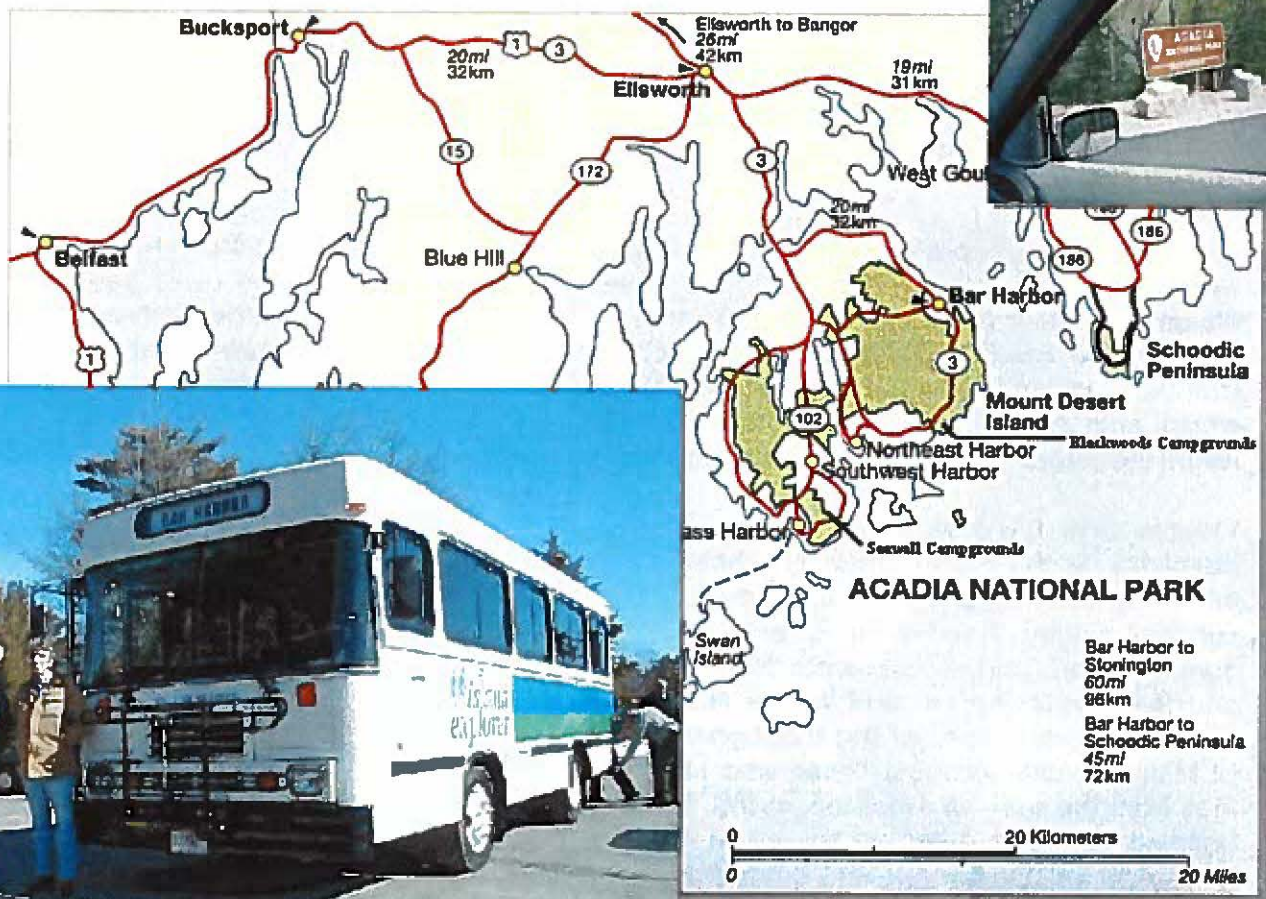


**ACADIA NATIONAL PARK
INTELLIGENT TRANSPORTATION SYSTEMS
FIELD OPERATIONAL TEST**



TRANSPORTATION NEEDS ASSESSMENT



December 1999

For:
U.S. Department of Transportation
Federal Highway Administration
U.S. Department of the Interior
National Park Service

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FIELD OPERATIONAL TEST**

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December 1999**

For National Park Service & Federal Highway Administration
Prepared by Science Applications International Corporation

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ACRONYMS

DOI	U.S. Department of Interior
DOT	U.S. Department of Transportation
FOT	Field Operational Test
ITS	Intelligent Transportation Systems
PDA's	personal digital assistants
SAIC	Science Applications International Corporation

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1. EXECUTIVE SUMMARY

1.1. *Introduction*

This report documents the findings of a comprehensive transportation needs assessment study conducted at Acadia National Park between July 1999 and November 1999. This effort is part of the initial planning stage of an Intelligent Transportation Systems (ITS) Field Operational Test (FOT) planned for Acadia National Park. This FOT is a joint effort by the U.S. Department of Interior (DOI) and the U.S. Department of Transportation (DOT) to evaluate the effectiveness of ITS applications deployed in a national park. Lessons learned here can be translated into ITS deployments in other rural areas. DOT's Rural ITS consultant team, led by Science Applications International Corporation (SAIC), and a steering committee composed of local stakeholders, are leading this effort. The steering committee includes the following agencies and organizations:

- Acadia National Park.
- Bar Harbor Chamber of Commerce.
- Downeast Acadia Regional Tourism.
- Downeast Transportation, Inc.
- Federal Highway Administration.
- Friends of Acadia.
- Maine Department of Transportation.
- Maine Office of Tourism.
- Schoodic Peninsula Chamber of Commerce.

1.2. *Needs Assessment Study Objective*

The main objective of this study is to identify travel-related information and transportation management needs of Acadia National Park staff, local stakeholders, and visitors to the Park. These needs will guide the design of the ITS applications deployed at the Park. Based on the results of this study, several user needs will be recommended for immediate attention. These needs, designated "immediate needs," will be considered for immediate action development.

1.3. Approach

This study consisted of a number of parallel efforts focusing on identifying needs of various stakeholders:

- Acadia National Park staff.
- Visitors to Acadia National Park or Mount Desert Island.
- Local stakeholders.

Several methods were used to collect the data used in this study. Data collection methods are summarized in Table 1-1.

Table 1-1. Selected Data Collection Methods for Each User Category

Groups Surveyed	Data Collection			
Acadia National Park	One-to-one Interviews	Recent Studies for the Park	Park-led Tours	FOT Proposal
Park/Island Visitors	1999 Visitor Intercept Survey	1999 Survey on Island Explorer	1998 Visitor Study	
Local Stakeholders	One-to-one Interviews	Monthly Project Meetings	FOT Proposal	

A number of one-to-one and group interviews were held with Park staff, local stakeholders, and regional stakeholders to develop a thorough understanding of each constituencies' needs or objectives as they relate to the FOT. Local and regional stakeholders (such as environmental groups, Chambers of Commerce, regional tourism organizations, and State agencies) reflect the diversity of groups with strong ties and interests in Acadia National Park. Information collected at these interviews was supplemented with information from other sources such as previous Park studies.

In all, survey data used in this study was collected from approximately 1,400 questionnaires. Given an average group size of 2.0 persons per intercept questionnaire and 2.6 persons per survey form from Island Explorer riders, survey information collected during 1999 encompasses information from nearly 3,000 (2,904) persons.

1.4. Summary of Findings

The findings presented below are organized into three general categories:

- Park Needs.
- Visitors' Needs and Profiles.
- Stakeholders' Needs.

Needs related to managing transportation in the Park are generally interrelated. The relationship between the need to reduce the level of traffic congestion in the Park and the need to reduce the number of vehicles entering the Park is clear. However, it is not the goal of Park staff to reduce the number of visitors to Acadia. Rather, it is the Park's goal to reduce the number of vehicles entering the Park, thereby enhancing the quality of each visitor's experience in this remarkable environment, while preserving and protecting that environment. Park, visitor, and stakeholder needs are summarized below. The following agencies and organizations have been interviewed to identify stakeholder needs:

- Maine Department of Transportation.
- Friends of Acadia.
- Local Chambers of Commerce.
- State and regional tourism agencies.

Acadia National Park needs and visitors' needs and profiles are listed separately.

Acadia National Park Needs Summary

Park Staff Needs Related to Managing Transportation in the Park

- Lower levels of traffic congestion in the Park.
- Fewer private vehicles entering the Park.
- Increased use of the Island Explorer Shuttle.
- More efficient Island Explorer Shuttle service.
- Lower vehicle emissions in the Park.
- Less demand for spaces in parking lots.
- Real time traffic information for Park staff.
- Better stop information for Island Explorer riders.
- Reliable two-way communications for Island Explorer Shuttles.

Needs Related to Providing Information to Visitors

- Stop location and background information on Island Explorer buses.
- Information on alternatives to driving to Park destinations.
- Information to assist with directions (en route).
- Current Park traffic condition information.
- Real-time bus location information at selected Island Explorer stops.
- Real-time parking availability information for key destinations.
- Information on how to get around on Mount Desert Island without a car for visitors before they leave home.

Visitors' Needs and Profile Summary

General Travel Information Needs

- Information about activities based on activity duration, such as driving the Park Loop Road or whale watching tours.
- Information regarding parking availability in Acadia National Park.
- Information for cruise ship passengers.
- Clearer road signs in the Park and at Park entrances.
- Consistent information from the Park, Chambers of Commerce, and other information providers.

Needs Specifically Relating to the Island Explorer

- More information on bus schedules.
- More routes, with increased service frequencies.
- Improved on-time performance.
- Clearer bus identification signs/system.
- Room for more bikes on each bus.
- Signs at bus stop location.

Visitor Profile Information

- 67% of those surveyed were college graduates; 34% had post graduate experience.
- Average household income \$67,495.
- 66% are technology oriented, based on an index of computer ownership, Internet access, and personal digital assistant/cell-phone ownership.

Visitor Trip Characteristics

- 49% used the Internet to plan their trip to Acadia National Park and Mount Desert Island.
- Vast majority (69%) of those visiting Acadia National Park and Mount Desert Island stay on the Island overnight.
- Vast majority (72%) of visitors staying overnight are in establishments that support TV, computer connections, or electronic kiosks.

Stakeholder Needs

Maine Department of Transportation Needs

- System that supports Maine's Strategic Passenger Transportation Plan.
- System that facilitates transfer from highway to non-highway systems.
- Increased non-automobile transportation.
- System easily integrated with other regional systems deployed in the region.
- Less illegal parking on State roads on the Island.
- Better information delivery concerning Americans with Disabilities Act for potential Island Explorer riders.
- Lower traffic volume between Bangor and Bar Harbor.
- Lower traffic volume on Route 1 and Interstate 95.

Friends of Acadia Needs

- Fewer private automobiles entering the Park.
- Reduced impact of automobiles on the Park's ecosystems.
- Lower auto emissions in the Park.
- Less traffic congestion in the Park.
- Less noise pollution in the Park.

Visitor Profile Information

- 67% of those surveyed were college graduates; 34% had post graduate experience.
- Average household income \$67,495.
- 66% are technology oriented, based on an index of computer ownership, Internet access, and personal digital assistant/cell-phone ownership.

Stakeholder Needs (continued)

Local Business Community Needs

- Less traffic congestion in downtown and commercial areas.
- Less demand for parking in downtown and commercial areas.
- More parking that will accommodate large vehicles, such as RVs.
- Island Explorer service or other reliable alternatives to private vehicle usage on the Island.
- Island Explorer operating hours corresponding to hours of daylight (9 p.m.).
- Reduce the frequency and impact of current mid-day traffic jams caused by CAT ferry service schedule.
- Real-time traffic management and information system for addressing congestion at attractions.
- Information for visitors regarding local activities and the availability of services.

1.5. Immediate Needs

Based on the findings of this assessment, the following have been as immediate needs:

Immediate Needs

- Less congestion at parking lots serving key destinations.
- Dependable alternative to private vehicles for travel on Island using efficient Island Explore service.
- Improve information delivery on Island Explorer vehicles.
- Real-time information on conditions at key parking lots.

2. BACKGROUND

2.1. Introduction

The DOT and DOI have initiated an ITS operational test for Acadia National Park. The goal of this effort is to enhance the quality of the Park experience for those visiting Acadia National Park and to increase DOT's capability for deploying ITS in rural areas.

This section provides background information on Acadia National Park and a brief overview of the project that this study supports.

2.2. Acadia National Park

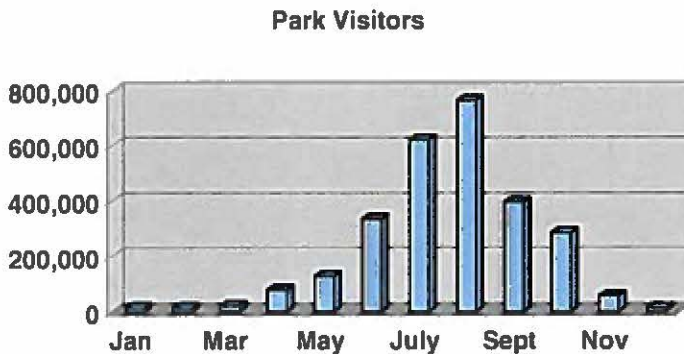


Acadia National Park encompasses 35,000 acres, primarily on Mount Desert Island, on Maine's eastern coast. The Park includes a variety of landforms ranging from granite cliff shorelines to pebble beaches, forests, mountains, and tidal pools. Not surprisingly, the Park contains a number of fragile ecosystems encompassing a diverse range of plant and animal life. The Park is home to a number of rare or endangered species such as peregrine falcons and bald eagles, harlequin ducks, seals, and porpoises. This diverse environment is host to a broad range of activities from traditional pastimes such as hiking, camping, and fishing to rock climbing, kayaking, and whale watching.

In large measure, the Park has become a victim of its own success. In 1997, over 2.75 million people visited the Park, with over 90 percent arriving between May and October. In all, over 1.7 million people visited the Park during the summer months of 1997. The number of visitors to Acadia National Park in July and August exceeded the number of visitors to Yosemite National Park, which encompasses a much greater area. Over 90 percent of those visiting Acadia National Park arrive in private automobiles and recreational vehicles. Recent and projected growth in visitation patterns point to a continuing increase in the number of people visiting the Park with increased pressure on already overburdened roadway and parking areas.

The number of visitors to the Park, combined with constraints on additional roadway and parking construction due to its island location, pose serious challenges for Acadia National Park and threaten the following:

- Natural resources of the Park (e.g., parking alongside roadways leading to erosion).
- The overall quality of visitors' experience as they encounter delays or are unable to access particular destinations within the Park or vistas and scenic overlooks blocked by parked cars.
- Visitor safety as visitors are forced to park in bicycle lanes or on the roadway itself due to the unavailability of designated parking spaces.



In addition, the Park is viewed as a crucial part of the economic health of the region, which is focused heavily on tourism. The year round population of Mount Desert Island, which includes the towns of Bar Harbor, Mount Desert, Southwest Harbor, and Tremont, as well as the vast majority of the Park's area, grows from approximately 9,600 during the off-season to approximately 25,000 during the summer. The issues outlined above, therefore, affect the gateway communities as well. Specific examples include:

- Quality of life for year-round residents of Mount Desert Island is facing increasing traffic congestion.
- Future economic health of the region should visitors be discouraged from visiting the region due to a degraded Park experience or severe traffic problems.

2.3. Acadia ITS Field Operational Test Project Overview

Three national parks with high visitation rates were each asked to submit a Strategy Document or informal proposal to a joint DOI/DOT technical review panel outlining transportation-related issues affecting the Park and how ITS might be used to address these issues.

The three parks were selected for consideration based on visitation levels, applicability of using traveler information to resolve common issues, and transferability of experience to other parks in the National Park System.

All three parks selected for consideration are among the 10 most visited national parks. In addition, all three are in the process of implementing transit systems, they share traffic congestion and parking availability concerns, and have gateway communities that will be served by the Parks' transit system.

A joint DOT/DOI technical review panel evaluated the Strategy Documents, met, and developed a consensus recommendation. Acadia was selected based on a number of criteria:

- Visitor impact/potential benefits.
- Transferability to other parks.
- Support to the Rural ITS Program.
- Probability of success.
- Schedule.
- Cost.

Following selection of Acadia National Park as the site for the operational test, DOT's Rural ITS consultant team, led by SAIC and supported by Castle Rock Consultants, TransCore, Multi-Systems, Larry Hanson Associates, and a steering committee composed of local stakeholders, initiated the first phase of the FOT. The objective of this phase of the FOT is to develop a design for the system that will be deployed.

It is understood that designing a successful system for the Park depends upon a clear understanding of the specific transportation needs of Park staff, visitors, and other stakeholders. Successful system design also depends on a clear understanding of local conditions as well as experience developing and deploying ITS systems that satisfy current travel needs while retaining the flexibility needed to meet future needs. This comprehensive transportation needs assessment is, therefore, a critical element in designing the system that will be deployed at Acadia National Park.

Figure 2-1 provides an overview of the FOT process as currently planned for Acadia National Park. Activities currently underway or complete are shown in blue. Activities shown in this figure are summarized below:

- **FOT Management & Coordination** – Provide project management structure to facilitate performance of the FOT.
- **Public/Private Partnership Opportunities** – Establish partnerships with public and private entities ensure both that the system serves as many stakeholders as possible and that a foundation for continued operation is formed.
- **User Needs Assessment** – Subject of this report.
- **System Concept Development** – Develop an overall system for the Park that addresses user needs documented in this report while acknowledging and balancing institutional and commercial realities.

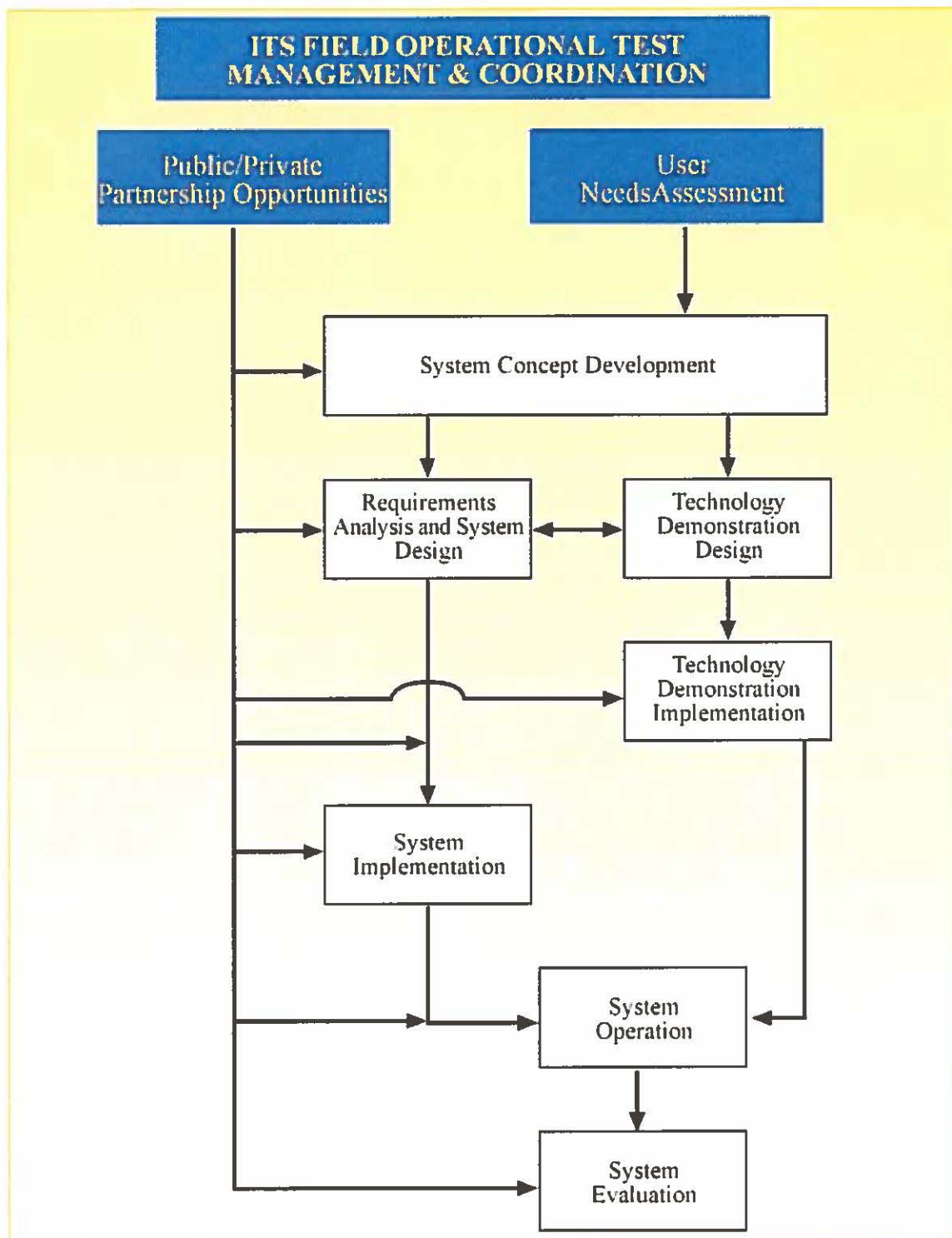


Figure 2-1. Acadia National Park FOT Development Overview

Requirements Analysis and System Design – Identify requirements of the proposed system concept and translate them into a specific design to satisfy those requirements.

- **Technology Demonstration Design** – Identify specific technologies and applications that address Immediate Needs identified in the User Needs Assessment as well as this document.
- **Technology Demonstration Implementation** – Implement technologies and applications in the Park to demonstrate their usefulness and effectiveness.
- **System Implementation** – Deploy and implement the entire system designed for the Park.
- **System Evaluation** – Evaluate the system implemented in the Park.

2.4. Report Organization

This report consists of six sections: Section 1, **Executive Summary**; Section 2, **Background**; Section 3, **Approach**, provides an overview of the approach used to conduct this transportation needs assessment; Section 4, **Acadia National Park Needs**, presents Park staff transportation needs; Section 5, **Stakeholder Needs**, presents transportation needs identified for local stakeholders; Section 6, **Visitor Needs**, presents transportation needs for visitors to Acadia National Park and Mount Desert Island; Section 7, **Immediate Needs**, lists user needs recommended for immediate attention.

Following Section 7, extensive appendices provide information about survey questionnaires and survey data.

3. APPROACH

The main objective of this study is to identify travel related information and transportation management needs of Acadia National Park staff, local stakeholders, and visitors to the Park. These needs will guide the design of the ITS applications deployed at the Park. Needs recommended for immediate attention are designated as immediate needs. The original proposal submitted by Acadia National Park served as the starting point for the needs assessment process, which also included the following:

- Park reaction to a draft System Concept report.
- Four Project Meetings at Acadia National Park Headquarters with Park staff.
- One-to-one interviews with Park staff and other community stakeholders.
- Survey of nearly 1,100 visitors to the Park and surrounding area during the summer of 1998.
- Survey of nearly 300 groups of Island Explorer shuttle bus riders conducted during the summer of 1998.
- Park-sponsored survey of Park visitors during the summer of 1997.

This study consisted of a number of parallel efforts to identify needs of various stakeholders:

- Acadia National Park staff.
- Visitors to Acadia National Park or Mount Desert Island.
- Local stakeholders.

Data collection methods are summarized in Table 3-1.

Table 3-1. Selected Data Collection Methods for Each User Category

Groups Surveyed	Data Collection			
	One-to-one Interviews	Recent Studies for the Park	Park-led Tours	FOT Proposal
Acadia National Park	One-to-one Interviews	Recent Studies for the Park	Park-led Tours	FOT Proposal
Park/Island Visitors	1999 Visitor Intercept Survey	1999 Survey on Island Explorer	1998 Visitor Study	
Local Stakeholders	One-to-one Interviews	Monthly Project Meetings	FOT Proposal	

A number of one-to-one and group interviews were held with Park staff, local stakeholders, and regional stakeholders to develop a thorough understanding of each constituency's needs or objectives as they relate to the FOT. Local and regional stakeholders such as environmental groups, Chambers of Commerce, regional tourism organizations, and State agencies reflect the diversity of groups with strong ties and interests in Acadia National Park. Information collected

at these interviews was supplemented with information from sources listed above to include the following:

- Acadia National Park's original proposal for the FOT.
- Discussions with Park staff during project meetings.
- Comments on the draft FOT system concept document.
- Information from other surveys.

A survey was given to Park and Mount Desert Island visitors between August 20 and October 9, 1999. The survey instrument and sampling locations were developed with guidance by Park staff. Data was collected on days and at times designed to yield a representative sample of visitors and Island residents. Approximately 57 percent of the 1,071 questionnaires were completed before Labor Day. See Appendix A for a copy of survey instrument.

A separate survey of those using the Island Explorer Shuttle service was conducted by a local transit planning firm. The Island Explorer, which carried approximately 2,000 riders per day (nearly triple the original 703 daily riders projected), consisted of eight eco-friendly propane-powered buses. The system provided free transit service to popular destinations and lodging sites in the Park and surrounding areas on Mount Desert Island. Nearly 300 groups (290) representing 762 individuals participated in the survey.

In all, survey data used in this needs assessment was collected from approximately 1,400 questionnaires. Given an average group size of 2.0 persons per intercept questionnaire and 2.6 persons per survey form from Island Explorer riders, survey information collected during 1999 encompasses information from 2,904 persons.

4. ACADIA NATIONAL PARK NEEDS

4.1. Introduction

This section presents transportation management and information needs identified during the needs assessment process. Transportation needs presented in this section focus on needs identified during extensive interviews with Acadia National Park staff, ranger-led tours of the Park, discussions during project meetings, comments on the draft FOT system concept report, and other sources listed previously. Findings regarding the Park list goals or objectives (things that need to be done, such as monitoring parking areas or encouraging people to ride the Island Explorer) as well as the types of information needed by Park staff. For simplicity of presentation, transportation goals are referred to as needs.

4.2. Acadia National Park User Needs

Information obtained during the study identified a number of Park transportation management and information needs. Findings fell into two general categories:

- Needs related to managing transportation in the Park.
- Information needs of visitors to Mount Desert Island.

Needs related to managing transportation in the Park are generally inter-related. The relationship between the need to reduce the level of traffic congestion in the Park and the need to reduce the number of vehicles entering the Park is clear. However, it is not the goal of Park staff to reduce the number of visitors to Acadia. Rather, it is the Park's goal to reduce the number of vehicles entering the Park, thereby enhancing the quality of each visitor's experience in this remarkable environment while preserving and protecting that environment.

Inter-related needs are grouped together to the extent possible and presented accordingly in the sections below. These inter-relationships will contribute to development of system functional requirements.

Transportation Management Needs

- Lower levels of traffic congestion in the Park.
- Fewer private vehicles entering the Park.
- Fewer private vehicles parking on roadway shoulders.
- Fewer private vehicles parking illegally.
- Less demand for spaces in parking lots.
- Lower vehicle emissions in the Park.
- Increased use of the Island Explorer Shuttle.
- More efficient Island Explorer Shuttle service.
- Improved information delivery on Island Explorer buses.
- Clear links between Park information sources and other information sources.
- Real-time traffic information for Park staff.
- Ability to track the exact location of Park vehicles and boats.
- Information packaged to meet changing visitor requirements.

Traveler Information Needs

- Stop location and background information on Island Explorer buses.
- Information on alternatives to driving to Park destinations.
- Information to assist with directions (en route).
- Current Park traffic condition information.
- Road condition/safety information.
- Enhanced Search and Rescue capabilities.
- Information in languages other than English (e.g., French, German).

5. STAKEHOLDER NEEDS

5.1. Introduction

This section presents stakeholder needs identified as a result of the user needs assessment effort. As noted previously, transportation-related needs of three general categories of stakeholders were examined in the course of this study:

- State agencies.
- Environmental groups.
- Local business and tourism community.

The needs of stakeholders representing the tourist industry are very closely aligned with the needs of the local business community. For this reason, tourism needs and local business needs are integrated in this report.

Findings for local stakeholders are provided in the following section.

5.2. Stakeholder Needs

Maine Department of Transportation needs, as related to this FOT, reflect the scope of the Department's goals and responsibilities. The Department needs range from ensuring that the design of the FOT will facilitate integration with future ITS deployments in the State to safety concerns arising from illegal parking on State roads serving the Park and Mount Desert Island.

Key Maine Department of Transportation needs identified in this study are presented below.

Maine Department of Transportation

- System that supports Maine's Strategic Passenger Transportation Plan.
- System that facilitates transfer from highway to non-highway systems.
- Increased non-automobile transportation.
- System easily integrated with other regional systems deployed in the region.
- Less illegal parking on State roads on the Island.
- Better information delivery concerning ADA for potential Island Explorer riders.
- Lower traffic volume between Bangor and Bar Harbor.
- Lower traffic volume on Route 1 and Interstate 95.

Friends of Acadia is a private, non-profit organization dedicated to preserving and protecting the outstanding beauty, ecological vitality, and cultural distinctiveness of Acadia National Park and thereby ensuring a quality experience for visitors and residents. Friends of Acadia has been closely involved in addressing traffic concerns on Mount Desert Island and has contributed over \$50,000 to the Island Explorer project. Transportation-related needs for this stakeholder focus on preserving the natural environment of the Park and local community.

Key Friends of Acadia needs identified in the course of this study are presented below.

Friends of Acadia

- Fewer private automobiles entering the Park.
- Reduced impact of automobiles on the Park's eco-systems.
- Lower auto emissions in the Park.
- Less traffic congestion in the Park.
- Less noise pollution in the Park.

Local business and tourism agencies (State and local) are keenly aware of the importance of Acadia National Park to the local economy. Business leaders expressed the view that the economic health of Island businesses closely mirrors the "health" of the Park, as measured by Park visitation levels. Business leaders, therefore, support efforts to maintain the quality of the Park visitor's experience. For this reason, interests of the business community and local environmental interests are more closely aligned than is frequently the case.

Although local businesses benefit from large numbers of visitors to Acadia National Park, transportation needs of local businesses reflect those of the Park. The number of cars entering local business or commercial districts frequently exceeds the carrying capacity of the local road networks. Not surprisingly, there is a chronic shortage of parking during the busy season, when traffic may be bumper to bumper. Business leaders noted that people coming from urban areas characterized by high levels of traffic congestion may not wish to vacation at Acadia National Park or on Mount Desert Island if they encounter the same traffic problems they are trying to escape.

Key local business needs are presented below.

Local Business and Tourism Community

- Less traffic congestion in downtown and commercial areas.
- Less demand for parking in downtown and commercial areas.
- More parking that will accommodate large vehicles such as RVs.
- Island Explorer service or other reliable alternatives to private vehicles usage on the Island.
- Island Explorer operating hours corresponding to hours of daylight (9 p.m.).
- Reduce frequency and impact of mid-day traffic jams caused by CAT ferry service schedule.
- Real-time traffic management and information system for addressing congestion at attractions.
- Information for visitors regarding local activities and the availability of services.

6. VISITOR USER NEEDS

6.1. *Travel-Related Needs of Visitors to Acadia National Park/Mount Desert Island*

Findings regarding travel-related information needs of visitors to the Park are organized into two categories:

- Needs specifically related to the Island Explorer Shuttle system.
- General traveler information needs.

Perhaps equally important, however, are findings regarding which information elements are most important and characteristics of visitors to Acadia National Park and Mount Desert Island. These two characteristics were identified for their obvious role in shaping the design of the system deployed in the FOT and in determining the priority with which system elements are deployed.

Visitor Needs Related to the Island Explorer Shuttle

- More information on bus schedules.
- More information about shuttle stop locations.
- More routes.
- Increased service frequencies.
- More room for bicycles.
- More seats on buses.
- Clearer announcements at bus stops.
- Improved on-time performance.
- Clearer identification on buses.

Other findings regarding transportation-related information needs are organized into three categories:

- Information used prior to leaving home.
- Information used while en route to Acadia National Park.
- Information used after arriving on Mount Desert Island.

This last category consists of information visitors might use prior to leaving their lodging or campground and while en route to a specific location in the Park or on the Island.

Visitor needs presented below represent the most important transportation-related information according to survey data. Survey findings are presented in Appendix B.

General traveler information needs of Park visitors are presented below.

Information Needs for Use Prior to Leaving Home

- Information about activities at Acadia National Park and on Mount Desert Island.
- More detailed information regarding transportation options for getting around on Mount Desert Island.

Information Needs While En Route to Acadia National Park

- Information about activities at Acadia National Park and the Island.
- Information regarding hours of operations of various attractions.
- Information about activities based on the duration of the activity (e.g., driving the Park loop road, whale-watching trips).
- Information for cruise ship passengers.



Figure 6-1. Passengers disembark from a cruise ship at Bar Harbor. Cruise lines may double the number of trips to the area, resulting in more than 80 per year.

Visitors were asked to rank the importance or usefulness of various types of information while they are on Mount Desert Island. Visitors ranked the information types on a scale of one to five, with five being highest or most important. Table 6-1 shows the relative importance, based on mean score, of the 13 types of information visitors were asked to consider.

Table 6-1. Information for Moving Around on Mount Desert Island

Information for Moving Around on Mount Desert Island	Mean
Calendar of Events	3.81
Hiking Trails	3.70
Park Ranger Programs	3.54
Current Traffic Situation	3.49
Parking Availability in the Park	3.47
Cultural Events and Museums	3.46
Parking Availability in Mount Desert Island	3.43
Shopping/Restaurants	3.37
Island Shuttle Service – Routes and Schedule Information	3.36
Ferry Routes and Schedules	3.33
Guided Tours	3.28
Current Estimated Travel Time	3.23
Bicycling Routes	3.22

**Information Needs After Arriving on Mount Desert Island or for
Island Residents**

- Information regarding current traffic conditions in the Park and surrounding communities.
- Information regarding parking availability in Acadia National Park.

In a 1998 survey conducted for Acadia National Park, visitors were asked about the location of traffic/parking problems in the Park and Mount Desert Island. Not surprisingly, locations that visitors noted most frequently as parking and congestion problem areas were also the most commonly visited sites in the Park (according to the same survey). Tables 6-2 and 6-3 present locations of parking problems and most frequently visited sites, respectively.

Table 6-2. Locations of Parking Problems Cited in 1998 Park Survey

Location of Parking Problems	Percentage Citing this Location*
Sand Beach to Thunder Hole Parking	33%
Cadillac Mountain Parking	5%
Bubbles Parking	3%
Trailhead Parking	2%
Visitor Center Parking	1%
Bass Harbor Lighthouse Parking	1%

*Of those noting parking/traffic congestion problems in the survey.

Table 6-3. Locations Cited in 1998 Park Survey as Most Frequently Visited

Most Commonly Visited Sites in Acadia National Park	Percentage Visiting this Site
Cadillac Mountain Summit	76%
Sand Beach/Thunder Hole	75%
Jordon Pond House	61%
Visitor Center	59%
Seawall Area	55%

6.2. Visitor Profile and Trip Data

Findings regarding visitor demographics revealed a number of characteristics that will be useful in guiding development of the system deployed for the FOT. Education level and average household income of visitors were especially of interest as both were substantially above norms for the State of Maine as well as the country as a whole. These two factors are especially important as they are thought to affect not only the way visitors currently access information but also to assess their willingness to use new information delivery technologies. In addition, a relatively high percentage (39 percent) indicated that they had used public transportation in the past 6 months. This suggests a substantial market for the Island Explorer or other alternative modes of travel in the Park and on Mount Desert Island. Basic demographic data collected during the 1999 intercept survey is shown in Table 6-4.

Table 6-4. Visitor Demographic Data

Demographic Characteristic	Percentage of Survey Respondents*
Education Characteristics	
Up to High School Graduate	11%
College Graduate	33%
Post Graduate Work/Degree	34%
Household Income	
\$20,000 - \$40,999	16%
\$41,000 - \$60,999	21%
\$61,000 - \$80,000	14%
More than \$80,000	32%
Technology Oriented	
Not Very Technology Oriented	34%
Somewhat Technology Oriented	27%
Very Technology Oriented	39%
Internet Access	
Have Access to Internet	86%
Internet Access at Home Only	22%
Internet Access at Work Only	14%
Internet Access at Home and at Work	50%
Cell Phone Ownership	
Own a Cell Phone	59%
Do Not Own Cell Phone	38%
Public Transportation Use	
Used Public Transportation in Last 6 Months	39%
Have Not Used Public Transportation in Last 6 Months	47%
Public Transportation Not Available in My Community	12%

Percentages may not total 100% due to rounding or non/incorrect response.

Key demographic information for the FOT is summarized below.

Key Visitor Demographic Data

- 67% of those surveyed were college graduates; 34% had post graduate experience.
- Average household income \$67,495.
- 66% are technology oriented, based on an index of computer ownership, Internet access, and personal digital assistant/cell-phone ownership.
- 86% of those surveyed have access to the Internet; 50% both at home and at work.
- 39% indicated that they had used public transportation in the past six months.

As mentioned above, an important element in designing the system for the FOT is determining current and potential methods that visitors to the Park might use to access travel-related information. Survey findings tend to support the connection between education level/household income and technology orientation. Higher household incomes provide the means of acquiring new technologies, such as personal digital assistants (PDAs) equipped with wireless modems and computers for home use. Nevertheless, absence of alternative sources of information requires visitors to rely on the Park's visitor centers and printed matter for information regarding travel on Mount Desert Island.

Visitor Information Access and Trip Planning

- 49% used the Internet to plan their trip to Acadia National Park and Mount Desert Island.
- 11% used the Internet to make lodging reservations.
- 48% used printed matter and 44% stopped at tourist or visitor information centers for travel information while en route to the Park/Mount Desert Island.
- Visitors rely on the Park's visitor center, Island residents, and printed materials for travel information while on the Island.

Findings regarding trip characteristics indicate a good potential market for addressing needs and objectives listed by Acadia National Park staff. However, visitor center information indicates that they still receive inquiries from "day-trippers" regarding Park features and attractions. Although small as a percentage of all visitors (5 percent) this latter category of visitor may represent an important target market for travel information. According to visitor center staff many of these visitors drive large recreational vehicles and/or vehicles with trailers. These vehicles require substantial space to park, are heavier, and are more likely to obstruct views due to their height. In addition, a relatively significant percentage (26 percent) of visitors staying on Mount Desert Island overnight made same-day lodging reservations by going from one lodging establishment after another until finding a vacancy or suitable accommodations.

Visitor Trip Characteristics

- Vast majority (69%) of those visiting Acadia National Park and Mount Desert Island stay on the Island overnight.
- Average trip duration is between 4 and 5 days for those staying overnight.
- Vast majority (72%) of visitors staying overnight are in establishments that support TV, computer connections, or electronic kiosks.
- Duration of same day visits generally fall into two categories: less than 2 hours and 4 to 6 hours.

7. IMMEDIATE NEEDS

7.1. Introduction

This section presents immediate needs recommended for consideration for immediate action. Based on the findings of this assessment, several Park needs in the area of transportation management were selected for immediate attention. Immediate needs were selected based on the following criteria:

- Impact they would have in achieving Acadia National Park and stakeholder goals.
- Speed/ease with which they could be deployed.
- Length of time required to realize benefits.
- Level of associated risk/potential integration difficulties in the future.

In addition to Park needs, the immediate needs identified in this section would also address a number of visitor needs. Immediate needs are listed below.

Visitor Needs Related to the Island Explorer

- More information on bus stop locations.
- More information on bus schedules.
- Clearer announcements at bus stops.
- Improved on-time Island Explorer service.

General Traveler Information Needs

- More detail information regarding transportation options for getting around on Mount Desert Island.
- Information about Park activities based on the duration of the activity.
- Information regarding Park attraction hours of operation.
- Information regarding the availability of parking in the Park.

7.2. Real-time Information for Parking Lots and Traffic Conditions

Park officials have expressed the need to be able to automatically monitor parking conditions at popular Park sites that experience a chronic shortage of parking, such as the Jordan Pond House. Parking shortages frequently lead visitors to park alongside roadways, as shown in Figure 7-1, creating unsafe conditions for pedestrians walking to and from their vehicles and motorists driving through these areas.



Figure 7-1. Overflow parking along roadway at Jordon Pond House.

These conditions also add to congested conditions upstream from the site as a bottleneck is created as motorists slow to transit the area, look for parking spaces, or block traffic as they park. Park staff use of real time parking lot information is presented on the following page.

Alert visitors of traffic conditions in the area so they are prepared for potential slow traffic in those cases where there are no viable alternative routes

Park Staff Information Use of Near-Real Time Parking Lot Data

- Guide motorists to alternative parking sites.
- Provide parking information to visitors to encourage them to use the Island Explorer or choose an alternative destination.
- Dispatch park staff to manage traffic and eliminate unsafe travel conditions for visitors.
- Alert visitors of a possible traffic bottleneck so they can choose a route that does not take them through the site.
- Alert visitors of traffic conditions in the area so they are prepared for potential slow traffic in those cases where there are no viable alternative routes.

7.3. Dependable Alternative to Using Private Vehicles for Travel Around Mount Desert Island

Park officials have emphasized the importance of reducing the number of private vehicles entering the Park as key to ensuring that visitors are able to continue to fully appreciate the natural beauties found at Acadia National Park. Aside from easing traffic congestion, reducing the number of cars entering the Park also reduces vehicle exhausts responsible in part for hazy conditions around Mount Desert Island during the summer, and poorer air quality in general. Soil erosion and compaction caused by vehicles parking outside designated parking areas is also reduced with fewer vehicles entering the Park.



Figure 7-2. Island Explorer provides eco-friendly transportation between the Park and destinations that experience chronic traffic congestion conditions.

The Park's initial trial of a free service providing environmentally friendly transit service around the Park was, by all measures, a great success. The Park plans to expand the number of vehicles for the summer 2000 season. Ensuring that visitors are aware of this transportation alternative and encouraging them to leave their cars outside the Park have been identified as key management needs.

Promoting the Island Explorer as a Dependable Alternative to Using Private Vehicles for Traveling around Mount Desert Island

- Reduce traffic congestion in the Park and surrounding communities.
- Reduce parking problems to Park attractions for those unable to ride the Island Explorer.
- Improve safety by reducing traffic tie-ups and illegal parking.
- Improve access to scenic vistas and other Park attractions.
- Reduce vehicle emissions that aggravate respiratory conditions of Park visitors, have a detrimental effect on Park flora and fauna, contribute to air regional air pollution levels, and create hazy conditions that degrades scenic views around the Park.
- Help soil conservation efforts by reducing the number of vehicles forced to park outside designated parking areas.

7.4. *More Efficient Island Explorer Service*

As noted in the Section 7.3, Park officials have emphasized the importance of reducing the number of private vehicles entering the Park. While the Park and other stakeholders may actively promote use of the Island Explorer, this effort will not generate repeat riders if the shuttle system does not provide the service necessary to meet the needs of potential riders. In addition, system efficiency will be necessary to generate the type of word-of-mouth “advertising” needed to supplement other promotional efforts. This is especially true as 52 percent of the visitors surveyed in 1999 reported that they rely on people in the area to give information about getting around on Mount Desert Island.



Figure 7-3. Improving efficiency will be necessary to maintain high ridership.

Reasons for/and benefits of improved Island Explorer service efficiency are presented below.

Reasons for/and Benefits of Improved Island Explorer Service Efficiency

- Reduce vehicle emissions that aggravate respiratory conditions of Park visitors, have a detrimental effect on Park flora and fauna, contribute to air regional air pollution levels, and create hazy conditions that degrades scenic views around the Park.
- Minimize operations and maintenance costs.
- Improve public perception of Island Explorer system and, thereby, encourage ridership.
- Maximize service that can be provided with available resources.
- Encourage support of business community and other potential sources of financial support by demonstrating sound return on investment.

7.5. Improved Information Delivery on Island Explorer Vehicles

A key element of the Park's approach to deal with the excessive numbers of private vehicles entering the Park will involve the Island Explorer. Therefore, as is the case regarding the need to improve efficiency, improvements to the service will add value to the service provided by the Island Explorer, improving its chance to be seen as an attractive alternative to private automobiles. According to rider survey conducted during the summer of 1999, riders appreciated the additional information provided by Island Explorer vehicle operators.



Figure 7-4. Providing clear and useful information to passengers will add value to Island Explorer Service and enhance visitor enjoyment of the park.

Park staff also noted that the Island Explorer provides the Park service with an excellent opportunity to convey information regarding the fragile nature of the Park's ecosystem. In addition, improved information delivery will increase operating efficiency as useful information regarding system routes and schedules can be disseminated without the driver being delayed by passenger questions when they are entering or exiting the vehicle.

Purpose and benefits of improving information delivery on the Island Explorer are summarized below.

Purpose of Improved Information Delivery on the Island Explorer

- Reduce vehicle emissions that aggravate respiratory conditions of Park visitors, have a detrimental effect on Park flora and fauna, contribute to air regional air pollution levels, and create hazy conditions that degrades scenic views around the Park.
- Minimize operations and maintenance costs.
- Improve public perception of Island Explorer system and thereby encourage ridership.
- Maximize service that can be provided with available resources.
- Encourage support of the business community and other potential sources of financial support by demonstrating potential revenue generation.
- Improve operating efficiency

APPENDICES

APPENDIX A: SURVEY QUESTIONNAIRE

Dear Visitor,

We are designing a new information system for Downeast Maine and we need your help! We would like to find out about your trip to Mount Desert Island/Acadia National Park. Please take a few minutes to complete this questionnaire and return it to the person who gave it to you. Your opinions are important to us!

Thank you for your participation!

Part I: Trip Information

1. Including yourself, how many people are in your immediate travel party? _____ people

(Do not include all people in a group tour - only those in your immediate party)

2. Are you a

Summer resident of Mount Desert Island ☐ -1 Go to Question 14

Year-round resident of Mount Desert Island ☐ -2 Go to Question 14

Visitor to Mount Desert Island ☐ -3 Go to next question

3. On how many days in total do you plan to visit Mount Desert Island/Acadia National Park? ____ days

4. During this trip to Mount Desert Island/Acadia National Park, are you staying overnight on Mount Desert Island?

Yes ☐ -1 - Please go to next question No ☐ -2 - Please go to Question 6

5. What type of overnight accommodations did you use during this visit?

Campground in Acadia National Park ☐ -1 Motel or Hotel ☐ -5

Private campground ☐ -2 Bed and breakfast ☐ -6

Stayed with friends or relatives ☐ -3 Other (Please specify) ☐ -7

Short-term House rental ☐ -4 _____

6. If you did not stay overnight on Mount Desert Island/Acadia National Park during this trip, in what area town did you stay?

I am on a day trip and will not be staying overnight ☐ -1 - Please go to Question 8

Trenton ☐ -2 Ellsworth ☐ -4

Bangor ☐ -3 Other (Please specify) _____ ☐ -5

7. What method did you use to reserve a campsite or a room at the lodging establishment that you are using on this trip?

Travel agent	[]-1	National reservation service	[]-6
Called establishments directly	[]-2	Reserved rooms using the Internet	[]-7
Stopped in	[]-3	Other (Please specify)	[]-8
AAA	[]-4	_____	
Visitor Center reservations	[]-5		

8. In the past 3 years, including this trip, on how many occasions have you visited Mount Desert Island/Acadia National Park? _____

Part II: Planning your trip to Mount Desert Island/Acadia National Park

9. What sources did you use to plan your trip to Mount Desert Island/Acadia National Park? (Please check all that apply)

Previous visits	☐ 1-1	Chambers of Commerce	☐ 1-1
Travel guide/tour book	☐ 1-2	Newspaper/magazine article	☐ 1-2
Friends and relatives	☐ 1-3	Phone inquiry to Acadia National Park	☐ 1-3
Internet- Acadia home page	☐ 1-4	TV/Radio programs	☐ 1-4
Internet – other Web site	☐ 1-5	Visitors Centers	☐ 1-5
Travel agent	☐ 1-6	Other (Please specify) _____	☐ 1-6

10. How useful would it have been to have had the following information *before you left your home* to begin this trip to Mount Desert Island/Acadia National Park (MDI/ANP)? (Please circle)

	Not at all Useful	Not Very Useful	Some-what Useful	Very Useful	Extremely Useful
Transportation options to get to MDI/ANP (e.g., airlines, ferries, buses, airport shuttles, future rail, etc.)	1	2	3	4	5
Alternative auto routes to MDI/ANP	1	2	3	4	5
Estimated auto travel time	1	2	3	4	5
Parking availability	1	2	3	4	5
Other Maine destinations	1	2	3	4	5
Transportation options to get around MDI/ANP (e.g., bus, bike, walk, etc.)	1	2	3	4	5
What there is to see and do in the area	1	2	3	4	5
Hours of operation and entrance fees to sites on MDI/ANP	1	2	3	4	5

Part III: Getting to Mount Desert Island/Acadia National Park

11. Which of the following methods do you use to give you up-to-the-minute travel information on your way to Mount Desert Island/Acadia National Park? (Check all that apply)

- | | | | |
|---|-----------------------------|--|-----------------------------|
| Cell phone | ☐ -1 | Commercial radio stations | ☐ -1 |
| Pay phone | ☐ -2 | Looking at Guide Book/ Printed materials | ☐ -2 |
| Stopping at tourist or visitor
information centers | ☐ -3 | Talking to people in local communities | ☐ -3 |
| Electronic signs | ☐ -4 | Terminal (bus, airport, ferry) kiosks | ☐ -4 |
| Informational radio stations | ☐ -5 | Other (Please specify) _____ | ☐ -5 |

12. How useful would it have been to have the following information on your way to Mount Desert Island/Acadia National Park (MDI/ANP)? (Please circle)

	Not at all Useful	Not Very Useful	Some- what Useful	Very Useful	Extre- mely Useful
Transportation options to get to MDI/ANP (e.g., airlines, ferries, buses, airport shuttles, future rail, etc.)	1	2	3	4	5
Alternative auto routes to MDI/ANP	1	2	3	4	5
Estimated auto travel time	1	2	3	4	5
Parking availability	1	2	3	4	5
Other Maine destinations	1	2	3	4	5
Transportation options to get around MDI/ANP (e.g., bus, bike, walk, etc.)	1	2	3	4	5
What there is to see and do in the area	1	2	3	4	5
Hours of operation and entrance fees to sites on MDI/ANP	1	2	3	4	5

13. How would you most prefer to receive the following information on your way to Mount Desert Island/Acadia National Park (MDI/ANP)? (Please circle one for each information type)

Information Type	Electronic Signs	Cell Phone	Info. Radio Station	Electronic Info. Kiosks	Personal Digital Assistant
Transportation options to get to MDI/ANP (e.g., airlines, ferries, buses, airport shuttles, future rail, etc.)	1	2	3	4	5
Alternative auto routes to MDI/ANP	1	2	3	4	5
Estimated auto travel time	1	2	3	4	5
Parking availability	1	2	3	4	5
Other Maine destinations	1	2	3	4	5
Transportation options to get around MDI/ANP (e.g. bus, bike, walk, etc.)	1	2	3	4	5
What there is to see and do in the area	1	2	3	4	5
Hours of operation and entrance fees to sites on MDI/ANP	1	2	3	4	5

Part IV: Getting around Mount Desert Island/Acadia National Park

14. How useful would it be to have the following information while visiting Mount Desert Island/Acadia National Park (MDI/ANP)? (Please circle)

	Not at all Useful	Not Very Useful	Some-what Useful	Very Useful	Extremely Useful
Parking availability in Acadia National Park	1	2	3	4	5
Parking availability in Mount Desert Island towns	1	2	3	4	5
Current traffic situation	1	2	3	4	5
Current estimated travel time	1	2	3	4	5
Island shuttle buses – routes, schedule information	1	2	3	4	5
Acadia National Park ranger programs	1	2	3	4	5
Guided tours	1	2	3	4	5
Shopping/restaurants	1	2	3	4	5
Cultural events/museums	1	2	3	4	5
Bicycling routes	1	2	3	4	5
Hiking trails	1	2	3	4	5
Ferry routes and schedules	1	2	3	4	5

Calendar of events	1	2	3	4	5
--------------------	---	---	---	---	---

15. While you are in the area, which of these methods do you use for information about the area? (Check all that apply)

Information center kiosks	☐ -1	Local cable TV stations	☐ -1
Kiosks or computers in your hotel or campground	☐ -2	Personal computer/Internet	☐ -2
People in the area	☐ -3	Electronic signs	☐ -3
Chambers of Commerce	☐ -4	Informational radio stations	☐ -4
Acadia National Park Visitor Centers	☐ -5	Commercial radio stations	☐ -5
PDA (Personal Digital Assistant)	☐ -6	Guide Book/ Printed materials	☐ -6
		Other (Please specify)	☐ -7

16. Following are potential methods to obtain information about Mount Desert Island/Acadia National Park while you are in the area. Please tell us how useful each method is. (Please circle)

	Not at all useful	Not Very Useful	Some-what Useful	Very Useful	Extremely useful
Information center kiosks	1	2	3	4	5
Kiosks or computers in your hotel or campground	1	2	3	4	5
People in the area	1	2	3	4	5
Chambers of Commerce	1	2	3	4	5
Acadia National Park Visitor Centers	1	2	3	4	5
PDA (Personal Digital Assistant)	1	2	3	4	5
Local cable TV stations	1	2	3	4	5
Personal computer/Internet	1	2	3	4	5
Electronic signs	1	2	3	4	5
Informational radio stations	1	2	3	4	5
Commercial radio stations	1	2	3	4	5
Guide Book/ Printed materials	1	2	3	4	5

Part V: Technology and Transportation

17. Do you have access to a computer at your home or at work?

Home ☐ -1 Work ☐ -2 Both ☐ -3 Neither ☐ -4

18. Do you have access to the Internet at home or at work?

Home ☐ -1 Work ☐ -2 Both ☐ -3 Neither ☐ -4

19. Do you use any of the following?

Cell phone	Yes ☐ -1	No ☐ -2
Personal digital assistant with modem (e.g., Palm pilot, pager, etc.)	Yes ☐ -1	No ☐ -2
Personal digital assistant without modem (e.g., Palm pilot, pager, etc.)	Yes ☐ -1	No ☐ -2
Informational Kiosks	Yes ☐ -1	No ☐ -2

20. On how many occasions in the past 6 months would you say you used the public transportation system in your home community?

Not available in my community ☐ -1

Several times a week or more	☐ -2	Once – twice a month	☐ -5
Once – twice a week	☐ -3	A few times	☐ -6
Several times a month	☐ -4	Never	☐ -7

Part VI: About You

21. Are you currently a resident of --

United States ☐ -1 Zip Code: _____

Another Country ☐ -2 _____

22. What is your age? _____ yrs. 23. What is your gender? Male ☐ -1 Female ☐ -2

24. What is the last year of formal schooling you personally completed?

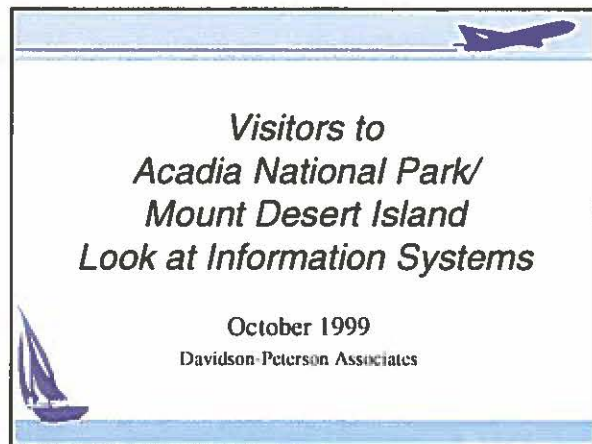
Up to High School graduate	☐ -1	College graduate	☐ -3
Some college		Post graduate work/degree	☐ -4
(including AA degree)	☐ -2	Technical School/other	☐ -5

25. Which of the following categories includes your annual pre-tax household income?

Less than \$20,000	☐ -1	\$61,000-\$80,000	☐ -4
\$20,000-\$40,999	☐ -2	More than \$80,000	☐ -5
\$41,000-\$60,999	☐ -3		

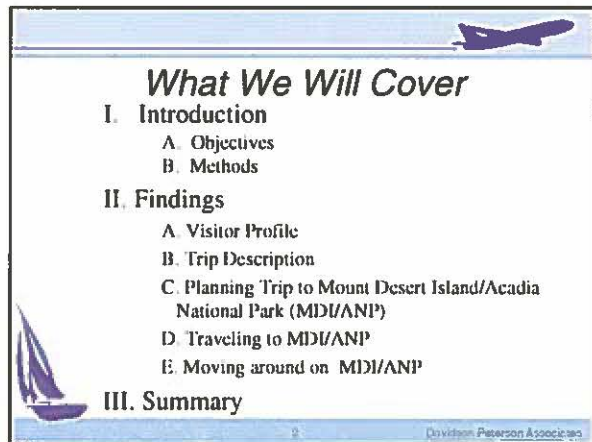
Thank you for your time. Your participation is greatly appreciated.

APPENDIX B: SUMMARY OF SURVEY RESPONSES



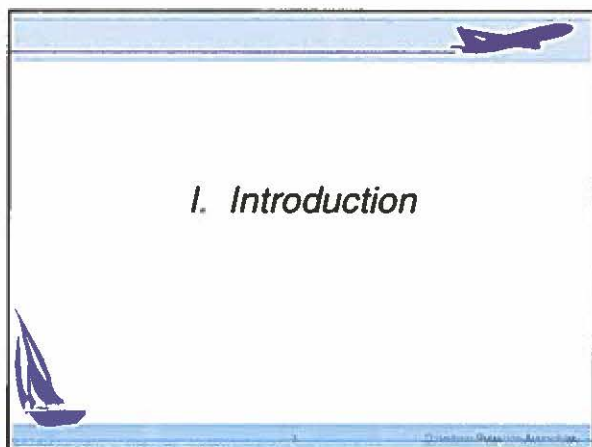
**Visitors to
Acadia National Park/
Mount Desert Island
Look at Information Systems**

October 1999
Davidson-Peterson Associates



What We Will Cover

- I. Introduction**
 - A. Objectives
 - B. Methods
- II. Findings**
 - A. Visitor Profile
 - B. Trip Description
 - C. Planning Trip to Mount Desert Island/Acadia National Park (MDI/ANP)
 - D. Traveling to MDI/ANP
 - E. Moving around on MDI/ANP
- III. Summary**



I. Introduction



A. Objectives

- ◆ To assess visitor and resident information needs;
- ◆ To determine use of available information systems; and
- ◆ To assess preference for potential information systems.



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B. Methods

- ◆ Intercept survey of 1,071 residents and visitors to Mount Desert Island/Acadia National Park.
- ◆ A self-administered questionnaire
- ◆ Data collection was completed between August 20 and October 9, 1999.



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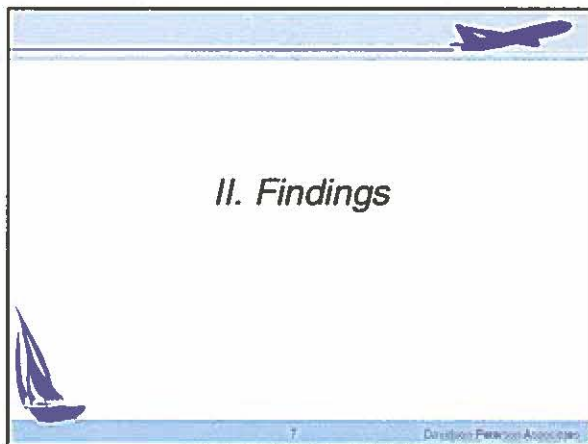
B. Methods

- ◆ Field Assignments

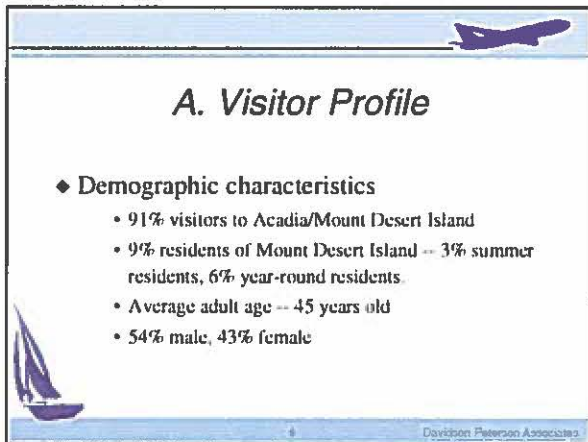
	<u>Percent of Total</u>
• East Side	33%
• Towns	18%
• Seawall Area	17%
• Carriage Road Trailheads	12%
• East Side Trailheads/Campgrounds	9%
• Echo Lake Beach/West Side Trailheads	7%
• Thompson Island Information Center	5%



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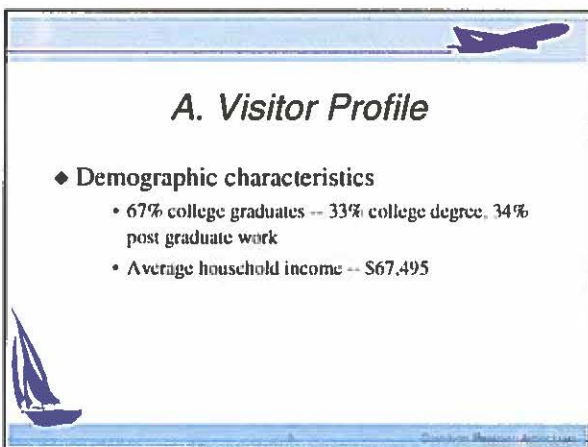
Slide 7 features a light blue header with a small airplane icon in the top right corner. The main content area is white with the title "II. Findings" centered in a black serif font. A small sailboat icon is positioned in the bottom left corner. The footer consists of a light blue bar containing the number "7" and the text "Davidson Peterson Associates" on the right.



Slide 8 features a light blue header with a small airplane icon in the top right corner. The title "A. Visitor Profile" is centered in a black serif font. Below the title, a section header "◆ Demographic characteristics" is followed by a bulleted list:

- 91% visitors to Acadia/Mount Desert Island
- 9% residents of Mount Desert Island -- 3% summer residents, 6% year-round residents
- Average adult age -- 45 years old
- 54% male, 43% female

 A small sailboat icon is in the bottom left corner. The footer is a light blue bar with the number "8" and "Davidson Peterson Associates" on the right.



Slide 9 features a light blue header with a small airplane icon in the top right corner. The title "A. Visitor Profile" is centered in a black serif font. Below the title, a section header "◆ Demographic characteristics" is followed by a bulleted list:

- 67% college graduates -- 33% college degree, 34% post graduate work
- Average household income -- \$67,495

 A small sailboat icon is in the bottom left corner. The footer is a light blue bar with the number "9" and "Davidson Peterson Associates" on the right.

A. Visitor Profile

- ◆ 66% technology-oriented
 - Index created based on whether or not they have a computer, access to the internet, a cell phone or a PDA
 - 59% have a computer at home and at work
 - 50% have internet access at home and at work
 - 59% have a cell phone
 - 12% use a PDA with modem
 - 10% use a PDA without a modem
- ◆ 86% have access to the Internet

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A. Visitor Profile

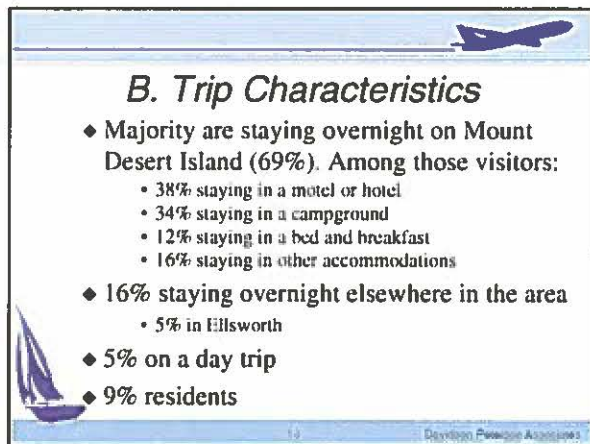
- ◆ 39% have used public transportation in the past 6 months
- ◆ 12% do not have public transportation available in their home community

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B. Trip Characteristics

- ◆ 2.0 people per party
- ◆ Plan to visit Acadia/Mount Desert Island 4.3 days

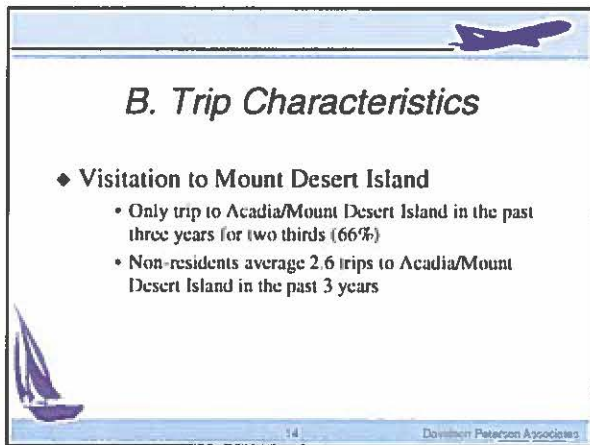
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B. Trip Characteristics

- ◆ Majority are staying overnight on Mount Desert Island (69%). Among those visitors:
 - 38% staying in a motel or hotel
 - 34% staying in a campground
 - 12% staying in a bed and breakfast
 - 16% staying in other accommodations
- ◆ 16% staying overnight elsewhere in the area
 - 5% in Ellsworth
- ◆ 5% on a day trip
- ◆ 9% residents

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B. Trip Characteristics

- ◆ Visitation to Mount Desert Island
 - Only trip to Acadia/Mount Desert Island in the past three years for two thirds (66%)
 - Non-residents average 2.6 trips to Acadia/Mount Desert Island in the past 3 years

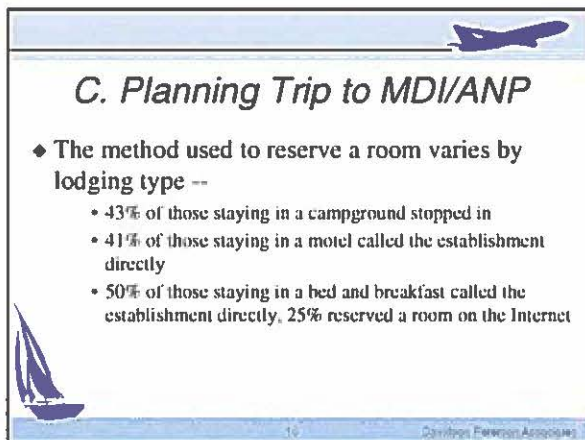
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C. Planning Trip to MDI/ANP

- ◆ Lodging reservations --
 - 36% called establishment directly
 - 26% stopped in
 - 11% used the Internet
 - 7% AAA
 - 20% other (national reservation service, friends and relatives, travel agent, visitor centers reservations, realtor)

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C. Planning Trip to MDI/ANP

- ◆ The method used to reserve a room varies by lodging type --
 - 43% of those staying in a campground stopped in
 - 41% of those staying in a motel called the establishment directly
 - 50% of those staying in a bed and breakfast called the establishment directly, 25% reserved a room on the Internet

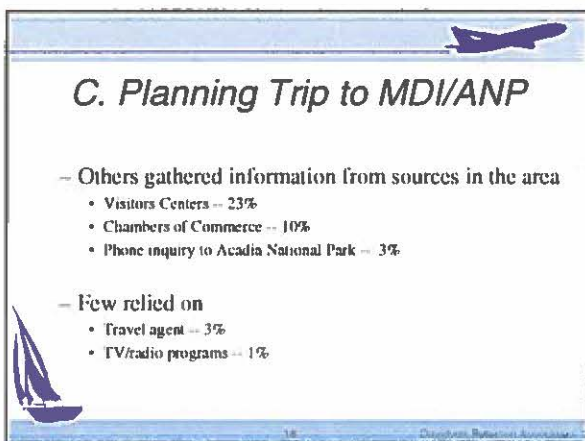
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C. Planning Trip to MDI/ANP

- ◆ Visitors used various sources to plan trip
 - One half used information from Travel Guides or the Internet
 - 51% Travel Guide/Tour book/map
 - 49% Internet -- 25% Acadia Home Page, 24% Other sites
 - Slightly fewer than half relied on information from their own experience or the experience of people they trust
 - 45% Previous visits
 - 38% Friends and relatives

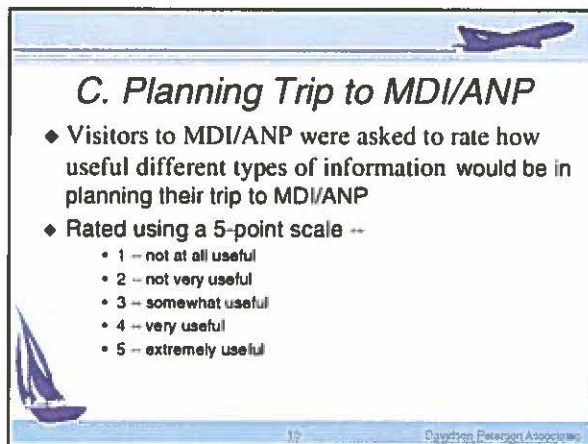
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C. Planning Trip to MDI/ANP

- Others gathered information from sources in the area
 - Visitors Centers -- 23%
 - Chambers of Commerce -- 10%
 - Phone inquiry to Acadia National Park -- 3%
- Few relied on
 - Travel agent -- 3%
 - TV/radio programs -- 1%

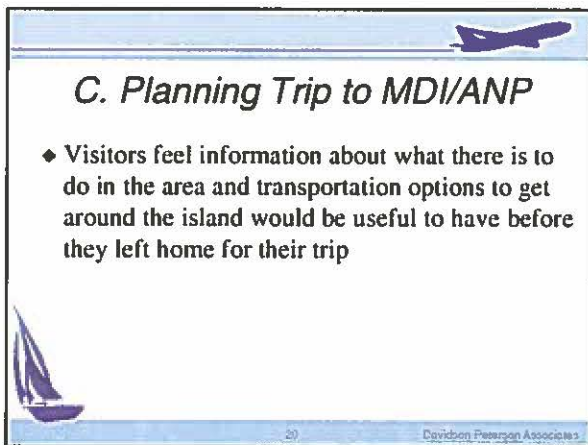
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C. Planning Trip to MDI/ANP

- ◆ Visitors to MDI/ANP were asked to rate how useful different types of information would be in planning their trip to MDI/ANP
- ◆ Rated using a 5-point scale --
 - 1 -- not at all useful
 - 2 -- not very useful
 - 3 -- somewhat useful
 - 4 -- very useful
 - 5 -- extremely useful

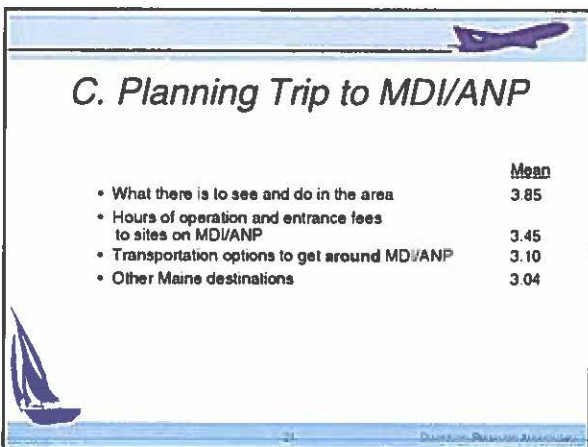
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C. Planning Trip to MDI/ANP

- ◆ Visitors feel information about what there is to do in the area and transportation options to get around the island would be useful to have before they left home for their trip

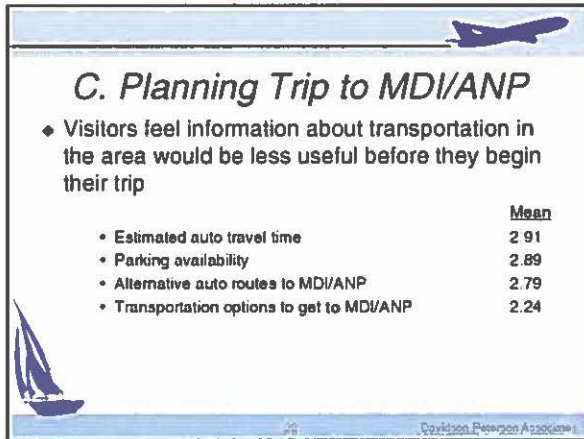
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C. Planning Trip to MDI/ANP

	Mean
• What there is to see and do in the area	3.85
• Hours of operation and entrance fees to sites on MDI/ANP	3.45
• Transportation options to get around MDI/ANP	3.10
• Other Maine destinations	3.04

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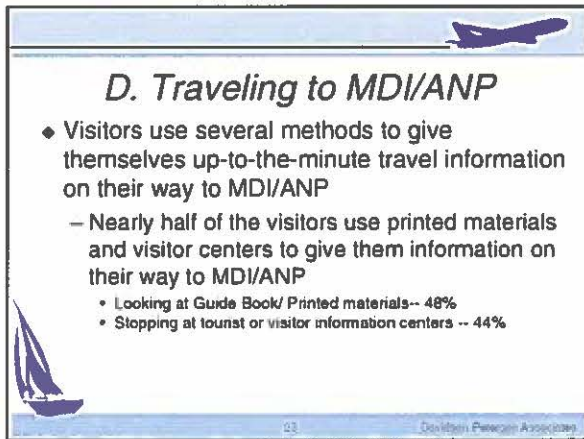


C. Planning Trip to MDI/ANP

- Visitors feel information about transportation in the area would be less useful before they begin their trip

	Mean
• Estimated auto travel time	2.91
• Parking availability	2.89
• Alternative auto routes to MDI/ANP	2.79
• Transportation options to get to MDI/ANP	2.24

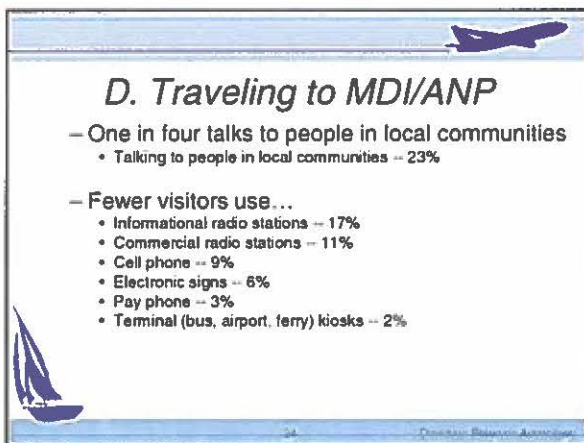
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D. Traveling to MDI/ANP

- Visitors use several methods to give themselves up-to-the-minute travel information on their way to MDI/ANP
 - Nearly half of the visitors use printed materials and visitor centers to give them information on their way to MDI/ANP
 - Looking at Guide Book/ Printed materials -- 48%
 - Stopping at tourist or visitor information centers -- 44%

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D. Traveling to MDI/ANP

- One in four talks to people in local communities
 - Talking to people in local communities -- 23%
- Fewer visitors use...
 - Informational radio stations -- 17%
 - Commercial radio stations -- 11%
 - Cell phone -- 9%
 - Electronic signs -- 6%
 - Pay phone -- 3%
 - Terminal (bus, airport, ferry) kiosks -- 2%

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City of Victoria **Pedestrian Association**

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Check back for updates and more.

D. Traveling to MDI/ANP

- ♦ Visitors feel information on transportation options to get to MDI/ANP is not very useful on their way to MDI/ANP

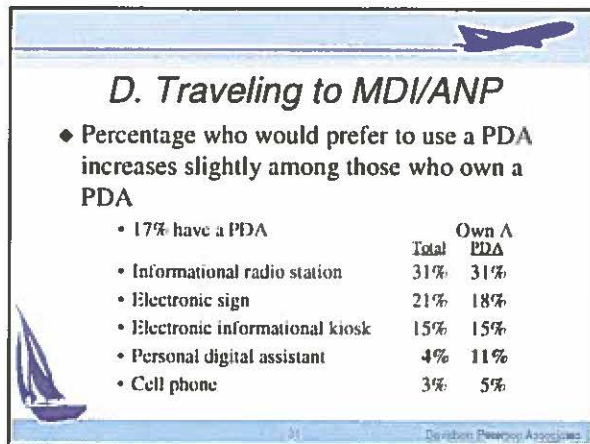
Mean

- Transportation options to get to MDI/ANP 2.15

D. Traveling to MDI/ANP

- ♦ Visitors were asked how they would prefer to receive information as they travel to MDI/ANP

Information Type	Info. Radio Station	Electronic Signs	Electronic Info. Kiosks	Personal Digital Assistant	Cell Phone
Transportation options to get to MDI/ANP	31%	23	12	3	3
Alternative auto routes to MDI/ANP	31%	25	12	3	3
Estimated auto travel time	31%	23	12	3	4
Parking availability	28%	25	12	3	3
Other Maine destinations	33%	15	16	4	3
Transportation options to get around MDI/ANP	28%	19	18	3	2
What there is to see and do in the area	33%	15	20	5	2
Hours of operation and entrance fees to sites on MDI/ANP	28%	21	15	4	3
Average	31%	21%	15%	4%	3%

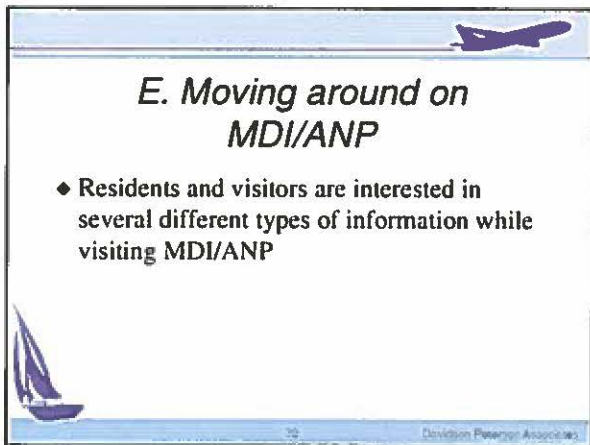


D. Traveling to MDI/ANP

- Percentage who would prefer to use a PDA increases slightly among those who own a PDA

	Total	Own A PDA
• 17% have a PDA		
• Informational radio station	31%	31%
• Electronic sign	21%	18%
• Electronic informational kiosk	15%	15%
• Personal digital assistant	4%	11%
• Cell phone	3%	5%

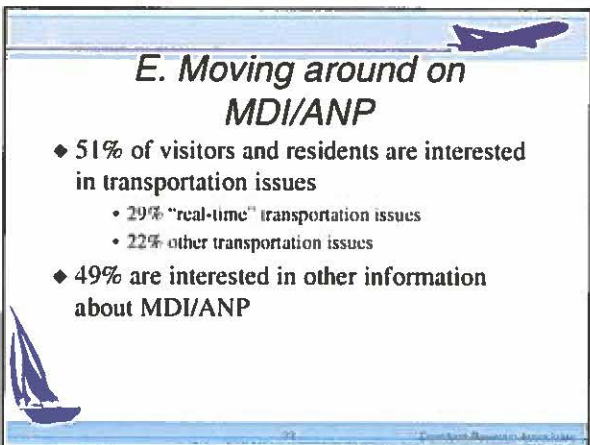
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E. Moving around on MDI/ANP

- Residents and visitors are interested in several different types of information while visiting MDI/ANP

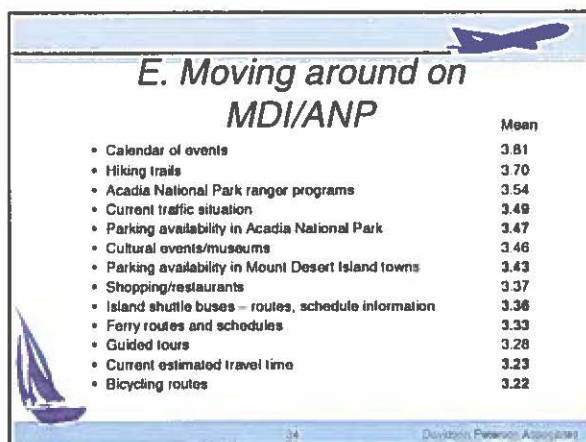
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E. Moving around on MDI/ANP

- 51% of visitors and residents are interested in transportation issues
 - 29% "real-time" transportation issues
 - 22% other transportation issues
- 49% are interested in other information about MDI/ANP

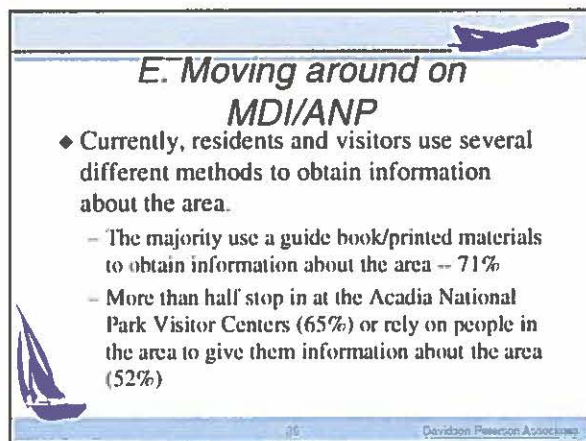
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E. Moving around on MDI/ANP

	Mean
• Calendar of events	3.81
• Hiking trails	3.70
• Acadia National Park ranger programs	3.54
• Current traffic situation	3.49
• Parking availability in Acadia National Park	3.47
• Cultural events/museums	3.46
• Parking availability in Mount Desert Island towns	3.43
• Shopping/restaurants	3.37
• Island shuttle buses – routes, schedule information	3.36
• Ferry routes and schedules	3.33
• Guided tours	3.28
• Current estimated travel time	3.23
• Bicycling routes	3.22

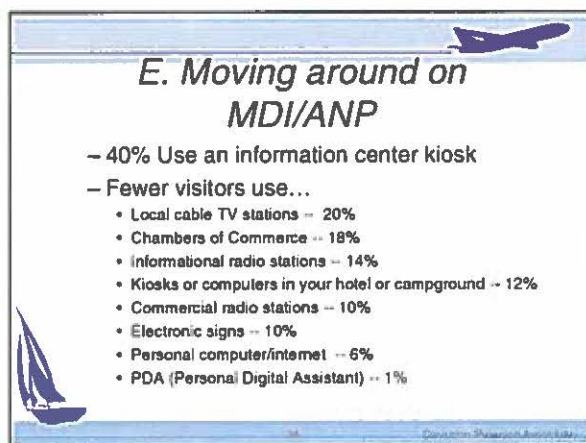
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E. Moving around on MDI/ANP

- ♦ Currently, residents and visitors use several different methods to obtain information about the area.
 - The majority use a guide book/printed materials to obtain information about the area -- 71%
 - More than half stop in at the Acadia National Park Visitor Centers (65%) or rely on people in the area to give them information about the area (52%)

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E. Moving around on MDI/ANP

- 40% Use an information center kiosk
- Fewer visitors use...
 - Local cable TV stations -- 20%
 - Chambers of Commerce -- 18%
 - Informational radio stations -- 14%
 - Kiosks or computers in your hotel or campground -- 12%
 - Commercial radio stations -- 10%
 - Electronic signs -- 10%
 - Personal computer/internet -- 6%
 - PDA (Personal Digital Assistant) -- 1%

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E. Moving around on MDI/ANP

- ◆ Visitors were asked to rate the usefulness of several methods of obtaining information while they are on MDI
- ◆ Rated on 5-point useful scale

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E. Moving around on MDI/ANP

- ◆ Residents and visitors feel two methods of obtaining information about MDI/ANP while they are in the area would be very useful --

	Mean
• Guide Book/ Printed materials	4.17
• Acadia National Park Visitor Centers	4.02

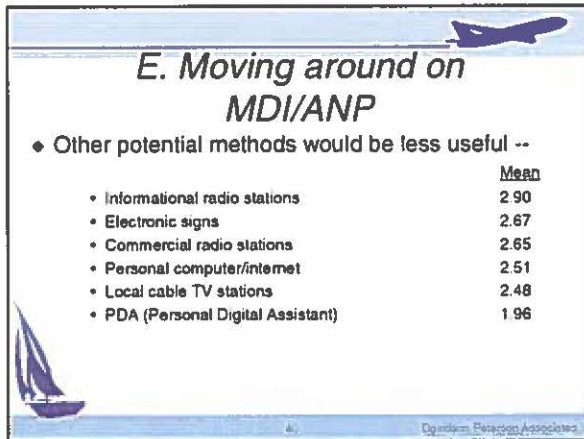
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E. Moving around on MDI/ANP

- ◆ Residents and visitors feel several methods for obtaining information would be somewhat to very useful --

	Mean
• People in the area	3.60
• Information center kiosks	3.40
• Chambers of Commerce	3.01
• Kiosks or computers in your hotel or campground	2.99

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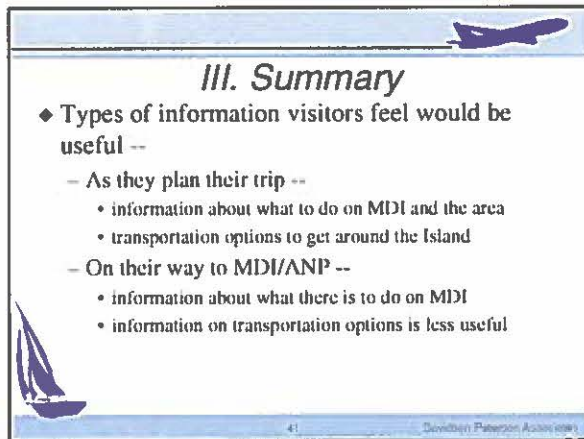


E. Moving around on MDI/ANP

◆ Other potential methods would be less useful --

	Mean
• Informational radio stations	2.90
• Electronic signs	2.67
• Commercial radio stations	2.65
• Personal computer/internet	2.51
• Local cable TV stations	2.48
• PDA (Personal Digital Assistant)	1.96

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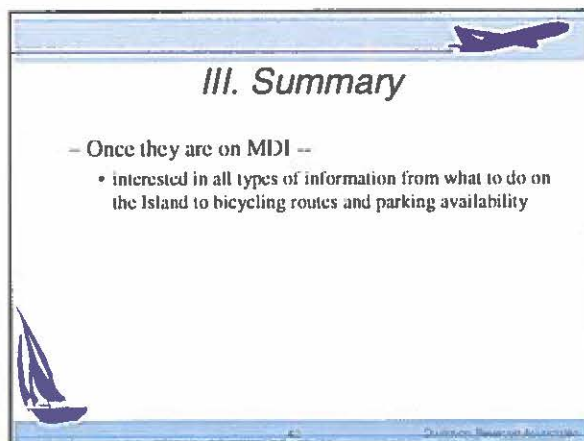


III. Summary

◆ Types of information visitors feel would be useful --

- As they plan their trip --
 - information about what to do on MDI and the area
 - transportation options to get around the Island
- On their way to MDI/ANP --
 - information about what there is to do on MDI
 - information on transportation options is less useful

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III. Summary

- Once they are on MDI --
 - interested in all types of information from what to do on the Island to bicycling routes and parking availability

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III. Summary

- ◆ Methods currently used most often to get information about MDI/ANP --
 - As they plan their trip --
 - travel guides/printed materials or the Internet
 - experience from previous visits or information from friends or relatives
 - On their way to MDI/ANP --
 - guide book/ printed materials or stopping at tourist or visitor information centers
 - Once they are on MDI --
 - Guide book/printed materials, Acadia National Park Visitor Centers or people in the area

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III. Summary

- ◆ Preferred method to receive information --
 - On their way to MDI/ANP--
 - methods such as informational radio stations and electronic signs
 - some prefer to obtain certain types of information from an electronic kiosks -- information on other Maine destinations, what there is to see or do, or transportation options to get around MDI/ANP.

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III. Summary

- ◆ Preferred method to receive information --
 - Once they are on MDI --
 - variety of methods including guide book/printed material, Acadia National Park Visitor Centers, people in the area, information center kiosks, Chambers of Commerce, kiosks or computers in hotel or campground

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APPENDIX C: SUMMARY OF STAKEHOLDER INTERVIEWS

List of One-on-One and Group Interviews (face to face)

NATIONAL PARK SERVICE

NAME	TITLE
Len Bobinchock	Deputy Superintendant, Acadia National Park
David Buccello	Chief Ranger, Acadia National Park
Deb Wagner	Ranger, Acadia National Park
Charles Jacobi	Ranger, Acadia National Park

FRIENDS OF ACADIA

NAME	TITLE
W. Kent Olson	President, Friends of Acadia
Stephanie Clement	Conservation Director, Friends of Acadia

MAINE DEPARTMENT OF TRANSPORTATION

NAME	TITLE
Russell Charette	Manager, Planning & Engineering - OPT
Barbara Donovan	Manager, Transportation Program Unit - OPT

LOCAL BUSINESS COMMUNITY

NAME	TITLE
Bruce Carlson	Executive Director, Southwest Harbor-Tremont Chamber of Commerce
Fred Cook	Downeast Acadia Regional Tourism, Schoodic Peninsula Chamber of Commerce
Tom Crikelair	Tom Crikelair Associates, (former Manager of Downeast Transportation Inc., local transit provider)
William Haefele	President, Mount Desert Island Regional Chambers of Commerce
Risteen Masters	Executive Director, Bar Harbor Chamber of Commerce

APPENDIX D: ISLAND EXPLORER RIDER SURVEY QUESTIONNAIRE

Island Explorer Passenger Survey

PLEASE FILL OUT ONE SURVEY PER FAMILY OR GROUP

1. Date _____
2. Time _____
3. Route for this bus ride? (Please check only one)
Campground
Ferry Terminal
Sand Beach
SW Harbor
Eagle Lake
Jordon Pond
4. What other Island Explore bus routes have you used so far this summer? (Please check all that apply)
Campground
Ferry Terminal
Sand Beach
SW Harbor
Eagle Lake
Jordon Pond
5. Number in your party _____
6. Retired adults _____
7. Other adults _____
8. Children (under 18) _____
9. What is the PRIMARY purpose of this bus trip? (Please check only one) To or from
(1) Work (2) Hiking (3) Biking (4) Swimming
(5) Boating (6) Shopping (7) Dining (8) Sightseeing
(9) Other _____
10. Are you a year-round Mount Desert Island resident? ____ YES ____ NO
11. Are you a summer resident of Mount Desert Island resident? ____ YES ____ NO
12. What town will you stay in tonight? _____
13. Are you staying at
(1) Campground
(2) Motel, Inn, or B&B
(3) Year-round residence
(4) Short-term rental
(5) Other
(6) Other
14. What is your home town and State? _____

Thank you for completing both sides of this survey!

If you are not an Island resident, how did you travel to the MDI region?

- (1) Car or truck without trailer _____
- (2) Car or truck with trailer _____
- (3) Recreational vehicle _____
- (4) CAT ferry _____
- (5) Inter-city bus or van _____
- (6) Commercial airplane _____
- (7) Private airplane _____
- (8) Bicycle _____
- (9) Sailboat or yacht _____
- (10) Other _____

- 15. Do you have a National Park Visitor Pass for your group? ____ Yes ____ No
- 16. Will you purchase a National Park Pass for your group? ____ Yes ____ No
- 17. Comments: _____
- 18. Has anyone in your household used local public transportation (a transit bus, commuter train, or subway) OTHER THAN THE ISLAND EXPLORER within the last 60 days? ____ Yes ____ No
- 19. Did you bring a bicycle with you on this bus ride? ____ Yes ____ No

We just started the Island Explorer this year. How are we doing so far? (Please be honest. We know that some improvements are needed.)

	Excellent	Good	Fair	Poor
21. Buses are clean	_____	_____	_____	_____
22. Drivers are friendly and helpful	_____	_____	_____	_____
23. It is easy to find a seat	_____	_____	_____	_____
24. Buses are on time	_____	_____	_____	_____
25. Bus schedules are easy to find	_____	_____	_____	_____
26. Bus schedules are easy to understand	_____	_____	_____	_____
27. The frequency of service is convenient	_____	_____	_____	_____
28. The right destinations are served	_____	_____	_____	_____

29. Did the Island Explorer improve the quality of your visit to the Acadia region?

(Circle one) *Very Much* 5 4 3 2 1 *Not really*

30. Should we continue to provide this service?

(Circle one) *Very Much* 5 4 3 2 1 *Not really*

31. Should we add more buses to existing routes?

(Circle one) *Very Much* 5 4 3 2 1 *Not really*

32. Should we add more routes to serve additional locations?

(Circle one) *Very Much* 5 4 3 2 1 *Not really*

33. Should we continue to offer free service?

(Circle one) *Very Much* 5 4 3 2 1 *Not really*

34. Do you have any comments or suggestions for improving the bus service?

Thank you for completing both sides of this survey!