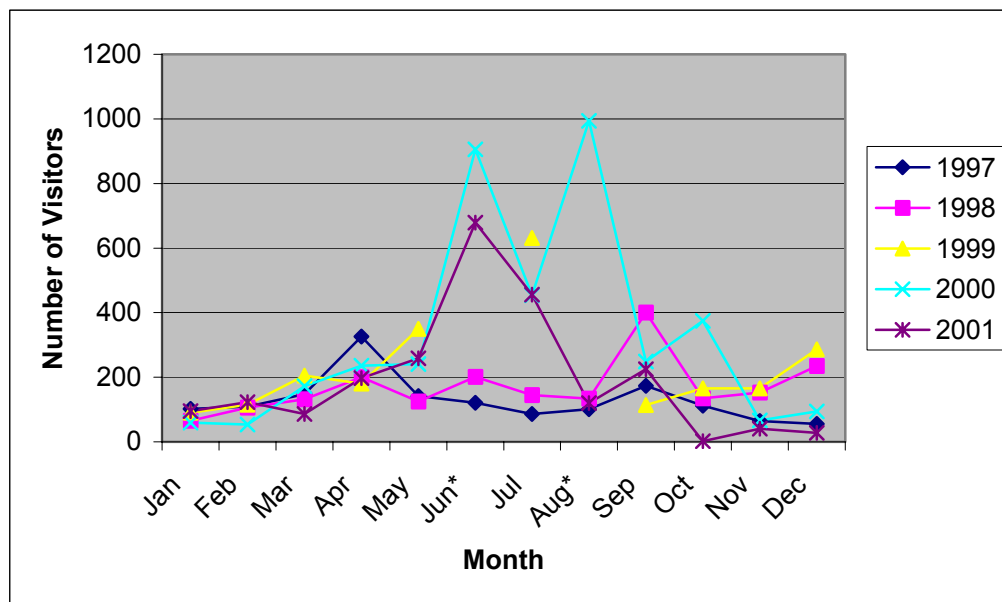
Table 3-1. Midway Visitation by Year, 1997-2001

<i>Year</i>	<i>Number of Visitors</i>
1997	1,539
1998	2,031
1999	2,301
2000	3,900
2001	2,391
Total	12,162

In 2002, MPC ended the visitor program. Assuming this data reflects the correct number of visitors to Midway, the average monthly visitation was around 200 people per month from 1997 to 2001, or 46.2 visitors per week, or 6.6 visitors per day. There was no information available about the total number of visitors for each type of visitor package or activity.

Figure 3-1 shows visitation by month, as found in the travel manifests that were kept by Service staff. The months with the highest numbers of visitors are the peak summer months. This reflects the better weather, prime vacation for U.S. residents, and the times when visitors participated heavily in diving/snorkeling and sport fishing activities.

Figure 3-1. Midway Visitation by Month and Year, 1997-2001



*Visitation totals for June and August 1999 were not available

3.1.4. Visitor Costs

The costs for lodging, food, and travel to Midway were fairly standard throughout the Midway visitor program from 1997 to 2001. Most of the tours were bundled as all-inclusive packages. Table 3-2 outlines the standard costs for Midway visitors.

Table 3-2. Midway Visitor Costs, 1997-2001

<i>Service/Facility</i>	<i>Rate</i>
Round trip airfare	
Lihue, Kauai to Midway, via Gulfstream G-1 (1997-1998):	\$1,050
Honolulu to Midway, via Aloha Airlines (1998-2001):	\$496-\$599

<i>Service/Facility</i>	<i>Rate</i>
Lodging	
Two room suite w/private bath (Charlie):	\$225-\$308 per night*
Single room w/ private bath (Charlie):	\$155-\$260 per night*
Single room w/ or w/o shared bath (Bravo):	\$85-\$174 per night*
Dining	
Standard plan (B, L, D in Galley):	\$25 per day
Deluxe plan (B, L, in Galley; dinner in Clipper House):	\$45-\$48 per day*
On-Site Transportation	
Golf Cart Rental:	\$25 per day
Bicycle Rental:	\$5 per day
On-Site Communication	
Cellular Phone Rental:	\$1-\$5 per day + long distance charges

*Rates increased over time and/or varied for Hawaiian residents

3.1.5. Visitor Facilities and Services

➤ **Lodging**

Charlie and Bravo Barracks

Midway Phoenix Corporation (MPC) restored both Charlie and Bravo barracks shortly after entering into the cooperative agreement. The rooms in Bravo are single rooms that share a bathroom. Most of Charlie Barracks has two room suites. All rooms included a queen bed or two twin beds, chest of drawers, TV, and mini-refrigerator. Suites have a private bathroom, sitting room with a desk, couch or two chairs, TV, and coffee table.

➤ **Dining**

Mess Hall

During the 1996-2002 visitor program, most visitors ate in the galley, formerly the Navy mess hall. The food was served cafeteria style and visitors ate with other atoll staff. The mess hall was spacious enough to accommodate large groups because it was designed to accommodate 1,000 enlisted men during the Cold War.

Clipper House Restaurant

The Clipper House, which looks out over the lagoon, was built by MPC in 1997 with typical tropical style architecture found in Florida and Hawaii. It is a wood framed building with a steeply pitched metal roof and a wrap around porch that can be used for outside dining. Inside there is a bi-level seating area with a bar. During the visitor program, the Clipper House served French cuisine. There was an additional cost above the normal meal plan for visitors who ate in the Clipper House. Guests could choose to upgrade when they arrived on the atoll.

Captain Brooks'

Captain Brooks' is a wooden framed structure built in the same style as the Clipper House and is connected to the Clipper House via a boardwalk along the dunes of the beach. It also looks out over the lagoon and served primarily as a bar.

All Hands Club

The Navy's All Hands Club was kept virtually intact by MPC. It included a large area with a bar and grill where events, such as bingo night and dances, were held and a separate game room with billiards, foosball, and shuffleboard.

➤ **Visitor Related Facilities**

Welcome Center

Visitor orientation and welcome was an important component to starting every visitor's stay on Midway. From 1996 through 2002, these orientations were provided to all long-term visitors and new employees. They were held the morning after their arrival, since the airplane usually landed late at night. In the early years, orientations were conducted on the second deck of the main hangar. After completion of the Service's Visitor Center in late 1997, the orientation was transferred to that locale. During periods of high visitation (more than 50 people), orientation was held in the Station Theater.

Museum

The first floor of the Midway House (the Refuge Manager's home) was opened to visitors as a museum in 1997. Exhibits and photos focused on Midway's 100 years of history as a vital link in the midst of the Pacific for cable communications, early air travel, and the military.

Library

The library is located in the Midway Mall and is available to visitors and residents. The library itself is a small room with a table and chairs.

Gym

The gymnasium offered basketball, racquetball and a sauna. An outdoor tennis court was adjacent to the gym (another is located under the overhang at the terminal building). The facilities were built by the Navy in the 1950s.

Station Theater

The historic base theater was built in the early 1940s. The theater was used to show movies but was also used as a place for presentations for different Midway visitor programs.

Midway Bowl (Bowling Alley)

The Navy also left this facility. Midway Bowl is a working bowling alley reminiscent of any on the mainland. It is open regularly to visitors and atoll staff.

Ship's Store and Gift Shop

The Ship's Store carries non-perishable foods and snacks, ice cream, soda, beer, wine, liquor, and sundries, such as detergent, toothpaste, and sunscreen. Visitors and atoll residents can purchase all of these items. In addition, there is a small gift shop that carries t-shirts, hats, mugs, and other Midway items. During the previous visitor program, MPC managed the store. After MPC left in 2002, the contractor took over management of the store and the Friends of Midway took charge of the gift shop.

Beach Access

Visitors have access to the mile-long North Beach area located close to the Charlie and Bravo Barracks. The Clipper House and Captain Brooks' overlook the beach. Access to the other beaches is restricted for protection of the endangered Hawaiian monk seals and sea turtles; except for overlooks accessible from interpretive trails in the dunes of the beaches. Roads also parallel the shore of different parts of the atoll that visitors can access by foot, cart, or bike.

➤ **Interpretation**

Visitor Center

The visitor center is part of the Service office and opened in 1997. The exhibits focus on Naval history, wildlife, marine debris, and conservation efforts. The exhibits include a tower of plastic lighters, animal artifacts, a model of the Midway Naval Air Facility, model airplanes from World War II, and many pictures illustrating the importance of Midway from both historical and environmental perspectives.

Evening Programs

During the previous visitor program, Service staff, researchers, historians, and veterans that visited the atoll would periodically give evening presentations or show videos.

Tours

The Service offered two main walking tours for visitors during the previous visitor program.

- *Back to the Past – Life and Times of Midway's Colorful and Victorious History:* This tour focuses on the human history of the area, including the Navy, the Cable Era, and the Pan Am Clipper Era.
- *Into the Future – Midway's Magnificent Menagerie:* This tour focuses on Midway as a National Wildlife Refuge. It highlights the Service's management of the area.

Other walking tours occurred on a semi-regular basis during the previous visitor program. These depended on staff /volunteers availability, seasonal wildlife on the atoll, and visitor interest.

- *Down Petrelscope:* This volunteer-led walking tour provided a rare glimpse into an active bonin petrel burrow.
- *Midway Moonwalk:* This nighttime walking tour explored the nighttime habits of both nocturnal and diurnal critters.
- *West Beach Trail:* This tour focused on the Service's monk seal protection efforts and gave visitors an opportunity to enjoy the beach's scenic values without

disturbing these highly endangered marine mammals. The trail also provided access to historic gun batteries and ammunition huts.

A boat tour was also offered during the previous visitor program.

- *Eastern Island*: This was a combination boat and walking tour. The Service took groups to Eastern Island to see the main runway used during the Battle of Midway, do some wildlife watching, and learn about current refuge management.

➤ **On-Atoll Transportation**

The main forms of transportation around the atoll are walking, bicycles, or electric golf carts. During the time of the visitor program, there was a bus and a smaller van that transported a larger number of visitors or luggage. Each visitor was assigned a bicycle that they could use to get around the atoll. Bicycles were the preferred form of transportation because they caused the least harm to the wildlife. Although every facility is within walking distance, some of the outer areas can take fifteen to twenty minutes to walk to on foot. People who could not use bicycles used golf carts. Each of the visitor program subcontractors operated a small number of carts for their group activities.

➤ **Transportation to Midway**

All overnight visitors travel to Midway by airplane. Initially the only form of transportation to Midway was on a Gulfstream G-1 propeller plane from Kauai. This type of plane could only carry 4000 total pounds and had nineteen seats. MPC later developed a relationship with Aloha Airlines to fly a 737 to Midway that could hold over 100 passengers and carry significantly more weight.

3.1.6. Visitor Package Descriptions

➤ **Recreational Fishing (MPC)**

A 1996 Midway Sport Fishing brochure provides information about the recreational fishing program. Fishing services included saltwater offshore fishing and fly-fishing for big game fish. Visitors fished at two locations inside the 20 square mile Midway lagoon, and between ½ and 20 miles offshore in blue water. Different boats were used for the different fishing locations. For the lagoon trips, two 22-foot Glacier Bay Catamarans were used. The Glacier Bay Catamarans could hold three anglers plus a boat captain. A 26-foot Glacier Bay Catamaran was added in 1998. The boats were designed to provide a stable fishing platform in rough water. For offshore trips, two 37-foot Bertram III boats were used, which could accommodate four anglers plus a boat captain.

Fish species targeted during lagoon trips included giant trevally (ulua), bluefin trevally, wahoo (ono), dolphin (mahi mahi), yellowfin tuna (ahi), amberjack (kahala), gray snapper (uku), sailfish, and African/Pacific pompano. Fish species targeted during the offshore trips included blue marlin, swordfish, striped marlin, tuna, wahoo, and dolphin.

The recreational fishing trips were offered in 4-night/3-day or 7-night/6-day options. The season started in April, with the latest trips running into September. The winter months at Midway are cool and windy, causing rough surf on the reef and poor fishing conditions.

Midway fishing packages included guided fishing, double occupancy suites in Charlie Barracks, all meals (Deluxe Plan: dinner in Clipper House), and round trip airfare. Seven-day package costs ranged from \$4,000 to \$10,000 per person for non-Hawaii residents, depending on the type of boat used and the number passengers on a boat. For Hawaii residents, the cost ranged from \$2,800 to \$8,600. In 2000, a per-day rate structure was published that ranged from \$450 to \$790 per person per day for fishing only.

No information was found on the demographics for the fishing visitors or the specific number of visitors for the fishing packages.

➤ **Scuba Diving and Snorkeling (MPC)**

Midway Dive-N-Snorkel provided scuba and snorkeling services on the atoll. The season mirrored the fishing season, starting in April/May and lasting into September. The winter months at Midway are cool and windy, causing rough surf on the reef and undesirable diving and snorkeling conditions. The dive program initially had the custom 48-foot dive yacht *Spinner D* that could accommodate approximately 30 divers. The yacht featured a large swim step and double ladders, fresh water showerheads, and private toilet. A 55-foot twin-engine jet propulsion dive boat replaced the *Spinner D* in the late 1990s. The dive center was a full service PADI dive center that included guided dive tours, advanced certification, rentals, repairs, retail items, and gear storage. Two scuba compressors for air fills and a double-lock recompression chamber were on site.

All dive guests received a marine-life orientation emphasizing Midway's unique, rare, and endemic marine animals, reef conservation, and dive safety for a remote location. Divers were accompanied by a certified master, with a ratio of one dive master per four to six divers. The dives were specialized for divers interested in marine life and underwater photography. Two dives were offered in the morning and one in the afternoon. There was no night diving due to shark activity. Three-hour snorkeling excursions in the lagoon were offered several times a week. No beginner courses were offered due to lack of time and lack of a training pool.

Diving and snorkeling sites were inside the lagoon and on the outside of the atoll. Reef life inside the lagoon featured coral heads, angelfish, butterfly fish, parrotfish, surgeonfish, wrasses, damselfish, spinner dolphins, green sea turtles, Hawaiian monk seals, lobster, and eagle rays. Outside the atoll, the reef featured limestone ledges and coral labyrinths, manta rays, reef sharks, jack, groupers, and snappers. Other diving options included two shipwrecks and a World War II plane wreck. Twelve core sites were offered weekly, with repeat dives offered by request at the end of the week. Although there were various dive levels, from beginner to advanced, Midway was considered an advanced dive site due to the dive depths, caverns, wrecks, and weather and open ocean conditions.

Diving packages included roundtrip airfare, accommodations in Charlie (double occupancy) or Bravo (single occupancy) Barracks, and all meals. Three-day packages ranged in price from \$1,500 to \$1,910. Eight-day packages ranged in price from \$2,245 to \$3,190. Package costs depended on the accommodations chosen. Hawaii resident rates

were introduced in 1997. In 2000, a per-week rate was published that ranged from \$650 (10 dives) to \$800 (15 dives) per person for diving only. Individual dives ranged in cost from \$85 to \$125 per dive, depending on the length and location of the dive. Full gear rental was \$25 per person per day, snorkel/mask rental was \$8 per day, and fins were \$4 per day.

A former Midway dive master, Mr. Keoki Stender, indicated that 90% of the divers that visited Midway were specifically there to dive. A few other guests added diving to a fishing trip or nature-watching vacation. More than half of the atoll's guests came out for at least one snorkeling trip. The average age of divers was 30-50 years. Divers were typically well-traveled people, marine-life enthusiasts, strong swimmers, and had above average income.

➤ **Service learning (Oceanic Society Expeditions)**

Oceanic provides service learning and natural history programs at many locations around the globe. Their structured programs focus on the environment and conservation. Oceanic markets trips to individual travelers and to members of conservation organizations. These organizations use the trips to interact with their members or to raise funds, which gives Oceanic a guaranteed number of participants. The partner conservation organization may or may not charge an additional fee for fundraising purposes. An example of this strategy is the partnership with the Waikiki Aquarium. Aquarium members were offered dive/snorkel packages that included accommodations, airfare to Midway from Kauai, and diving/snorkeling. The price for an 8-day/7-night trip for divers was \$2,850, and \$2,410 for snorkelers. The price for a 4-day/3-night trip for divers and snorkelers started at \$1,550. These prices included additional fees that went toward the Aquarium's fundraising program.

Oceanic offered five general types of programs/packages on Midway, including a Natural & Maritime History Tour, Spinner Dolphin Research Project, Seabird Monitoring Project, Historical Preservation Project, and Native Plant Restoration Project. Participants could take advantage of other Midway visitor opportunities, such as the Service-led tours and the fee-based diving or fishing operations provided by Midway Dive-N-Snorkel.

The Natural & Maritime History Tour was a general package that was a facilitated tour of Midway. The trips ranged in length from 5-day/4-night to 8-day/7-night. Visitors were given guided walks and participated in structured days of wildlife observation and learning about Midway's history. Participants paid between \$1,775 and \$2,275 for the varying packages.

The Spinner Dolphin Research Project lasted 8-days/7-nights. Participants worked with scientists to collect data inside Midway lagoon from a 22-foot vessel. Behavioral recordings were made of spinner dolphin groups and surface still photographs were used to identify individual dolphins from natural markings or scars. Participants were also given natural history and historical tours of the atoll. The cost for this program was \$1,722 to \$2,130.

The Seabird Monitoring Project lasted 8-days/7-nights. Volunteers helped create life tables to assess the long-term survival of adult seabirds, their ages, the structure of the population, the reproductive success of individuals, and fledgling survivorship. Monitoring projects took place year round, depending on the species under study. The cost ranged from \$1,682 to \$2,130.

The Historical Preservation Project focused on saving some of Midway's historical resources. Participants worked with experts to excavate buried structures, such as gunnery pillboxes, review archival records, provide photo documentation, assist with minor carpentry and exhibit design, develop interpretive trails, clear vegetation and debris, treat structures with rust preventatives, and review literature. The program lasted 8 days/7 nights. The cost ranged from \$1,682 to \$2,130.

The Native Plant Restoration Project allowed participants to provide a valuable service by collecting seeds and cuttings from native plants for the atoll nursery and by transplanting seedlings for revegetation. Native plants, such as the erosion-resistant Naupaka, provide habitat for seabirds. This 9-day 8-night trip cost \$1,979 to \$2,130 per person.

Oceanic Society President, Ms. Birgit Winning, provided insight into the management and operation of the Midway nature-based tourist program and the general demographic characteristics of past Midway visitors through Oceanic programs. The typical Oceanic visitor was generally 40 or older, and from the east or west coast of the U.S. or Hawaii (approximately 65%), with the remainder of visitors coming from the balance of the U.S., Canada, or Europe (approximately 35%). Approximately 35% opted for volunteer work programs, while 60% visited for nature viewing, and 5% for military history.

➤ **Cruise Ship Visitation**

In 1999, Midway welcomed the first cruise ship to the refuge – since then, six cruise ships have visited Midway. Two other ships were scheduled to stop but were precluded by weather and rough seas. The number of people on the ships ranged from 250 to 650. Cruise ships would either obtain permission to come into the mooring basin and to the cargo pier, or more commonly anchor outside the lagoon and come ashore via small tender vessels. The cruise ship pays the Service for labor and other expenses associated with providing interpretive tours. The cost to the cruise ship company includes the Service interpretive staff's flights, lodging, and meals.

Cruise passengers usually come ashore for a two-and-a-half-hour visit. Passengers are guided around Midway to see the various sights. Passengers do not roam unaccompanied on Midway. Service staff members provide interpretation about U.S. Naval History and the natural history of the atoll including its status as a National Wildlife Refuge and National Memorial.

Specific information about the cruise ship visits to Midway was not available. Current cruise rates range from \$95 to \$317 per person per day. Most of the ships that visit Midway are on trans-Pacific routes. For example, an upcoming 18-day cruise from Los

Angeles to Hong Kong ranges from \$3,495 to \$5,705 per person (\$195 to \$317 per person per day). Valor Tours provides tours for veterans, their families, military service organizations, unit associations, reunion groups, historical societies, and government institutions with an interest in the Pacific and Europe wartime theaters. Valor's cruises range between \$250 and \$360 per person per day. The typical cruise length is 7 to 10 days and many include airfare from the U.S.

In 2000, SMS, Inc. conducted a study for the North West Cruise Ship Association (NWCA) of cruise passengers in Hawaii to get an idea of the type of people who might visit Midway via a cruise. This study would be representative of the cruise ships that have visited Midway, since all of them have either come from or are en route to the Hawaiian Islands. The study found that the typical cruise ship passenger is 58.7 years old, 85% travel as couples, and they travel for the sole purpose of vacationing. The majority of cruise passengers that visit Hawaii (67%) come from the U.S. East (states east of the Rocky Mountains), with 22% from the U.S. West, 7% from Canada, and 4% from Japan. In addition to the cost of airfare and the cruise itself, the average cruise customer spent \$83 per person per day for food, land activities, and souvenirs.

➤ **Environmental Education (UH-Hilo programs)**

The University of Hawaii conducted student expeditions to Midway for four years during the visitor program. Led by various professors and coordinated by Dr. Karla McDermid from the UH Marine Sciences Department, students conducted marine studies and liberal arts activities. Students were able to take both two- and three-credit courses ranging from eight days to three weeks in length. Included below are descriptions and costs for three of the courses that were offered.

The Atoll Ecosystem

The Atoll Ecosystem class was the longest course offered. Students traveled to Midway and spent three weeks immersed in atoll ecosystems. While on Midway, the formation, structure, distribution, and oceanography of atolls was studied. Students observed the marine and terrestrial biota of Midway and learned about the ecology of atolls. Human impacts on atoll environments and atoll resource management issues were discussed. Students learned through personal observation, lectures (UH Hilo faculty, refuge staff, visiting researchers), fieldtrips, and review of current scientific literature. The costs were \$550 airfare (roundtrip Honolulu-Midway) plus \$1,365 for 3 weeks of meals, shared room, bicycle use, boat transportation for snorkeling, and refuge user fee. UH fees included tuition for 3 credits (\$390) and a student activity fee (\$2).

Reef Fishes of Midway

This 8-day course covered the biology of coral reef fishes found in the Northwestern Hawaiian Islands. Readings, lectures, and field trips examined the taxonomy, ecology, behavior, and biogeography of Midway's fishes. In addition, participants became familiar with atoll geology, natural history, and wildlife. Field access included boat, beach, and snorkel trips. The cost of trip included \$550 airfare (roundtrip Honolulu-Midway) and \$500 for meals, shared room, snorkel and boat trips, bicycle use, and refuge fee. UH fees included tuition for 2 credits (\$260), a student activity fee (\$2), and textbook costs.

Reading and Writing at Midway

The Reading and Writing at Midway course was different from the marine science courses in the focus on liberal arts education. This course spent 8-days exploring the texts and landscapes of Midway. Students learned about Midway from a variety of perspectives as they read the work of scientists, explorers, environmentalists, creative writers, historians, and anthropologists. They examined these diverse viewpoints and discussed how these writers used particular styles, voices, and rhetorical choices to inform, convince, or entertain their audience. Students kept a detailed field journal in which they recorded observations, impressions, and interpretations of everything they saw, read, and discussed during the trip. After the trip was over, each student submitted a detailed article or essay to be included in *New Perspectives on Midway Islands*, the first published book of student impressions of the atoll group. The course reading and writing was enhanced with an assortment of activities, including natural history tours, individual and group field trips, a snorkeling trip, presentations by atoll biologists, videos, and writing workshops. Costs included \$550 airfare (roundtrip Honolulu-Midway) and \$500 for meals, shared room, snorkel and boat trips, bicycle use, and refuge fee. UH fees included tuition for 3 credits (\$390) and a student activity fee (\$2).

3.1.7. Visitor Survey Analysis

Data was gathered from past visitor surveys conducted by the Service in 1997 through 1999. Surveys were administered to the visitors during their flight home. A random sample of 65 from a group of approximately 1200 surveys (5% of total) was analyzed. Questions were selected for analysis to enhance understanding of why people visited and what they liked about Midway. Data was collected from six questions and analyzed by frequency of response. Responses were cross-tabulated between questions where possible.

Most visitors found out about Midway through marketing materials (36%), such as brochures or flyers. MPC, the Service, Oceanic (including Elderhostel), Midway Sport fishing, and Midway Dive-N-Snorkel all produced marketing pieces. Almost 28% of the survey respondents read about Midway or saw an advertisement about Midway in a magazine or newspaper. The next most frequent outlet was word of mouth (18%). The other response types were TV news (6%), Internet (2%), Previous Visitor/Resident (2%), and Other (8%).

Thirty-nine percent (39%) of Midway visitors booked their trip directly through MPC or their marketing associates. Midway Sport Fishing accounted for 11% of visitors, while Midway Dive-N-Snorkel was 6%. MPC was involved in both the diving and fishing operations, so MPC was responsible for 56% of Midway bookings. Oceanic booked 39% of the visitors going to Midway. The remaining 5% of the visitors were booked through travel agents or through University of Hawaii-Hilo.

When asked why they visited Midway the most common answers fell under the category of enjoying terrestrial and marine wildlife (31%). Historical, fishing, and diving activities each received 11% of the responses. Nineteen percent (19%) of the overall respondents listed multiple responses, such as wildlife, history, fishing, and/or diving, what we

categorized as “everything.” Research was listed by 7% of the respondents with university education programs and employment making up the remaining 10%.

Visitors listed wildlife (72%) as the most common response when asked, “*What was the highlight of your stay?*” Of those responses 37% listed the terrestrial wildlife, essentially the birds, while 30% listed the marine wildlife that would have included the dolphins, seals, and/or fish. Ten percent (10%) of the highlights were categorized as “scenery” for responses, such as the beach, the lagoon, or walks on the beach. Eleven percent (11%) could not define a single highlight and put responses, such as “everything.” The remaining 8% were distributed among revisiting/nostalgia, plant life, and other.

Results were cross-tabulated for the questions “*Who did you book your trip to Midway with?*” to “*Why did you come to Midway?*” Over sixty-five percent (n=24) of those who booked through Oceanic came for the wildlife or the research. Only 11% (n=36) came primarily for the historical aspects of Midway. Twenty-two percent of the MPC bookings (combined MPC, Midway Sport Fishing, and Midway Dive-N-Snorkel) came because of fishing and 19% for diving and snorkeling. In addition, 17% indicated that wildlife was their reason for coming for the MPC bookings and only 6% for historical reasons.

We cross-tabulated results for the questions “*Why did you come to Midway?*” to “*What was your trip highlight?*” For the respondents that listed history (n=5) as the reason for coming to Midway, all but one listed wildlife as their highlight; the remaining respondent listed “everything.” Five of the eight diving respondents listed the marine wildlife as their highlight but the remaining three fell under “everything” and “all wildlife.” People who came to fish listed the marine wildlife for 6 of the 8 responses; the other two responses were “scenery” and “everything.” For respondents who came because of wildlife (n=21), 76% indicated all wildlife, terrestrial wildlife, or marine wildlife as their highlight.

Surveys also asked what visitors did *not* like during their visit to Midway. Sixty-two percent (62%) found “nothing” wrong with their visit. Protective practices, such as beach or flying time restrictions were 18% of the responses and accommodations were 9%. Other dislikes included weather (6%) and insects (5%).

Respondents overwhelmingly (79%) said they would return to Midway and only 6% said they would not. The remaining 15% said maybe, conditions of costs and time being the primary deciding factors.

In summary, people heard about Midway primarily through print media, either through direct marketing pieces or through articles or advertisements in magazines or newspapers. Most visitors booked directly through MPC, but almost 40% of the visitors came through Oceanic. Wildlife viewing was the primary reason for coming to Midway regardless of how the visitors booked their trip. Terrestrial and marine wildlife was the greatest highlight for a vast majority of Midway visitors, regardless of their original motivation for coming to Midway. Midway’s history was not a prime motivator for coming to Midway, nor was it one of the highlights. In addition, history visitors listed wildlife as the

primary highlight of their visits. It should be noted that although history was not an important motivation or benefit with these respondents, these surveys did not include the cruise ships that specifically came to learn about Midway's history. Finally, there were few visitor complaints about Midway and almost 95% of respondents would return or consider returning to Midway.

3.2. SWOT Analysis

Based on the information collected about Midway from past visitor programs, discussions with Service staff and people involved in the past visitor program, and an onsite visit, a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis was conducted for a visitor program on Midway. The purpose of the analysis is to assist in determining appropriate target visitor markets to research as well as to develop the options for a potential visitor program and assess the economic feasibility of a visitor program. Table 3-3 outlines the SWOT analysis.

The goal of this study is to gather information for the Service that they will use to create a *Visitor Use Plan* for 2006-2010 for Midway. The project's two major stated objectives for the study were to conduct a market analysis and feasibility study of potential visitor programs. Integral in this effort is determining if there is a market for the experiences Midway offers visitors and if so how a visitor program would work and whether or not it could be sustainable.

Unlike many other destinations, the potential for providing for and bringing visitors to Midway is constrained by both physical and Service related regulations. Fish and wildlife protection is the most important factor guiding any use of Midway. Service regulations state that the only types of use allowed on Midway are scientific research, environmental education, compatible wildlife-related activities, or activities deemed acceptable by the Service. Many of the typical or potential destination activities for a remote atoll would be prohibited because they would take away from wildlife habitat or would be deemed non-wildlife related activities. For example, building a golf course would take away nesting habitat for albatross, and providing gambling or spa services would not be considered wildlife related activities.

Current visitation is constrained by lodging capacity of up to 36 double occupancy rooms even though the Service's published per day carrying capacity is 100 visitors. The limited number of air carriers and their capacity further compounds the issue of capacity. This limits the potential for a larger visitor program. In addition, the Service is looking at the feasibility of starting a visitor program in the short term using the current resources. The Service currently lacks the funding sources to invest large amounts into a visitor program. Also, some people in the Service may lack commitment to a visitor program because of the perceived lack of success of the past visitor program. Therefore any potential visitor program must rely on current services and facilities.

The market for a visitor program on Midway must match the potential experiences for Midway. Midway's biggest potential draw for a visitor is for its wildlife value. People who have lived on or visited Midway reiterate how much the wildlife experience

impacted them. Midway also offers a very unique experience of being a remote tropical destination that also has significant historical value. The broad market that best matches Midway experience and is compatible with the regulatory and physical constraints of Midway is nature-based tourism. Therefore this study will focus on similar nature-based programs and destinations and their market segments.

Table 3-3. SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> ▪ Abundant and unique wildlife. ▪ Visitors have the opportunity to be close to wildlife. ▪ Pristine marine environment. ▪ Significant historical value. ▪ Historic land use patterns from military use combined with current wildlife protection regulations make visitor impacts to Midway negligible. ▪ The Service has strong organizational mission, values, objectives, and goals. ▪ Visitor accommodations and infrastructure are currently operational. ▪ Staff is committed to providing quality resource management and visitor programs. ▪ Visitors to the atoll are among a limited number of people who get this unique experience. 	<p>Weaknesses</p> <ul style="list-style-type: none"> ▪ Remote location leads to high transportation costs. ▪ Limited plane seating and availability. ▪ Significant coordination is required to supply enough resources for additional visitors. ▪ Overnight accommodations are limited with little ability to expand using current facilities. ▪ Food service capacity is limited. ▪ Much of the infrastructure needs to be removed or replaced due to age and environmental factors. ▪ Current Service staff size is small. ▪ Some activities that might be attractive to potential visitors are limited due to Service regulations. ▪ Historical buildings are deteriorating. ▪ Historical interpretation is limited to buildings and some artifacts and memorabilia. ▪ Structured programming is needed if visitors are going to stay longer than a few days.
<p>Opportunities</p> <ul style="list-style-type: none"> ▪ Potential revenue from visitor services may be used to supplement refuge operations and improve visitor facilities. ▪ The Service could utilize experienced concessionaires to bring compatible tourism to the atoll. ▪ Due to Midway’s small size, visitors have the opportunity to interact with Service staff and understand NWR management goals. ▪ Midway illustrates the vital role the Service plays in protecting U.S. wildlife resources. ▪ By inviting visitors to Midway, the Service can garner support for its management efforts. ▪ Tourism provides the opportunity for people to understand the role Midway played as a turning point in WWII. ▪ Providing visitor services on Midway offers an opportunity for the Service to demonstrate their commitment to providing for public use. ▪ Midway is a truly unique visitor destination because of its combined wildlife and historical value. 	<p>Threats</p> <ul style="list-style-type: none"> ▪ Midway will be competing with other tourism destinations. ▪ Current and past funding to maintain and operate Midway has been tenuous and future funding is dependent on congressional appropriations. ▪ Potential concessionaires and visitors may not trust that the Service is committed to a long-term visitor program because the past visitor program was shut down so abruptly. Past closure of the visitor program may be a deterrent for attracting visitors who might fear that the program will close again. ▪ Continuous maintenance is required to keep aged infrastructure working consistently. ▪ There may be safety and liability concerns associated with the aged infrastructure. ▪ There is currently only one plane servicing Midway. ▪ Midway is not well known as a tourist destination. ▪ The Service had a negative past experience hosting a visitor program at Midway. There may not be commitment on all levels within the Service to engage in another visitor program. ▪ Midway’s remote location makes travel to the atoll cost prohibitive to certain tourism market segments.

3.3. Market Segments for Midway

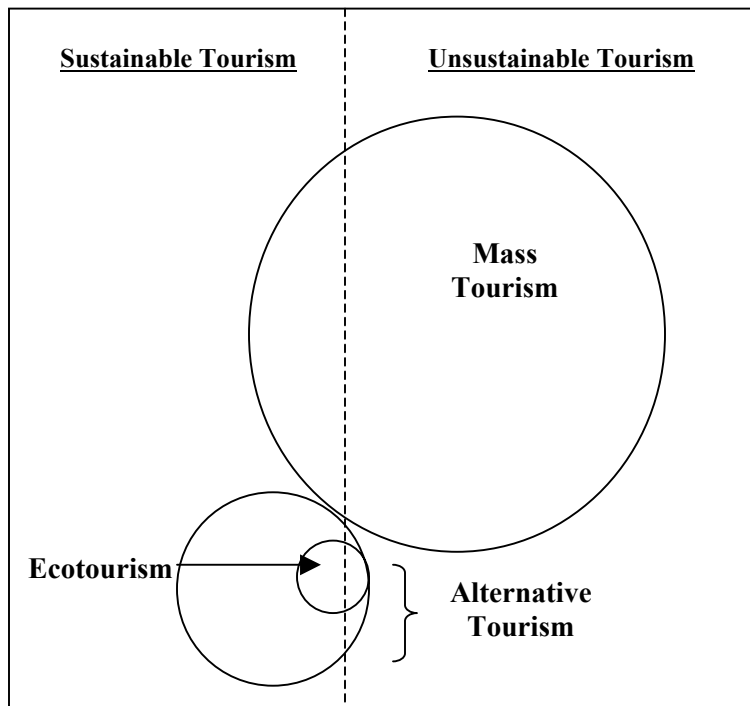
Determining and understanding the target groups or tourism market segments for Midway is essential in assessing the feasibility of a potential visitor program. There are many ways to understand target groups, ranging from primary market research/surveys to comparisons with similar programs. Because of the regulatory constraints on conducting primary market research for federally funded projects and the short term of this study, secondary sources, literature reviews, and past Midway visitor data were used to define and understand the market segments for Midway.

3.3.1. Overall Tourism Market

Alternative vs. Mass Tourism

The worldwide tourism market is large and complex. Researchers and marketers have been studying and segmenting it for years. Tourism can broadly be divided into two classifications: ‘mass tourism’ and ‘alternative tourism’ (Fennell 1999). Mass tourism is defined by Weaver (2001) as large-scale tourism; typically associated with resorts, beaches, transnational ownership, seasonality, and package tours. Alternative tourism is a ‘competing paradigm’ to mass tourism (Fennell 1999). “Alternative tourism can be broadly defined as forms of tourism that set out to be consistent with natural, social and community values and which allow both hosts and guests to enjoy positive and worthwhile interaction and shared experiences” (Newsome et al. 2002). Alternative tourism encompasses a range of tourism strategies, including ‘eco’, ‘green’, ‘cottage’, and ‘responsible’ (Fennell 1999). As a rule, alternative tourism is different from traditional forms of tourism. It is an effort to lessen the impact mass tourism can have and most often focuses on natural and cultural elements. This is not to say that all alternative tourism is free of impacts to the natural and cultural environment, although much of this type of tourism is considered to be sustainable.

Figure 3-2. Sustainable and Unsustainable Tourism, Mass Tourism, Alternative Tourism, and Ecotourism



Source: Adapted from Weaver 2001.

Sustainable Tourism

Sustainable tourism includes a broad range of recreation activities that occur in the context of a natural environment (Eagles 1995) and seeks to protect and conserve the environment and culture upon which the tourism depends. Owens et al. (1993) outlined the principles of sustainable tourism as follows.

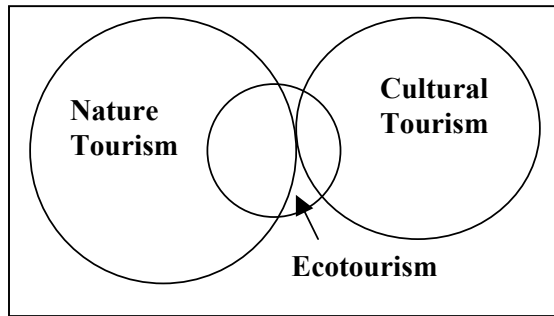
- Sustainable tourism should be part of a balanced economy.
- Sustainable tourism must allow for long-term preservation and use of the tourism environment(s).
- Sustainable tourism should respect the character of an area.
- Sustainable tourism must provide long-term economic benefits.
- Sustainable tourism must be sensitive to needs of host population(s).

Tourism Segments

The World Tourism Organization (2001) segments the tourism market into several types of tourism including nature tourism, rural tourism, cultural tourism, sun-and-beach tourism, business travel, and fitness-wellness and health tourism. Of these, nature and culture tourism are the segments that fit with what Midway is able to provide visitors. Nature tourism, according to Newsome et al. (2002), is “tourism in natural settings.”

Cultural tourism involves travel to places where visitors see, experience, and/or learn about people, places, and events. Both of these tourism types can be either sustainable or unsustainable. The principles of sustainable tourism echo the mandates for which Midway was established, as well as the overall goals of visitor use for National Wildlife Refuges. The sustainable tourism market includes ecotourism, which contains components of both nature tourism and cultural tourism (Figure 3-3) (Weaver 2001).

Figure 3-3. Nature Tourism, Cultural Tourism, and Ecotourism



Ecotourism is defined by The International Ecotourism Society as “*responsible travel to natural areas that conserves the environment and improves the well-being of local people.*” The term ecotourism has been used since the 1980’s in the tourism industry and related literature (Weaver 2001). Ecotourism, as it relates to Midway, is a form of tourism that offers opportunities for visitors to learn and experience the natural and historical features of the atoll while preserving the resource. Activities related to ecotourism include wildlife watching, bird watching, snorkeling, scuba, kayaking/canoeing, hiking, visiting parks, and camping. These activities are also part of other tourism markets such as adventure tourism, sun-and-beach tourism, business travel, and fitness-wellness and health tourism. What distinguishes ecotourists who participate in these activities from other tourists is their motivation to recreate. Ecotourists have different motivations than mass tourists. Motivations for ecotourists to travel to certain locations include (Crossly and Lee, 1994; Wight, 1996) the following.

- Uncrowded locations
- Remote, wilderness areas
- Learning about wildlife, nature
- Learning about natives, cultures
- Community benefits
- Viewing plants and animals
- Physical challenge

3.3.2. Sustainable Market Segments for Midway¹

The ecotourism market segment is the most compatible with the management goals and objectives the Service created for Midway. Ecotourists espouse the environmental attitudes, interests, and demographics to afford the time and money to visit Midway. In the late 1990s the ecotourism travel sector grew at about 10% to 30% per year (Wight 2001). In 1998 the World Tourism Organization estimated that ecotourism was 20% of the world tourism market (WTO News 1998). In the past 20 years, there have been many studies done on ecotourists. Wight (1996) conducted one of the most comprehensive studies on ecotourists preferences. The study found ecotourists strongly prefer hiking and water-based activities. Wight found that ecotourists in general had higher incomes, spent more, and stayed at destinations longer than mass tourists (Wight 1996 and 2001). The study confirmed the desire for variety among ecotourists, noting that international long-haul ecotourists favor multiple-destination vacations with more than one type of activity (Ayala 1995), suggesting that operators should both offer a wide range of experiences and develop package linkages (multi-stop packages) that provide complementary experiences.

Although Midway does not offer extensive hiking trails, there is ample opportunity for walking and biking, as well as water-related activities, thus serving the major interests of the ecotourism audience. Past visitor programs at Midway were able to offer walking, nature viewing, interpretation, learning opportunities, and water activities to visitors, thus providing some of the wider range of activities desired by ecotourists. Ecotourists are likely to be responsive to wildlife-related rules and restrictions at Midway. The remoteness of Midway may be a draw for certain tourists, although remoteness will make multi-stop packages and linkages to other destinations a challenge.

Midway's accommodations are comfortable and could cater to both the alternative and mass tourism markets. The preferences for accommodations among ecotourists vary by activity and destination (Wight 2001). Ecotourists are willing to tolerate many types of accommodation as part of an ecotourism "experience," and prefer more rustic, intimate adventure-type accommodation such as lodges, cabins, and bed and breakfasts (Hawkins et al. 1995, Selengut 1995, HLA Consultants 1996, Wight 1997, Diamantis 1998, Wight 2001). Mass tourists, however, overwhelmingly prefer hotel/motel accommodations. The accommodations are part of the infrastructure necessary to provide the experience, but the additional program elements (range of programs/activities, quality of guides/interpreters, environmental sensitivity of accommodations/development, etc.) determine whether or not the accommodations are regarded as "part of" the ecotourism experience or as a detraction from the visit, therefore whether the program is worthy of a recommendation or return visit (Wight 1996). The accommodations at Midway are certainly comfortable enough to not detract from the ecotourism visit, while also being comfortable enough to satisfy conventional tourists' needs.

¹ At the request of Fish and Wildlife Service managers, recreational sport fishing is not addressed within this document as a potential market segment due to incomplete analysis of the prior sport fishing program. This activity may be considered later in a follow up Midway Atoll NWR Visitor Services Plan.

Wight (1996) also noted a trend among mass tourists to desire elements of ecotourism for future trips. These ‘transitional’ tourists wish to experience nature and culture, but also enjoy the comforts and activities mass tourism provides. Midway has the potential to cater to this group of transitional tourists because of both its rich historical/cultural legacy and its wildlife viewing opportunities. These transitional tourists are a potential market for destinations that are able to provide “soft” ecotourism with moderately comfortable accommodations. Transitional tourists include those who might access Midway as part of a cruise. Meanwhile, ecotourists are showing a trend toward uncrowded destinations for future trips (Wight 2001). Midway is able to offer both an uncrowded destination for ecotourists while also offering a “soft” (i.e., comfortable) experience for conventional tourists. In addition, ecotourists are willing to pay more for certain destinations that have a high scarcity value (‘jewels of nature’) and are willing to pay more for these experiences, compared with sites that are more common (Laarman and Gregersen 1996 as cited in Wight 2001).

Warnick (1995) indicates that travel abroad will be impacted if too many U.S. citizens feel threatened abroad. Ironically this was written prior to the terrorist attacks of September 11, 2001, but this reality has significant implications for Midway. Although Midway is part of the U.S., visiting there is like traveling to a remote and exotic destination. The distance to Midway makes it seem like traveling abroad. Thus, Midway has the potential to appeal to tourists who are looking for a safe place to travel.

Midway offers almost all of the benefits that are sought by ecotourists. Benefits are what visitors wish to gain from their trip, and the hope of gaining these benefits creates motivation for taking the trip. Silverberg et al. (1995) did a psychographic study that identified and described the key benefits sought by nature-based tourists. Table 3-5 defines each benefit and how Midway potentially provides those benefits to visitors.

Table 3-4. Benefits Sought by Ecotourists and Rating of Midway Visitor Program on Benefits Provision

<i>Benefits Sought</i>	<i>Description of Benefits</i>	<i>Rating of Midway Visitor Program on Benefits Provision</i>
Education/History	Ecotourists are seeking to learn on vacation, to learn with guided tours, and to have fun learning.	<u>High</u> – Visitors can learn about unique wildlife, ecosystems, and history. Interpretive programs are provided.
Socializing	Tourists travel for companionship, enjoy meeting new people, want to develop close relationships, like to travel in groups, and want to impress friends about travel destinations.	<u>High</u> – Most packages are designed for groups. Visitors interact with interesting guides and staff. Midway is an exotic, remote destination to report to friends.
Relaxation	Tourists travel to relieve stress and want quiet and relaxing experiences.	<u>High</u> – Remoteness, quiet, water, and wildlife breed relaxation.
Nature	Tourists enjoy nature on vacation and want to visit beautiful places.	<u>High</u> – Abundant terrestrial and marine wildlife. Beautiful beaches and water.
Economy	Tourists look for good vacation values, do extensive research on destinations, and want to travel far away from home.	<u>Low to Medium</u> – Reasonable costs to stay on Midway, but high costs to travel to Midway. Total costs may be a barrier. Midway is far from home.

Midway can easily provide all the key benefits that are sought by visitors. Although travel to Midway is expensive, the atoll could be portrayed as an exceptional value because of the unique experiences it provides. The high cost of travel to Midway suggests that Midway could be marketed to ecotourism audiences with higher income levels.

Potential Midway Visitors as a Subset of Hawaiian Visitors

To get to Midway, visitors must travel through Hawaii. It is therefore appropriate to consider the characteristics of the typical visitor to Hawaii, realizing that subsets of visitors to Hawaii are potential Midway visitors. The State of Hawaii routinely develops visitor statistics for its visitors. For 2002-2003, 64% of the visitors to Hawaii were from the U.S., 15% from Japan, and 4% from Canada. Of the U.S. visitors, 60% were middle-aged or older and 65% of them had incomes greater than \$70,000. Over 70% of visitors to Hawaii traveled with a spouse or family member and 61% had at least 4 years of college education. This group has an income level high enough to afford travel to Midway. These recent results may predict the demographics of at least one segment of future Midway visitors: tourists who are older, upper-middle class, more highly educated, and U.S. citizens. These results mirror some of the demographics of the typical ecotourist.

3.4. Similar Ecotourism Destinations and Providers

This section offers a comparison of destinations and providers similar to Midway. Descriptions, pricing, accommodations, activities, and the market outlook are discussed. To collect the data, a realm of destinations that had some of the same characteristics as Midway were identified. Using the Internet, approximately 25-30 potential comparison destinations were identified that met the following criteria.

- Remote location
- Access primarily by air transportation
- Limited number of visitors at one time
- Wildlife and/or historical/cultural attractions
- Limited lodging accommodations (i.e., not a location with many lodging options)

Potential comparison sites were categorized by world region, and a master list included destinations from all parts of the world. The primary type of activities or experiences at each destination was reviewed. Destinations that were resorts or spas were eliminated. This process significantly reduced the list to about five comparable destinations. Some of the destinations were a single lodge or island. Other destinations, such as the Falklands and the Seychelles, were multiple islands where a number of remote lodges are available. A single representative site was selected for the island groups.

More in-depth data was collected about each destination using Internet searches, literature searches, email communications, and telephone calls. Information was categorized into four different general categories to create destination profiles.

- Destination Information

- Provider Information
- Package Information
- Visitor Information

In some instances specific information was not available for a location, such as specific visitor demographic information. When that was the case, information for the entire country was used.

In addition, seven different types of tourism providers were identified that might have some application to Midway.

- Service-Learning Providers
- Photography Tour Providers
- Education Tour Providers
- Workshop Providers
- Snorkeling/Diving Tour Providers
- Wildlife-Watching Tour Providers
- Cruise Providers

These types of providers were not linked to any specific destination. Three main factors were used to determine which similar tourism providers to focus on.

- Type of business
- Destination
- Partnerships with destination

3.4.1. Similar Ecotourism Destinations

The five destinations in Table 3-6 were chosen because of their similarities to Midway, as described above. Each of these destinations market to the alternative tourism segment. They each represent ecotourism, adventure tourism, and/or wilderness travel destinations. In most cases, the lodging represented is the only accommodation available on the island or at the destination. The accommodations represented range from modest to luxurious.

In all comparable cases, tourists must reach their destination by plane. During research for this section, it was found that some countries (i.e., Malaysia) experienced rapid growth after suitable air transportation was provided. This important factor shows that air transportation issues are key to consistent and growing guest visitation. Travel to remote ecotourism destinations is expanding because these areas are becoming more accessible. For example, in the Cook Islands huge growth was experienced from the Australian market when direct flights from Sydney to Raratonga were instituted.

The visitor demographics for each destination are similar and reflect the demographic and market information that was uncovered for Midway. Many travelers have above average

income, are professionals, enjoy wildlife viewing, and want adventure activities, such as hiking, diving, and snorkeling.

The main markets for these comparison destinations are Europe and Australia, although some Asian citizens are also traveling to these destinations. While Europe and Australia are not major markets for visitors to Midway and Hawaii, they are growing markets for international travel and should be considered when developing strategies to attract visitors. In addition, Midway can be marketed to the huge U.S. travel market.

Midway offers similar benefits, activities, and accommodations to these comparison destinations. In addition to the summary table below, a detailed profile of each destination is located in Appendix B at the end of the study.

Table 3-5. Destinations Comparable to Midway

<i>Destination</i>	<i>Destination Description</i>	<i>Provider Profile</i>	<i>Package and Visitor Characteristics</i>
Seal Lion Island, Falkland Islands	<p>Location: 300 miles off Argentina</p> <p>Transportation: Airplane</p> <p>Management Authority: The island is a National Nature Preserve, inn is privately owned</p> <p>Present Level of Tourism: 24 people</p> <p>Seasonality: Sept-May</p> <p>Activities: Wildlife viewing/photography</p> <p>Facilities: One Guest lodge and a Biological Research Station</p>	<p>Tour Operator: Sea Lion Lodge</p> <p>Facilities: Three star</p> <p>Partnerships: Local tour operators for marketing and the government for the conservation plan</p>	<p>Duration: 3 days</p> <p>Purpose of Trip: Photography, wildlife viewing</p> <p>Cost: Flight is \$4,000; rooms are between \$103 and \$168.</p> <p>Visitor Characteristics: Late 50's, often academic professionals, middle to upper income</p> <p>Market Outlook: They are at full capacity, would need to buy a plane to increase capacity</p>
Knight Inlet, British Columbia	<p>Location: Canadian Pacific Northwest</p> <p>Transportation: Floatplane</p> <p>Management Authority: Canadian Government manages the resource, Lodge is privately owned</p> <p>Present Level of Tourism: 24 people</p> <p>Seasonality: May to October</p> <p>Activities: Wildlife viewing, kayaking, photography, fishing</p> <p>Facilities: One Lodge</p>	<p>Tour Operator: Knight Inlet Lodge</p> <p>Facilities: Four star</p> <p>Partnerships: Agreements with floatplane company, and hotels along Campbell River</p>	<p>Duration: 2 to 8 nights</p> <p>Purpose of Trip: Vacation, wildlife viewing, photography</p> <p>Cost: Approximates \$250 per day</p> <p>Visitor Characteristics: Ages 35+, above average income, older tourists enjoy wildlife viewing, younger adventure activities</p> <p>Market Outlook: Bright outlook, plenty of natural areas to visit</p>
Layang Layang Island, Malaysia	<p>Location: 300 km NW of Sabah in the South China Sea</p> <p>Transportation: Airplane</p> <p>Management Authority: Malaysian Government, resort is privately owned</p> <p>Present Level of Tourism: 76 rooms, 10 suites</p> <p>Seasonality: February to September</p> <p>Activities: Wildlife watching, diving</p> <p>Facilities: One resort, One Military Outpost</p>	<p>Tour Operator: Layang Layang Dive Resort</p> <p>Facilities: Three star</p> <p>Partnerships: Affiliated with Dive Easi Travel, Kuala Lumpur</p>	<p>Duration: 2 to 8 nights</p> <p>Purpose of Trip: Diving</p> <p>Cost: Divers \$900-\$1,140 per week, Non-divers \$660-\$875 per week</p> <p>Visitor Characteristics: 52% of international travelers were male, 27% between the ages of 31 and 40.</p> <p>Market Outlook: Top markets are Asian, growth is inconsistent, the government is projecting 16.6 million visitors in 2005</p>
Mangaia Island, Cook Islands	<p>Location: South Pacific between French Polynesia and Fiji</p> <p>Transportation: Airplane</p> <p>Management Authority: Cook Islands</p> <p>Present Level of Tourism: 24 to 36 guests</p>	<p>Tour Operator: Ara Moana Bungalows</p> <p>Facilities: Two star</p> <p>Partnerships: The Cook Islands Tourist Corp</p>	<p>Duration: No specified limits</p> <p>Purpose of Trip: Adventure vacation</p> <p>Cost: \$40-\$150 depending on bungalow type and meal plan</p> <p>Visitor Characteristics: Above average</p>

<i>Destination</i>	<i>Destination Description</i>	<i>Provider Profile</i>	<i>Package and Visitor Characteristics</i>
	<p>Seasonality: No information found</p> <p>Activities: Adventure sports, wildlife viewing</p> <p>Facilities: Resort, Families rent rooms, 3 villages</p>		<p>income, mainly looking for adventure travel activities</p> <p>Market Outlook: Overall, 78,000 have visited Cook Islands in 2003, main markets are New Zealand and UK/Europe</p>
Bird Island, Seychelles	<p>Location: Off the eastern coast of Africa</p> <p>Transportation: Airplane</p> <p>Management Authority: Lodge is privately owned</p> <p>Present Level of Tourism: 48 to 72 people</p> <p>Seasonality: Year round</p> <p>Activities: Snorkeling, birding, fishing, sailing</p> <p>Facilities: One hotel</p>	<p>Tour Operator: Bird Island Lodge</p> <p>Facilities: Three star</p> <p>Partnerships: Several booking agents, Green Globe International</p>	<p>Duration: 7 nights</p> <p>Purpose of Trip: Relaxation, nature viewing, fishing</p> <p>Cost: \$380-\$1500 depending on the season</p> <p>Visitor Characteristics: 80% arrive by air. Main markets are heavily European.</p> <p>Market Outlook: Inconsistent as compared to other world destinations</p>

3.4.2. Similar Tourism Providers

In order to better understand the potential tourism market at Midway, research was conducted on tourism providers that offered services that matched past or potential tourism opportunities on Midway. Three main factors were used to determine which providers to focus on: type of business, destination, and partnerships with the destination. A thorough search was conducted to find providers that fit the target profile. Numerous providers were researched and ten were used for this report. Table 3-7 gives a summary of these providers; a detailed profile of each provider is located in Appendix C at the end of the report.

Type of Business: Seven types of business were identified that match with Midway's past and potential tourism services.

- *Service-Learning Providers:* Visitors participate in a project ranging from research to restoration of a site. Visitors usually work with a scientist who oversees the project.
- *Photography Tour Providers:* Visitors participate in a tour where they travel to remote or spectacular locations to photograph wildlife, scenery, and people.
- *Education Tour Providers:* Visitors go on a fully guided tour, where the focus is learning and experiencing new things. Lectures and presentations by experts and scientists are part of the trip, along with sightseeing.
- *Workshop Providers:* Visitors take these tours to work closely with a well-known or experienced artist, writer, photographer, etc. and to improve their creative skills.
- *Snorkeling/Diving Tour Providers:* Visitors dive and/or snorkel at desirable destinations.
- *Wildlife-Watching Tour Providers:* Visitors watch wildlife via cruises, hikes, vantage points, etc. Seeing unique or rare wildlife phenomena is the focus of these tours.
- *Cruise Providers:* Visitors travel via cruise ship (30-100+ passengers) to remote and unique destinations. Activities focus on what is available at ports of call.

Partnerships: A variety of businesses fit the partnership profile similar to what exists on Midway. The businesses had a variety of partnerships with their destinations ranging from relying on the destination to provide all services, facilities, and instruction to relying on the provider to provide all services, facilities, and instruction (e.g., visitors stay on provider's ship and provider's employees give tours).

Destinations: Most of the tourism providers included as comparisons either work in the Pacific region or offered tours worldwide. Some of these tourism providers had at one time offered tours to Midway. Comparable tourism providers profiled in this report either used the services and facilities available at the destination or based their operation off of a ship.

Table 3-6. Tourism Providers Comparable to Potential Midway Providers

<i>Provider</i>	<i>Type of Business</i>	<i>Time in Business</i>	<i>Partnerships</i>	<i>Price</i>	<i>Trip Length</i>	<i>Visitor Characteristics</i>	<i>Example Trips</i>
Cruise West	Educational tours, Cruises	Over 50 years	Work with US airlines and travel agents to book tours	\$200-\$300 per day, food and lodging included	4 to 25 days	Older, high income, well-educated	Legends of the Pacific Island Sanctuaries
Elderhostel	Educational tours, Service learning, Cruises	30 years	They book speakers, arrange accommodations, food, etc. Use local operations for food and lodging.	\$280-\$500+ per day, food and lodging included	Few days to a few weeks	Older, middle income, well educated.	Maintaining “Mighty Mo” in Pearl Harbor Exploring Cultures Past, Present, and Future
Ralph Paonessa Photography Workshops	Photography, workshops	30 years	Operator takes visitor to destination and provides opportunities to photograph animals and scenery. Work with local lodging and restaurants to provide for visitors.	\$300-\$700 per day, food and lodging included	Few days to a few weeks	Middle age to senior, upper income, well educated, travel alone.	The Seabirds of Midway The Falkland Islands
Closeup Expeditions	Photography tours worldwide	26 years	Use local food and lodging when available. Use guides from site if available. Accommodations are basic.	\$110-\$300 per day	7 to 21 days	Middle age to senior, upper income, well educated, travel alone	Galapagos Islands Midway Atoll
International Wildlife Adventures	Wildlife watching, Photography, and Cruises	Over 10 years	Uses local facilities for food and lodging. Some trips go on the company’s ships.	\$200-\$400 per day, most food, lodging, and transportation included	Several days to several weeks	Middle age to senior high income, well educated, travel as couples	Galapagos Islands Belize Reef and Rainforest
Back to the Source Writing	Workshop	Several years	Books hotel rooms for guests on	\$200 per day	Seven days	Individuals, middle age to senior,	Back to the source writing retreat in

<i>Provider</i>	<i>Type of Business</i>	<i>Time in Business</i>	<i>Partnerships</i>	<i>Price</i>	<i>Trip Length</i>	<i>Visitor Characteristics</i>	<i>Example Trips</i>
Retreat			request. Organizes some meals.			visitors want an intense learning experience away from the normal classroom setting	Bali
Destination Pacific	Wildlife watching, Diving/snorkeling	Several years	Work with management of visited areas for access, food, and lodging.	\$200-\$400 per day, food and lodging included	Several days to a couple of weeks	Young to middle age, high income, travel as individuals or as family	Midway Atoll East Cape Mexico
Earthwatch	Service learning	30+ years	Work with universities and colleges. Earthwatch provides people who help with research projects.	\$200-\$300 per day, food and lodging included	Few days to a few months	Older professionals who want to get away from their day-to-day lives and help out	Bahamian Reef Study Dolphins and Whales of Abaco Island
TraveLearn	Educational tours	27 years	Work with colleges, universities, and associations to provide experts and lecturers.	\$200-\$400 per day, food and lodging included	1 week to several weeks	Older, high-income, well-educated	Island Sanctuaries Pearls of Polynesia
Holbrook Travel	Diving/snorkeling, Educational tours	31 years	Use services and facilities at destination. Provide instructors for some trips.	Varies widely depending on complexity of trip	Few days to a few weeks.	Varies, from senior citizens to children	Honduras: Dive Roatan Bay Islands Galápagos Natural & Cultural History: Family tour booked with Elderhostel
World & Travel Company, Gap Year for Grown Ups	Service Learning	Several years	They have developed partnerships with charities and projects all over the world for their clients to visit and volunteer with.	Shorter trips begin at approximately \$400 and can longer trips can cost in excess of \$9,000.	1 week to 1 year	There is an 18 – 30 year old program, and a 31 and up program. 18 – 30 year olds can earn money as they travel.	South Africa, India, Thailand, Australia, New Zealand, Central America and US Conservation, social services, and adventure travel

4. Feasibility Study

4.1. Current Status of Visitor Program

4.1.1. Current Contracting Relationship

The Service currently contracts the operations and maintenance services on Midway to Chugach McKinley, Inc. (CMI), a wholly owned subsidiary of Chugach Alaska Corporation. The original contract began May 7, 2003, with the option to extend the contract annually. CMI is paid a fixed sum to operate the airport facilities and fuel farm, along with the utilities, communications, waste management, and transportation systems at Midway. CMI is responsible for providing food and medical services and maintaining buildings, equipment, and grounds. CMI employs approximately 45 people, who reside at Midway.

4.1.2. Current Visitor Related Facilities and Services

The Naval Air Facility accommodated 5,000 people when Midway was a military base. After Midway was designated a National Wildlife Refuge and the Service assumed management of the atoll, a “right-sizing analysis” of the facilities was conducted and recommendations were made to accommodate a maximum of 200 staff and visitors at any given time. Once approved, the Service will work toward completing the right-sizing recommendations so that Midway is economically sustainable for continued operations.

During their tenure at Midway, MPC renovated and built several buildings that can be used for a future visitor program. Many of these facilities were discussed earlier in the Market Analysis (see Section 3.1.5). The following table gives a basic description of existing structures and the state of the facilities.

Table 4-1. Current Facilities

<i>Facility</i>	<i>Description and Current Use</i>	<i>Current Needs</i>
<i>Food and Lodging Facilities</i>		
Charlie Barracks	Two-room suites with private bath Current facility in use for visitors Total rooms: 24 are ready for occupancy, 12 need more renovation	Ready for visitors Additional capacity can be added by finishing the renovations on the 12 rooms on the third floor.
Bravo Barracks	Single rooms with shared bathroom Currently used by CMI staff	Not available for visitors
Five-Bedroom Homes	Five-bedroom homes with living room, dining room, kitchen, butler’s pantry, and three bathrooms. Total homes available: 4, not currently in use	Not ready for visitors These homes could be used in the future for visitors or staff; they would need some renovations and termite treatment. These would be appropriate for service learning- visitors.

Facility	Description and Current Use	Current Needs
The Clipper House	Built by MPC, this facility has restaurant seating, a bar, and wrap-around porch for outdoor seating. Food is currently served buffet style. Seats available: Approximately 55	Ready for visitors This building is ready to serve visitors in limited numbers. If groups become large, the kitchen needs to be expanded.
Captain Brooks'	Built by MPC, this building is used as an evening gathering place. Beer, wine and soft drinks are available. There is indoor and outdoor seating. Seats available: Approximately 35	Ready for visitors
<i>Recreation Facilities</i>		
Welcome Center (Airport)	The welcome center has Navy memorabilia and a seating area with slide projector, used to welcome and provide an orientation to visitors.	Ready for visitors Located inside the airport terminal, this building will eventually be torn down and a smaller building will be constructed in its place.
Empire Café	This internet facility has three computer terminals and several laptop ports, plus a water purifier and coffee machine.	Ready for visitors
Station Theater	This large meeting room is used for lectures and to show movies. Seats available: Approximately 150	Ready for visitors Some of the seats need repair, but they are functional.
Midway Bowl	A working bowling alley, with bowling balls and shoes available for visitor use.	Ready for visitors
Ship's Store/ Gift Shop	The store sells sundries, soda, beer, wine, liquor, and non-perishable foods. T-shirts and hats are also available.	Ready for visitors If more visitors come, the merchandise should be evaluated/updated.
Beach Access	Visitors can currently use the North beach located by the Clipper House.	Ready for visitors Additional beach chairs should be made available for visitors.
Visitor Center	Attached to the Service office, the visitor center houses exhibits based on historical and ecological topics.	Ready for visitors
<i>Onsite Transportation</i>		
Bicycles	Bicycles are the main form of transportation around the atoll	Ready for visitors Most of the bikes are ready for visitors. They do undergo a lot of wear and tear because of the salt air. Suggest a plan to replace some of the bikes each year so that guests have enough working bikes.
Golf Carts	Golf carts are used as an alternative to bicycles	Ready for visitors Golf carts undergo a lot of wear and tear due to the salt air. Suggest that use be limited to those who cannot use bicycles, and establish a schedule for regular maintenance and replacement.
Boats	Two boats are in use by Service staff and a third is not in use, but was used to transport guests to Eastern Island.	Ready for use

<i>Facility</i>	<i>Description and Current Use</i>	<i>Current Needs</i>
Bus and Van	One school bus and one van are in use. The van is in good condition and is used to tour small groups around Midway and to move baggage to and from Charlie barracks. The bus does not work consistently, but is used to move larger groups.	Ready for use Make any necessary repairs and continue to maintain vehicles as needed.

4.1.3. Interpretation and Environmental Education

Interpretation and environmental education services are currently occurring on an as requested basis. Cruise ship visitors are the only groups that currently visit Midway. When cruisers visit the atoll they are guided on a tour that encompasses the history and ecology of Midway. Guests either walk or ride the bus to tour the various historical spots on the atoll. Interpretive signs are removable and are stored on the atoll by CMI. They are used during tours and then put away when the tour is over. No interpretive staff members currently live on Midway. Interpretive personnel are flown in by airplane for tours. The cost of travel and room and board for tour staff is paid by the cruise ship.

4.2. Key Logistical Constraints

4.2.1. Service and Refuge System Mandates

The Midway Atoll NWR was established for the following purposes.

- Maintaining and restoring natural biological diversity within the refuge
- Providing for the conservation and management of fish and wildlife and their habitats within the refuge
- Fulfilling the international treaty obligations for the United States with respect to fish and wildlife
- Providing opportunities for scientific research, environmental education, and compatible wildlife-dependent recreational activities
- Recognizing and maintaining the historic significance of Midway in a manner compatible with refuge purposes

In 1997, the National Wildlife Refuge System Administration Act of 1966 (PL 98-966) was amended through the National Wildlife Refuge System Improvement Act to establish an overall mission for the National Wildlife Refuge System (Refuge System), provide clear direction for planning, and to recognize that wildlife-dependent recreation activities are a priority use of the Refuge System. In addition, the presence of endangered green sea turtles, endangered Hawaiian monk seals, spinner dolphins, and other marine mammals affect recreation decisions on Midway because of their need to adhere to the Marine Mammal Protection Act of 1972 (P 92-522) and Provisions of the Endangered Species Act of 1973 (PL 93-205).

In addition, programs must fit within these six wildlife-dependent recreational uses.

1. Hunting
2. Fishing
3. Wildlife Observation
4. Photography
5. Environmental Education
6. Interpretation

Although the Refuge System as a whole has approved these six uses, the Service recognizes that in order for wildlife resources to endure, their needs must come first. Thus each refuge will allow recreational uses related to the six wildlife-dependent recreational uses if it is deemed appropriate and compatible with refuge goals.

4.2.2. Physical Facilities

The current dining facility is the Clipper House. The kitchen and food storage may need to be expanded to accommodate additional staff and guests. Many prepared and prepackaged foods are bought versus preparing foods from scratch because the facility is too small to accommodate the higher level of preparation.

The Station Theater is the largest meeting space available. It is used to show movies, and during the past visitor program it was used for lectures. The theater needs some maintenance and updating work. The chairs need to be recovered. The systems used to show movies and present lectures need to be updated to accommodate presentations from laptop computers. The audio system needs to be repaired or updated so that it works on a consistent basis.

Office/work space may need to be provided for any concessionaire that works consistently from Midway. In addition, a working classroom or teaching area should be considered for visitor programs, possibly located in the Midway Mall.

The hours for Captain Brooks', Ship's Store and Gift Shop, Midway Bowl, and Station Theater need to be expanded so that visitors will have a social opportunity every night.

Buildings that are in use are generally in good shape. These buildings need to be continually maintained until suitable replacement is determined. This refers in particular to the main visitor barracks (Charlie). There is a limit to the number of overnight visitors that Midway can host. Currently, Bravo Barracks are used for CMI employees, leaving only Charlie Barracks available for visitors. Charlie Barracks has 24 renovated rooms for guests. An additional 12 rooms can be renovated to bring the total to 36. Each room can hold one or two guests, so Midway can host anywhere between 36 to 72 guests at full capacity.

The bicycles and golf carts need a regular maintenance schedule to keep them in good repair for visitors. A consistent nametag system needs to be implemented to ensure that each visitor has a bike or golf cart throughout his/her stay.

Atoll roads need to be maintained for safe travel by foot, bicycle, or golf cart.

4.2.3. Transportation to Midway

Transportation to Midway is a key logistical constraint that could limit the visitor program. Within the short-term, the visitor program will have to be principally supported by the Gulfstream G-1 from Maritime Air Charter. Aloha Airlines was contacted regarding the logistics of flying a 737 aircraft back to Midway. Aloha indicated that they would have to pull one of their aircraft off another route to access Midway and that this was not feasible at the present time. In addition, they cited bird collisions as a major concern as well as anxiety about fixing a plane if it needed maintenance on Midway. It is conceivable that another carrier would consider flying to Midway with a larger airplane if it were subsidized or if there were other destinations the plane could fly to on the days it did not fly to Midway. Discussions with air travel professionals indicate that 737s need to be flown around 200 hours per month to be economical.

John Bone, one of the owners of the Maritime Air Charter G-1 that flies to Midway, was contacted about increasing the number of flights to Midway. Currently the G-1 that flies to Midway also flies to Christmas Island and Palmyra Atoll. Mr. Bone indicated that they could increase the number of flights to Midway easily. The costs of \$2,000 per hour, or around \$22,000 per flight, would remain unchanged if one more flight were added per week. Maritime Air Charter might consider a price break if there was a third flight per week. Mr. Bone indicated they would likely purchase another plane in the event there were more flights needed to Midway.

Currently there is one flight per week to Midway. The availability of using seats from that flight for visitors is very limited. That flight is the main way the atoll is re-supplied and there is a constant balancing act because the G-1 can only hold 4000 pounds (people and atoll supplies). A simple analysis was done to estimate how many visitors the current G-1 could bring to Midway per week. The following assumptions were used.

- G-1 only can carry 4000 lbs
- Each flight would carry enough food for each resident and visitor on Midway
- Each person requires 7 lbs per day
- Midway is restocked once per week
- There are 55 residents on Midway
- Two seats are used per week for Midway staff
- Each person and their luggage weigh 200 lbs
- 500 lbs of miscellaneous supplies are on each flight

The G-1 seats 19 passengers but under the conditions described above, the weekly flight can only accommodate 2 (1.6) extra passengers. This is a conservative estimate and assumes that air transport is the only way of restocking Midway, there are periodic barges, but it is the primary way of re-supplying Midway with perishables, such as fruits and vegetables. If one more flight is added per week that is primarily for visitors, and each flight carries enough food for each additional visitor, then it could hold 16 passengers. Under this scenario, with the two flights available for visitors and re-supplying Midway, a total of 18 visitors would be able to travel to Midway per week.

Regardless of whether a visitor program is implemented on Midway, the Service might consider commissioning a study that looks at the economic and logistical feasibility of purchasing or leasing an airplane for Midway. Currently, the Service is spending a minimum of over \$1.1 million per year on air transportation to Midway. If the Service is committed to keeping Midway open for the runway and Service related operations, including a visitor program, it might be more economical over the long-term for the Service to have its own G-1 or alternative aircraft that could be used to re-supply Midway and bring people to Midway. If an active visitor program does occur, the program could subsidize the annual costs of the Service's airplane.

4.3. Target Visitors to Midway and Visitor Marketing

Due to the mission of the Service to first and foremost provide for the health of the wildlife at Midway, any tourism to the area must be sustainable. Examination of the sustainable tourism market segment (see Section 3.3) shows ecotourism is a fit for Midway. The ecotourist desires benefits such as experiencing nature, learning about new places, and contributing to the protection of the environment when they travel. Midway can provide opportunities for visitors to obtain these benefits.

Ecotourism is the market segment that best matches Midway. This segment encompasses a very wide range of visitors. Midway is not capable of attracting all of the potential visitors that participate in ecotourism. Rather, it will attract a more specialized group of visitors – those that are looking for the unique natural and/or historical experience that Midway has to offer.

When looking at the opportunities on Midway, two main types of visitors emerge: 1) Those that are interested in water activities, the “aquatic tourist” group, and 2) those visitors interested in land activities, the “terrestrial tourist” group. These two groups are coming to Midway for different reasons. The following is a brief description of each group.

➤ Aquatic Tourists

Why They Visit Midway

This group is coming to Midway to get an experience unlike any other. They want the experience associated with completing challenging dives where they can see unique underwater reef formations and fish much larger than can be viewed near the main Hawaiian Islands, explore submerged World War II wrecks, view wildlife behavior and species not seen in other areas, and dive in a place that is truly remote.

Programs That These Visitors Would Participate in at Midway
Diving and photography

What These Visitors Want to Experience

New and different things, personal freedom, something challenging, learning about the area, developing skills and abilities, and adventure

What Midway Can Offer to These Visitors

- The experience of visiting a pristine coral reef
- Adventurous, challenging diving
- The opportunity to view animal behavior (e.g., shark feeding) and species not seen in less remote areas
- A unique visitor experience that few will have
- Diving in a small group with no other divers in the area
- Diving with big fish, such as ulua, ahi, wahoo, and tiger sharks
- Diving at unique World War II wrecks that are visited by very few people
- An understanding of refuge management since visitors will be on a small atoll and will meet the managers and see direct evidence of how they care for the resource
- An understanding of Midway's role in World War II, commercial aviation, and worldwide communication

➤ **Terrestrial Tourists**

Why They Visit Midway

This group is coming to Midway to see unique and unusual historical and natural phenomena. They want to see large groups of nesting birds up close, view rare and endangered wildlife, see World War II sites and artifacts, and experience the unique features of this remote atoll. Note: Terrestrial Tourists may engage in water-based activities while on Midway such as snorkeling, wildlife watching, or even dive trips. However, their primary focus and motivations for visiting Midway differ from those of the Aquatic Tourist.

Programs That These Visitors Would Participate in at Midway

Education tours, service learning, photography tours, cruises, wildlife watching, and workshops

What These Visitors Want to Experience

The natural scenery, solitude, relaxation, socializing with friends, learning about the area, and enjoying a place that is special

What Midway Can Offer to These Visitors

- The opportunity to view wildlife up close (birds)
- The ability to observe unique animal behavior

- The chance to be a part of the refuge by interacting with managers
- An understanding of refuge management
- An appreciation of refuge management tactics
- An understanding of Midway’s role in World War II, commercial aviation, and worldwide communication
- A unique visitor experience that few will ever have
- The opportunity to be one of a limited number of guests and residents on an atoll far from the mainland

➤ **Marketing to the Target Tourist Groups**

Marketing to specific groups will require an understanding of the experiences these visitors want from their visit to Midway. Marketing to the ecotourist is best done by organizations that cater to this type of visitor. Although the Service can market Midway to potential visitors, groups that specialize in matching visitors with destinations can enhance Service marketing efforts. The potential approaches to marketing the atoll are outlined in Table 4-2.

Table 4-2. Marketing Methods for Midway

<i>Marketing Group</i>	<i>Target Audience</i>	<i>Marketing Approach</i>
US Fish and Wildlife Service	Past Midway visitors	Service web site, direct mail, FAM tours, PR Campaign
Travel Agency/Tour Booking Company	Past and potential Midway visitors	Web, direct mail, trade shows, word of mouth
Tour Package Provider	Past and potential Midway visitors	Web, direct mail, trade shows, word of mouth Personal Selling: Providers develop relationships with specialty groups like environmental groups, museums, universities/colleges, or Elderhostel

4.4. Visitor Program Options

The market analysis research determined that Midway could cater to a small but growing segment of the sustainable alternative tourism markets, ecotourism. There is also a growing market for sustainable mass tourism where visitors are looking for “soft” ecotourism experiences. Cruises that use Midway as a destination fall within this market segment. These segments are potentially compatible with the mission, goals, and objectives of the Refuge System as stated for their six wildlife-dependent recreation uses. From this segmentation and from research of the past Midway visitor program, similar destinations, and potential service providers, eight (8) historical and wildlife dependent opportunities are suggested for a Midway visitor program.

Eight historical and wildlife dependent opportunities are suggested for a Midway visitor program.

1. Diving/Snorkeling
2. Formal Education
3. Wildlife Viewing
4. Service Learning
5. Photography
6. Workshops
7. Cruises
8. Education Tours

Figure 4-1 illustrates where the different program opportunities fit within the different visitor types. Some of the opportunities may cater to different visitors depending on the service provider and the primary focus of the opportunity.

Table 4-3 gives a quick synopsis of the program profiles. The profile includes program description, benefits to visitors, visitor characteristics, seasonality, service and facility needs, price, a feasibility assessment based on current facilities and constraints, and a discussion.

Figure 4-1. Program Opportunities and Potential Visitor Types for Midway

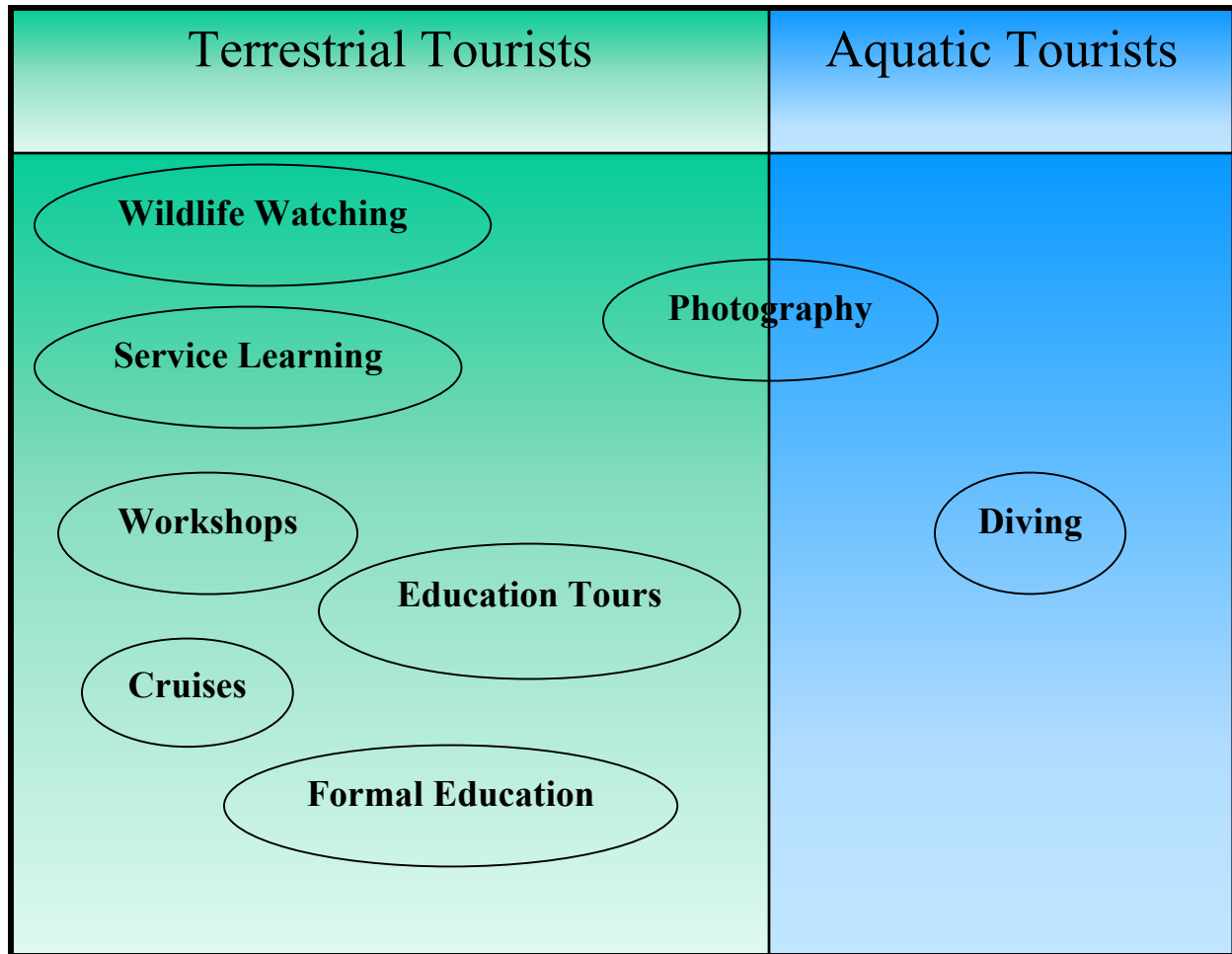


Table 4-3. Comparison of Potential Midway Programs

<i>Program</i>	<i>Benefits to Visitors</i>	<i>Visitor Characteristics</i>	<i>Seasons</i>	<i>Service and Facility Needs</i>	<i>Price</i>	<i>Can Midway Currently Accommodate?</i>
Diving/ Snorkeling	Enjoying nature, adventure	Mostly male, under 50, upper income	Summer	Air for tanks, equipment for visitors, hyperbaric chamber	\$60-450 per day	Yes, if tour provider had all equipment for visitors. May require high visitation numbers to be feasible
Formal Education	Learning, enjoy nature, meet new people	Age 18-22, most pursuing a degree in science, not much money	Summer or long winter break	Classroom or lab space, access to boats, some lab equipment	\$1,500-\$2,000 for entire course	Yes, facilities are adequate
Wildlife Watching	Enjoying nature, relaxation, learning	Over 50, middle to upper income, loyal to certain providers	All year, focus on times when wildlife viewing is best for target area	On site transportation, a tour boat, classroom or gathering place, and staff for interpretive programs	\$250-\$575 per day	Yes, as long as visitor is prepared for basic facilities
Service Learning	Learning, experiencing nature, helping others, a sense of achievement	Over 50, professionals with skills to contribute, middle to upper income, with time to travel	All year	Classroom space, access to materials needed for research	\$100-\$300 per day	Yes, facilities are adequate
Photography	Experiencing nature, learning, adventure	Upper income, middle aged to senior, and many travel alone	All year, tend to focus on times when photography of subject is best	Tour guide, meeting space	\$250-\$450 per day	Yes, as long as visitor is prepared for basic facilities
Workshops	Learning, self improvement, creative expression, improving well being, meet new people, and enjoy nature	Varies, most travel alone, middle to upper income, some will pay a premium for instruction	All year	Meeting space	Varies widely depending on instructor and what is included	Yes, small groups could easily be accommodated.

<i>Program</i>	<i>Benefits to Visitors</i>	<i>Visitor Characteristics</i>	<i>Seasons</i>	<i>Service and Facility Needs</i>	<i>Price</i>	<i>Can Midway Currently Accommodate?</i>
Cruises	Education, experiencing nature and history, adventure, meeting other people	Most cruisers are 50+, mainly travel as couples, middle to upper income	All year, but stops are dependent on weather, like to come to an area when there is something interesting to view.	Very little since visitors use cruise services and facilities Tour guides	Price varies by trip, will pay a fee to get access to target site	Yes, currently accommodating cruise groups
Education Tours	Guided educational learning	Adults 50+, moderate to above average income	Year round	Classroom space and access to refuge staff for lectures and tours.	\$280 to \$500 per day not including airfare	Yes, facilities are adequate

4.4.1. Diving/Snorkeling

➤ Description

Diving and snorkeling are popular activities to explore the underwater world. In particular, divers and snorkelers are attracted to coral reefs for underwater wildlife viewing.

A typical snorkeling trip can occur from land, by day boat, or by live-aboard boat. Boat trips usually include two or three snorkel dives, refreshments, and instruction. Snorkelers usually wear a mask with snorkel, snorkel vest, and fins. Depending on the site, some snorkelers choose to wear a wetsuit and weights. Snorkelers can typically rent this equipment from a dive center. Snorkelers may also accompany a diver on a long trip on a live-aboard boat or to a resort. Thus most resorts, dive centers, and live-aboard boats offer snorkel packages.

Divers experience the underwater world either through local day trip charters or long-haul vacations at dive resorts or live-aboard diving yachts. No matter the type of trip, most divers reach dive sites by boat. Typically, a diver will make two to three dives per day, the first dive is usually the deepest, with two more dives in progressively shallower waters. Divers are provided with light snacks and drinks aboard a day boat, or more extravagant snacks and meals aboard live-aboard yachts. Divers who frequent resorts will return to shore for meals. Equipment needed for diving includes a waterproof watch, mask, snorkel, fins, buoyancy compensator device (BCD), regulator, tank, wetsuit, weights, and belt. Some locations may also require an additional air source, such as a second regulator or a pony bottle. Equipment can typically be rented at a dive center.

➤ Benefits to Visitors

A study done by McCawley and Teaff in 1995 of Florida Keys divers indicates that the main benefits of diving are: enjoyment of underwater beauty and aesthetics, exciting adventure, exploration of historical ship and plane wrecks, leisure time with family, learning about aquatic ecology.

➤ Visitor Characteristics

A study of the American dive market by Ahmed Salih revealed that 40 percent of the potential American dive market has an annual household income of more than \$50,000. Out of the total surveyed, 77 percent are under 45 years old and 67 percent are college educated (Salih, 2000).

➤ Seasons

Diving occurs year round all over the world. Tropical regions can have longer seasons because the weather and water conditions are calmer.

➤ Service and Facility Needs

A full service dive center includes at least two staff who accompany boat trips, usually a licensed captain and a dive master/instructor who are trained in first aid and CPR. The dive center will have an air compressor to fill tanks (may include nitrox capabilities) and

rental equipment. It will also need to be in close proximity to a medical facility or have the capability to airlift a diver to a facility that has a hyperbaric chamber in case of a diving emergency.

➤ **Price**

Snorkeling day charters in Hawaii are usually priced between \$90 to \$125 dollars for a two-tank dive trip. Specialty dives, such as shark dives, are priced higher.

Live-aboard boats offer an assortment of trip lengths from 2-day/3-night packages to a week or more. Week long trips usually cost between \$2,000 and \$3,000. They do not include transportation to the boat.

Resort diving also offers a wide array of trip lengths. On a typical long-haul dive trip a diver will spend at least 7 nights. These packages are similar in price to diving from a live-aboard boat.

➤ **Feasibility Assessment**

Compatibility with Service and Refuge Goals

Although only the Service can make this determination, we believe this activity could be considered compatible.

Ability for Midway's Lodging and Dining to Accommodate this Visitor Type

Most divers would feel that the accommodations are more than adequate. Arrangements for additional snacks between meals may need to be added.

Program Needs

A 40-50' fast boat for 25 divers costing approximately \$300,000, Scuba equipment: \$20,000; Air compressor, compressor & hardware for chamber: \$40,000; Other miscellaneous equipment: \$10,000. Staff should have approved captain's license, CPR/first aid training, dive master certification, and instructor certification.

A typical dive center in the United States will have an average of 53 tanks and 37 wet suits available for rental. Other common rental needs include buoyancy compensator devices, weights, regulators and gauges, masks, fins, and snorkels.

➤ **Discussion**

This program would be feasible at Midway during the summer season (May to September) with the possibility of a short shoulder season in October. From discussion with former Midway dive master Keoki Stender, a sustainable program would need to have 30 participants per weeklong trip to recoup the initial investment costs and to make a profit. This may present a problem for Midway because there is limited space on the G-1 flights. The dive program would be competing for space with other potential visitor opportunities. If the Service wants to offer a dive facility on Midway, it may need to provide a dive concessionaire with assistance on the cost of a boat. Another viable option might be a live-aboard boat stationed at Midway for two to three months a year. The advantage would include a decrease in investment capital. The main disadvantage would

be the decreased capability to offer snorkeling to other on atoll guests. Snorkeling would be limited because a permanent dive center with capabilities to offer both diving and snorkeling would not be available.

4.4.2. Formal Education

➤ Description

Formal education programs are for-credit programs conducted by colleges or universities. A professor designs the curriculum and coordinates the activities of the program that will occur at a destination. The professor often brings lab equipment that will be needed, but will rent facilities, including lodging, meals, lab space, and boats. Students register and pay for the course through the university and the cost for the program is paid to the destination in one lump sum.

➤ Benefits to Visitors

Students are able to conduct realistic fieldwork and have an opportunity to learn hands-on skills needed for their careers.

➤ Visitor Characteristics

Students are usually between the ages of 18 and 22. Most students have completed at least one year of coursework prior to going on a trip of this nature. Many universities require the completion of a field course for a degree in science, so students usually save their money to go on the trip and spend very little while there.

➤ Seasons

Field courses usually occur during the summer months or during a long winter break.

➤ Service and Facility Needs

These programs generally need a classroom or lab space, access to boats, some lab equipment that cannot be transported by plane, and experts for lectures or tours.

➤ Price

Field courses generally range in price from \$2,000 to \$3,000; airfare is sometimes included in the price. In addition to the program price, students also pay for credit hours; prices will vary depending on the university.

➤ Feasibility Assessment

Compatibility with Service and Refuge Goals

Although only the Service can make this determination, we believe this activity could be considered compatible.

Ability for Midway's Lodging and Dining to Accommodate this Visitor Type

The lodging and dining facilities are adequate.

Program Needs

Lab or classroom space, access to boats, access to NWR staff for lectures and tours.

➤ **Discussion**

The University of Hawaii has already brought student groups to Midway. This is an ideal environment for students to study biology, ecology, marine science, and other topics using Midway as a backdrop for study in liberal arts. Since the university handles registration there is minimal coordination for Midway. Due to the success of past programs and continued interest for study at Midway, formal education is recommended as a program for Midway

4.4.3. Wildlife Watching

➤ **Description**

Wildlife watchers are interested in programs that let them view nature up close. Wildlife watching experiences can include grizzly bears, whales, or wildlife safaris. Participants may view animals from a safari jeep, tree stand, kayak, charter boat, walking trail, horseback, or helicopter/plane. Many participants are photographers and enjoy searching for animals so that they can get natural photos. Wildlife watchers may either travel via plane or cruise to their destination.

➤ **Benefits to Visitors**

The main benefits for wildlife watchers are relaxation, reflection in a natural environment, and environmental education. In some cases, trips that involve a physical activity, such as hiking, rock climbing, or dangerous animals may be considered adventurous.

➤ **Visitor Characteristics**

Most wildlife watchers are middle to upper income, they are middle aged to senior citizens (50+), and they often travel as couples as part of a tour group. If they enjoy their tour they are loyal to the operator and book other trips with them.

➤ **Seasons**

Wildlife watching can occur year round.

➤ **Service and Facility Needs**

Depending on the types of activities, groups may need transportation (i.e., bus, golf carts, or bicycles), a tour boat, classroom or gathering place, and knowledgeable staff to guide and interpret.

➤ **Price**

Trip lengths and prices range from 1 week to several weeks and prices range from \$2,000 to \$8,000. Programs with basic accommodations are at the lower end of this rate.

➤ **Feasibility Assessment**

Compatibility with Service and Refuge Goals

Although only the Service can make this determination, we believe this activity could be considered Compatible.

Ability for Midway's Lodging and Dining to Accommodate this Visitor Type

Midway accommodates visitors who are interested in more modest, but comfortable lodging and buffet style meals.

Program Needs

Initial needs would include launching a marketing plan, buying needed equipment such as binoculars and field guides; staff would need resource training (knowledge of Midway); and agreements to lease/use space and equipment, such as vehicles or boats.

➤ **Discussion**

This was a successful program during the past visitor program. Oceanic Society President Birgit Winning said that Midway offers a spectacular experience, and with interpretation of the resource, visitors favorably rated their Midway experience. Ms. Winning mentioned that there was an initial barrier for programs at Midway because the public needed information about what they would experience at Midway. Since the previous program ended, Ms. Winning stated that visitors might be hesitant to book well in advance because of the fear that Midway may close again.

As in the past, wildlife program concessionaires should work closely with the Service so that they understand all laws and regulations governing the refuge. When designing programs they should keep these in mind. With guidance from the Service, wildlife watching programs are recommended as a program opportunity at Midway

4.4.4. Service Learning

➤ **Description**

Service learning involves working with a company that matches clients with research opportunities. Often the research opportunity is part of an ongoing project conducted by a university or agency research staff. Clients are under the supervision of research staff and participate in projects ranging from trail maintenance and exotic plant removal to marine mammal and reef research.

➤ **Benefits to Visitors**

Benefits to service learning visitors include learning, experiencing nature, helping others, and a sense of achievement.

➤ **Visitor Characteristics**

These visitors are often professionals who want to get away from their day to day lives and do something either very different from what they normally do or apply their skills to a project that helps in some way. Many of the visitors are older professionals who have the time and ability to travel to remote locations.

➤ **Seasons**

Service learning can occur year around.

➤ **Service and Facility Needs**

Accommodations range from luxury to primitive and trips last from a few days to a few months. Some service-learning clients stay in tents in a group situation where everyone takes turns cooking and cleaning. Other trips may utilize research facilities and services on site. Some service-learning programs use more luxurious accommodations and may base themselves on a luxury ship near the research site. Learning-research programs generally use the services and facilities at the site from which they are working.

➤ **Price**

Cost for programs vary depending on the accommodations. Prices range from \$100 per day to over \$300 per day.

➤ **Feasibility Assessment**

Compatibility with Service and Refuge Goals

Although only the Service can make this determination, we believe this activity could be considered compatible.

Ability for Midway's Lodging and Dining to Accommodate this Visitor Type

Midway's current lodging and dining facilities can accommodate service-learning visitors. Since these programs often require little in the way of luxury, the barracks and dining hall on Midway are suitable.

Program Needs

In order to run a service-learning program, Midway would need very little in the way of additional accommodations. The Service would need to ensure that enough food is available for the duration of the visit and that rooms are available. There should be a designated area to assemble data, provide instruction, and offer workspace in times of inclement weather or for night meetings.

In order to conduct a learning-research program on Midway, a research or restoration project needs to be available for visitors to work on. This requires an onsite researcher or project supervisor, or a partnership with a university to conduct research at Midway. It also requires that participants have the opportunity for hands-on work with the researcher or project supervisor. Projects and research can contribute to the health or understanding of Midway, or to a larger body of knowledge about elements of atoll ecosystems.

Research done through these programs should not be completed in place of Service sanctioned research. Since the validity of research done by volunteers is often questioned, it is suggested that projects be exploratory in nature and provide information that could be used for future Service sanctioned research.

➤ **Discussion**

Service learning is recommended as a potential visitor opportunity at Midway. Service learning gives visitors the opportunity to get close to the Midway ecosystem while assisting with restoration projects or research. The challenge will be to find projects that many groups of visitors can do over a period of time. Since outside researchers are used,

Service staff will need to work with the researchers to make sure the project is not creating unacceptable impacts to the area.

4.4.5. Photography

➤ Description

Photography programs offer visitors the chance to view wildlife and learn at the same time. These trips are often with well-known photographers who take small (less than 10) groups to unique places for photo opportunities. Photography programs also include larger groups that travel to a site (destination photography) and photograph wildlife and cultural elements on their own without instruction. These tour groups generally consist of experienced photographers who pay to have the opportunity to view and photograph unique places.

➤ Benefits to Visitors

Benefits to photographers include experiencing nature, learning, and adventure.

➤ Visitor Characteristics

Photography tour clients are generally upper income, middle aged to senior, and many travel alone. Often clients travel with the same tourism provider over and over.

➤ Seasons

Photography programs take place all year. They target areas when desired features are most prominent; for example, when the greatest amount or most unique wildlife is present.

➤ Service and Facility Needs

Many of these photography trips to remote areas use a ship for transportation and lodging. Others use onsite lodging and dining. Sometimes guides from the destination site are used to show visitors around.

➤ Price

Around \$250 to \$450 per day for lodging, food, and guides

➤ Feasibility Assessment

Compatibility with Service and Refuge Goals

Although only the Service can make this determination, we believe this activity could be considered compatible

Ability for Midway's Lodging and Dining to Accommodate this Visitor Type

Midway's lodging and dining facilities can accommodate photography tours. Some tour operators, however, may feel their clients require more luxurious accommodations than Midway can provide.

Program Needs

In order to run photography programs from Midway, the Service would have to establish a couple things with tourism providers. First, wildlife viewing/photographing parameters

need to be established with the tourism provider prior to tours arriving (i.e., where wildlife can be viewed, how close visitors can get, and when and where viewing is best). Second, whether or not a classroom will be needed for instruction and/or in case of bad weather.

➤ **Discussion**

Photography programs are a recommended match for Midway. These programs have been successful in the past and the small intimate groups that typify this type of tourism lend themselves well to providing a high quality visitor experience with low impacts to the resource. If the Service wants to limit photography tourism providers to one or two businesses, they will probably need to work with companies that offer destination photography as opposed to photography courses with well-known artists, which may occur only annually or bi-annually.

Prior to the beginning of any photography program, the Service will need to work with tourism providers to ensure their care and compliance with wildlife viewing guidelines in order to minimize impacts to the wildlife. If the Service wishes to highlight historical aspects of Midway, they will need to provide more accessible artifacts from World War II for visitors to photograph and more information about the existing historic features on Midway.

4.4.6. Workshops

➤ **Description**

Workshops are adult, non-credit structured teaching at a featured site. Some examples are writing and artist workshops. Participants in workshops pay for a chance to “get away” and learn in an intimate setting with a teacher. Often these workshops are held in exotic or remote locations with unique features (natural, cultural) in order to stimulate the creativity of the group. Groups are small and participants are attracted to the workshop by the instructor as well as the uniqueness of the location.

➤ **Benefits to Visitors**

Benefits to workshop visitors include learning, self improvement, creative expression, improving well being, meeting new people, and enjoying nature

➤ **Visitor Characteristics**

Workshop visitors vary. Most are middle to upper income and travel to the workshop alone. They are looking for an intensive learning experience in a unique setting. Many will pay premium prices for their experience.

➤ **Seasons**

Workshops can occur year around. Seasons where weather is best and wildlife viewing is good (if wildlife is a focus of the workshop) are preferred.

➤ **Service and Facility Needs**

Workshops require a good teaching space. Food and lodging are often not included in the workshop cost – only instruction is covered. Many workshop coordinators suggest locations for lodging and food for their clients.

➤ **Price**

Varies widely depending on instructor, location, duration, and what is included.

➤ **Feasibility Assessment**

Compatibility with Service and Refuge Goals

Although only the Service can make this determination, we believe this activity could be considered compatible.

Ability for Midway's Lodging and Dining to Accommodate this Visitor Type

Midway can provide for the needs of workshop participants. Since the groups are usually small, Midway can accommodate their needs with ease. If workshops are to be held, expectations for lodging and dining should be determined ahead of time so that the limitations of Midway's lodging and dining facilities are understood (i.e., this is not a luxury resort).

Program Needs

A workshop on Midway would require a good teaching area – probably an indoor as well as an outdoor area. Besides lodging, food, and an area for instruction, workshops require little else. Due to the intensity of instruction at these events, Service staff would only have to coordinate a few, if any, area tours and site seeing events for participants.

➤ **Conclusions**

Workshops on Midway are a feasible option. Since workshops are specialized trips, they would probably not occur with as much regularity as wildlife or scuba tours. Workshop leaders would most likely require access to a separate place used only by their group during their stay on Midway. Although this should not be difficult, this accommodation should be a consideration if several groups visit Midway at one time and if classroom (indoors and out) space is limited. Workshops will be drawn to Midway because of the area's remoteness and unique beauty. Travel expenses to Midway may limit the workshops that take place there, so this may not be as much of a consistent use as other programs.

4.4.7. Cruises

➤ **Description**

Cruises are a specialty program offered by lines around the world. A cruise ship will offer themed tours that can last for a week to a few months. World War II historical tours often stop at different battle sites. Guests disembark at the port for a day or two and are led on guided tours. Wildlife cruises may be geared to visiting a destination in search of certain animals, such as whales, dolphins, birds, or sharks. Guests may disembark at ports and take guided tours. All tours are based from a ship that provides comfortable accommodations, food, and some activities.

➤ **Benefits to Visitors**

The main benefit for historical cruisers is to experience the historical significance of past events in person.

➤ **Visitor Characteristics**

Most cruisers are 50+ years in age. They mainly travel as couples, and tend to spend some money on souvenirs. Their income is middle to upper middle class and they enjoy cruises because of the convenience of visiting multiple ports without packing and unpacking their suitcases.

➤ **Seasons**

Cruises occur year round.

➤ **Service and Facility Needs**

Cruise ships contract with local interpretive guides to lead tours at each port. Most tours involve transportation by bus to a location for a walking tour or adventure activity, such as hiking or snorkeling. Most tour operators offer souvenirs for purchase.

➤ **Price**

The price is negotiated with the operator prior to the trip and costs are passed on to the cruise ship guests who register for tours when they board the ship.

➤ **Feasibility Assessment**

Compatibility with Service and Refuge goals

Although only the Service can make this determination, we believe this activity could be considered compatible.

Ability for Midway's Lodging and Dining to Accommodate this Visitor Type

Not applicable

Program Needs

The main need for this program is the availability of staff at Midway to provide tours.

➤ **Discussion**

This program is recommended as a potential program opportunity because the group does not require an overnight stay or meals. The number of passengers disembarking from the cruise ships should be monitored for the impact that they create upon wildlife and resources. Midway may need to determine a maximum number of passengers that can be accommodated at one time. If a visitor program resumes, it is recommended that a plan be put in place that monitors interactions between on-atoll guests and cruise guests, and to ensure that all cruisers return to the ship at the end of the tour.

Another consideration for offering opportunities for cruises is the potential overall environmental impacts of cruises. The Service should have strict guidelines for which cruises can come to Midway and may need to identify which cruise lines have adequate environmental records.

4.4.8. Education Tours

➤ Description

Education tours are programs that are a completely guided experience. The program focuses on a specific topic of interest to the visitor. In some cases, a program may feature a well-known expert, such as ornithologist David Allen Sibley, to attract a specific audience (in this case birders) or it may be led by an organization that uses guides with specialized knowledge to teach the program topic. Each day the group is guided through various activities, lectures, and discussions that will give them an in-depth view of the topic. Programs can focus on nature and/or history. These non-credit programs are geared toward adult learners, but can also include other age groups.

➤ Benefits to Visitors

Participants gain valuable knowledge about nature, conservation, or history. Many want to continue to learn after they have finished school, or to learn through a hands-on experience, and these programs represent an interesting way to learn.

➤ Visitor Characteristics

Adult learners, ages 50+, moderate to above average income, high school groups and some university groups also participate.

➤ Seasons

These courses could be offered year round.

➤ Service and Facility Needs

These programs generally need a classroom space and access to instructors for lectures or tours.

➤ Price

Courses generally range in price from \$280 to \$500 per day not including airfare. Students usually pay an all-inclusive price for their tour.

➤ Feasibility Assessment

Compatibility with Service and Refuge Goals

Although only the Service can make this determination, we believe this activity could be considered compatible.

Ability for Midway's Lodging and Dining to Accommodate this Visitor Type

The lodging and dining facilities are adequate.

Program Needs

Classroom space, access to boats, access to Service staff for lectures and tours.

➤ Discussion

Education tours are recommended as a potential visitor opportunity at Midway. Education tours give visitors the opportunity to visit Midway and have a completely guided education experience. Education tours have great flexibility in programming

options. Tours can be general, for example, the Oceanic Society's Natural and Maritime History tour presented an overall understanding of the history and wildlife refuge. Tours may be specialized; an expert can be brought in to focus on a single topic, such as albatross behavior or naval history. The challenge will be to create innovative programs and attract well-known experts for special sessions through out the year.

4.5. Potential Visitor Program Options

Based on the constraints associated with Midway and information found on other destinations and providers, three program options are suggested. These options approach the management of visitor services on Midway in several ways. All three are within the mission and goals of the management of Midway. The following assumptions apply for each option.

1. These options are for the time period through year 2010.
2. A contractor will continue to run the airfield and facilities on the atoll. The contractor will provide lodging and dining services.
 - During the data collection period, Chugach McKinley, Inc. (CMI) Atoll Manager John Hannah indicated that under the current month-to-month contract there is opportunity to hire additional staff that could accommodate additional atoll guests if needed. If a long-term contract is pursued with CMI or another similar contractor for facility management services, this contract would be negotiated at a fixed cost that would come from the general operating expenses of the refuge and a visitor program would not incur additional cost due to increased facilities management contractor staff.
3. Based on data collection, additional Service biological staff is not currently needed to manage any negative impacts on the ecosystem.
 - There is existing infrastructure (i.e., roads) that guests and staff members use to travel around the atoll.
 - All visitor activities to be operated on Midway will be reviewed under the National Wildlife Refuge System's compatibility process. The resulting compatibility determinations outline specific stipulations that ensure the proposed activity will be compatible with the mission of the Refuge System and the purposes of the refuge. The refuge visitor services staff will be responsible for ensuring these stipulations are enforced. Existing refuge management and biological staff will work with the visitor services staff to monitor the visitor program and, if necessary, modify uses to protect and conserve the refuge's natural and historical resources.

These program options are recommendations for Midway with the current facilities available and current key logistical constraints discussed in Section 4.1.2 and 4.2 respectively. Table 4-4 provides a summary of the three program options. Following the table is a detailed discussion.

Table 4-4. Potential Visitor Program Options

<i>Management Option*</i>	<i>Service Visitor Program Responsibilities</i>	<i>Concessionaire Responsibilities</i>	<i>Additional Service Staff Needed</i>	<i>Advantages</i>	<i>Disadvantages</i>
Option 1: Visitor Program Run by the Service	Facility and airplane scheduling Marketing, and payment collection, registration Design and implementation of entire program	Not Applicable	1 Recreation Planner/Coordinator (GS 11 or 12) 1 Communications Coordinator (GS 11 or 12) 1 Communications Specialist (GS 7 or 9) 3 Interpreters (GS 5 or 6)	Tighter control of visitor program. Ensuring minimum impact to Midway and its wildlife Better quality delivery of Midway’s history and wildlife mission, goals, and objectives	Labor Intensive. Higher capital expenditures and program expenses, including safety, insurance, and marketing. Marketing is not a Service core competency
Option 2: A Service Coordinator Works with 1 Concessionaire.	Facility and airplane scheduling Design and implementation of Service orientation program, Service led wildlife and history tours	Marketing and registration, payment collection. Accommodate airplane travel and fee-based requests for Midway Program design and implementation	1 Recreation Planner/Coordinator (GS 11 or 12) 1 Assistant Recreation Planner (GS 7 or 9) 2 Interpreters, seasonal as needed (GS 5 or 6)	Less Labor intensive, lower administrative and coordination duties Staff is able to devote time to special tours and improving exhibits Lower capital expenditures, no responsibility for marketing	Less quality control over visitor program and the messages that visitors receive and less contact with Service staff No guarantee that concessionaires will attract participants May not be a wide variety of programs
Option 3: A Service Coordinator Works with Multiple Concessionaires.	Facility scheduling Design and implementation of a Service orientation program Service-led wildlife and history tours Air charter coordination	Marketing and registration, payment collection Arrange for air travel charter to Midway Coordinate fee-based requests for Midway Program design and implementation	1 Recreation Planner/Coordinator (GS 11 or 12) 1 Assistant Recreation Planner (GS 7 or 9) 2 Interpreters, seasonal as needed (GS 5 or 6)	A higher quality program and targeted marketing effort Less administrative work and capital expenses for the Service Wider variety of programs offered, program grows faster	Lower quality control over the messages that visitors receive and less contact with Service staff No guarantee that concessionaires will attract participants Higher level of coordination for the Service

* All options assume that the contractor runs the facilities and operations for the atoll and are not the responsibility of a potential concessionaire.

4.5.1. Option 1: Visitor Program Run by the Service

➤ Service Visitor Program Responsibilities

This option assumes the Service will operate the entire visitor program. The responsibilities include the following.

- Coordination of the facility and airplane use for guest, staff, and supplies.
- Business operations, including marketing, program registration, and program fees collection.
- Program design and implementation, including guest services, education programs, tours, and evening programs.

➤ Additional Service Staff Needed

It is recommended that the following staff be hired in order to conduct a visitor program on Midway. These staff are in addition to those currently working on Midway. Their titles and responsibilities follow.

- Recreation Planner/Coordinator (1): This staff person will be based on Midway with regularly scheduled travel to Oahu. Responsibilities would include coordination of guest services, supervision of interpretation staff, oversight of the design of all programming, and coordination efforts with on-atoll facilities contractor. The suggested level is GS 11 or 12.
- Communications Coordinator (1): This staff person will be based on Oahu, and will travel to promote visitation to Midway. Responsibilities include marketing, public relations, supervising the Communications Specialist, overseeing the handling of reservation and coordinating guest information with the Recreation Planner/Coordinator. The suggested level is GS 11 or 12.
- Communications Specialist (1): This staff person will be based on Oahu. Responsibilities include answering potential visitor inquiries, taking reservations and payments, assisting the Communications Coordinator with marketing, compiling visitor information for the Recreation Planner/Coordinator. The suggested level is GS 7 or 9.
- Interpreters (3): These staff members would be based on Midway. Their primary responsibilities will be to design programs, instruct and guide visitor programs, assist the Recreation Planner/Coordinator with guest services and program needs as directed. The suggested level for these staff members would be GS 7 or 9.

➤ Advantages

The main advantage this option offers is quality control. With the Service running the entire operation they will have tighter control of the program. This will assure that there is minimum impact to Midway and its wildlife. Service staff members have intimate knowledge of Midway's history and wildlife resources, so by controlling the program they will ensure that there is a high quality program that delivers the Service's missions, goals, and objectives.

➤ **Disadvantages**

The main disadvantage of this option is increased expense. This option is labor intensive, it will incur additional higher capital expenditures for the program, safety, insurance, and marketing. It may not be feasible to add this great an increase to the existing budget.

In addition, the Service's core competencies relate to wildlife ecology and management and not marketing and tourism. The Service would be responsible for bringing all visitors and entertaining them while on Midway. It may not be advantageous for the Service to perform these duties.

4.5.2. Option 2: A Service Coordinator Works with One (1) Concessionaire

➤ **Service Visitor Program Responsibilities**

This option assumes the Service will coordinate with one Concessionaire that will provide the visitor program. The responsibilities include the following.

- Coordination of the facility and airplane use for guest, staff, and supplies.
- Work closely with the concessionaire and on-atoll facilities contractor to ensure that the visitor program has all the requested equipment and services needed.
- Program design and implementation of Service tours on Sand Island and Eastern Island.
- Work with the concessionaire to determine compatible activities that can be implemented at Midway.
- Approval of all marketing and public relations information.

➤ **Concessionaire Responsibilities**

The concessionaire will operate the visitor program. They will be responsible for the following tasks.

- Marketing and public relations that will attract potential visitors. The Service must approve all marketing messages and public relations information.
- Provide advance travel request and fee based services and equipment requests (i.e., boats, classroom, bikes, carts etc.) to Service Recreation Planner/Coordinator so that services are available upon arrival.
- Program design and implementation. Work with the Service to determine compatibility.
- Registration and payment collection of all visitors. Pay the Service's service and access fees on a schedule per the negotiated agreement.

➤ **Additional Service Staff Needed**

The staff needed here represents additional staff needed above the current level. Their responsibilities will include the following.

- Recreation Planner/Coordinator (1): This staff person will be based on Midway with regularly scheduled travel to Oahu. Responsibilities would include

coordination of guest services, supervision of interpretation staff, oversight of the design of all programming, and coordination efforts with on-atoll facilities contractor. The suggested level is GS 11 or 12.

- Assistant Recreation Planner (1): This staff person will be based on Midway and coordinates guest services, maintains open communications with facilities contractor and concessionaires, oversees interpreters, and assists Recreation Planner/Coordinator with any needs. The suggested level for these staff members is GS 7 or 9.
- Seasonal Interpreters, as needed (1 or 2): These staff members will be based on Midway. Their primary responsibilities will be to design tours and exhibits, instruct and guide visitor programs as requested by the concessionaire, assist the Recreation Planner/Coordinator with guest services and program needs as directed. In slower seasons there should be one staff member and an additional interpreter during peak times, such as the summer season. The suggested level for these staff members would be GS 5 or 6.

➤ **Advantages**

The clear advantage to having one concessionaire is that coordination activities are less labor intensive, and the responsibility for marketing and program planning falls on the concessionaire. Service staff can devote time to improving visitor interpretive offerings and facilities, such as signage and exhibits. The Service will have lower capital expenditures, particularly marketing expenses.

➤ **Disadvantages**

Disadvantages include less quality control over visitor programs and the messages that visitors receive because they will have less contact with Service staff that are most familiar with Midway.

Contracting with only one concessionaire may decrease the variety of programs. A single concessionaire may only be able to provide a limited number of visitor opportunities for the potential market segments (see Section 3.3). Thus there would be no guarantee that the concessionaire could attract and sustain enough visitors to maintain and grow a visitor program. During a search for a concessionaire it will be important to determine the types of programs that they can offer and determine if they are compatible with Midway's purpose and goals.

4.5.3. Option 3: A Service Coordinator Works with Multiple Specialty Concessionaires

➤ **Service Visitor Program Responsibilities**

This option assumes the Service will coordinate with multiple specialty concessionaires that will each provide specialty programs that appeal to the potential market segments (see Section 3.3). The responsibilities include the following.

- Coordination of the facility for guest, staff, and supplies.
- Communicate schedule of arriving planes to on-atoll facilities contractor.

- Work closely with each concessionaire and the on-atoll facilities contractor to ensure that the visitor program has all the requested equipment and services needed.
- Program design and implementation of Service tours on Sand Island and Eastern Island.
- Work with each concessionaire to determine compatible activities that can be implemented at Midway.
- Approval of all marketing and public relations information for each concessionaire.
- Air charter coordination so that at times two groups can share one aircraft (i.e., the Service can notify concessionaires of other groups interested in flights during the same time period).

➤ **Concessionaire Responsibilities**

Each concessionaire will operate a segment of the visitor program. They will each be responsible for the following tasks.

- Marketing and public relations that will attract potential visitors. The Service must approve all marketing messages and public relations information.
- Provide advance fee based services and equipment requests (i.e., boats, classroom, bikes, carts etc.) to Service Recreation Planner/Coordinator so that arrangements for services and visitors are available upon arrival.
- Make charter air travel arrangements for their visitors, notify the Service and the on-atoll facilities contractor of scheduled flights.
- Program design and implementation. Work with the Service to determine compatibility.
- Registration and payment collection of their visitors. Pay the Service's access and service fees on a schedule per the negotiated agreement.

➤ **Additional Service Staff Needed**

The staff represents additional staff needed above the current level. Their responsibilities will include the following.

- Recreation Planner/Coordinator (1): This staff person will be based on Midway with regularly scheduled travel to Oahu. Responsibilities would include coordination of guest services, supervision of interpretation staff, oversight of the design of all programming, and coordination efforts with on-atoll facilities contractor. The suggested level is GS 11 or 12.
- Assistant Recreation Planner (1): This staff person will be based on Midway and coordinates guest services, maintains open communications with facilities contractor and concessionaires, oversees interpreters, and assists Recreation Planner/Coordinator with any needs. The suggested level for these staff members is GS 7 or 9.

- Seasonal Interpreters, as needed (1 or 2): These staff members will be based on Midway. Their primary responsibilities will be to design tours and exhibits, instruct and guide visitor programs as requested by the concessionaire, assist the Recreation Planner/Coordinator with guest services and program needs as directed. In slower seasons there may only be a need for one interpreter. The suggested level for these staff members would be GS 5 or 6.

➤ **Advantages**

Similar to option two, a clear advantage to having multiple specialty concessionaires is that there is less administrative expense because the responsibility for marketing and program planning falls with each concessionaire. Service staff can devote time to improving visitor interpretive programs and facilities, such as signage and exhibits. The Service will have lower capital expenditures, particularly marketing expenses.

Multiple specialty concessionaires have strong core business competencies that are focused on one specialty program. Thus having multiple specialty concessionaires may increase the quality of each program and provide a wider variety of programs at Midway. The uncertainty of low program attendance is lessened because each concessionaire has expertise in attracting potential visitors to their program and is concentrating their marketing efforts in their core business market. This enables the visitor program to encompass all potential market segments (see Section 3.3). Using the multiple concessionaire option may increase the rate at which the overall visitor program can grow.

Potential concessionaires for this model might lead similar programs at various destinations all over the world. For example, a tour operator may focus on photography and offer photography tours to many destinations. Midway would be an additional destination on their menu of options. The advantage to working with this type of concessionaire would be that they can select weeks that they know they can fill with visitors and as awareness builds they can add more program weeks. Thus increasing visitor capacity.

➤ **Disadvantages**

Similar to option two, the Service will have less quality control over the visitor programs and the messages that visitors receive because visitors will have less contact with Service staff that are most familiar with Midway. Although air travel arrangements are the responsibility of each concessionaire, a more complex level of program coordination will be required of the Service Recreation Planner/Coordinator because there are multiple concessionaires.

Potential concessionaires may feel that the opportunity and return on investment are limited because the use of multiple concessionaires will divide the visitor program into smaller pieces, thus it might not be attractive to some service providers.

There is a chance that a specialty concessionaire will not meet its goals in attracting potential visitors, but the uncertainty of low attendance is lessened because there are multiple concessionaires promoting visitation to Midway.

4.6. Economic Analysis

Midway Visitor Program Economic Models

One of the stated goals for a visitor program on Midway is for it to be “economically sustainable.” For this analysis, an economically sustainable visitor program would have the following characteristics.

- The visitor program would pay for itself. Its revenues would cover all direct expenses and costs associated with the program.
- The visitor program would generate a net income over time that could be used to upgrade the visitor related facilities on Midway.

The economic models (pro forma income statements) that have been prepared identify and estimate the major revenues and costs associated with a visitor program. The major assumptions for the models are the following.

1. The current lodging and dining facilities are adequate and no significant investments are needed to expand them in the next five years. The 12 un-renovated rooms in Charlie Barracks can be easily renovated for visitor use so that a total of 36 double occupancy rooms are available.
2. There will be enough G-1 flights available to meet the demand for the number of visitors coming to Midway.
3. The G-1 flights for the visitor program would be in addition to the number of flights currently used by the Service to re-supply Midway and each visitor G-1 flight would carry enough supplies/food for the visitors during their stay.

The current annual operating budget for Midway is approximately \$8.6 million dollars. The current contract with CMI is for very limited operations (VLO) to support 55 atoll residents. The expenses associated with the current contract do not reflect any visitor program costs, therefore the visitor related expenses used for economic models were based on past visitor related expenses. Projections of visitation, income, and expenses for a visitor program at Midway were developed based on the existing lodging capacity, together with information on average visitor related expenses incurred per visitor by Midway Phoenix Corporation (MPC) for 1999-2000. The lodging capacity at Midway is currently 36 double occupancy rooms or 72 persons.

The projections in the table below show the effect of variation in visitation and lodging at 10%, 25%, 50%, 75% and 90% occupancy. Assuming an average length of stay is 7 days, the total visitor numbers ranged from of 375 to 3,378 (Table 4-5). The number of G-1 aircraft flights necessary was calculated assuming 75% occupancy (of 19 seats). Expenses for costs of sales were estimated based on MPC average expenses per visitor for 1999-2000, while contractor staff, general atoll support, and other expenses were estimated at 50% of MPC average expenses per visitor (Table 4-6). Those costs were

adjusted to today's dollars using Gross Domestic Product Implicit Price Deflator for the model. The costs for additional Service staff were estimated from Option 3. The annualized expenses for a new concession boat (\$300,000) and new carts (\$4,000 ea) and bikes (\$100 ea) were estimated as an annual depreciation (straight line method) and interest on capital at 5% APR.

For the expected case of a 50% lodging occupancy rate, there would be 1,877 visitors annually and 13,140 visitor days with total visitor program revenues of \$6.3 million (Mn), total expenses of \$5.5 Mn, and net income of \$833 thousand (K). Under optimistic conditions, at 75% and 90% lodging occupancy, visitor program net income would rise to \$1.4 and \$1.7 Mn respectively. Because there are very few fixed costs, the visitor program appears to generate a positive cash flow even at 25% occupancy levels. At the 10% occupancy levels, net income would be negative \$33 K. The breakeven occupancy rate for the model is around 11.6%.

For the models, the per day meal charge was increased to \$55 from \$32 (current published Midway rate), because it was assumed the per person food expense was \$15 plus the transportation cost associated with each pound of food a person eats per day, which is around \$39 per day. Alternatively, if the per day meal charge was deemed to be too high, the Service could charge more for lodging or increase the Midway Atoll NWR Daily Use Fee. The Daily Use Fee was estimated at \$55. This fee was calculated to cover the additional expenses generated by the visitor program except for the transportation costs.

The model shows that a visitor program could be profitable and generate net income for Midway even at low occupancy rates. These projections may be conservative because they assume that 50% of the overall Midway operation expenses on a per visitor basis in 1999-2000 (classified as "Indirect Visitor Program Expenses") would be attributed to the visitor program. That equates to \$863 of *revenue* per visitor per seven-day stay that would be contributed to the overall Midway general operations. Thus the amount of revenue available for overall Midway operations at the 10%, 50%, and 90% occupancy rate would be \$322 K, \$1.6 Mn, and \$2.9 Mn respectively. In addition, although the 10% occupancy level shows negative net income (-\$33 K), the visitor program would still be contributing \$290 K of revenue to the overall Midway operations. This illustrates that the model does take into account the overall operating expenses of running Midway and shows that the visitor program, under the assumptions of the model, would not be an economic drain on the overall Midway operations. If the model changed the 50% assumption for overall Midway operation expenses to 25%, the overall *revenue* per visitor would be \$431 per seven-day stay. This would decrease the revenue for overall Midway operation expenses but increase the net income for the visitor program and would create positive net income at the 10% occupancy level.

The models can also be used as different scenarios to assess how increasing visitation rates over a five-year period might affect cumulative net income. For example, if in Year 1, only 10% visitation was expected and the rates were going to increase to 90% by the fifth year, the cumulative net income would be almost \$4.2 Mn. Alternatively, if the

occupancy rates peaked out at 50% annually in the third year, the overall five year net income would be almost \$2.8 Mn.

The models also can be applied if the Service wants to offer only a seasonal visitor program. The 10% occupancy rate could be applied if a visitor program was offered for only 26 weeks (April-September). The 25% model would apply to a year round program with 14 extra flights during the spring and summer season.

A visitor to Midway would be charged \$220 to \$235 per day by the Service (depending on whether they used a bike or cart), not including airfare. This would cover full room and board. The revenues would cover all the direct costs associated with the visitor program and would contribute to overall running of Midway. Assuming outside concessionaires or providers would bring the visitors to Midway, they would add additional charges for their services that might be \$100 to \$200 per day. Even with the additional costs, the costs per day are within the typical cost range of \$200 to \$400 per day (see Table 3-6).

Table 4-5. Midway Pro Forma Visitor Program Income and Expenses in Relation to Lodging Occupancy*

Average Occupancy Rate of Lodging	10%	25%	50%	75%	90%	(Break-even) 11.585%
Number Visitors Annually	375	939	1,877	2,816	3,379	435
Number of Visitor Days per Year	2,628	6,570	13,140	19,710	23,652	3,044
Visitor Program Revenues	\$1,259,472	\$3,163,280	\$6,284,960	\$9,427,440	\$11,285,448	\$1,477,747
Lodging (\$100 per person per night)	\$262,800	\$657,000	\$1,314,000	\$1,971,000	\$2,365,200	\$304,441
Food Service (\$55 per day per person)	\$144,540	\$361,350	\$722,700	\$1,084,050	\$1,300,860	\$167,442
Tavern Sales (\$4 per day per person)	\$10,512	\$26,280	\$52,560	\$78,840	\$94,608	\$12,178
Atoll Fee (\$55/day)	\$144,540	\$361,350	\$722,700	\$1,084,050	\$1,300,860	\$167,442
G1 Air Fare	\$650,000	\$1,650,000	\$3,300,000	\$4,950,000	\$5,925,000	\$775,000
Bike Revenue (\$5 per day per person- 75% Use Bikes)	\$9,855	\$24,638	\$49,275	\$73,913	\$88,695	\$11,417
Cart Revenue (\$25 per day per person- 25% Use Carts)	\$16,425	\$41,063	\$82,125	\$123,188	\$147,825	\$19,028
Concessionaire Boat Rental (\$400 per day)	\$20,800	\$41,600	\$41,600	\$62,400	\$62,400	\$20,800
Direct Visitor Program Expenses	\$968,930	\$2,049,038	\$3,832,267	\$5,615,638	\$6,670,604	\$1,102,452
Cost of Sales (MPC avg. rate/visitor, 99-00)	\$53,263	\$133,371	\$266,600	\$399,972	\$479,938	\$61,785
Visitor Program Manager (GS 11) salary, benefits, training	\$91,390.56	\$91,390.56	\$91,390.56	\$91,390.56	\$91,390.56	\$91,390.56
Visitor Program Assistant (GS 8), salary, benefits, training	\$61,751.15	\$61,751.15	\$61,751.15	\$61,751.15	\$61,751.15	\$61,751.15
Interpretive Staff- GS 5 (1 FTE but 2 Seasonal, salary, benefits, training)	\$49,854.74	\$49,854.74	\$49,854.74	\$49,854.74	\$49,854.74	\$49,854.74
Transportation (G1 aircraft, \$25,000 per flight)	\$650,000	\$1,650,000	\$3,300,000	\$4,950,000	\$5,925,000	\$775,000
Annual Depreciation (3 yr SL) on Carts (\$4000) and Bikes (\$100 ea) and interest (@ 5%APR)**	\$29,670	\$29,670	\$29,670	\$29,670	\$29,670	\$29,670
Boat purchase (\$300,000) depreciation (SL, 15 yrs) and interest (@5%APR)**	\$33,000	\$33,000	\$33,000	\$33,000	\$33,000	\$33,000
Indirect Visitor Program Expenses	\$323,530	\$810,119	\$1,619,376	\$2,429,495	\$2,915,221	\$375,295
Contractor Staff (50% of MPC avg. rate/visitor, 99-00)	\$146,650	\$367,210	\$734,030	\$1,101,240	\$1,321,410	\$170,113
General Atoll Support (50% of MPC avg. rate/visitor, 99-00)	\$98,315	\$246,180	\$492,097	\$738,277	\$885,880	\$114,045
All Other Expenses (50% of MPC avg. rate/visitor, 99-00)	\$78,566	\$196,729	\$393,249	\$589,978	\$707,931	\$91,136
Net Income	-\$32,988	\$304,123	\$833,317	\$1,382,307	\$1,699,623	\$0
Assumptions						
Number of persons accommodated in existing lodging facilities	72	72	72	72	72	72
Average Length of Stay (days)	7	7	7	7	7	7
Airplane occupancy	75%	75%	75%	75%	75%	75%
G1 Aircraft flights annually (capacity 19)	26	66	132	198	237	31
G1 Air Fare ({(\$25,000* G1 Annual Flights)/Number Visitors)	\$ 1,733.33	\$ 1,757.19	\$ 1,758.12	\$ 1,757.81	\$ 1,753.48	\$ 1,781.61
Concessionaire Boat Rentals per year	52	104	104	156	156	52
Deflator to express in 2004 dollars (GDP Implicit Price deflator)	1.1068	1.1068	1.1068	1.1068	1.1068	1.1068

*Cruise Ships are not included here because cruise lines cover associated costs to the Service and the revenue stream is variable. They do not stay overnight.

** Model assumes that a boat (\$300,000) is purchased prior to visitor program starting as well as enough new bikes and carts (\$77,400) for 100% occupancy of 72 rooms.

Table 4-6. Past Visitor Program Expenses from MPC for 1999-2000 and Expenses Per Visitor for Model

<i>Income/Expense Item</i>	<i>Average 1999 - 2000</i>	<i>Expenses Amount Per Visitor 1999 - 2000</i>	<i>Expenses Assigned Per Visitor for Model</i>
Number of visitors	3,101		
Direct Visitor Program Expenses from Past Visitor Program			
Cost of Sales	\$397,887	\$128	\$128 ^a
Indirect Visitor Program Expenses from Past Visitor Program			
Midway Payroll and Burden	\$2,190,998	\$707	\$353 ^b
Midway General Atoll Support	\$1,468,857	\$474	\$237 ^b
Midway All Other Expenses	\$1,173,804	\$379	\$189 ^b

^a 100% of Expense Amount Per Visitor

^b 50% of Expense Amount Per Visitor

5. Conclusions and Recommendations

This report will be used by the Service as the basis for a *Visitor Services Plan* for Midway for fiscal years 2006-2010. To develop a credible *Visitor Services Plan*, the Service determined that a market analysis and feasibility study for Midway was needed. This study completes these analyses. A wide range of information was gathered and evaluated to complete the analyses. The study looked at the past visitor program; specifically what it offered in terms of experiences, services, costs, and facilities as well as the overall visitation numbers. The same type of information was also gathered for other destinations and providers that offer similar experiences and benefits to Midway. Using this information combined with a SWOT analysis of a Midway visitor program, market segments were determined by reviewing the literature and using data from similar programs. The study used the market segmentation data to determine the type of programs that should be offered on Midway as well as possible options of how the Service could run a visitor program. Finally, the study conducted an economic analysis to determine the feasibility of running a visitor program on Midway. The following is a summary of the key conclusions and recommendations from the study.

1. The primary experience that Midway offers visitors is to view and interact with abundant and unique terrestrial (i.e., bird) and aquatic wildlife. Although Midway offers other experiences such as learning about World War II history, feedback from past visitors and interviews with Service staff indicate that the wildlife experience is what people most relish.
2. There is a market for the natural and cultural experiences that Midway has to offer. This market segment is defined as sustainable tourism. Ecotourism, a subset of sustainable tourism, encompasses opportunities for both nature tourists and culture tourists while at the same time aiming to preserve the natural resource. Midway has the capability to offer many ecotourism opportunities including wildlife watching, bird watching, snorkeling, scuba, kayaking/canoeing, and hiking. Demand for sustainable tourism is growing. In addition, the socio-demographics of this market segment indicate that people are willing and able to pay for the experiences that Midway has to offer.
3. Current facilities are adequate. Target visitors are not looking for expensive accommodations; in fact, some of them would tolerate significantly less than what Midway has to offer. Charlie Barracks and Clipper House food services meet the needs of potential visitors.
4. The study found that there are abundant and varied providers (potential concessionaires) that specialize in providing tour packages to Midway's target market. In addition, most of these providers currently offer tour opportunities in sensitive ecosystems and are accustomed to working within restrictive guidelines (i.e., minimizing ecosystem and wildlife impacts) similar to those in place on Midway.
5. The daily rates the Service would likely need to charge for visitor related services and accommodations are comparable to other similar destinations and programs.

Even if the concessionaires add their costs onto Midway rates, the overall costs are still comparable to other programs.

6. An economically sustainable visitor program is feasible for Midway. It is sustainable even if, in the short term, G-1 aircrafts are the only available air transportation for overnight visitors.
7. Over the next five years, the contractor that runs Midway's day-to-day operations should also be responsible for providing lodging and food services. This should not be outsourced to another concessionaire at this time. The contractor should not be responsible for bringing visitors, but should focus on servicing the visitor program, which will be overseen and managed by the Service.
8. There needs to be a long-term commitment by the Service to keep Midway open and running. This is extremely critical for the visitor program and significant for the on-atoll contractor to provide the level of staff necessary for the visitor program. It is also paramount for any visitor concessionaire to plan, market, and bring visitors to Midway. Because the visitor program was shut down abruptly in 2002, some potential visitor concessionaires will want a commitment from the Service before agreeing to bring visitors to Midway. In addition, it will give the air transportation provider incentive to purchase an additional plane to fly to Midway.
9. Diving is sustainable during the summer months, but would be the most capital intensive and risky venture for a concessionaire with the current constraints. It is recommended to explore the use of live-aboard diving options as well as an on-atoll dive center.
10. It is recommended that the Service implement the proposed Visitor Program Option 3 where the Service manages multiple concessionaires who in turn bring visitors to Midway. The Service should set strict parameters for the type of programs that could be run on Midway based on the results of this study. In addition, concessionaires should adhere to standards for business and guest conduct on Midway. The Service may also want to implement a certification or training for all concessionaire staff that come to Midway. This would provide quality control for information given to visitors and reinforcement of the visitor related objectives for a visitor program on Midway. The advantage of having multiple visitor providers is that collectively they will provide a constant flow of visitors to Midway. It also enables Midway to provide a variety of compatible experiences for targeted market segments. The disadvantage of the multiple concessionaire option is the need for increased coordination by the Service for accommodations, transportation, resources, and services. Another potential disadvantage is that certain providers may not choose to come to Midway because of their desire to be an exclusive provider.
11. The Service should plan for a 6 to 12 month period between the announcement that Midway is open for visitors and when visitors start arriving. During this time

- the Service can plan and prepare Midway for visitation and concessionaires can market and fill programs.
12. If the demand for visitation is more than the current lodging accommodations can handle, the Service should renovate and offer some of the old officer homes as lodging. These locations could also be used for groups or as a bed and breakfast type of experience.
 13. The Service might investigate the economic and practical feasibility of purchasing or leasing an airplane, possibly a G-1 or larger aircraft such as a 737, for Midway and Service needs. This may lower Midway operation and visitor travel costs.
 14. Although it was not within the scope of work, this recommendation became apparent during the study. The Service could consider enhancing the historical experiences offered to visitors. The Service could explore the possibility of bringing a seaplane or World War II fighter plane and other historical pieces to Midway. Currently there are only the historical buildings, which have significant value but do not offer the experience that actual battle artifacts would. If possible, this type of exhibit could be housed in the historical seaplane hangar so it would not take away from nesting habitat of the wildlife, and birds could not fly into it.

6. Literature Cited

- Cook Islands (website). [Accessed Nov 2004]. Destination Profile [Internet]. Available from: www.cook-islands.com
- Crossley, J. and Lee, B. 1994. Ecotourists and mass tourists: a difference in 'benefits sought'. Proceedings of the Travel and Tourism Research Association Conference, Bal Harbour, Florida.
- Diamantis, D. 1998. Ecotourism: Characteristics and involvement patterns of its consumers in the United Kingdom. PhD dissertation, Bournemouth University, UK.
- Dogley F. 2002. Environment Management Plan for the Seychelles (EMPS) 2002-2010 – Sustainable Tourism in Seychelles – Are we on the right track? Ministry of Environment, Seychelles.
- Eagles PFJ. 1995. Understanding the Market for Sustainable Tourism. In: McCool SF, Watson AE, (comps.). Linking tourism, the environment, and sustainability – topical volume of compiled papers from a special session of the annual meeting of the National Recreation and Park Association; 1994 October 12-14; Minneapolis, MN. Gen. Tech. Rep. INT-GTR-323. Ogden, UT: US Department of Agriculture, Forest Service, Intermountain Research Station.
- Fennell, D.A. 1999. Ecotourism: an Introduction. Routledge, London.
- Falkland Islands (website). [Accessed Nov 2004]. Destination Profile [Internet]. Available from: www.sealionlodge.com
- Hall CM. 1991. Introduction to tourism in Australia. South Melbourne, VI: Longman Cheshire. 268 p.
- Hawkins, D., Epler Wood, M. and Bittman, S. 1995. *The Ecotourism Source Book for Planners and Developers*. The Ecotourism Society, North Bennington, Vermont.
- Hawaii, Department of Business, Economic Development and Tourism. 2003. Visitor Satisfaction & Activity Report. Research and Economic Analysis Division, Tourism Research Branch. 104 p.
- HLA Consultants. 1996. *Ecotourism Accommodation: An Alberta Profile*. Alberta Economic Development and Tourism, Edmonton, Alberta.
- Kalakaua Marine Education Center at the University of Hawaii at Hilo. [Accessed 2004]. University of Hawaii education program information [Internet]. Available from: www.kmec.uhh.hawaii.edu
- Knights Inlet Lodge (website). [Accessed Nov 2004]. Destination Profile [Internet]. Available from: www.grizzlytours.com

- Layang Layang (website). [Accessed Nov 2004]. Destination Profile [Internet]. Available from: www.layanglayang.com
- Mahoney EM. Undated. Marketing parks and recreation: the need for a new approach. Unpublished paper on file at Michigan State University. 23 p.
- McCawley R, Teaff JD. 1995. Characteristics and Environmental Attitudes of Coral Reef Divers in the Florida Keys. In: McCool SF, Watson AE, (comps.). Linking tourism, the environment, and sustainability – topical volume of compiled papers from a special session of the annual meeting of the National Recreation and Park Association; 1994 October 12-14; Minneapolis, MN. Gen. Tech. Rep. INT-GTR-323. Ogden, UT: US Department of Agriculture, Forest Service, Intermountain Research Station.
- Newsome, D., Moore S.A., Dowling, R.K. 2002. *Natural Area Tourism: Ecology, Impacts and Management*. UK: Channel View Publications.
- Salih A. 2000 [Accessed 2004]. Divers Perceptions – The Maldives, Centre for Tourism [Internet]. Dunedin, New Zealand: University of Otago. Available from: <http://www.maldiveisle.com/studyondive.htm#ABSTRACT>
- Selengut, A. 1995. 'Foreword'. In: Havkins, D. Epler Wood, M. and Bittman, S. (eds.) *The Ecologue Source Book*. The Ecotourism Society, North Bennington, Vermont, pp. v-vi.
- Seychelles (website). Vision 21, Destination Profile [Internet]. Seychelles, Ministry of Tourism. Available from: www.virtuale Seychelles.sc
- Silverburg KE, Backman SJ, Backman KF. 1995. Understanding Nature-Based Tourists: Using Psychographics. In: McCool SF, Watson AE, (comps.). Linking tourism, the environment, and sustainability – topical volume of compiled papers from a special session of the annual meeting of the National Recreation and Park Association; 1994 October 12-14; Minneapolis, MN. Gen. Tech. Rep. INT-GTR-323. Ogden, UT: US Department of Agriculture, Forest Service, Intermountain Research Station.
- Thailing CE, Ditton RB. Undated. Demographics, motivations, and participation patterns of sport divers in the Flower Garden Banks National Marine Sanctuary. Texas A&M University, Department of Wildlife and Fisheries Sciences. 10 p.
- Tourism Research Group. 1990. Adventure travel in eastern Canada: an overview of product and market potential. Ottawa, ON: Tourism Canada. 117 p. + appendices.
- Warnick RB. 1995. United States Travel Abroad 1979 to 1991: Generational Trends Impacting the Sustainability of the United States Travel Market. In: McCool SF, Watson AE, (comps.). Linking tourism, the environment, and sustainability – topical volume of compiled papers from a special session of the annual meeting of the National Recreation and Park Association; 1994 October 12-14; Minneapolis, MN.

Gen. Tech. Rep. INT-GTR-323. Ogden, UT: US Department of Agriculture, Forest Service, Intermountain Research Station.

Weaver, D.B. 2001. Ecotourism in the Context of Other Tourism Types. In: Weaver, D.B. (ed.) *The Encyclopedia of Ecotourism*. CABI Pub., New York, NY. Pp. 73-84.

Weaver DB. 1998. Ecotourism in the Less Developed World. CAB International. New York: CABI International. Chapter 1, Figure 1.4 Relationship between sustainability, mass tourism, AT and ecotourism (after Butler, 1996); p 32.

Wild C. 1992. The business of packaging adventure travel and ecotours. Presented at the Fourth World Congress on National Parks and Protected Areas, Caracas, Venezuela. 6p. Unpublished.

Wight, P.A. 2001. Ecotourists: Not a Homogenous Market Segment. In: Weaver, D.B. (ed.) *The Encyclopedia of Ecotourism*. CABI Pub., New York, NY. Pp. 37-62.

Wight PA. 1996. North American Ecotourism Markets: Motivations, Preferences, and Destinations. *Journal of Travel Research* 25(1). 16 p.

Wight PA. 1993. Sustainable ecotourism: balancing economic, environmental and social goals within an ethical framework. *The Journal of Tourism Studies* 4(2): 54-66.

Wight PA. 1996. North American Ecotourists: Market Profile and Trip Characteristics. *Journal of Travel Research* 25(1). 14 p.

Wight, P.A. 1997. Ecotourism accommodation spectrum: does supply match the demand? *Tourism Management* 18(4): 209-220.

WTO News. 1998. Ecotourism, Now One-Fifth of Market. January/February.
<http://www.world-tourism.org/newslett/janfeb98/ecotour.htm>

Research Division for Sabah Tourism. 30 December 2004. International Visitor Arrivals into KKIA By Nationality – Summary of Profile (January-November 2004) [Internet]. Available from:
<http://www.sabahtourism.com/statistics/visitorprofilenov04.asp>

7. Appendices

7.1. Appendix A. List of People Interviewed

Jean Harrison, USFWS, Region I, Chief, Visitor Services and Communication, Portland, OR

Jerry Leinecke, USFWS, Project Leader, Hawaiian and Pacific Islands National Wildlife Refuge Complex, Oahu, HI

Barbara Maxfield, USFWS, Chief, Pacific Islands External Affairs and Visitor Services, Oahu, HI

Ann Bell, USFWS, Senior Outdoor Recreation Planner, Pacific Islands External Affairs and Visitor Services, Oahu, HI

Bob Dieli, USFWS, Outdoor Recreation Planner, Pacific Islands External Affairs and Visitor Services, Oahu, HI

Tim Bodeen , USFWS, Project Leader, Ridgefield NWR Complex, Ridgefield, WA (Former Midway Atoll NWR Manager)

Mike Johnson, USFWS, Midway Atoll NWR Assistant Manager, Midway

John Klavitter, USFWS, Midway Atoll NWR Wildlife Biologist, Midway

Beth Flint, USFWS, Supervisory Wildlife Biologist, Pacific/Remote Islands NWR Complex, Oahu, HI

Steve Barclay, USFWS, Refuge Manager, Pacific/Remote Islands NWR Complex, Oahu, HI

Rob Shallenberger, Former Midway Atoll NWR Manager (retired)

Robert C. Fields, Friends of Midway Atoll NWR, Board of Directors, Portland, OR

Bob Tracey, Midway Phoenix Corporation, Cartersville, GA

Birgit Winning, Oceanic Society, San Francisco, CA

John Bone, Maritime Air Charter

Keoki Stender, Past Midway Dive Master

Pete Hansen, California State University, Northridge

7.2. Appendix B. Similar Ecotourism Destination Profiles

➤ Sea Lion Island, Falkland Islands

<i>Destination Description</i>
Location: The Falkland Islands is located 300 east of the Argentinean coast. Sea Lion Island is one of the most southern islands in the Falkland Islands. It is 5 miles long by 1 mile wide. Designated as National Nature Preserve, there is research being conducted there on elephant seals, and flora. Sea Lion Island boasts the largest diversity of wildlife in Falklands, all species of plants, mammals, and birds are found there with the exception of albatross.
Transportation: Flights from North America generally fly to Santiago, Chile and transfer to a Lan Chile connection for the 7-hour flight to the Falkland Islands capitol of Stanley. From Stanley, flights can be arranged with the Falkland Islands Government Air Service or private carriers. The flight from Stanley to Sea Lion Island is 40 minutes.
Management Authority and/or Ownership: The Falkland Islands Development Corporation owns Sea Lion Island. The island has been designated a National Nature Preserve and a RAMSAR Wetlands protected site. The Sea Lion Lodge is the only hotel on the island and is owned and operated privately.
Present Level of Tourism: With a resident population of 6, the island has one hotel called The Sea Lion Lodge. The Sea Lion Lodge is the largest guest hotel in the Falkland Islands. It is privately owned and operated. It can accommodate up to 24 guests at a time. They are fully booked through the six-month season. The average stay is 3 days.
Seasonality: There is a distinct travel season from September 1–May 31 st ; October to March is peak.
Activities: Wildlife Watching, Photography, Research
Facilities: There is a biological research station and one privately owned hotel called the Sea Lion Lodge.

<i>Provider Profile</i>
Name of Operator: Sea Lion Lodge
Length of Time in Business: Since 1986
Facilities: Lodging includes: central heating in every room; 1 double room and 6 twin rooms include ensuite shower, sink and toilet. The 2 single rooms have a shared shower, sink and toilet. All bathrooms have a shaver point; all bedrooms have their own telephone with internet and fax facilities. There are two spacious and comfortable living rooms, equipped with a television and a library of wildlife books. There is a conservatory with chairs and tables. The Lodge has a well-stocked bar for guests. Breakfast is served buffet style, a light meal or sandwiches served with tea or coffee is served for lunch, and dinner usually has a Chilean theme. The Lodge owns 4WD trucks that can be used to tour the island. An orientation tour is given upon arrival. Guided tours may be purchased for an additional cost. Most travelers explore the island alone.
Partnerships: Sea Lion Lodge works with the Falkland Islands government to manage the wildlife and ecosystems of the island. They also work with local tour operators.

<i>Package and Visitor Characteristics</i>
Duration: The average visitor spends three days at Sea Lion Island.
Purpose of Trip: Visitors are there mainly for vacation. There are a number of professors that come here for research or for pleasure.
Cost: At typical flight from North America is \$4,000. Lodging cost per person per night are: September is \$103, October \$112, Nov – Feb \$168, March – May \$103. This includes breakfast, packed lunch and evening meal. An introductory 4WD tour of the island is available, additional tours are available at extra charge.

<i>Package and Visitor Characteristics</i>	
Visitor Characteristics:	<ul style="list-style-type: none"> • Demographics: Late 50's, many are professors or zoologists with advance degrees, some are considered experts in their field, upper middle class, most travel in adult groups professional groups • Interests: Most popular is photography, Second most popular: Ornithology
Market Outlook: They are currently at full capacity during their main season (October-March). In order to expand the number of guests that can visit or to expand their facilities they would need to purchase their own plane.	

➤ **Knight Inlet, British Columbia, Canada**

<i>Destination Description</i>	
Location:	Knight Inlet is a wild and remote area located 50 miles north of the Campbell River in British Columbia in the Pacific Northwest.
Transportation:	Guests provide their own transport to the Campbell River Float Plane dock, and the Lodge provides transfers to Knight Inlet.
Management Authority and/or Ownership:	The Canadian government manages the wildlife area, the lodge is privately owned.
Present Level of Tourism:	The lodge can accommodate up to 24 people.
Seasonality:	The high season is during August 23 to October 16. The shoulder seasons are May 6 to June 24 and August 1 to August 22. The low season is June 25 to July 24.
Activities:	Wildlife Watching, Photography, Fishing
Facilities:	The private lodge is the only facility at Knight Inlet.

<i>Provider Profile</i>	
Name of Operator:	Knight Inlet Lodge
Length of Time in Business:	The lodge was originally built in the 1940's as a logging camp. Recent renovations and additions have increased the size and capability of the lodge.
Facilities:	All of the rooms are cedar paneled and have private bathrooms for guests' comfort. Most of the rooms have one double/queen/king bed and a twin bed. With the addition of a cot we can accommodate four in some of the rooms. Most of the guest buildings have lounges with wood burning stoves in them, for relaxing in the evening or on a cool day. At full capacity the lodge will hold 30 guests in twelve rooms, but 24 - 26 is the average occupancy. Gourmet meals and snacks are served in the lodge dining room. The Lodge owns kayaks and several powerboats that are used for guided tours. There are several bear stands that have been erected in good bear viewing areas. All tours are guided and inclusive in the package
Partnerships:	N/A.

<i>Package and Visitor Characteristics</i>	
Duration:	Visits can range from 2 to 8 nights.
Purpose of Trip:	Visitors are there mainly for vacation.
Cost:	approximately \$250 per day
Visitor Characteristics:	<ul style="list-style-type: none"> • Demographics: 35 and up. Older ecotourists will enjoy wildlife viewing activities, younger will enjoy more adventure type activities, including fishing and kayaking. Mainly travel as couples. Higher than average income (over \$50,000), Main markets are Canada and U.S. A recent study

<i>Package and Visitor Characteristics</i>
<p>cited that US tourists were willing to pay between \$1,500 to more than \$2,000 per person for a 4 to 7 day trip.</p> <ul style="list-style-type: none"> Interests: Many experienced ecotourists that visit Canada are specialist ecotourists, meaning that they participate in a specific activity, such as fishing or wildlife viewing. A specialist may spend more than seven days engaging in a specific activity, while a generalist would spend less than 48 hours. Knight's Island Lodge has packages ranging from 2 to 8 nights and can accommodate both types of ecotourists.
<p>Market Outlook: Canada is optimistic about the potential for ecotourism. Canada still boasts huge tracts of untouched land. Many areas are focusing on training workers for the ecotourism industry, and marketing for wilderness destinations has increased. Since September 11, 2001 many Americans opt to stay closer to home and choose Canada as a vacation destination.</p>

➤ **Layang Layang Island, Malaysia**

<i>Destination Description</i>
<p>Location: 300 km northwest of the coast of Sabah in the South China Sea. Layang Layang is 7 square kilometers wide by 1.2 square kilometers long</p>
<p>Transportation: The nearest International access point is the Kota Kinabalu International Airport, Sabah, a state of the Malaysia Federation in the island of Borneo. Direct flights are available from Tokyo, Taipei, Kaoshiung, Seoul, Hong Kong, Manila and Kuala Lumpur. From Kota Kinabalu take a private flight from the airport to Layang Layang.</p>
<p>Management Authority and/or Ownership: Malaysian government, and there is also a Malaysian Naval Outpost on the island. Avillion Hotels International owns the Layang Layang Resort.</p>
<p>Present Level of Tourism: The resort has 76 rooms and 10 suites</p>
<p>Seasonality: The best time to visit is from February to September. May through July are calm.</p>
<p>Activities: Wildlife Watching, Photography, Fishing, Kayaking</p>
<p>Facilities: The resort is the only facility on the island.</p>

<i>Provider Profile</i>
<p>Name of Operator: Layang Layang Dive Resort</p>
<p>Length of Time in Business: unknown</p>
<p>Facilities: Layang Layang Diver Resort is only one commercial operation on the island. The resort complex is made up of 6 blocks of tropical hardwood timber structure housing 86 well-furnished guest rooms. All guest rooms are equipped with remote controlled air-conditioner, telephone, television with in-house videos & programs from regional satellite broadcast, private hot/cold shower and toilet, 2 queen-sized beds and a private balcony. There are two VIP Chalets. The reception block houses a lounge bar, reception counter, 150 seats restaurant and a fresh water swimming pool. International telephone & fax services are available. As all guests are on full board basis, meals are presented daily in either buffet setting or set menus with a main focus on Asian cuisine intersperse with international favorites. Snacks are provided in between meals. The dive operation is a certified PADI dive center headed by qualified instructors with vast experience in running professional dive operations. All divers must agree to the strict Environmental Conservation Program set-up by the Dive Center and are required to sign a Reef Conservation Policy prior to diving. s</p>
<p>Partnerships: Affiliated with Dive Easi Travel, Block A, Ground Floor, A-0-3, Megan Avenue II, 12, Jalan Yap Kwan Seng, 50450 Kuala Lumpur, West Malaysia</p>

<i>Package and Visitor Characteristics</i>	
Duration:	Visits can range from 2 to 8 nights. Often combined with trips to Sipadan.
Purpose of Trip:	Visitors are there mainly for a diving vacation.
Cost:	The 6-day/5-night package costs are: <ul style="list-style-type: none"> • Divers: twin room: \$900/person, extra night \$130, Single room \$1,140/person, extra night \$130. • Non-divers: Twin room \$660/person, extra night \$90, Single \$875/person, extra night \$130. • All packages include 3 boat dives a day, use of tanks, weights, and weigh belts, and five meals.
Visitor Characteristics:	<ul style="list-style-type: none"> • Demographics: 52% of international travelers were male, 27% were between the ages of 31 and 40. 31% of international visitors were had management or professional/technical jobs. 93% stayed in a motel/hotel/rest house. The largest market is Asia, the top three countries are Indonesia, Taiwan, and Brunei. Other top markets include Philippines, China, Japan, and UK/Ireland • Interests: Diving, photography (underwater), wildlife watching
Market Outlook:	Arrivals have been steadily increasing until 2002; they were slightly down in 2003 and then back up in 2004 to 15 million. For 2005, the tourism ministry is forecasting 16.6 million visitors. In 2004 total visitors to Sabah, the province from which Layang Layang is accessed, reported 1.2 million visitors, about half were international travelers. Layang Layang was not affected by the 2004 tsunami. *Statistics are based on Sabah international visitors, visitors to Layang Layang must fly through Sabah to reach the atoll.

➤ **Mangaia Island, Cook Islands**

<i>Destination Description</i>	
Location:	The Cook Islands comprises 15 widely dispersed islands in the South Pacific Ocean between French Polynesia and Fiji. The total land area of the country is 240 square kilometers, while the Cook Islands' exclusive economic zone covers a maritime area of nearly 2 million square kilometers. The closest outer island to Raratonga is Mangaia (204kms distant).
Transportation:	Air Raratonga flies here 4 times per week.
Management Authority and/or Ownership:	No information found
Present Level of Tourism:	Can accommodate 24 to 36 guests at one time. There is also a village on the island
Seasonality:	No information found
Activities:	Rock climbing, abseiling, hiking in virgin bush, diving in deep freshwater caves, diving or snorkeling outside the reef, mountain biking, bareback horse riding
Facilities:	There are three small villages and a resident population of 700 Polynesians on the island. There are lodging two options for visitors a Bed and Breakfast called Babe's Place and the Ara Moana Bungalows each have six rooms available.

<i>Provider Profile</i>	
Name of Operator:	Ara Moana Bungalows
Length of Time in Business:	Since 1997
Facilities:	Bungalows have private shower/toilet with hot and cold water and electricity at all times, ceiling fan and double beds. There are also simpler budget accommodations available.
Partnerships:	Each island works with the Cook Islands Tourism Corporation which operates www.cook-islands.com

<i>Package and Visitor Characteristics</i>
Duration: No specified package limits
Purpose of Trip: Visitors are there mainly for an adventure vacation.
Cost: Standard Bungalow with porch accommodation and meal costs <ul style="list-style-type: none"> • One person: \$42 per night, half board (B, D) \$67, full board (B, L, D) \$74 • Two persons: \$56 per night, half board (B, D) \$106, full board (B, L, D) \$120 Spacious bungalow with porch accommodations and meal costs <ul style="list-style-type: none"> • One person: \$81 per night, half board (B, D) \$106, Full board (B, L, D) \$113 • Two persons (double): \$95 per night, half board (B, D) \$145, full board (B, L, D) \$159 • Two persons (twin): \$102, per night, half board (B, D) \$152, full board (B, L, D) \$166 • Three persons (double + single): \$116 per night, half board (B, D) \$190, full board (B, L, D) \$212 Guest can rent motorcycles and 4WD vehicles and buy guided tours for prices between \$7 and \$35 per person.
Visitor Characteristics: <ul style="list-style-type: none"> • Demographics: Visitors are mainly looking for adventure tourism and ecotourism opportunities. They have above average income. • Interests: Diving, caving, hiking, wildlife watching, mountain biking
Market Outlook*: At the end of 2003 the Cook Islands were visited by 78,328 visitors Their main market for tourism is from New Zealand which accounted for 33 % of their visitors. Europe/UK were the second largest market accounting for 28% of the tourists. Overall at the end of 2003, the Cook Islands experienced an 8% increase in tourism over 2002. The improved air travel routes have made tourism increase at a greater rate.

* These figures represent tourism to all of the Cook Island, not only Mangaia.

➤ Bird Island, Seychelles

<i>Destination Description</i>
Location: Bird Island is located in the Seychelles off the eastern coast of Africa. Bird Island is a small coral island of only 170 acres; it is the northern most island in the archipelago. I was once home to the now extinct dugong.
Transportation: 30 minute flight from the island of Mahe.
Management Authority and/or Ownership: The island is part of the Seychelles; the lodge is privately owned and operated. There are two research projects conducted on the island involving sooty terns and hawksbill turtles.
Present Level of Tourism: There are 24 cottages available. They generally sleep 2 people but a third can be accommodated in each bungalow's lounge. Thus the lodge can accommodate between 48 and 72 people at a time.
Seasonality: The low season is from: January 8 – March 20, 2005, and April- 5 – November 30, 2005 The high season is from: December 20, 2004 - January 7, 2005, and March 21 - April 4, 2005
Activities: Snorkeling, Fishing, Birding, sailing
Facilities: The Island has a landing strip, the hotel with restaurant and bar.

<i>Provider Profile</i>
Name of Operator: Bird Island Lodge
Length of Time in Business: unknown
Facilities: The hotel has 24 cottages/bungalows that can accommodate up to 3 people, a restaurant, bar, billiards, board games, beach towels, snorkeling equipment, kayaks, game fishing, boutique, library, guided nature tours, laundry service, babysitting, children's early dinner service.
Partnerships: Active member of Green Globe International Eco-tourism organization, and they work with several booking agents.

<i>Package and Visitor Characteristics</i>
Duration: There are no minimum and maximum stays. There are packages for 7 night stays, and for honeymooners.
Purpose of Trip: Relaxation, nature viewing, fishing
Cost: Seven-night stay <ul style="list-style-type: none"> • High Season: \$415 per person per day, includes full board • Low Season: \$380 per person per day, includes full board Round trip plane ticket from Mahe is \$324
Visitor Characteristics: <ul style="list-style-type: none"> • Demographics: Major markets are heavily European, from France, UK, Italy, and Germany, plus the Scandinavian countries, 80% arrive by air. • Interests: Nature viewing, birding, sport fishing, snorkeling
Market Outlook: Tourism has been inconsistent as compared to the rest of the world. Since tourism represents 29% of their economy it is important to develop strategies that will increase tourism. In the next 10 years the Seychelles will focus on expanding capacity at resorts, increasing the quality of resorts, and developing additional activities that will appeal to a wider range of tourists. They will work to broaden their current tourist markets, appeal to wider markets, attract special interest groups, and increase tourist spending per day. In addition to these goals the Seychelles will look closely at carrying capacities so that they can protect their natural resources. They are hoping to reach 180,000 tourists nationwide by 2005 and 195,000 tourists nationwide by 2010. They are interested in catering to the Middle East market.

7.3. Appendix C. Similar Tourism Provider Profiles

The following are profiles for tourism companies that offer services similar to what might occur on Midway.

➤ **Earthwatch**

<i>Description of Provider Services</i>
Destinations: Worldwide. They have 700 teams in 50 countries and 50 states.
Type of Business: Service Learning: Clients work with researchers doing everything from collecting data to restoring habitats.
Contact Information: Blue McGruder 1800 776 0188 www.earthwatch.org bmagruder@earthwatch.org
Length of Time in Business: 30+ years
Facilities: Earthwatch uses local facilities for their trips.
Partnerships: Work through universities and colleges. A researcher applies for an Earthwatch grant and once accepted, Earthwatch advertises their research opportunity to its clients. The clients give money to Earthwatch for the trip and Earthwatch then donates a percentage of this fee to the researcher's program. They are second only to National Geographic in private funding of research.
Length of trips: A few days to a few months
Visitor Characteristics: The program is very popular with people who want to get away from their day-to-day lives. Many older professionals participate. Work is often difficult and accommodations minimal.

<i>Example Packages</i>
Name: Bahamian Reef Study
Destination: Bahamas
Duration: 1 week
Purpose of Trip: In the water: systematically survey reefs, conduct transects and take measurements, test water; On the land: map corals, tide pools, monitor beach profile changes through seasons, Night: data, lecture, films
Key Experiences: Participate in research, be in water
Cost: \$1,795
Includes Lodging? Yes- former US Navy base, 2 per room, share bathroom
Includes Food? Yes- simple cafeteria-style
Includes Activity-Related Costs? No- free time is on own
Includes Travel? No, does not include charter flight from Ft. Lauderdale to San Salvadore

Name: Dolphins and Whales of Abaco Island
Destination: Bahamas
Duration: 10 days
Purpose of Trip: Track whale and dolphin groups, note behavior and environmental data; On Shore- enter data, develop film, scan ID photos.
Key Experiences: Whale and dolphin watching, participate in research
Cost: \$2,095
Includes Lodging? Yes- at 3 bedroom research house
Includes Food? Yes- share cooking duties
Includes Activity-Related Costs? No- can go snorkeling, bird watching, swim, visit nearby national park, kayak
Includes Travel? unknown

➤ **TravelLearn**

<i>Description of Provider Services</i>
Destinations: Worldwide
Type of Business: Service Learning.
Contact Information: TravelLearn P.O. Box 556 Hawley, PA 18428 1-800-235-9114 1-570-226-9114 Fax: 1-570-226-6912 Send E-mail to info@TravelLearn.com www.travellearn.com
Length of Time in Business: 27 years
Facilities: Travellearn takes their clients to the destination and uses local services, staff, and facilities to run the program. They work through universities and often have a professor along to give lectures and tours in addition to local guides. Facilities normally have private bath/shower in room. Travellearn clients tend to prefer more luxury than Midway provides. Travellearn would probably want to use a cruise ship for Midway access if they went there. Suggested Cruise West as a contact.
Partnerships: Travellearn organizes the tour and uses all of the services and facilities the destination site has to offer. Travellearn provides international Learning Vacations for adults ages 30-80+, which is promoted through more than 300 universities, colleges and associations nationwide. Available to the general public.
Length of Trips: Varies- 1 week to several weeks
Visitor Characteristics: Older, high income, well educated.

<i>Example Packages</i>
Name: Legends of the Pacific
Destination: Cruise Fiji to Guam
Duration: 18 days
Purpose of Trip: Explore some of the most remote and least-visited islands in the South Pacific, meet residents of villages, investigate the ruins of Nan Madol, tour World War II sites in the Solomon Islands and Guam, visit marine and bird reserves and sanctuaries.
Key Experiences: Adventure, learning, people and wildlife watching
Cost: \$5,900-\$8,900
Includes Lodging? Yes- on ship
Includes Food? Yes- on ship
Includes Activity-Related Costs? Yes- Most.
Includes Travel? Land travel from launch point only

➤ **Cruise West**

<i>Description of Provider Services</i>
Destinations: Worldwide
Type of Business: Service Learning.
Contact Information: Cruise West: 2301 Fifth Avenue Suite 401 Seattle, WA 98121-1856 toll free: 1-888-851-8133 Fax: 206-441-4757 www.cruisewest.com
Length of Time in Business: Over 50 years
Facilities: 117 per ship
Partnerships: Cruise West has several partnerships with US airlines to book trips that are fully refundable and changeable. Tickets are booked through Cruise West and include meet and greet service at several gateway cities. They work in conjunction with travel agents to book tours. AAA is big partner.
Length of Trips: 4 to 25 days
Visitor Characteristics: Older, high income, well educated.

<i>Example Packages</i>
Name: South Pacific: Island Sanctuaries
Destination: South Pacific Islands
Duration: 12 days
Purpose of Trip: on a cruise- visit islands, explore sites, see other cultures
Key Experiences: Adventure, education, relaxation
Cost: from \$4,149
Includes Lodging? Yes- on ship
Includes Food? Includes most meals, most days at sea include 3 meals. Alcoholic Beverages are not included.
Includes Activity-Related Costs? At least one shore excursion at each port of call is included. Additional tours that may be offered are not included.
Includes Travel? Travel to the ship is not included.

➤ **Elderhostel**

<i>Description of Provider Services</i>
Destinations: Worldwide
Type of Business: Service learning and educational tours.
Contact Information: Toll-free: 1-877-426-8056
Length of Time in Business: 30 years
Facilities: Usually use what is offered by the site
Partnerships: They book speakers, and arrange accommodations and food, etc. Use local operations for food and lodging.
Length of Trips: A few days to a few weeks
Visitor Characteristics: Older, middle to high income, well educated.

<i>Example Packages</i>
Name: Service Learning: Maintaining 'Mighty Mo' in Pearl Harbor
Destination: Pearl Harbor
Duration: 10 nights
Purpose of Trip: To assist with the preservation and maintenance of a WWII ship
Key Experiences: experience history, service, enjoy location
Cost: \$1,141
Includes Lodging? Yes
Includes Food? Yes, most
Includes Activity-Related Costs? None outside of the daily tour activities
Includes Travel? Land travel only from “launching” spot

Name: Adventure Afloat-Study Cruise: Pacific Islands/French Polynesia/Easter Island
Destination: Pacific Islands/French Polynesia/Easter Island
Duration: 28 nights
Purpose of Trip: During a study cruise, participants meet local residents and learn about history, economy, agriculture, government, and art.
Key Experiences: Learning, adventure, meeting new people
Cost: from \$9,039
Includes Lodging? Yes
Includes Food? Yes, most
Includes Activity-Related Costs? None outside of the daily tour activities
Includes Travel? All travel from “launching” spot

➤ **Ralph Paonessa Photography Workshops**

<i>Description of Provider Services</i>
Destinations: Midway, North and South America, Falklands and Antarctic
Type of Business: Photography tours
Contact Information: 509 W Ward Ave. Suite B108, Ridgecrest, CA 93555-2542 (USA) Phone: (800) 527-3455, (760) 446-0153 E-mail: paonessa@rpphoto.com http://www.rpphoto.com/
Length of Time in Business: 30 years
Facilities: The operator takes their visitors to the destination and provides opportunities to photograph animals and scenery. In workshop situations they give photography classes and offer time for visitors to take pictures. Most meals are covered, but dinner is usually done as a group and paid for by the visitor. Anything outside of lodging, limited meals, and basic instruction is not covered by the operator. Maximum 8/ trip
Partnerships: Photography equipment can be rented. Ground transportation is provided but no air transportation.
Length of Trips: A few days to a few weeks
Visitor Characteristics: Upper income, many travel alone, middle age to senior.

<i>Example Packages</i>
Name: The Seabirds of Midway
Destination: Midway Atoll
Duration: 8 days
Purpose of Trip: Photography, Wildlife Watching
Key Experiences: Experience Nature, adventure, relaxation
Cost: \$3,295
Includes Lodging? Yes
Includes Food? Yes, most
Includes Activity-Related Costs? Participants don't really do activities outside of those on the tour
Includes Travel? Travel from Honolulu to Midway included.

➤ **Closeup Expeditions**

<i>Description of Provider Services</i>
Destinations: Worldwide
Type of Business: Photography tours. Close-up Expeditions operates trips in over 40 countries and 25 states, offering a year round schedule of adventures.
Contact Information: Reservations: 800 457-9553 858 - 56th Street, Oakland, CA 94608 USA Email info@cuephoto.com http://www.cuephoto.com/
Length of Time in Business: 26 years
Facilities: Use local food and lodging when available. Use guides from site if available. Accommodations and food are basic- like to provide decent things but nothing too fancy.
Partnerships: Provide guides when able- Actually went to Midway 2x and did not provide guides- used Service personnel. Can provide food or use local food.
Length of Trips: Lasting from 7-21 days.
Visitor Characteristics: Older, individual travelers that are well educated. 6-7 participants per trip.

<i>Example Packages</i>
Name: Galapagos Islands
Destination: Galapagos Islands
Duration: 10 days
Purpose of Trip: Photography, Wildlife Watching
Key Experiences: Experience Nature, adventure, relaxation
Cost: \$ 2,972
Includes Lodging? Yes- 2 nights hotel, 7 nights ship
Includes Food? Yes, some
Includes Activity-Related Costs? Those related to the trip
Includes Travel? Yes- land and sea but not airfare

Name: Midway Atoll
Destination: Midway Atoll
Duration: 10 days
Purpose of Trip: Photography, history, wildlife watching
Key Experiences: Close to nature, learning (history), adventure
Cost: Not published since trip was cancelled when Midway closed.
Includes Lodging? Yes- on Midway
Includes Food? Yes
Includes Activity-Related Costs? Those related to the trip
Includes Travel? Yes, from Hawaii to Midway

➤ **International Wildlife Adventures**

<i>Description of Provider Services</i>
Destinations: Worldwide
Type of Business: Nature tours, photo tours and cruises worldwide
Contact Information: International Wildlife Adventures P.O. Box 1410, Vashon, Washington 98070 USA Phone: (206) 463-1943 - (800) 808-4IWA (4492) Fax: (206) 463-4081 E-mail: info@wildlifeadventures.com web: http://wildlifeadventures.com/
Length of Time in Business: Over 20 years experience
Facilities: Operator provides guides and ground transportation. Uses local facilities for food and lodging. Some trips go on a ship that is provided by the company. The ships have lodging and some food. 1:12 client to guide ratio
Partnerships: Standard package and trip so use the same providers and destination managers each time.
Length of Trips: varies.
Visitor Characteristics: Middle age to senior, many travel as couples, upper income

<i>Example Packages</i>
Name: Galapagos Islands
Destination: Galapagos Islands
Duration: 11 days
Purpose of Trip: Sightseeing, wildlife watching
Key Experiences: Being close to nature, adventure
Cost: \$3300- \$4300
Includes Lodging? Yes- on ship
Includes Food? Yes
Includes Activity-Related Costs? A city tour and guides- all else on own
Includes Travel? Ground transportation and airfare from Quito to the islands and back

➤ **Back to the Source Writing Retreat**

<i>Description of Provider Services</i>
Destinations: Bali
Type of Business: Creative writing workshops, instruction, and retreats
Contact Information: Jan Cornall www.jancornall.com Email: whwn@jancornall.com Phone: 0415174921
Length of Time in Business: has been offering retreats for several years
Facilities: Provide writing instruction and gives information on places to go and see.
Partnerships: Books rooms at hotel for guests that request it. Organizes dinners at local restaurants
Duration: 7 days
Visitor Characteristics: Individuals, middle age to senior, visitors want an intense learning experience away from the normal classroom setting.

<i>Example Packages</i>
Name: Back to the Source writing retreat
Destination: Bali
Duration: 7 days
Purpose of Trip: Creative writing, wildlife watching, adventure, learning
Key Experiences: Learning, being close to nature, meeting new people
Cost: \$1,216
Includes Lodging? No- she will make recommendations, though
Includes Food? Breakfast only
Includes Activity-Related Costs? No- only those related to the workshop
Includes Travel? No

➤ **Destination Pacific**

<i>Description of Provider Services</i>
Destinations: The Pacific, including Midway, Christmas Island, Hawaii, Marshall Islands, Cabo & East Cape Mexico, and British Columbia, Canada.
Type of Business: Sport fishing, diving, eco-tours & wildlife photography adventure travel packages
Contact Information: Phone: 1-888-BIG-ULUA (888-244-8582) Fax: 808-396-5029 Email: destpacific@sportfishhawaii.com Web: www.fishdive.com Address: 197 Opihikao Way Honolulu, HI 96825
Length of Time in Business: unknown
Facilities: Use on-site facilities and services at destinations
Partnerships: Work with sites to provide opportunities for visitors.
Duration: Depends on the trip.
Visitor Characteristics: People interested in adventure tourism. Mostly male and wealthy.

<i>Example Packages</i>
Name: Midway Atoll
Destination: Midway Atoll
Duration: at least 1 week

<i>Example Packages</i>
Purpose of Trip: A variety of services are offered: Ecotours, fishing, and diving
Key Experiences: Wildlife watching, adventure, learning
Cost: Not listed
Includes Lodging? Yes
Includes Food? Yes
Includes Activity-Related Costs? Most
Includes Travel? Yes, from Hawaii to Midway

➤ **Holbrook Travel**

<i>Description of Provider Services</i>
Destinations: Worldwide
Type of Business: Educational tours, Adventure Tours
Contact Information: Holbrook Travel, Inc. 3540 NW 13th St. Gainesville, FL 32609 USA Toll free: 800-451-7111 phone: 352-377-7111 fax: 352-371-3710 Email: travel@holbrooktravel.com Web: www.holbrooktravel.com
Length of Time in Business: 31 years
Facilities: Use facilities and services provided by the destination
Partnerships: Holbrook organizes tours for individuals and groups. They use local services and facilities and provide guides for trips when needed. They partner with a lodge in Costa Rica and the Elderhostel program.
Duration: Depends on what visitor wants.
Visitor Characteristics: Individuals, couples, families. Middle to upper income. Age ranges widely.

<i>Example Packages</i>
Name: Honduras: Dive Roatan Bay Islands
Destination: Honduras
Duration: 8 days
Purpose of Trip: Diving
Key Experiences: Adventure, wildlife watching
Cost: \$102 per day
Includes Lodging? Yes
Includes Food? Some
Includes Activity-Related Costs? Diving costs but not others
Includes Travel? Travel to dive sites included. Other travel is not.

Name: Galápagos Natural & Cultural History: family tour booked with Elderhostel
Destination: Galapagos
Duration: 10 days on land
Purpose of Trip: To explore the Galapagos islands
Key Experiences: Site see, wildlife watch, adventure
Cost: \$400 per day
Includes Lodging? Yes
Includes Food? Yes, some.
Includes Activity-Related Costs? Many activities are covered.
Includes Travel? Yes, from the United States

➤ **Work & Travel Company, Gap Year for Grown Ups**

<i>Description of Provider Services</i>
Destinations: Worldwide
Type of Business: Service Learning.
Contact Information: The Work & Travel Company, 45 High Street, Turnbridge Wells, Kent, England, TN1 1XL, www. Worktravelcompany.co.uk
Length of time in Business: several years
Facilities: Work & Travel Company arranges trips for college students, young professionals and adults. 18 – 30 year olds can work in New Zealand and Australia as they travel through the county. All travelers can work on volunteer projects ranging from teaching young children to tracking wild game for researchers. All flights and transfers are arranged by the tour provider, but airfare is a separate cost.
Partnerships: Work & Travel Company has developed partnerships all over the world with organizations that need volunteer to complete their work. Accomodations can range from host families to thatched huts. Participnats who volunteer in remote locations expect to “rough it.”
Length of Trips: Varies- 1 week to 1 year
Visitor Characteristics: Students are budget oriented and can choose to work as they travel. Adults who opt to take a break have higher incomes.

<i>Example Packages</i>
Name: Costa Rica National Parks
Destination: Costa Rica National Park
Duration: 4 weeks
Purpose of Trip: Volunteers assist with trail maintenance, informational signs, and general building maintenance. Volunteers who have experience with park or natural lands management can participate in special projects and are asked to share technical knowledge with park staff. Accommodations are rustic.
Key Experiences: Hiking, learning, assisting with park management
Cost: \$2,500 does not include airfare
Includes Lodging? Yes
Includes Food? Yes
Includes Activity-Related Costs? Includes some excursions.
Includes Travel? Transfers from destination airport, does not include airfare