



Expedited Approval for NPS-Sponsored Public Surveys

1. Project Title Submission Date:	Acadia National Park Cadillac Mountain Visitor Survey	10/22/2008
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2. Abstract:	The Acadia National Park Cadillac Mountain Visitor Survey will provide the National Park Service with information about visitor attitudes toward management of the Mount Desert Island (MDI) section of the park. The survey will be conducted as on-site questionnaires on the summit of Cadillac Mountain. This survey will be conducted between July 1 and August 31, 2009. The survey will be used to gather data about visitor attitudes toward park management issues, primarily about standards of quality. A small amount of data on visitor characteristics will also be gathered. These data will be incorporated into the General Management Plan that is now being formulated for the park. <small>(not to exceed 150 words)</small>
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3. Principal Investigator Contact Information

First Name: **Last Name:**

Title:

Affiliation:

Street Address:

City: **State:** **Zip code:**

Phone: **Fax:**

Email:

4. Park or Program Liaison Contact Information

First Name: **Last Name:**

Title:

Park:

Park Office/Division:

Street Address:

City: **State:** **Zip code:**

Phone: **Fax:**

Email:

Project Information

5. **Park(s) Where Research is to be Conducted:**

6. **Survey Dates:** (mm/dd/yyyy) to (mm/dd/yyyy)

7. **Type of Information Collection Instrument (Check ALL that Apply)**

Mail-Back Questionnaire **On-Site Questionnaire** Face-to-Face Interview Telephone Survey Focus Groups

Other (explain)

8. **Survey Justification: (Use as much space as needed; if necessary include additional explanation on a separate page.)**

Legal Justification: The National Park Service Act of 1916, 38 Stat 535, 16 USC 1, et seq., requires that the National Park Service (NPS) preserve the national parks for the use and enjoyment of present and future generations. At the field level, this means resource preservation, public education, facility maintenance and operation, and physical developments that are necessary for public use, health, and safety. Allocation of funding is to be roughly in proportion to the seasonally adjusted volume of use (P. L. 88-578, Sect. 6) and in consideration of visitor characteristics and activities for determining carrying capacity (92 Stat. 3467; P. L. 95-625, Sect. 604 11/10/78). Other federal rules (National Environmental Policy Act, 1969 and NPS guidelines) require visitor use data in impact assessment of development on users and resources as part of each park's general management plan.

Management Justification: Acadia National Park has experienced increases in visitation over the past decade. Increasing use of the park may negatively affect the quality of visitor experiences through crowding and resource degradation. The park's General Management Plan now being formulated requires that managers establish a use capacity for the MDI (Mount Desert Island) section of the park. The information collected in this study will enhance current park planning and management efforts by providing visitor use and user characteristics and potential indicators and standards of quality. These will assist managers in determining use capacity for the MDI section of the park.

A 1998 park-wide visitor survey (Visitor Services Project) found that 76% of all Acadia visitors go to Cadillac Mountain. The proposed survey measures visitor preferences at this heavily used attraction for both off-trail conditions (question 5) and on-trail conditions (question 6). Because of the area's heavy visitation, each type of use is extremely common and must be planned for. In particular, although some off-trail use occurs when people walking the summit loop trail leave that trail, the great majority of off-trail walking is done by who people park and wander over the summit area without ever being on the trail. This is the use pattern depicted in question 5. No other survey at Acadia National Park addresses this primary visitor activity at the summit; nor has any other survey asked for opinions on the full range of off-trail and on-trail use conditions at the summit that are presented in this questionnaire. NPS believes it is critical to have these data so that planners can make informed decisions about managing both off-trail and on-trail use at Cadillac Mountain.

The methods and questions to be used in the study are well-established in the field. Numerous studies at many different National Park Service units have used similar methods and questions (Manning, 2007). Similar methods and questions were also used in different portions of Acadia National Park, including the park loop road (Hallo & Manning, In Press), the Carriage Roads

(Jacobi, et al., 1999; Wang and Manning, 1999), Schoodic Peninsula (Manning, et al., 2005) and Isle au Haut (Manning, 2007).

9. **Survey Methodology:**
(Use as much space as needed; if necessary include additional explanation on a separate page.)

(a) Respondent universe:

The sample universe will be visitors to the summit of Cadillac Mountain, age 18 and over, between July 1 and August 31, 2009.

(b) Sampling plan/procedures:

The sampling period is designed to include the park's peak use period. A survey will be administered to visitors to the summit of Cadillac Mountain at Acadia National Park. Sampling will be conducted on ten randomly selected days throughout the period of the study. The sampling days will be spread out over the days of the week, with sampling occurring between 9:00 a.m. and 6:00 p.m. There will be several trained surveyors on-site, so breaks will be given to each surveyor every few hours. During each sampling day, a trained surveyor will be stationed at the summit of Cadillac Mountain. When the sampling period begins, the surveyor will approach the first visitor group exiting the site and ask them to participate in the survey. If members of the visitor group agree to participate, the eligible person in the group whose birthday is closest to the sampling day will be asked to complete the questionnaire. When the surveyor has completed his/her contact with the group, the surveyor will ask the next visitor group exiting the site to participate in the survey. This process will continue throughout the sampling day. Visitors will complete the on-site questionnaire in the presence of the surveyor, who will answer any questions that arise and collect the surveys upon completion.

(c) Instrument administration:

Visitors to the Cadillac Mountain summit will be read the following script:

"Excuse me, sir/ma'am. We're conducting a study for Acadia National Park to better understand visitor use in this area. Participation is voluntary and all responses are anonymous.

If YES: "Thank you. Who in your group has the next birthday? Would you be willing to fill out this survey?"

If NO: "I understand. I hope you enjoyed your visit".

(d) Expected response rate/confidence levels:

The survey sample size is expected to be approximately 188 visitors. Based on previous experience in conducting similar surveys, it is expected that about 80% of visitors (or about 150 individuals) will be willing to participate. In a similar study at the Isle au Haut section of Acadia National Park in 2002, a response rate of 87% was attained. More recent studies on the Mount Desert Island portion of Acadia National Park yielded response rates of 83.6% at Acadia Mountain, 78.5% at Hunter's Beach, 83.5% at Seawall, 86.3% at Valley Cove, and 77% at Little Hunter's Beach. Study findings are estimated to be accurate within 8 percentage points, based on a sample size of approximately 150 using a 95% confidence level. This will be sufficient for the park's planning purposes. The number of people in each visitor party and date and time of refusals will be recorded and reported on a refusal log. The key estimates that will be derived from the data collected will be measures of central tendency (mean and median), dispersion (standard deviation), and frequency distributions. Some tests for differences in means and proportions may be done. For example, the park is interested in whether or not visitors' personal preferences for the number of people walking the Cadillac Mountain loop trail at one time (question 6b) differs substantially

from the number that visitors' think the park should allow (question 6d). Results will inform the development of standards for this indicator of visitor experience quality. Study findings should be accurate within 8 percentage points, based on the estimated final sample size of 150 using a 95% confidence level. This level of precision strikes a workable balance between the park's needs for planning purposes and available funding.

(e) Strategies for dealing with potential non-response bias:
 Non-response bias will be examined by comparing selected characteristics of the sample population with characteristics observed and recorded in every group contacted (e.g., group size). The results of the check for non-response bias will be reported and implications for data interpretation discussed.

(f) Description of any pre-testing and peer review of the methods and/or instrument (recommended):
 The questions included in these surveys have been designed and reviewed by the Principal Investigator, research staff and graduate students, and park and regional staff, and are similar to questions used at several other national park areas in previous studies.

10.	Total Number of Initial Contacts Expected Respondents:	188	150	11.	Estimated Time to Complete Initial Contact Instrument (mins.):	1	10	12.	Total Burden Hours:	28
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13.	Reporting Plan:	<p>The results of this information collection activity will be presented in an internal agency report and will be available upon request. A copy of the technical study report will be archived with the Social Science Program of the National Park Service for inclusion in the Social Science Studies Collection. The key estimates that will be derived from the data collected will be descriptive in nature, primarily measures of central tendency (mean and median), dispersion (standard deviation), and frequency distributions. Some tests for differences in means and proportions may be done.</p>								
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References

Hallo, J. and Manning, R. (In Press). Transportation and Recreation: A Case Study of Visitors Driving for Pleasure at Acadia National Park. *Journal of Transport Geography*.

Jacobi, C. and Manning, R. (1999). Crowding and Conflict on the Carriage Roads of Acadia National Park: An Application of the Visitor Experience and Resource Protection Framework. *Park Science*, 19(2):22-26.

Manning, R. (2007). *Parks and Carrying Capacity: Commons Without Tragedy*. Washington, D.C.: Island Press.

Manning, R. (2001). Visitor Experience and Resource Protection: A Framework for Managing the Carrying Capacity of National Parks. *Journal of Park and Recreation Administration*, 19(1):93-108.

Manning, R., Lawson, S. and Morrissey, J. (2005). What's Behind the Numbers? Qualitative Insights Into Normative Research in Outdoor Recreation. *Leisure Sciences*. 27: 205-224.

Wang, B. and Manning, R. (1999). Computer Simulation Modeling for Recreation Management: A Study on Carriage Road Use in Acadia National Park, Maine, USA. *Environmental Management*, 23(2):193-203.