Public transportation in Glacier National Park

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PUBLIC TRANSPORTATION IN GLACIER NATIONAL PARK

by

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Increased congestion due to heavy automobile travel within our national parks has, in recent years, caused park service personnel and park visitors to consider transportation alternatives for in-park travel. In various parks across the nation such alternatives are being studied and implemented with some success.

Outside of a small, concession owned bus service, Glacier National Park in northwestern Montana offers no viable alternative to private vehicles. Not only does the park anticipate management problems as automobile-related impacts increase but visitors arriving without automobiles are unable to tour the park conveniently. This research proposes that public transportation options for Glacier be assessed in terms of their effectiveness in reducing private vehicle impact and in providing a convenient service for visitors.

After summarizing Glacier's transportation history to date, public transit systems in other units of the National Park Service are described and evaluated. This not only provides a brief review of these systems but forms a basis for recommendations to be formulated for Glacier.

It is suggested that a public transportation system in Glacier begin with a simple shuttle bus service. In conjunction with this service visitors would be surveyed both to evaluate the success of the shuttle bus and to determine its future and direction. The proposed alternative and associated study would not only address transportation needs in Glacier but would increase the interpretive contacts between park personnel and visitors.

Finally, it is hoped that successful public transportation alternatives in our national parks may set a positive example for mass transit in the nation as a whole.
ACKNOWLEDGMENTS

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CHAPTER I

INTRODUCTION

"...were it not for the Great Northern Railway, travel through Glacier Park would be practically impossible."¹

The history of public transportation to and within our national parks may very well begin with the nation's western railroads. It is certainly the decrease in rail passenger service in conjunction with the increase in private auto travel that has altered transportation patterns in our many national parks in recent years. Park Service officials have begun to observe these changing patterns within various parks across the nation. However, the mode of travel within our parks depends so much on regional transportation facilities that it is necessary to consider them at least briefly. This has been especially true for Glacier National Park in northwestern Montana. Bound on the south by the tracks of the Great Northern Railroad, the park shares history with that enterprise. Louis W. Hill, president of the railroad, chose "The Glacier Park Route" as its logo. A picture of the

Rocky Mountain Goat (a species found in Glacier) appears on Great Northern freight cars to this date.

As early as 1871, railroad interests joined preservation activists in efforts to create Yellowstone Park. The promoters and financiers of the Northern Pacific Railroad saw the great economic benefit that could be derived from transporting visitors from all over the continental United States to Yellowstone Park. Other railroads followed suit and within the first 15 years of the 20th century there were railroad connections to virtually every western park in existence. Railroad representatives lobbied actively when new parks were being considered and although their motivations were of a different nature than those of naturalists and conservationists, an alliance was easily made. Conservationists realized that railroad spurs and hotels within parks (owned by the railroads) were preferable to other sorts of economic exploitation of the areas' resources (e.g. lumbering, dams, and power lines).\(^2\)

In addition park advocates knew that the more visitors that were able to visit National Parks (via railroad service) the greater the popularity of the park idea would become.

Popularizing the national park idea was essential to assure the parks' establishment and survival. It was difficult at the turn of the century—as it is today—to place

\(^2\)Ibid., 17.
non-economic value on natural resources. In order to protect large natural areas one must have great public support. Popular support was necessary to compete with those that would place preservation lower on the list of priorities. The railroads served to muster public support of the park idea through scenic tours and thus contributed partially in assuring a future for the park concept.

Along with transporting visitors, the great railroads built hotels and offered their guests package tours which provided train transportation to the parks, hotel accommodations, and scenic bus tours when they arrived. Public relations and advertising were on a tremendous scale. A magazine, *Sunset*, was founded by the Southern Pacific railroad, for example, specifically designed to entice readers to visit the California parks. Overall results were remarkable. During the first 13 years of the Park Service's existence, visitation to national parks increased from 300,000 in 1916 to 3,000,000 in 1929.\(^3\)

Railroads served as a popular means of transportation to our parks until approximately 20 years ago. Glacier, in fact, continues to be served by Amtrak on the Great Northern route. However, during the 1960's railroad passenger service was reduced substantially. This was due in part to increased emphasis on freight operations and in

\(^3\)Ibid., 19-20.
part to government subsidies to the highway trust funds for interstate highway construction. Accessibility to the national parks via the private automobile increased markedly with the advent of the super-highway, leaving the trains to run half empty. In 1920 trains throughout the United States had carried 20,000 passengers per day and in 1970 they carried only 500.

Many parks are still served by air and bus lines. While air travel usually requires subsequent car rental, buses provide more direct service to park entrances. Visitors may still arrange package tours individually or in groups through travel agencies, transportation companies, and park concessioners. However, Glacier Park is one of the few remaining parks that is served directly by a major train line (Mt. McKinley and Harper's Ferry are also directly served by rail). Amtrak's Empire Builder stops twice, once at each end of the park on its way between Chicago and Seattle.

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4 Ibid., 20.


Transportation not only plays an important role in terms of accessibility to our national parks but also in relation to these areas' ecological balance. Increasing numbers of automobiles in the Smokies and in Yosemite (see Chapter 4) have brought an urban-like environment to these parks--autos spewing out exhaust fumes, taking up precious park space, and requiring additional traffic control personnel. This is in sharp contrast to rail travel; railroads usually skirted the parks, leaving visitors at their gates where stage coaches and later, motor coaches transported visitors into the parks. Research by the United States Department of Transportation has concluded that the capacity of one railroad track is approximately equivalent to a 12-16 lane expressway. A single lane of highway is 12 feet in width whereas the distance between rails is 5 feet 8¼ inches.

Early in park history the automobile was forbidden in Yosemite and Yellowstone. Its use had been barred for reasons of noise and safety. The question as to whether the private auto would be allowed to enter Yosemite came

8Runte, "Blueprint for Comfort..."
before the 2nd annual conference of the National Park Service, held at Yosemite in 1912. Park officials, concessioners, transport agents, auto dealers, and conservationists considered reversing this policy. Once again, it was a question of popularizing the national park idea as well as satisfying commercial interests and it was decided that the auto would be allowed to enter Yosemite. Three years later Yellowstone rescinded its policy requiring motorists to chain their cars to logs and turn over their keys to the park superintendent. Thus began a trend which has made our park areas subject to the noise, congestion, and pollution associated with heavy auto use.

What of the park visitor who arrived to the national park after the late 1950's via regional public transportation facilities? Most park concessioners turned their attention to auto traffic and as of the late 1960's in only a few cases was in-park transportation service provided for the car-less visitor. Few visitors, therefore, made use of regional transportation facilities as there was no guarantee of connecting transportation upon their arrival.

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9 Lillard, op. cit., p. 28-29.
Given these critical concerns, the Park Service revised its policy on roads and transportation through parks during 1967-68. Their new policy included three major points:

1. Before any new road is built (in a national park) there must be a finding, by professional ecologists, that it will have a minimal effect on habitat, movement of wildlife, plant communities, and on stream drainages.

2. The road, once approved must be constructed so as not to disrupt the ecological balance. It must be "light on the land".

3. The Park Service should study all modes of transportation including monorails, tramways, minirails, helicopters, and hydrofoils.

The report of the Park Service task force observes that,

"while many park administrators and conservationists in the past have been unalterably opposed to replacing roads with tramways...and other such developments, in many cases these would have done far less permanent damage to the park environment"[1]

Prior to this Park Service policy statement, Canyonlands Park in Utah and The Great Smoky Mountains had already decided to cancel road improvement projects in response to conservationist pressures in the early 1960's.

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However, plans to build an improved road to Whetherhill Mesa at Mesa Verde National Park in Colorado were abandoned as a result of the new Park Service policy.

Suggestions to restrict automobile use have been frequent in recent years. Popularizing the national park concept is apparently not as crucial as it once was. In many parks, master plans call for the phasing out of all development within park boundaries including hotels, stores, and some roads. Anthony Wayne Smith of the National Parks and Conservation Association has been a strong proponent of restricted automobile traffic within national parks. He suggests placing hotels, improved campsites, and parking facilities outside park boundaries. Private lands, commercial cutting areas of the National Forests, and perhaps Indian lands are proposed as being suitable for improved facility location. Concessioners and the Park Service would then provide transportation to and through the parks. Interpretive guides may join visitors on these trips to provide both an educational experience and a convenient service.

In 1974 the Department of Interior prepared a nationwide outdoor recreation plan. Embodied in the draft of that report were the following comments:

"Within recreation areas, automobile traffic has become a threat to the natural environment and to free movement and enjoyment by visitors to the
areas. It is neither feasible nor wise to try to accommodate unlimited auto use in many recreational areas."  

"It has been recognized for a number of years that overcrowding in National Parks is due more to accommodating the family automobile than to sheer numbers of people."

The right to bring one's private auto into a national park has been questioned many times during the history of the national parks in this country. In considering limitations on autos, the National Park Service now contends that it is the right of the visitor to enjoy the natural beauty of a national park. Autos may be restricted, therefore, in much the same way as are firearms if alternative transportation is provided.

In 1970 the Yosemite Park and Curry Company of Yosemite National Park began offering free shuttle service to visitors in the Yosemite Valley. The Park Service was favorably impressed with the idea and decided to subsidize the Company's fleet of scenic buses and mini-trams. Other parks are beginning to initiate systems, while a few parks,


such as Yosemite are subsidizing their concession-run transportation services. In-park public transportation systems have had reasonable success in providing attractive alternatives by offering convenient service. They serve to both reduce auto congestion and provide transportation for the car-less visitor. Descriptions of these systems are included in the body of this report.

Glacier National Park has not yet been severely threatened by automobile congestion. The park need not face a crisis similar to that of Yosemite. Given that the park currently maintains a public transportation system owned and operated by the concessioner (with no government subsidy presently) and is served by train, bus, and air, alternative patterns of in-park transportation could be developed. The material set forth in this report may help to determine what the options for transportation within Glacier might be for both the short and long run. Such an assessment seems crucial for at least two reasons:

1. The quality of the public transportation services within a national park can determine the use of regional public transportation facilities in arriving at that park.

2. Attractive alternatives to the auto would seem desirable in order to alleviate those environmental impacts associated with heavy private vehicle use both within our national parks and out of them.
In the context of long run considerations, the fact that local and regional transportation systems must be sensibly related cannot be overemphasized. People arriving via public transportation must not be discouraged by the lack of local public transportation systems. And, conversely, successful local park transport systems must draw from visitors arriving via regional services.

Implicit in these arguments is that the alternatives to the automobile are preferred in both local and national transportation networks. Looking to the western railroads of the early 1900's serves to demonstrate that the alternatives are not beyond our reach. This study of public transportation in Glacier Park is very limited in its scope and recommendations. However, good national park public transportation systems can and should serve as an example to the rest of the nation.
CHAPTER II

OVERVIEW AND PROBLEM DESCRIPTION

Glacier National Park--Early History

Glacier National Park occupies nearly one million acres (1600 square miles) in the northwestern corner of Montana where the Rocky Mountains cross the border into Canada. It represents the dividing point between three major drainages, the Pacific Ocean, the Gulf of Mexico, and Hudson Bay. The area was covered by a long shallow arm of the Arctic Ocean approximately one half billion years ago. The sea left marine sediments which formed the colorful limestones, argillites, and quartzites seen in the park today. Molten rock later intruded between certain of these strata forming lava sills visible now primarily on the eastern side of the park. The Lewis overthrust some ages later created a mountain uplift shaped further through millennia by fierce stream activity. Finally about one million years ago the great glaciers moved across the region with additional glacier periods coming as recently as the 18th century. The glaciers left the peaks of the tallest mountains untouched but gave the region a distinct sculpturing. A number of small glaciers in the park still work away at the mountain slopes as they
retreat and their ice and snow give the mountains a shining appearance. This feature, in combination with a diverse fauna and flora, makes for a most beautiful area.

The 'Land of the Shining Mountains' as it was called by early European explorers had, as its first occupants some of the earliest peoples to inhabit North America. However, only a few hundred years ago the Blackfeet Indians, a very powerful group, moved into the area from the east, thus forcing existing tribes out of the area or into a less prominent role. It was the Blackfeet that the earliest European explorers found when they arrived in the Northern Rockies region in the 18th century.

The first major European claim to the area was made by Hudson's Bay Company in 1670. The Company claimed all waters which flowed into Hudson Bay including areas in the northern part of what is now Glacier Park. Anthony Hendry, a representative of the Hudson's Bay Company, entered the region during the winter of 1754-55 to learn more about the area for the fur trade industry. In 1683 La Salle claimed, for France, the area east of the Continental Divide which also included areas of Glacier Park. (This land was part of the great Louisiana Purchase of 1803.) La Salle did not, however, explore the Glacier Park area specifically.

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Those that followed Hendry were primarily fur trappers and traders. The Blackfeet discouraged their activities for the most part but a few were able to carry on some trapping. In 1840 the area was mapped for the fur trade by Robert Greenhow. The Greenhow mapping was the beginning of the period during which the area was extensively surveyed and explored. The Blackfeet came under U.S. government domination during this period.

From 1850 until 1890 the Great Northern Railroad searched the area for a suitable mountain pass across which they could run their transcontinental railroad. John F. Stevens was hired by the railroad to survey Marias Pass, south of the mountains, and found it acceptable for railroad building and travel. In 1893 the first train moved across the southern boundary of what would become Glacier Park, on its way west.

In 1885 George Bird Grinnell, having been inspired by articles written in his magazine, Forest and Stream, travelled to the area. He is noted for discovering glaciers at the head of the Swiftcurrent Valley on the east side of the Continental Divide and for befriending many of the Blackfeet people. Through his subsequent influence the United States Government purchased the land between the Continental Divide and the plains of northern Montana from the Blackfeet. The Indians received 1.5 million dollars for the land in 1896. The Blackfeet, after
that time, occupied the area (some 3200 square miles) just east of this tract but maintained some fishing, hunting and mining rights on the government owned land.

Mining pressure from hopeful prospectors was primarily responsible for the 1896 purchase. There were hopes of finding copper on the east side of the park, oil on the west, and gold in both areas. However, the region proved to have little economic mineral value. By 1902 the mines were deserted. Remnants of this period include an abandoned mine at Cracker Lake above the Swiftcurrent Valley on the east side. At this lake copper was mined from 1898 until 1900, and the tailings and machinery still sit, symbolic of the short-lived era, at the water's edge.

Lyman Sperry, of the University of Minnesota visited the park for the first time in 1895. Over the course of the next few years he was able to discover a glacier above the McDonald Valley on the west side of the Divide. He was anxious to build a trail to "Sperry Glacier" across the mountains. In 1902 Sperry made an agreement with James J. Hill, president of the Great Northern Railroad. According to this agreement, the Great Northern would furnish transportation to and from the park, tents, food, and supplies, while Sperry would recruit University of Minnesota students to build the trail for no wages. Their efforts were successful and a trail was completed by 1903.
Over the next few years, with strong support from Grinnell as well as the Great Northern Railway, U.S. Senator T.H. Carter of Montana introduced a bill into the Senate to set aside the area as a national park. The bill to establish Glacier National Park was signed on May 11, 1910 by President Taft.\textsuperscript{15}

The history of Waterton Lakes National Park in Alberta, Canada, just north of Glacier Park, closely parallels that of Glacier. Only the International Boundary separates the two. Leaders in both the United States and Canada recognized the parks' international character. In 1931 the combined Rotary Clubs of Montana and Alberta, meeting at the Prince of Wales Hotes in Waterton Park, passed a resolution starting the movement for establishment of Waterton-Glacier International Peace Park. One year later legislation was passed in both countries making the joint park a reality.\textsuperscript{16} The two parks are administered separately. However, many hikes, boat tours, interpretive, and concession-related activities take advantage of both parks.

Some of the land within Glacier (and Waterton) had been homesteaded prior to its National Park status. Most

\textsuperscript{15}Donald H. Robinson, Through the Years in Glacier National Park (Glacier Natural History Association, 1960), 40.

\textsuperscript{16}Ibid., pp. 95-97.
of the eastern homesteads were abandoned with the end of the mining boom. On the west side, however, there are a remaining number of private cabins and two small villages. The two villages include Apgar, Montana on the south end of Lake McDonald and the community of Lake McDonaly, Montana at the north end of the same lake. These areas are now primarily visitor oriented with some summer cabins and lodges. The Park Service is attempting to purchase most of these areas as they become available.

Concession History in Glacier

Visitor Accomodations

In 1911 the Great Northern Railway began to develop visitor accommodations within Glacier Park. Over the next 15 years a magnificent chain of hotels and chalets was built. Seven back country chalets were constructed so as to be one day's hike apart; the Many Glacier Hotel, Glacier Park Lodge, and the Prince of Wales Hotel in Waterton Lakes, Alberta were accessible by road and rail.

Other visitor accommodations along Lake McDonald and St. Mary Lake were constructed by smaller companies and individuals. However, the Great Northern Railroad-owned concession, the Glacier Park Company, was the largest developer. By 1961, Great Northern was still operating two chalets, four large hotels (the Lewis Hotel at Lake McDonald was leased from the government by Great Northern
and added to the hotel chain in 1930), and two motels as well as the transportation company. Don Hummel, President and General Manager of Glacier Park Inc. purchased the Great Northern concession in 1961. Glacier Park Incorporated (GPI) remains the major visitor services concessioner in the park to this date, operating the Many Glacier Hotel and Swiftcurrent Motor Inn in the Swiftcurrent Valley, Lake McDonald Lodge (the old Lewis Hotel) and the Village Inn on Lake McDonald, the Prince of Wales Hotel in Waterton, Glacier Park Lodge at East Glacier, and Rising Sun Motor Lodge on the Going to the Sun Road, as well as the transportation company. The two back-country chalets are owned by the government and operated by a small concessioner (Luding).

Transportation

In 1912 the first transportation company was started on the eastern side of the Park by the Brewster brothers. This concession consisted of three horse-drawn stage coaches and operated between the trailhead at Midvale (East Glacier) and Many Glacier. The trip to Many Glacier took two days with an overnight stop at St. Mary. The Brewster company however, was shortlived.

During the spring of 1914 a rival company appeared on the scene, the "Glacier Park Transportation Company" owned by Emery Rowe and backed by White Motor Company. This new concession applied for and received permission
to operate the sole passenger and freight concession within Glacier Park. Their fleet included ten buses, five touring cars, and a couple of trucks. Needless to say, the Brewster brothers quickly found themselves out of business.

In its early days, the Glacier Park Transportation Company was quite primitive. The wooden-topped buses often spent as much time off the road as on it, especially during heavy rains. The experience of these early times, however, did not prohibit the company from continuing to enlarge its services. In 1927 Emery Rowe sold out to a new company, the Glacier Transport Company, owned by Howard Hays, who by 1930 was operating a fleet of over 65 buses. In 1933 the "Going to the Sun Road" from the west side of the park to St. Mary on the east was completed. In response, Hays ordered a new fleet of tour buses from the White Company. Thirty-five of these vintage 1936-38 vehicles are presently still in service on the Going to the Sun Road.

In 1957 the Transport Company was sold to Great Northern's Glacier Park Company who in turn sold it to GPI in 1961.

Concession-Government Relationship

It is relevant to note the reasons for allowing only one or two major concessions for visitor services within

each national park. From 1906 to 1916, during which time the Park Service was established, there were many entrepreneurs within a number of parks. In Yellowstone alone, for example, there were twenty-seven private concessions. As a result the quality of service to the public suffered. The various independent transport operators that met arriving trains set up a potpourri of barker's appeals that was quite out of harmony with the splendor of a national park.

Stephen T. Mather, as the first director of the Park Service, began working towards a system of regulated monopoly and by 1925 he had achieved it. His reasoning was rather sound. In order for a system of competition to work well, information has to be readily available to consumers. Visitors staying only a short time and coming from great distances were unable to gather sufficient information about the various concessioners. He also felt that a good rapport between the concessioner and the Park Service was considerably important and this would be more easily achieved with one concessioner per park.¹⁸ His policy awarded the park contract to one principal concessioner who would then be responsible for providing the full range of services, some of which might not be expected

to show a profit. By converting from open competition to a single operator, the Park Service accepted the responsibility of protecting both the concessioner and the public.\(^{19}\)

The new Park Service policy also assumed that competitive bidding had no place in national parks, that it was likely to result in incompetent businesses. Instead they wished to consider the importance of the service to the public, protection of park features, and maintenance of park management ideals. This attitude is reflected in the Concessions Policy Act of 1965 in which Park Service policy towards concessioners seems to run counter to normal procedures for handling government business. The concession, in fact, is given an entitlement much like a public utility. Again, this reasoning could be partially justified since the decision as to how many hotel accommodations exist--or service stations--must be a Park Service one rather than the concessioner's.\(^{20}\)

Present Transportation Facilities

Roads

Glacier National Park, today, is predominantly roadless. It has been described by many as a hikers' park. It is certainly true that one must walk in order to reach


\(^{20}\)Ibid., p. 125.
the glaciers which have given the park its distinct character. However, the Going to the Sun Road (Scenic Route 1), the only road that transects the park, does offer spectacular views to cyclists, riders of Glacier Park, Inc. buses and motorists. There are also a series of short road spurs into the park: (1) a ten mile paved road from the east side highway (Montana 49 and U.S. 89) to Two Medicine Lake and Campground (Scenic Route 2); (2) a ten mile paved road from U.S. 89 to Swiftcurrent Lake and Campground, Many Glacier Hotel, and the Swiftcurrent Motor Inn (Scenic Route 3); (3) a paved road which enters Waterton Lakes National Park from the east branching off into a network of roads in the Canadian Park (Scenic Route 4); (4) on the west side of the park there are two primitive roads following Camas Creek and the North Fork of the Flathead River, running north and south; along these roads one may reach Bowman and Kintla Lakes in the northwest corner of the park (Scenic Routes 7 and 8) (consult map page 27).

Visitors may enter the park at any of these points. Fees are collected at all entrance points except the Camas Creek/North Fork road.

The park is bordered on the south by U.S. 2 and on the east by Montana 49 and U.S. 89. The 2 roads on the west are rather primitive and used primarily by residents of the area, logging trucks (the Flathead National Forest
is just to the west of Glacier Park), hikers seeking trail access, and fishermen/campers. There is no road along the Canadian Border or further north in Waterton Lakes. The U.S. and the Canadian governments had discussed the possibility for such a road. It would have allowed one to travel completely **around** Glacier Park. Ideas for such a road were abandoned, however, within the last 10 years.\(^{21}\) (See map page 27).

**Regional Transportation Facilities**

Most visitors now arrive via private vehicle at the park gates. (Actual numbers are provided in Chapter V). A small number of visitors do make use of public transportation services (see Chapter V). As was mentioned in the Introduction, Amtrak provides transportation from the east and west to both Belton, Montana at the west gate to Glacier Park and to Glacier Park Lodge at East Glacier, Montana.

Glacier Park Line, a bus company headquartered in Great Falls, Montana provides service between Great Falls and Kalispell, the two closest cities to Glacier Park. Great Falls is approximately 200 miles east of East Glacier while Kalispell lies 50 miles to the south and west of Belton/West Glacier.

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\(^{21}\)Phil Iverson, Superintendent of Glacier National Park, in a meeting with the Denver Service Center of the National Park Service, Glacier National Park, October 29, 1975.
Frontier Air Lines and Hughes Air West provide service from the south and west respectively to Kalispell. Northwest Air Lines provides service to the Great Falls area from the east. Air travelers must make subsequent connections upon arrival facilitated by car rental, Glacier Park Lines, or the GPI limousine service between Kalispell and Lake McDonald Lodge.

The Glacier Park Transportation Company (GPI)

The Glacier Park Transportation Company is currently owned and operated by Glacier Park Incorporated. Equipment includes a fleet of 35 White Company sightseeing buses, each capable of carrying 14 passengers with baggage, and 18 without baggage. These buses are of 1936-38 vintage but are repowered with newer engines, transmissions, electrical systems, and brakes. Approximately 30 of these buses are in running condition at any time. The Company also maintains 3 Flex's (large sightseeing buses) which can carry 27-31 passengers, and 5 Crowns (large sightseeing buses) which have a capacity of 41. GPI also operates a bike concession at Apgar. The transportation service did include a Waterton Lakes launch which has been sold as of November, 1976 to another concessioner, the Glacier Park Company.  

The White buses are used primarily over Going to the Sun Road. They are ideal for this purpose: shiny red buses with roll back tops driven by college student-tour guides ("jammers"). The Going to the Sun Road is somewhat narrow in places and vehicles over 30 feet long and 8 feet wide are not permitted to travel the full length of the road. The red buses are well within these limitations and move up the fairly steep switchbacks to Logan Pass without too much difficulty. Their major problem is gas mileage, averaging only 8-9 miles per gallon. However, when one considers the number of cars it would take to accomodate a bus load of 14 (the Park Service estimates 3.1 passengers per car\textsuperscript{23}), the gas mileage improves. One bus uses 5.5 gallons to cross Going to the Sun Road while 5 cars (getting 20 miles per gallon) would use approximately 12.5 gallons of gas, total, for the same trip. In recent years, other than when chartered by a large tour group, however, the red buses have not run full, (averaging about 5 persons on the trip over Logan Pass). This is primarily due to scheduling, high fares, and lack of publicity (see below).

The Crowns and Flex's are used primarily on Highway 2, 29, 89, and the Chief Mountain Highway in Canada, as well as for bringing large groups of visitors from the train.

\textsuperscript{23} The Missoulian (Missoula, Montana), January 8, 1977, p. 5.
station at West Glacier to Lake McDonald Lodge. The map, routings, and schedule on the next pages describe the existing bus service (as of 1976) and corresponding fees.

Table 2-1
Routings for GPI Buses

<table>
<thead>
<tr>
<th>Travelling Between</th>
<th>Route (via) - Refer to Map (page 27)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Glacier and Lake</td>
<td>Going to the Sun Road (Scenic Route 1)</td>
</tr>
<tr>
<td>McDonald Lodge</td>
<td></td>
</tr>
<tr>
<td>Lake McDonald Lodge and Many Glacier Hotel</td>
<td>Scenic Routes 1 and 3, Highway 89</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>East Glacier and Many Glacier Hotel</td>
<td>Highways 49 and 89, Scenic Route 3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Many Glacier Hotel and Prince of Wales</td>
<td>Scenic Routes 3 and 4, Highway 89</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>East Glacier and Lake</td>
<td>Highway 2, Scenic Route 1</td>
</tr>
<tr>
<td>McDonald Lodge</td>
<td></td>
</tr>
</tbody>
</table>

Visitors may ride the buses for any part of the entire journey on a pro-rated basis if prior arrangements are made. In addition, buses may be chartered by large group tours but tour members are charged on the same basis as regular passengers.

GPI continues to enjoy the privilege of operating its bus company without fear of competition. They maintain such rights not only in respect to Glacier's public transportation system but also for sightseeing services to
### Table 2-2
Regularly Scheduled Runs (Long Distance)
June 15 - September 15

<table>
<thead>
<tr>
<th>Origin</th>
<th>Time</th>
<th>Distance</th>
<th>Destination</th>
<th>Time</th>
<th>Fare (adult/child under 12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LML</td>
<td>8:50 am</td>
<td>63 miles</td>
<td>MGH</td>
<td>11:50 am</td>
<td>$7.50/$3.25</td>
</tr>
<tr>
<td>MGH</td>
<td>8:50 am</td>
<td>63 miles</td>
<td>LML</td>
<td>11:50 am</td>
<td>$7.50/$3.50</td>
</tr>
<tr>
<td>GPL</td>
<td>9:30 am</td>
<td>67 miles</td>
<td>LML</td>
<td>11:15 am</td>
<td>$8.50/$4.25</td>
</tr>
<tr>
<td>LML</td>
<td>9:30 am</td>
<td>67 miles</td>
<td>GPL</td>
<td>11:15 am</td>
<td>$8.50/$4.25</td>
</tr>
<tr>
<td>GPL</td>
<td>8:00 am</td>
<td>50 miles</td>
<td>MGH</td>
<td>10:00 am</td>
<td>$7.00/$3.50</td>
</tr>
<tr>
<td>MGH</td>
<td>10:00 am</td>
<td>35 miles</td>
<td>PWH</td>
<td>12:00 pm</td>
<td>$6.25/$3.15</td>
</tr>
<tr>
<td>PWH</td>
<td>8:00 am</td>
<td>35 miles</td>
<td>MGH</td>
<td>10:00 am</td>
<td>$6.25/$3.15</td>
</tr>
<tr>
<td>MGH</td>
<td>10:00 am</td>
<td>50 miles</td>
<td>GPL</td>
<td>12:00 pm</td>
<td>$7.00/$3.50</td>
</tr>
</tbody>
</table>

abbreviations: West Glacier-WGL, Glacier Park Lodge (East Glacier)-GPL, Lake McDonald Lodge-LML, Many Glacier Hotel-MGH, Prince of Wales Hotel-PWH.

There are also a number of regularly scheduled short runs:

1) 2 daily runs to Two Medicine Lake from Glacier Park Lodge and return, a distance of 22 miles total---$3.00/$1.50 (round trip)

2) 4 daily runs between Prince of Wales Hotel and the Waterton boat dock, a distance of 1 mile total---$.50/$.25 (round trip)

3) 4 daily runs between West Glacier and Lake McDonald to meet passengers arriving via bus and train, a distance of 10 miles---$1.50/$.75 (one way)

4) Airport runs between Lake McDonald and Kalispell Airport, a distance of 45 miles---$18.00/$9.00 (one way)
Hungry Horse Dam, approximately 20 miles west of the Park. Visitors arriving on large chartered tour buses at the Park's gates, for example, must transfer to GPI buses. If they choose to remain on their own buses, passengers must pay GPI the appropriate fare for the distance travelled. However, as most buses are too large to travel over Going to the Sun Road, transfers are quite common.

The majority of riders on the GPI bus system are participating in large group or individual tours. Such tours include, as they did in early park history, lodging and meals as well as sightseeing. Individuals, not on tour, may ride the buses but do so only in small numbers. The problems related to ridership will be discussed in the next section.

Problem Description

Current Public Transportation - Related Problems

There are a number of identifiable problems with regard to current public transportation within Glacier National Park. When one is reminded of the overall goal of sensibly related regional and local/park transportation systems, these problems take on particular significance. In addition, as visitation has increased (see Chapter V) many more private vehicles have come to the park which may be undesirable for overall park management goals.
Upon review of the GPI bus schedule (Table 2-2), it becomes clear that one may travel via bus in only one direction per day over the Going to the Sun Road. An overnight stay is requisite for those wishing to make a round trip. For example, a visitor may leave Lake McDonald Lodge on the west side of the park at 8:50 am, travel over scenic Logan Pass, arriving at the Many Glacier Hotel on the east side at 11:50 am. There is no return service until the following morning, however. Visitors must secure accommodations at the Many Glacier Hotel, Swiftcurrent Motor Inn, or public campgrounds.

Hikers are particularly affected by the current scheduling. Many hikes end at a point other than the point of origin. In the absence of frequent bus services, hikers must hitchhike at the conclusion of their hike to their private vehicle or arrange for 2 cars. In addition, buses cannot be "flagged down" as fares are collected at hotel desks and not by the drivers. Arrangements must be made prior to the hike and many times such arrangements are unsatisfactory given scheduling restrictions.

Scheduling further affects the car-less visitor. Buses from Great Falls and Kalispell arrive well after buses over Going to the Sun Road have left for the day. Single day trips through the park become virtually impossible for these visitors. Train travellers arrive at Glacier in the
early morning from the west and in the late evening from
the east and therefore are not as sorely affected.

Owners of recreational vehicles too large to travel
over Going to the Sun Road, and those who do not wish to
drive the road under any circumstances form another group
that is affected by the scheduling problem. Unless they
wish to conform to the GPI schedule, they are left with
no reasonable transportation alternative.

Scheduling is probably the most obvious problem of
the current public transportation system in Glacier. The
high bus fare and lack of publicity are two less evident
yet crucial problems. The high fares of the system may
prohibit its use by certain segments of the visitor popu-
lation, especially when one considers that the cost of
overnight accomodations must be included as part of the
trip's entire cost. The overall cost may range from $18.00
to $30.00 per person depending on the choice of accomo-
dation for trips over Logan Pass.

The system is not well publicized. There is no
descriptive literature distributed at park gates; nor is
it mentioned as a regular feature of ranger-naturalist
evening talks. In the early 1970's subsidized trips to
Logan Pass were tried on an experimental basis using the
red buses. However, the service averaged only 1.5
passengers per trip and was terminated. It is difficult to determine for what reasons it failed but little publicity in combination with the limited scope of the shuttle may have had some effect on the ridership.

Congestion-Related Problems

Increasing numbers of vehicles on the road has been cause for some concern. With regard to the original engineering specifications for Going to the Sun Road, it can be assumed that the recent traffic volume (.5 million cars per year with the majority during the summer months) was not considered. This is especially true for the 12 mile section which traverses the Garden Wall on the west side of Logan Pass. Even if engineers in the 1920's had been able to determine the increase in traffic volume, they were limited as to the construction methods and techniques that would have enabled them to construct a road accordingly. Finally, the numbers of vehicles currently make it difficult for road maintenance crews to perform normal, routine functions and road repair.26


Although Glacier National Park does not yet have a severe smog problem from automobiles as does Yosemite Valley; or experience 30-40 mile long lines of cars as has Cades Cove in the Smoky Mountains, the park is not immune to these vehicle congestion-related problems. As visitation increases these problems become more threatening. Additional roads in Glacier are either undesirable (in wilderness considerations) or physically impossible, so alternative forms of transportation may be considered crucial. It is also possible that with decreasing fuel supplies and increasing fuel costs, alternatives will be in demand.

To summarize, there is a segment of the visitor population which is in immediate need of public transportation alternatives. Current scheduling and fares of the current Glacier Park Incorporated transportation system make it a somewhat less than attractive alternative to many visitors. It is quite possible that coupled with this immediate demand there will be a long range demand to create viable transportation alternatives within Glacier Park with regard to both safety and environmental concerns.

Study Approach

Given the above problem description, the remainder of this study will take the following approach:
1. An analysis of what action the Park Service and concessioner (GPI) have taken thus far in respect to public transportation alternatives; Chapter III

2. A survey of public transportation alternatives which are being offered in other national parks; Chapter IV

3. Analysis of the current need for alternative public transportation in Glacier National Park, taking visitor flow into consideration; Chapter V

4. A recommended plan to select solutions to Glacier's transportation problems in the short run, as well as constitute a first step in considering long run solutions; Chapter VI

5. Concluding remarks with some comment on criteria for evaluating public transportation systems in national parks; Chapter VII
CHAPTER III

REVIEW AND ANALYSIS OF RECENT PUBLIC TRANSPORTATION DECISION MAKING IN GLACIER NATIONAL PARK

This chapter attempts to describe and analyze the action taken by both the concessioner (GPI) and the Park Service in recent years with respect to transportation within Glacier National Park. Such analysis will hopefully serve not only to provide an understanding of park decision making processes, but also to define the point where further study should begin. Primarily due to circumstance this will not be an entirely objective representation.

Having worked as an information-transportation agent for GPI at Lake McDonald for three summers, I have had the opportunity not only to observe and record transportation-related information but also to contribute to the course of events relating to transportation decision making.

During the 1971-1972 summer seasons the National Park Service subsidized a shuttle between Lake McDonald Lodge and Logan Pass. (Park Service and GPI information conflicts as to whether it was 1971, 1972, or both.) GPI equipment and personnel were used for this service with government funding. The shuttle was offered twice each day at $2.00 per round trip. According to all parties involved the shuttle was not widely used by park visitors (1.5 visitors
per trip according to GPI and 6.6 visitors per trip according to the Park Service) and dropped after two seasons. Reasons for its failure are difficult to ascertain. Park Service officials feel that its scope was too limited while Don Hummel of GPI suggests that the public was not ready for such a service. However, a survey used in conjunction with the shuttle showed favorable visitor reaction from those who did take advantage of the service.

During the summer of 1974, as information-transportation agent for Glacier Park Incorporated, I was contacted by visitors facing various transportation problems. These are adequately described in the previous chapter (the careless visitor, the hiker, the recreational vehicle owner, etc.). These visitors sought solutions to transportation problems in the service we offered. In addition, there were a number of visitors to Glacier who expressed interest in the quaint red buses they observed in the hotel parking lots and along Going to the Sun Road. They wished to know if they could park their private vehicles and ride these buses through the park.

Facing numerous requests for transportation services we did not provide, my job became increasingly frustrating. With help from transportation agents and dispatchers from the other Glacier Park Incorporated-owned hotels an unofficial shuttle service was established. On a space availability basis visitors could take the 8:50 am bus from
Lake McDonald Lodge and disembark at 10:00 am at Logan Pass. Twenty minutes later the bus from the Many Glacier area would pick these passengers up and bring them back to Lake McDonald Lodge. Passengers were charged on a pro-rated basis (approximately $6.00 for the round trip service per person) and arrangements were required one day in advance. This system was only somewhat successful as the fare was higher than many visitors could afford and through passengers had priority for the available space.

The Logan Pass "ad-hoc" shuttle was not an all encompassing solution. There were many visitors who wanted other kinds of service: afternoon tours, hiker pick-up, and round trip service to the east side of the park. Many of these visitors wished to express their displeasure to Park Service personnel and government officials. During the month of July, I began to record the names of visitors who were unsuccessful in securing a satisfactory response to their inquiries in reference to transportation services. Names were added to the list only when the visitor expressed displeasure and only those visitors who stopped at the Lake McDonald Lodge information desk were included. Sixty-eight names were recorded for a six week period, eight hours a day, six days a week. It was later learned that bus drivers, other hotel desk clerks, and Park Service personnel were met with similar
requests by park visitors but actual numbers of visitors seeking such information were not recorded.

On October 7, 1974, the list of sixty-eight names was sent to the Department of the Interior and to GPI with a cover letter describing the transportation concerns which were expressed by park visitors (list and letter in appendix). In response, Richard Munro, then Acting Superintendent of Glacier National Park explained that his staff was quite aware of the problem:

"Because of the fuel shortage, a reluctance on the part of visitors to drive on the park's narrow roads, National Park Service vehicle length limits on roads, and the increased number of visitors arriving at the park via the airlines, bus lines and trains, the need [for public transportation within Glacier] was more apparent this past summer." 27 (entire letter in appendix)

However, the lack of funding seems to have the primary limiting factor in transportation studies through the early 1970's.

Glacier Park Incorporated did not respond to the October letter. Through subsequent conversations with Mr. Hummel over the next three years, I learned that his silence was due to his negative perceptions concerning Park Service policy making in general, indicative of the "friendly animosity" which exists between the National Park Service and concessioners in many parks. One is

reminded of the original alliance between preservationists and railroad concession interests; that it was an alliance of pragmatism rather than a recognition of very similar goals. In that context it is not at all surprising that Mr. Hummel was concerned over a letter to the Park Service from an employee of his concession. Nonetheless, at the time I was perplexed by his "non-response."

The 1975 season brought the transportation problem to the forefront once again. This time, however, I was contacted by Philip Iverson, Superintendent of Glacier National Park and Richard Munro, Management Assistant. The National Park Service had made it known to Glacier Park Headquarters that funding would possibly be made available for a public transportation study in Glacier. Iverson and Munro suggested that there was a possibility that I might participate in such a study and that they would contact me at the appropriate time.

During September and October of 1975 a draft statement for management for Glacier National Park was prepared by Superintendent Iverson. Under Section V, "Management Objectives," point number five asked for the relief of congestion on Going to the Sun Road.28 In an attempt to respond to that directive and to address the problem of

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public transportation in Glacier in general, a meeting was held at West Glacier (Park Headquarters) with representatives from the Denver Service Center of the National Park Service in late October. Its purpose was to determine the scope of a possible transportation study in Glacier National Park. As a preliminary step the Service Center had prepared a document entitled "Task Directive: Transportation Study, Going-to-the-Sun-Highway Corridor, Glacier National Park." (See appendix.) The directive proposed a four year program to study transportation patterns in order to make recommendations concerning public transportation. In anticipation of the meeting I also prepared a short outline of a proposed transportation study. (See appendix.)

Upon arrival at Park Headquarters, I learned that Iverson and Munro were dissatisfied with the Service Center document. The very title of the task directive was a problem: Highway was used instead of road, contrary to the decision by the National Park Service to de-emphasize management of the road as a highway. Prior to this change of term the scenic amenities of the road had begun to be clouded by its highway status. It was also evident that the authors of the document had not visited Glacier prior to its writing (e.g. only the Going to the Sun Road was mentioned as a "transportation corridor"; although no longer planned, both a northern east-west road and a 'Glacier Park Air Port' at East Glacier were included in
the descriptions of the area; the existing service offered by GPI was not extensively described). Further, the proposed cost of $180,000 over a four year period (the length of time it would supposedly take to complete the study) seemed excessive. Iverson felt that the park could conduct an "in house" study more economically and efficiently. He suggested a pilot program which would add 1-2 buses to the current GPI fleet to accomodate immediate visitor need. As regional service improved and ridership increased the system could be expanded. In addition, a survey could be distributed to visitors at the same time in order to better evaluate the success of the system and as a guide for improvement.

The meeting which followed was somewhat strained primarily due to the misinformation which was included in the Service Center document. However as the meeting progressed (minutes included in appendix), we were able to come up with some suggested revisions and a more acceptable study approach: a combination of Glacier Park personnel and a Denver Service Center research team would participate in the study. The Denver Service Center would provide the necessary expertise while the local park personnel could initially assess the problem, make recommendations, and evaluate proposed solutions. Both the Denver Service Center and the park staff could engage
additional personnel to aid in the study. (The Service Center representatives had already received a number of inquiries from private consultant firms.)

It was also established that the concessioner, GPI, would be consulted in relation to all decisions reached and hopefully be encouraged to take an active role in consideration of transportation alternatives. I was asked to work with the park staff as an independent contractee.

The dynamics of the meeting are worth some commentary. Decision making is at best an awkward procedure involving both assumptions and compromise. It was difficult for the Denver Service Center representatives to confront park personnel on their home ground, as it was difficult for the park staff to accept recommendations from "outsiders." Some members of both groups were more willing to reach a middle ground and were finally responsible for setting general goals for all of us in attendance.

The Denver Service Center revised the document to reflect that which was expressed in the meeting including parts of my short outline. (See appendix.) All of those present at the October meeting were asked to comment on the revised task directive. A summary of these comments was compiled in February of 1976 by the Superintendent. (See appendix.)

In January of 1976, however the U.S. Department of Interior withdrew all funds for several transportation
studies throughout the National Park System including Glacier. Due to the lack of available funding it was necessary to abandon the transportation study in Glacier for the immediate future.

Early in the summer of 1976 representatives from the Office of Management and Budget (OMB) in Washington, D.C., visited Glacier Park to discuss a number of fiscal matters. Superintendent Iverson brought these representatives to Lake McDonald Lodge in order to discuss transportation subsidies. Although the interchange was on an informal basis it was established that the OMB was not interested in subsidizing additional park transportation services which would not definitely prove economically independent within a "reasonable" length of time. They pointed to subsidized transportation programs in other parks that continued to require government funding. (See Chapter 3.) There was little hope that a system in Glacier designed to meet immediate visitor need could be economically independent within a few short seasons.

In August of 1976, Pat O'Mary, Concessions Specialist (a Park Service position) at Glacier Park expressed additional doubt. The free Yosemite shuttle service, he stressed, had been more feasible as the costs could be spread over a twelve month period. However, as Glacier's

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system would only be in service for three months each year, the intense costs for establishment and maintenance could preclude its economic feasibility unless fares were charged.

On September 9, 1976, in a discussion concerning public transportation alternatives for Glacier National Park, Don Hummel of GPI suggested the following: Red buses could be used exclusively on Going to the Sun Road providing a shuttle service between West Glacier and St. Mary. In addition, the Crowns and Flexs' could provide service on the highways bordering the park on the east and south. Initially a study could be carried out in conjunction with a pilot program to determine schedules, the range of acceptable fares, etc. Although he did not see an immediate reduction in the number of automobiles on Going to the Sun Road, he predicted additional Park Service limitations on recreational vehicles. The increase in recreational vehicles (large self-contained living and travelling units), he contended was at least partially responsible for increased congestion problems on Going to the Sun Road and possible road maintenance problems. These expected limitations in combination with increased use of regional public transportation facilities would increase ridership on park buses substantially. Financially speaking, he felt that through good advertising
techniques the system would become popular enough to support itself; that only an initial subsidy would be necessary. He went on to suggest that the system may work well in conjunction with a "drive-around" service.

His suggestions do not differ extensively with those of Superintendent Iverson. Both men suggest that a survey in connection with a pilot system is the most feasible approach to the study of visitor need and preferences with regard to public transportation. This is perhaps in contrast to the Denver Service suggestion for a study only, implementation not necessarily being emphasized. Both men agree that immediate limitations on automobiles is not as important as increased use of regional transportation by visitors to the park and that good advertising is a key ingredient to a successful transportation system. With reference to the former, it is unlikely that Glacier will limit cars in the foreseeable future as such limitations would require large parking facilities and security considerations. As ridership increases on Amtrak, Glacier Lines, and possibly on the air lines, congestion will probably decrease somewhat without limitation. In Yosemite, for example, use of regional public transportation systems in getting to the park has doubled since the park began a free shuttle service in the Yosemite Valley (see Chapter IV) and in-park congestion reduced.
With these suggestions in mind the following chapter will describe what has been done in other national parks with regard to alternative forms of transportation. Given the lack of immediate funding this "ground work" may aid in the decision making process once funds are made available. Information concerning transportation in other national parks will also serve as a guide to recommendations made in Chapters VI and VII of this report.
Visitor transportation service has been implemented in sixteen units of the National Park System as of November, 1976. These units include national monuments, historic parks and sites, a national seashore, and recreation areas as well as seven national parks. Eleven of these transportation systems have been established and/or subsidized since 1970. The emphasis placed on public transportation is primarily due to the current Park Service philosophy which proposes that visitor transportation services contribute to both the visitor experience and the preservation of the resources. According to Richard B. Bowser, Transportation Analyst for the National Park Service, transportation services reduce energy use and the resulting air and noise pollution. Further, the "amount of litter along routes and at stops generated by visitors using transportation services, is only a fraction of that generated by visitors using private vehicles." The interpretive services offered in conjunction with public transit systems provide visitors with more information about specific areas than was provided previously.  

This chapter will concentrate on public transportation systems now functioning in six national parks. Each of the six systems will be described and evaluated using information and documents provided by park superintendents and other related park personnel. Following these descriptions, the six systems will be compared where possible in an attempt to identify recurring themes as well as to provide an easy reference. The types of information collected for each of the national parks were not always uniform due to actual availability of data. National parks to be considered are the Everglades, the Grand Canyon, Mesa Verde, Mount McKinley, North Cascades, and Yosemite. Guadalupe Mountains National Park was not included for lack of available information. Transportation research has been conducted in Yellowstone National Park and in the Smoky Mountains (Cades Cove area) but these areas do not now have systems primarily due to lack of funding and personnel.

**Everglades National Park**

In March of 1972 an alternative transportation system was initiated in the Shark Valley Slough of Everglades

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National Park. Park administration felt such a system was preferable to building a new road to accommodate increased traffic. New highway building would have been both costly and damaging to the slough's resources. Road construction would have required the draining of swamp areas and filling them with road support materials. It had already been determined that increasing traffic congestion was at least partially responsible for the retreat of wildlife further into the glades.

Shark Valley is located in the northern section of the Everglades. All visitors to this section, arriving via road, must enter the area through a Park Service station where a public transportation fee of $.50 per visitor is collected. No private motorized vehicles are permitted beyond the entrance station. They must be left behind in the parking facility at that point.

In order to travel the 14 mile loop into the valley, visitors must take park transportation, walk, or ride bicycles. Originally, transportation equipment included three pick-up trucks hauling flat bed trailers. Each unit consisted of a Liquified Petroleum (LP) gas converted, gasoline engine truck drawing a specially fabricated single axle trailer designed to accommodate 60 adult passengers (manufactured by Thor Systems, Inc.). In November of 1975 these were replaced by two colorful open tractor trailer
units, each capable of handling 65 people (manufactured by Minna Trams, Inc.).

Trams depart every hour during the winter season and less frequently during the remainder of the year. Trips last approximately 2 hours and include a 30-45 minute stop at the Fire/Observation Tower at the road's end. There are a number of complementary interpretative activities available to visitors paying the $.50 fee. These include naturalists aboard the trams and guided hikes. Visitors may also ride bicycles in groups with naturalist guides if they so choose. Interpretive services vary with the seasons and are noted in Park Service brochures. The system is owned and operated by the Park Service. Costs over the past five years are shown below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Allotment</th>
<th>Visitors Using the System</th>
<th>Per Capita Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 1972</td>
<td>$142,000*</td>
<td>22,554</td>
<td>$6.32</td>
</tr>
<tr>
<td>1973</td>
<td>$111,500</td>
<td>61,400</td>
<td>$1.82</td>
</tr>
<tr>
<td>1974</td>
<td>$126,400</td>
<td>46,950</td>
<td>$2.69</td>
</tr>
<tr>
<td>1975</td>
<td>$216,494**</td>
<td>74,209</td>
<td>$3.75</td>
</tr>
<tr>
<td>1976</td>
<td>$278,600**</td>
<td>75,000</td>
<td>$3.71</td>
</tr>
</tbody>
</table>

*reflects purchase of Thor vehicles ($40,940) and other initial investment requirements

**reflects purchase of Minna Trams ($91,016)
Daily use of the system has varied from 6 passengers on June 18, 1972 to 960 on December 30, 1975. Average daily visits to the Shark Valley amount to 149.1 with a peak average of 223. Optimal use would be approximately 480 per day. The system is advertised primarily in the visitor schedule for the Everglades.

Problems have been minimal and primarily related to maintenance of the Thor vehicles. The system does not operate during the months of September and October. Visitation is quite low during that time and maintenance crews are afforded the opportunity to do road repair. However, only walk-in visitors and cyclists may enter the area during that time. Private motorized vehicles are not allowed to travel the road during these two months.

The system has been successful in reducing both the impact on the resource and energy consumption. From March 1972 to September 1976 trams carried 277,403 passengers, not including school groups. Had visitors used private automobiles to tour the area, there would have been 70,253 vehicles in the area over the 4 year period using approximately 118,837 gallons of gasoline. This can be compared to the 41,159 gallons of LP gas for 9,204 trips made by the public transportation vehicles. 88% fewer vehicles were on the road and 65% fewer gallons of fuel were consumed. Litter has been practically eliminated and the
wildlife of the glades seem to be thriving in areas closer to the Shark Valley Trail.  

The Grand Canyon  

During the early 1970's, Grand Canyon National Park began to experience an increase in auto congestion resulting in a lack of parking space and in air pollution problems on the West Rim Drive and in the South Rim Village. The Park Service was faced with finding a solution to these traffic-related problems. Adding more roads and parking lots seemed to be in direct contradiction to park management goals which dictated a restoration of the entire West Rim to its early 1900's condition. Introducing a public transportation system in that area of the park could eliminate congestion and the need for additional roads.  

Therefore, in 1974 a free public transportation system was initiated at the Grand Canyon. From April 1 to October 23 shuttle service is now provided for visitors in the South Rim Village. May 13 to September 4 buses operate on the West Rim drive and feeder service is provided between the Village and the West Rim. During this season the West Rim is closed to private vehicular traffic.

However, buses run only minutes apart from 7:00 am until early evening and one may ride a bicycle on the road at any time.  

Buses are owned by the Park Service but the conces­sioner, Fred Harvey, is issued a contract to take over all phases of service using the park's buses. Equipment includes new propane-fueled mini buses. Four mini buses, each pulling a single trailer are used for the Village shuttle, two without trailers are used for the feeder, and six buses, each pulling two trailers are used on the West Rim Drive.

Interpretive services have been increased to comple­ment the West Rim shuttle. Nine additional seasonal ranger-naturalists have been placed at various scenic points along the rim including Hopi Point, Mohave Point, and Pima Point. Visitors may disembark at any of these places for as long as they wish for viewing and hiking.

The original budget (1974) for the public transporta­tion system at the Grand Canyon amounted to $1,000,000 which included purchasing costs for the required vehicles. For 1975 and 1976 the budget was reduced to about $750,000 and included the following:

---


Fred Harvey Contract----------------- $525,000
Amortization of Equipment----------------- $140,000
Interpretive Services----------------- $40,000
Publicity----------------- $25,000
Maintenance (bus stops and utilities)---- $25,000
Administration----------------- $35,000

The system is advertised in a special brochure, 'Free Canyon Shuttle,' and the SAMA, the park newspaper. Rider-ship was 1.4 million in 1974 and 1.8 million during both the 1975 and 1976 seasons. There has been some problem with overcrowding and the lack of special facilities for handicapped visitors on the park buses. However, in general, the visitor response has been favorable. Visitors have actually welcomed the chance to leave the driving to someone else. They feel that they can learn about the west and south rims while they are afforded an unobstructed view of the Grand Canyon. William E. Maxwell, general manager of the lodges at Grand Canyon, spoke with regard to the car-less visitor:

"The operation of the tram system from our stand- point was a tremendous success.... many visitors to the park do not come by auto--they come by bus, air, etc. Those visitors, senior citizens, and those unable to get around by foot have had a difficult time in the past reaching many of the view points from their lodges. The tram system enabled those people to travel freely."36

36 Ibid.
The park has reduced traffic on the West Rim Drive by a factor of 50%. The system uses 12,000 gallons of fuel per month compared with 60,000 to 108,000 gallons of fuel required by private vehicles.  

Mesa Verde National Park

Visitation to Mesa Verde had originally been limited to those archeological ruins located on the Chapin Mesa. However, as visitation exceeded 300,000 in the early 1970's, congestion and parking problems had begun to interfere with the visitor experience in that park. As a solution, several ruins were "stabilized" on the Wetherhill Mesa and it was decided that this area would be opened to accomodate increased visitation. A 12 mile long gravel road to a centralized area and a mesa top shuttle service to the ruins were planned. However, in response to the 1967-68 Park Service Policy (see Introduction) such plans were abandoned. Instead, in June of 1973 12 miles of old jeep trails were surfaced and a visitor transportation system from the Far View visitor facility was established which in turn would feed a mesa-top shuttle.

The system is provided to visitors for a 90 day period (1976 figures - 92 days, June 7, 1976 to September 6, 1976). There are 17 round trips per day to the Mesa from the Far

37Branges letter.
View center at Navajo Hill and continuous service on Wetherhill Mesa.

Equipment includes 3 42-passenger buses and one 54-passenger mini-train for the mesa top shuttle with an overall capacity of 560 per day or 51,520 each season. In 1974, 31,107 people rode the public transportation system (60% of capacity) and during 1975, this rose to 40,512 passengers (79% of capacity). The major publicity effort takes place at Far View. The Visitor Center not only provides information about the bus system but serves as a ticket center (fare schedule not available).

The Mesa Verde Company owns and operates the transportation system providing buses, mini train and drivers. The Park Service, in turn, provides the Company with schedules, time tables, routes, necessary operational adjustments, and naturalists aboard some buses. Bus driver and/or naturalists are able to provide visitors with an interpretive program enroute to the Wetherhill ruins. The Park Service contributes $91,500 to the Company based on $34.00 per bus and driver for each bus trip and $80.00 per mini train trip (for one season). The concessioner offers additional trips not subsidized by the government.

Other than occasional vehicle breakdowns, the system is seen as successful by Park Service personnel. Visitor use continues to grow with only a minimum of road improvement
required and without vehicle congestion at the archeological ruins. The park has also found that the public transportation service has eliminated the need for additional staff to patrol and maintain the access roads.38

Mount McKinley National Park

Prior to the fall of 1971 public use of Mount McKinley National Park was limited to 50,000 visitors each year due to the lack of improved access roads. The Denali Highway, rough and unpaved, connecting Anchorage and Fairbanks was the only road to the park. The park itself contained an 85 mile-long gravel road that was adequate to accommodate the limited number of motorists and the concession wildlife tour buses for non-motorists. Approximately half of the visitors to the park arrived via train. However, in 1971 the Denali Highway was paved, putting Mt. McKinley only a few hours from two metropolitan areas.

Park officials at McKinley were concerned with the almost assured increase in visitation. This concern had three components: (1) preservation of the natural beauty of the park, (2) protection of wildlife, and (3) driving safety hazards on the park road.39 It was believed that


the anticipated stream of cars would detract from the wilderness character of the park, would force from view the large animal life that is one of the main visitor attractions, and would result in an extremely dangerous situation of drivers sightseeing in heavy traffic on winding mountainous stretches of the park's single gravel road. Therefore, beginning with the 1972 season, Mt. McKinley National Park began offering free public transportation to visitors.

Private vehicles are generally prohibited beyond the Savage River Bridge, a point 14 miles from the park entrance. Only visitors having campground reservations may take their private vehicles beyond the Bridge. Buses make 30 drips each day from 6 am to 11:05 pm for the utmost visitor convenience. Naturalists are stationed at various points of interest for on-site interpretive programs.

Equipment includes a fleet of 35 school buses leased by the Park Service from a school bus transportation company. The concessioner operates the bus system with a Park Service subsidy of approximately $457,000 per year. The service is publicized at the main visitor center, campground bulletin boards, hotels, and the railroad station.

During 1976, 170,000 people visited Mt. McKinley. 400 to 1100 visitors used public transportation each day.
amounting to 48,000 for the entire season.  

The system has met with favorable responses from most visitors. From a 1975 questionnaire it was determined that only a few visitors actually objected to the vehicle limitations. In addition, a survey of Anchorage and Fairbanks residents showed that 50% of those surveyed were in favor of the public transportation system. Daniel Kuehn, Park Superintendent, cites the service as an effective means of meeting objectives in terms of balanced visitor accommodation and resource management. The McKinley policy does not, he contends, restrict public use, only access by private vehicles. Hikers seem especially to enjoy the bus system. One may leave a bus at any time to begin a hike and then board another bus when the hike is complete. The system has encouraged continued use of regional public transportation services as well.

The leased vehicles make it possible to provide the service without a large capital investment. The cost of building an improved road to accommodate increased traffic as well as the associated traffic-control personnel required would have been $45,700,000 or 100 times the amount of the present cost to the government for public transpor-

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41 Harrison, loc. cit.
Finally the restrictions on automobiles have conserved about 70,000 gallons of fuel each season.42

North Cascades National Park

The Stehekin Valley of North Cascades National Park, a remote area of the park, is located at the north end of Lake Chelan with only pedestrian, boat, and small sea plane access. In the early 1970's the park began to experience crowding problems in that area. Many summer inholder residents and park visitors would have cars ferried to Stehekin Village for use in the town and in the park. In addition thousands of visitors were making use of regional public transportation and the tour boat from Chelan, Washington at the lake's south end to Stehekin Village. Therefore, in 1972 a concession-run public transit system was implemented to accommodate both visitors and residents.

Service is provided between Stehekin Village and High Bridge (11 miles) four times each day and to Cottonwood Camp (22 miles-road's end) twice each day for $.50. The concessioner also provides a short run to the Rainbow Falls viewing point for $1.00. An additional $.25 for backpacks is charged on all trips. There are some on site interpretive

42 Kuehn letter.
services offered at Rainbow Falls and the system is publicized on the Lake Chelan tour boats and in hotels.

Equipment includes 4 small 1972 vans, (even small buses would have required tree removal) for the High Bridge-Cottonwood Camp shuttle, an open-topped 1930's model bus to Rainbow Falls, and one truck for backpackers. Private vehicles are not currently prohibited primarily due to concessioner objection but such limitation is hoped for in the near future.

Ridership has reached 67% of capacity with heaviest use occurring during the month of August for the Valley Shuttle (High Bridge-Cottonwood Camp).

The following is a breakdown of cost and sources of income for the concession owned, government subsidized public transportation system:

<table>
<thead>
<tr>
<th>Costs</th>
<th>Amount</th>
<th>Income</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Driver's wages</td>
<td>$9,426</td>
<td>Revenue (fares)</td>
<td>$4,233</td>
</tr>
<tr>
<td>Fuel</td>
<td>$1,793</td>
<td>Subsidy (Park Service)</td>
<td>$7,190</td>
</tr>
<tr>
<td>Insurance</td>
<td>$ 756</td>
<td>Operating Deficit (concessioner)</td>
<td>$1,611</td>
</tr>
<tr>
<td>Administration</td>
<td>$1,059</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$13,034</td>
<td></td>
<td>$13,034</td>
</tr>
</tbody>
</table>

---

Unlike the other systems studies thus far, the concessioner must contribute to the system's financial stability. This seems to be in the spirit of the concessioner's role in national parks as envisioned by Stephen Mather whereby the concessioner provides a variety of services to the visitor, all of which should not be expected to show a profit. (See Chapter II).

The Stehekin shuttle has been reasonably successful in providing transportation to visitors while achieving some resource protection. Problems are still occurring as a result of overcrowding. However, in April of 1976 the Denver Service Center presented a more encompassing transportation plan for the Stehekin area which is currently being considered.

**Yosemite National Park**

Crowding in the Yosemite Valley of Yosemite National Park due to increasing numbers of private vehicles in the late 1960's was the cause of nation-wide concern. The concessioner, Yosemite Park and Curry Company, had been offering a shuttle service to visitors since 1967 but it was making only a small dent in the large problem. In 1970 the concessioner decided to appropriate $75,000 for some old buses and during that season began to offer transportation service free to visitors. The Park Service was favorably impressed and agreed to finance the operation.
beginning with September 11, 1970.\textsuperscript{44}

Service is now provided to visitors year round in two loop trips in the Valley and to the Mariposa Grove. Buses run from 7 am to 11 pm every 10 minutes during the summer and from 9 am to 9 pm during the winter with somewhat longer waits in between buses. A "Red Eye" special for those attending late interpretive lectures is also provided in the summer months. Cars are prohibited from portions of all free shuttle bus routes.

Equipment includes 8 double decker buses capable of seating 98 persons with standing room for 25 (American Carrier Equipment, manufacturer); 7 power units and trailers capable of carrying (in combination-trailer and power unit) 100 passengers (Minibus, Inc., manufacturer); and 3 GMC tractors hauling low-slung flat bed trailers capable of carrying 70 passengers each (American Carrier Equipment, manufacturer).

The buses have run at 125\% of capacity during some weekends or about 25,000 passengers in one day. In fact, the popularity of the system has resulted in bus crowding problems. These problems had been most often associated with the double decker buses which provide tempting opportunities for joy riding. Groups of youngsters would ride for the fun of it, especially during evening hours. It

\textsuperscript{44}The Fresno Bee (Fresno, California), June 10, 1973, p. A-2.
became necessary to place park personnel aboard buses to control the joy riding activities and finally to stop using the double decker buses altogether.

The Yosemite Park and Curry Company operates and services the buses under a contract with the National Park Service. The Company receives a subsidy from the government in the amount of $550,000 each year. Associated interpretive activities are more limited than in the other parks studied (trips are much shorter) but guided bicycle and walking trips are offered. The system is publicized in the Yosemite Guide, the park newspaper, and in a special brochure.

Since the system was initiated the park has experienced both a decrease in litter and a decrease in the number of personnel required to control traffic. One bus serves the equivalent of 15-20 car loads of people, reducing the volume of traffic in the Valley and the associated smog and congestion. Visitors have responded well to the system and despite crowded buses prefer to leave their cars behind.45

Yosemite's system has provided all of the visitor use, resource preservation, and energy conservation benefits common to other visitor transportation services studied. However, Yosemite Valley free shuttle service has provided

administrators with some additional insight into transportation management: (1) As cars are still permitted in some parts of the valley, the system has proved that visitors will use, voluntarily, convenient public transportation; (2) The system tested types of vehicles to discover those best for park use, i.e., the failure of the double decker buses to offer an attractive service; and (3) It proved that a park area with transit services would increase the use of regional transit services for access to the park. Although still less than 10% of the visitors use regional public transportation for access to Yosemite, the percentage has doubled since in-park transportation was introduced.46

Conclusions

As is obvious from the information presented, comparisons will be difficult to make. However, in spite of the lack of uniform data (i.e., inconsistency of units of measurement used by various parks) there are some recurring factors which may be useful in arguing for an expanded public transportation system in Glacier National Park.

Table 4-1 compares the financial contribution made by the Park Service in each park for public transportation in 1976. Despite variance in system scope, vehicle type, length of season, and fare charged, the government subsidy

has not exceeded $750,000 during this past year in any of these parks.

Table 4-1
Contribution Made by the Park Service to Public Transportation Systems (Financial)

<table>
<thead>
<tr>
<th>Park</th>
<th>Fare Charged</th>
<th>Cost to Government</th>
<th>% of Total System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everglades</td>
<td>$.50</td>
<td>$278,600</td>
<td>88</td>
</tr>
<tr>
<td>Grand Canyon</td>
<td>free</td>
<td>$750,000</td>
<td>100</td>
</tr>
<tr>
<td>Mesa Verde</td>
<td>??</td>
<td>$91,500</td>
<td>approx. 70%</td>
</tr>
<tr>
<td>Mt. McKinley</td>
<td>free</td>
<td>$457,000</td>
<td>100</td>
</tr>
<tr>
<td>North Cascades</td>
<td>$.50</td>
<td>$7,190</td>
<td>54</td>
</tr>
<tr>
<td>Yosemite</td>
<td>free</td>
<td>$550,000</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4-2 presents hypothesized fuel savings and vehicle congestion reduction as a result of implementation of public transportation systems in national parks. Each park has made this data available in slightly different ways, so that it was not always possible to make absolute comparisons.

Table 4-3 compares the extent to which each system was used during the 1975 and 1976 seasons in terms of per cent of capacity.
<table>
<thead>
<tr>
<th>Park</th>
<th>Fuel Savings (one season)</th>
<th>Vehicle Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everglades</td>
<td>19,419 gallons, 65% less</td>
<td>88% fewer vehicles</td>
</tr>
<tr>
<td>Grand Canyon</td>
<td>288,000 gallons, 80% less</td>
<td>50% fewer vehicles</td>
</tr>
<tr>
<td>Mesa Verde</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Mt. McKinley</td>
<td>70,000 gallons, ?%</td>
<td>30% fewer vehicles</td>
</tr>
<tr>
<td>North Cascades</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Yosemite</td>
<td>25 gallons per trip saved</td>
<td>1 bus load = 15-20 cars</td>
</tr>
</tbody>
</table>
**Table 4-3**

Use of Public Transportation Systems in National Parks

<table>
<thead>
<tr>
<th>Park</th>
<th>Limit on Cars</th>
<th>Percent of Capacity</th>
<th>Use per day/capacity per day (numbers of passengers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Everglades</td>
<td>completely prohibited</td>
<td>42%</td>
<td>202/480</td>
</tr>
<tr>
<td>Grand Canyon</td>
<td>completely prohibited on West Rim only</td>
<td>100%</td>
<td>1000/1000</td>
</tr>
<tr>
<td>Mesa Verde</td>
<td>limited only on Mesa top</td>
<td>79%</td>
<td>442/560</td>
</tr>
<tr>
<td>Mt. McKinley</td>
<td>general prohibition (except campers)</td>
<td>68%</td>
<td>748/1100</td>
</tr>
<tr>
<td>North Cascades</td>
<td>no limitation</td>
<td>67%</td>
<td>40/60</td>
</tr>
<tr>
<td>Yosemite</td>
<td>partial limitation</td>
<td>100%</td>
<td>24,375/24,375</td>
</tr>
</tbody>
</table>
Visitors have responded to these park transportation systems favorably even in areas where cars are not extensively limited. Additional information provided through the associated interpretive programs hopefully has improved the quality of the visitor experience. Finally public transportation systems in the Grand Canyon, Mt. McKinley, North Cascades, and Yosemite have encouraged continuing and/or increased use of regional transportation services in arriving at park gates.

The information presented here is limited, and it is clear that the long range impacts of public transportation systems in national parks have not been assessed. However, public systems seem to be reducing the long range negative impacts associated with private-vehicle-related congestion. The costs involved in public transportation implementation are substantial and in fact we may be paying, through our tax dollars, an average of nearly $7.70 for each gallon of gasoline saved. Yet, as the McKinley case shows us, the cost of accommodating the private automobile (i.e. road improvement, traffic control personnel, resource damage) may be many times greater than the cost of visitor transportation systems.
CHAPTER V

VISITOR FLOW DATA FOR GLACIER NATIONAL PARK

As a preliminary step to transportation planning and study in Glacier National Park, this chapter will present visitor flow data. Information concerning numbers of visitors, their mode of travel, and the direction of their movement may help demonstrate the extent of current visitor need for public transportation as well as give some idea of long range patterns of visitor use. Data was obtained from the perusal of Park Service documents, Frontier Air Lines boarding information, Amtrak ticket sales, and by personal observation (numbers of passengers arriving via Glacier Park Lines on a monthly basis were noted for 1975 and 1976).

Method of Park Access

Since 1911 visitation to Glacier Park has been steadily increasing. 4000 visitors came to the park in that year and in 1976 1,662,678 visitors were recorded. The overwhelming majority of visitors arrive at park gates in private vehicles. In 1975 462,174 private vehicles

47 U.S., Department of the Interior, National Park Service, "Travel Record, Glacier National Park."
entered Glacier and in 1976 536,345 vehicles passed through the park's 10 entrance points. For both years according to park visitor statistics private vehicles carried an average of approximately 3 persons. Table 5-1 indicates the number of vehicles recorded at each entrance station in Glacier for 1975 and 1976 (heaviest use occurring from June through September).

Table 5-1

Entrance Station Vehicle Data

<table>
<thead>
<tr>
<th>Entrance</th>
<th>Vehicles 1975 (motorized)</th>
<th>Vehicles 1976 (motorized)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Glacier</td>
<td>202,031</td>
<td>215,658</td>
</tr>
<tr>
<td>St. Mary</td>
<td>127,292</td>
<td>148,166</td>
</tr>
<tr>
<td>Chief Mountain</td>
<td>54,243</td>
<td>59,197</td>
</tr>
<tr>
<td>Many Glacier</td>
<td>28,064</td>
<td>63,557</td>
</tr>
<tr>
<td>Two Medicine</td>
<td>9,994</td>
<td>13,145</td>
</tr>
<tr>
<td>Camas (North Fork)</td>
<td>19,949</td>
<td>16,895</td>
</tr>
<tr>
<td>Polebridge (North Fork)</td>
<td>13,395</td>
<td>9,956</td>
</tr>
<tr>
<td>Other*</td>
<td>6,607</td>
<td>9,771</td>
</tr>
</tbody>
</table>

*includes Waterton, Cut Bank (east side), and Walton (south boundary)

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48 U.S., Department of the Interior, National Park Service, "Visitor Use Summary, Glacier National Park, 1976 Travel Year."
Included in the private vehicle data above are recreational vehicles (R V's) some of which exceed the size limitations (30' x 8') for travel over a substantial portion of Going to the Sun Road. The actual percentage of R V's exceeding this limit is not known. However it has been suggested by Richard Bowser, Park Service Transportation Analyst that all large R V's should be prohibited on Going to the Sun Road:

"The existing use of the Going to the Sun Road of approximately 400 cars per hour in each direction, is only one half of the road's capacity. What appears to be congestion is a restricted rate of travel caused mainly by large vehicles, the drivers of which are overly cautious."

Therefore it may be useful to note the number of R V camper days recorded in 1975 and 1976. The average stay per visitor is approximately 30 hours. For 1975 this figure was 129,352 and in 1976 it rose to 162,676. If further R V restrictions are forthcoming, public transportation systems within Glacier National Park will be sorely needed.

Amtrak serves both East Glacier (Glacier Park Lodge) and West Glacier. During 1975 and 1976 trains travelled east each morning arriving at West Glacier at about 6:00 am and at Glacier Park Lodge at 7:30 am. Westbound trains arrived at Glacier Park Lodge at 6:15 pm and at West Glacier

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50 "Visitor Use Summary..."
at 7:50 pm. The following visitor information has been provided by Amtrak for 1975 and 1976 (Table 5-2).

<table>
<thead>
<tr>
<th>Month</th>
<th>Year</th>
<th>Arriving Passengers at West</th>
<th>Arriving Passengers at East</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>1975</td>
<td>219</td>
<td>578</td>
</tr>
<tr>
<td>July</td>
<td>1975</td>
<td>331</td>
<td>933</td>
</tr>
<tr>
<td>Aug.</td>
<td>1975</td>
<td>407</td>
<td>1052</td>
</tr>
<tr>
<td>Sept.</td>
<td>1975</td>
<td>46</td>
<td>153</td>
</tr>
<tr>
<td>June</td>
<td>1976</td>
<td>171</td>
<td>697</td>
</tr>
<tr>
<td>July</td>
<td>1976</td>
<td>503</td>
<td>948</td>
</tr>
<tr>
<td>Aug.</td>
<td>1976</td>
<td>380</td>
<td>1031</td>
</tr>
<tr>
<td>Sept.</td>
<td>1976</td>
<td>55</td>
<td>167</td>
</tr>
</tbody>
</table>

The number of visitors arriving via train in 1975 and 1976 constitute only .2% of all visitors to the park each season. With gas shortages possibly occurring in the near future, however, it is likely that train ridership will increase. Further, .2% represents 4,000 people each summer who must rely on in-park transportation availability in order to view Glacier.

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Frontier Airlines and Hughes Air West provide service to Kalispell while Northwest Air Lines serves Great Falls. Many visitors arriving in these cities via air subsequently make rental car arrangements. Therefore such visitors are included in the private vehicle tally in Table 5-1. Others use Glacier Park Lines, the regional bus service, in making park connections, once again resulting in over-lapping information. Further, only a very few visitors arriving via plane at Kalispell request GPI limousine service to Lake McDonald Lodge (less than 50 each season). However, Frontier Air Lines has recorded the number of people arriving at Kalispell during the last two summers. Not all of those recorded visited Glacier, yet it can be assumed that a substantial number of them did plan to visit the park. The Frontier data is presented below in Table 5-3. (Similar data was requested from Hughes Air West and Northwest Air Lines but not supplied.)

During 1975 and 1976 I was able to observe the approximate numbers (to the nearest 10) of passengers arriving at Glacier Park via Glacier Park Lines. Most of the passengers observed participated in GPI package tours which included lodging, meals, and transportation. The observed data is presented in Table 5-4.

As was mentioned in an earlier chapter, visitors may contract with GPI for large group tours. Such groups arrive to Glacier Park via public transportation (usually
### Table 5-3

**Kalispell Passengers Aboard Frontier Flights for 1975 and 1976**

<table>
<thead>
<tr>
<th>Month</th>
<th>1975</th>
<th>1976</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>509</td>
<td>624</td>
</tr>
<tr>
<td>July</td>
<td>528</td>
<td>719</td>
</tr>
<tr>
<td>August</td>
<td>703</td>
<td>585</td>
</tr>
<tr>
<td>September</td>
<td>428</td>
<td>465</td>
</tr>
</tbody>
</table>

### Table 5-4

**Visitors Arriving at Park Gates via Glacier Park Lines (Bus) 1975-76 Average**

<table>
<thead>
<tr>
<th></th>
<th>June</th>
<th>July</th>
<th>August</th>
<th>September</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Westbound Buses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Arrive East Glacier 11:00 am)</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>40</td>
</tr>
<tr>
<td>(Arrive West Glacier 1:30 pm)</td>
<td>50</td>
<td>100</td>
<td>100</td>
<td>30</td>
</tr>
<tr>
<td><strong>Eastbound Buses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Arrive West Glacier 4:50 pm)</td>
<td>60</td>
<td>120</td>
<td>120</td>
<td>40</td>
</tr>
<tr>
<td>(Arrive East Glacier 6:10 pm)</td>
<td>50</td>
<td>100</td>
<td>100</td>
<td>30</td>
</tr>
</tbody>
</table>

---

chartered buses) nearly every day during the summer season and spend anywhere from 1 to 5 days touring Glacier on the GPI 1936 red buses. Most groups begin their tours at East Glacier, Waterton, or Lake McDonald Lodge and represent approximately 150 visitors each day or .8% of all visitors entering Glacier each year.

Visitors to Glacier National Park on foot, bicycle, and hitch hiking have not been recorded at park gates. However, foot travel does become an important component of in-park travel.

In-Park Travel

The heaviest flow of private vehicle traffic within Glacier Park occurs between St. Mary and West Glacier on Going to the Sun Road (See Table 5-1). A substantial amount of traffic also occurs on the Many Glacier Road and the Chief Mountain Road. This section is primarily concerned with the movement of visitors through the park who are currently in need of public transportation; however, increasingly congested areas may be of some concern in long-range transportation planning. Public transportation on Going to the Sun Road may ultimately be used to deal with congestion-related problems.

Foot travel through Glacier occurs primarily on back country trails. Daily use of these trails has not been recorded but data concerning overnight camping activity
including numbers of campers and the direction of travel is available. It can be assumed that many of the trails receiving the heaviest overnight use are also subject to heavy day use (in addition to those trails that are solely for day use). Hiking information should serve to help determine the nature of a transportation service with regard to frequency of service and routing. The map on the following page indicates the major trails and the number of visitors registered for overnight trips for 1976 and the direction of travel. Trails which are starred (*) are those which are used heavily on a day use basis.

It is difficult to accurately compute the direction of visitors (through the park) that arrive via regional public transportation systems at park gates. 13,021 visitors rode Glacier Park Incorporated buses in 1976 but further information concerning ridership is not available. 61,909 visitors rode concession operated boats within the park. However, the number of people who used boat and bus transportation as a means of reaching a specific point in contrast to those which were merely sightseeing is not known. Further research is needed with regard to the careless visitor in transportation planning.

The next chapter will attempt to make recommendations regarding transportation within Glacier National Park.

---

54 Ibid.
TRAIL USE

LEGEND

TRAIL - ------
456 - # OF OVERNIGHT HIKERS
(123) - # OF PARTIES
★ - HEAVY DAY USE
ROAD -
PARK BOUNDARY
INTERNATIONAL
BOUND

Visitor Use Summary...
Additional research and data as noted would make this chapter more precise. Nonetheless, existing information begins to demonstrate numerically visitor need for transportation services. Only a very small number of visitors actually make use of regional public transportation to gain access to Glacier Park (approximately 1%). However, when combined with overnight hikers (another 1%) and RV's exceeding the limit (another 2-3%) the numbers of visitors needing in-park transportation begin to increase. When one also considers both day and overnight use of hiking trails, hitch hikers, and those visitors who prefer not to drive their autos over the steep mountain road the percentage may be as high as 10% of all visitors. Obviously additional measurement is needed to determine the exact scope of visitor transportation need.
CHAPTER VI

PROPOSED TRANSPORTATION PLAN FOR GLACIER NATIONAL PARK

The following suggestions for transportation planning in Glacier National Park represent a synthesis of the information set forth thus far and offer a means to gain additional necessary data. It is hoped that these recommendations will address transportation problems in Glacier as described in Chapters II and III, reflecting that which has been tried in other national parks (Chapter IV) as well as dealing with Glacier's unique requirements. In an attempt to measure visitor transportation need more precisely, suggestions for filling noted gaps in Chapter V will also be made. This will not only aid in long range visitor transportation planning but in relating intra-park transportation with regional transportation networks.

The proposal is two pronged: (1) the establishment of a shuttle service on a pilot basis on Going to the Sun Road and on the park's east side and (2) a series of research efforts to measure the following:

(a) use of hiking trails on a daily basis, especially hikes which do not end at their point of origin,

(b) use of regional transportation in arriving at park gates,
(c) visitor use of and response to the pilot shuttle system, and

(d) availability and nature of alternative transportation technology.

The Shuttle

A number of suggestions for shuttle service in Glacier National Park have already been made. The most recent system proposal is one set forth by Pat O'Mary, Concessions Specialist for Glacier National Park. Mr. O'Mary suggests a 2-part shuttle service, one part operating between West Glacier and Logan Pass on the Going to the Sun Road and the other between Logan Pass and Many Glacier. Each part would be approximately 40 miles in length and coordinated with the other part in order to maximize visitor convenience. He suggests enclosed vans for this service as they are the most cost efficient (62¢ per mile) and a $3.00 fare for each 40 mile segment travelled. Buses, operated by the concessioner and subsidized by the government, would stop at various points along the way for hiker pick-up, picture taking, etc.

Mr. Hummel of GPI, as was noted in Chapter III, suggests a somewhat different plan: The red buses would be used exclusively on Going to the Sun Road for continuous shuttle

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55 Comments of Pat O'Mary, Concessions Specialist, Glacier National Park, March 25, 1977.
service between West Glacier and St. Mary and to facilitate large group tours. The larger buses, the Crowns and Flexes, would run between East Glacier and Waterton National Park and along the south boundary of the park. This combination would allow visitors to see the entire park in one day if they so chose. The red buses, although less cost efficient (93¢ per mile\textsuperscript{56}) are ideal for sight seeing purposes and are part of the history of the park. Although Mr. Hummel has not discussed fares he assumes that some government subsidy will be given for such a service, especially if further restrictions are placed on R V's in the near future. In conjunction with this system he suggests a "drive-around" service whereby private vehicles may be driven around the outside of the park while the visitor tours inside.

The shuttle service proposal set forth here does not vary substantially from these 2 already mentioned. However, the following suggestions will be presented in a larger context keeping the concept of interrelated regional and local transportation systems in mind as well as specific park and visitor needs.

The shuttle would have 3 basic components: (1) a Going to the Sun Road shuttle, (2) service between Waterton National Park and East Glacier, and (3) continued service

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\textsuperscript{56} Comments of George McEldowney, Jr., Transportation Agent, Glacier Park Inc., 1975.
by Glacier Park Lines along the park's south boundary. The following schedule (Table 6-1) is suggested initially for the pilot shuttle to be revised as visitor need and response is further evaluated. This particular schedule is chosen to allow maximum flexibility for all visitors desiring public transportation in the immediate time frame. It should be noted that the east-west schedule between East and West Glacier is suggested for maximum efficiency and the current Glacier Park Lines service does not conform to these times. If Glacier Park Lines were to continue their present operating schedule (west bound buses arriving at East Glacier at 12:10 pm and at West Glacier at 1:10 pm and east bound buses arriving at West Glacier at 4:00 pm and at East Glacier at approximately 5:00 pm) the pilot service would have to be altered or it might be necessary to use GPI buses on this southern route as well.

This initial service will require 3 vehicles on Going to the Sun Road and 2 on the north-south route. It is suggested that GPI operate the service using Company vehicles; red buses on the Sun Road and Flexes and Crowns on the Waterton-East Glacier route. An interpretive program similar to the one employed at the Grand Canyon would be appropriate. Naturalists could be stationed at various bus stops along the road or ride along with park visitors. Passengers would be able to disembark and take a later bus
# Table 6-1

## Pilot Service Schedule

<table>
<thead>
<tr>
<th>Stops</th>
<th>Departure Times</th>
<th>Departure Times</th>
<th>Departure Times</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East Bound</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish Creek</td>
<td>6:45 am</td>
<td>10:45 am</td>
<td>1:45 pm</td>
</tr>
<tr>
<td>West Glacier</td>
<td>7:00</td>
<td>11:00</td>
<td>2:00</td>
</tr>
<tr>
<td>Apgar</td>
<td>7:05</td>
<td>11:05</td>
<td>2:05</td>
</tr>
<tr>
<td>Lake McDonald Lodge</td>
<td>7:25</td>
<td>11:25</td>
<td>2:25</td>
</tr>
<tr>
<td>Avalanche</td>
<td>7:40</td>
<td>11:40</td>
<td>2:40</td>
</tr>
<tr>
<td>Loop</td>
<td>8:00</td>
<td>12:00 pm</td>
<td>3:00</td>
</tr>
<tr>
<td>Logan Pass (20 min)</td>
<td>8:40</td>
<td>12:40</td>
<td>3:40</td>
</tr>
<tr>
<td>Siyeh Pass</td>
<td>8:45</td>
<td>12:45</td>
<td>3:45</td>
</tr>
<tr>
<td>Jackson Glacier</td>
<td>8:50</td>
<td>12:50</td>
<td>3:50</td>
</tr>
<tr>
<td>Sunrift Gorge</td>
<td>8:55</td>
<td>12:55</td>
<td>3:55</td>
</tr>
<tr>
<td>Sun Point</td>
<td>9:00</td>
<td>1:00</td>
<td>4:00</td>
</tr>
<tr>
<td>Rising Sun</td>
<td>9:10</td>
<td>1:10</td>
<td>4:10</td>
</tr>
<tr>
<td>St. Mary</td>
<td>9:25</td>
<td>1:25</td>
<td>4:25</td>
</tr>
<tr>
<td><strong>West Bound</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>St. Mary</td>
<td>7:30 am</td>
<td>11:30 am</td>
<td>4:30 pm</td>
</tr>
<tr>
<td>Rising Sun</td>
<td>7:45</td>
<td>11:45</td>
<td>4:45</td>
</tr>
<tr>
<td>Sun Point</td>
<td>7:55</td>
<td>11:55</td>
<td>4:55</td>
</tr>
<tr>
<td>Sunrift Gorge</td>
<td>8:00</td>
<td>12:00 pm</td>
<td>5:00</td>
</tr>
<tr>
<td>Jackson Glacier</td>
<td>8:05</td>
<td>12:05</td>
<td>5:05</td>
</tr>
<tr>
<td>Siyeh Pass</td>
<td>8:10</td>
<td>12:10</td>
<td>5:10</td>
</tr>
<tr>
<td>Logan Pass (20 min)</td>
<td>8:35</td>
<td>12:35</td>
<td>5:35</td>
</tr>
<tr>
<td>Loop</td>
<td>8:55</td>
<td>12:55</td>
<td>5:55</td>
</tr>
<tr>
<td>Avalanche</td>
<td>9:10</td>
<td>1:10</td>
<td>6:10</td>
</tr>
<tr>
<td>Lake McDonald Lodge</td>
<td>9:20</td>
<td>1:20</td>
<td>6:20</td>
</tr>
<tr>
<td>Apgar</td>
<td>9:40</td>
<td>1:40</td>
<td>6:40</td>
</tr>
<tr>
<td>West Glacier</td>
<td>9:45</td>
<td>1:45</td>
<td>6:45</td>
</tr>
<tr>
<td>Fish Creek</td>
<td>9:50</td>
<td>1:50</td>
<td>6:50</td>
</tr>
<tr>
<td><strong>North Bound</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Glacier</td>
<td>7:30 am</td>
<td>1:00 pm</td>
<td></td>
</tr>
<tr>
<td>Two Medicine</td>
<td>8:00</td>
<td>1:30</td>
<td></td>
</tr>
<tr>
<td>St. Mary (15 min)</td>
<td>9:40</td>
<td>3:05</td>
<td></td>
</tr>
<tr>
<td>Many Glacier</td>
<td>10:40</td>
<td>4:00</td>
<td></td>
</tr>
<tr>
<td>Waterton</td>
<td>12:30 pm</td>
<td>6:00</td>
<td></td>
</tr>
<tr>
<td>Stops</td>
<td>Departure Times</td>
<td>Departure Times</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------</td>
<td>-----------------</td>
<td></td>
</tr>
<tr>
<td>South Bound</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterton</td>
<td>7:30 am</td>
<td>1:00 pm</td>
<td></td>
</tr>
<tr>
<td>Many Glacier</td>
<td>9:30</td>
<td>3:15</td>
<td></td>
</tr>
<tr>
<td>St. Mary</td>
<td>10:30</td>
<td>4:15</td>
<td></td>
</tr>
<tr>
<td>Two Medicine</td>
<td>11:55</td>
<td>5:45</td>
<td></td>
</tr>
<tr>
<td>East Glacier</td>
<td>12:20 pm</td>
<td>6:00</td>
<td></td>
</tr>
</tbody>
</table>

South Boundary

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>West Glacier</td>
<td>East Glacier</td>
</tr>
<tr>
<td>11:30 am</td>
<td>1:15 pm</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1:45 pm</td>
<td>12:30 pm</td>
</tr>
</tbody>
</table>

when scheduling permits. Interpretive programs would be adapted more carefully as the system takes hold. As is the case at present, bus drivers would provide some park information enroute.

The system would be publicized at a number of different places to include the following: entrance stations, airports, railroad stations, campground bulletin boards, visitor centers, ranger naturalist evening talks, in the Glacier Times, the park newspaper, and hotel desks. Publicity would include intra park bus schedules, fares, etc. as well as information on regional hook-ups to the shuttle (e.g. shuttle buses arriving at West Glacier at 6:45 pm would allow passengers to meet the west bound train at 7:50 pm).

Fares would reflect ridership and cost of an average trip (an average trip is approximately 50 miles). Cost and
ridership estimated projections could be developed in the following manner:

<table>
<thead>
<tr>
<th>Cost of a 50-Mile Segment</th>
<th>Projected Ridership</th>
</tr>
</thead>
<tbody>
<tr>
<td>driver---------$7.50</td>
<td>Given 1.6 million visitors per season, 10% potential users = 160,000, 1777</td>
</tr>
<tr>
<td>gasoline---------$5.60</td>
<td>potential riders per day (90 days), 111 per 50 mile trip (16 trips per day), assume only 10% of potential riders will take advantage of the service, Ridership would then be approximately 10 per trip</td>
</tr>
<tr>
<td>publicity---------$1.00</td>
<td></td>
</tr>
<tr>
<td>naturalist-------$10.00</td>
<td></td>
</tr>
<tr>
<td>depreciation &amp; -----$5.00</td>
<td></td>
</tr>
<tr>
<td>amortization</td>
<td>TOTAL $29.10</td>
</tr>
</tbody>
</table>

Each red bus can carry 14 passengers (the Flex's and Crowns considerably more) and therefore would be running at 71% of capacity. This appears reasonable given a 79% average of system capacity for other park transportation systems (derived from Table 4-3). Ridership on the larger buses would probably average approximately 10-15%, at least initially.

A fare of $3.00 per person per 50 mile segment (e.g. West Glacier to St. Mary) is therefore proposed. The Everglades system of transportation entrance fees could be modified in the following manner for fare collections in Glacier. Transportation passes would be on sale at visitor centers, entrance points, and hotel desks. The passes would be printed to include a bus schedule and a series of 60¢ punches, each worth 10 miles or less of travel. Bus drivers would simply punch the appropriate
number of punches per visitor for the distance travelled. Each pass would have 10 punches or 100 miles of travel and sell for $6.00. Some discount could be offered for purchase of more than one bus pass (e.g. 2 passes for $11.00) or for those visitors with Golden Eagle passes (entire summer park passes). This fare collection system would be subject to modification based on visitor use and the availability of government subsidy.

The cost of the system for one season may be determined by simply multiplying the number of 50 mile trips made each summer, 1440, by $30.00, the approximate cost per trip, for a total of $43,000. If ridership does reach 71% of capacity, fares will provide 100% of this amount. However, initially a government subsidy would be required to set the system in motion. Publicity, printing of bus passes, orientation of personnel, and associated research (see below) would require immediate subsidy. $75,000.00 in government funding is suggested for each of the first two years of operation to be adjusted as the system takes hold. Once the shuttle is in full operation this amount could be greatly reduced. Other than additional requirements such as replacement of vehicles, bus stop construction, etc., the system could achieve financial independence. This will depend, however, on how successful it is in meeting visitor needs and in the visitor's willingness to use alternative transportation.
No limitations on automobiles are proposed at this time. The associated requirements of parking space and security personnel make such a proposal both environmentally and financially inadequate. In Yosemite and the Grand Canyon, shuttle trips are short and visitors are more willing to leave cars unattended. However in Glacier, cars would be left for many hours or even days at a time creating a potential security problem. The ultimate success of good intra-park transportation planning will be measured in the increased use of regional public transportation facilities in arriving at park gates. It will be necessary, therefore, to make travel agents and companies aware of Glacier's shuttle bus so visitors might be more apt to leave their cars at home in the first place. Orientation of this nature would also allow current users of regional transportation networks to plan their trips to Glacier more carefully. Some drive-around service could be arranged for visitors who wish to have their cars more readily available when they conclude their bus tour. Perhaps autos could be loaded on railroad cars and hauled from one end of the park to the other over the Great Northern rails. There are still parking and security restrictions to be considered and further research in this area would be worthwhile.

The life of the pilot shuttle will be determined by public acceptance as well as it's overall utility. As overall transportation goals are developed, new technology
could be employed (monorails, aerial trams, etc.). It is possible that the system could be expanded or discontinued entirely. The failure of the shuttle service implemented on an experimental basis in 1971-72 is not completely understood. Lack of publicity and careful scheduling seem to be partially responsible for the lack of ridership. The proposal for a shuttle system as described above is not only sensitive to regional transportation services but provides a great deal of flexibility for in-park travel. Publicity and interpretive programs, absent in the earlier service, would now be emphasized to encourage ridership.

It should be noted that bus, air and rail schedules change frequently and, the proposed shuttle would have to respond accordingly.

**Associated Research**

The pilot shuttle service addresses immediate and short term visitor need for public transportation. In order to plan for the longer term it will be necessary to do a considerable amount of research. Visitor travel patterns both to and within Glacier must be carefully analyzed not only in terms of direction but with regard to actual numbers of visitors. Information concerning projected use of regional transportation over the next 10 years appears crucial in transportation planning for Glacier. This would include certain assumptions on
availability of gasoline and the style and size of private vehicles. Further information is required concerning the day hiker. Careful observation indicates those trails which are more heavily used (see Hiker Use Map - Chapter V) on a daily basis but a more accurate measurement may be useful.

The most accurate indicator for successful evolution of transportation planning in Glacier should be the measure of visitor response to public transportation alternatives. Information concerning scheduling, acceptable fares, and preferences for using or not using the private automobile will be best gained from a visitor use survey distributed to park visitors. In conjunction with the research previously mentioned a visitor survey would not only measure the success of a transportation system but determine in part its evolution.

The following is a suggested visitor use survey to be distributed to a sample representing both transportation system users and non-users. Such a sample could be derived from sampling visitors at given times during a day, once a week, for 14 weeks. Each week, the day and times sampled would change (e.g. 1st week's sample would be taken on Monday, next week's on Tuesday, etc.). Questionnaires would be distributed at entrance stations to visitors to be answered on an individual or group basis and collected by ranger-naturalists, campground rangers, bus drivers,
hotel personnel, and at entrance gates. So many collection points could cause some confusion but would most likely increase the return rate of completed questionnaires.

Visitor Use Questionnaire

1.a. If you are filling this out individually check here _______
or

1.b. How many people are in your party? _______

2. What are the age categories of the members of your party (or yourself)? (Indicate the number included in each category.)

<table>
<thead>
<tr>
<th>Age Category</th>
<th>0-10</th>
<th>11-25</th>
<th>26-40</th>
<th>40-65</th>
<th>65 and over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. At which park entrance point did you first arrive? (This could be checked by the entrance attendant when possible) (Please check the appropriate answer.)

- West Glacier ______
- East Glacier ______
- Chief Mountain ______
- St. Mary ______
- Walton ______
- Two Medicine ______
- Camus Creek ______
- Cutbank ______
- Other ______ (please specify)
- Many Glacier ______
- Waterton ______

4. How did you arrive at Glacier National Park (the entrance station indicated in #3) (Please check the appropriate answer.)

- Family car ______
- Rented Car ______
- Hitch hiked ______
- Bicycle ______
- Amtrak ______
- Other ______ (please specify)
- Bus ______
5. Which of the following best describe your activities while in Glacier? (in order of importance, e.g., 1 for the most important, 2 for the next, 3 for the next, etc.)

sight seeing _____ overnight hiking _____
picnicking _____ naturalist programs _____
 fishing _____ camping in roadside campgrounds _____
day hiking _____ horse back riding _____
other________________________________________ (please specify)

6. Did you ride on park shuttle buses while visiting Glacier?

yes__________________(go to question 7)
no______________________(go to question 10)
have not ridden yet______(go to question 10)

7. Which of the following best indicates your reasons for taking the shuttle bus? (check all appropriate answers)

sight seeing ______
to facilitate hiking plans ______
you do not have your own vehicle ______
your recreational vehicle exceeds the size limit ______
you prefer not to drive your personal vehicle over the steep road ______
other________________________________________ (please specify)
8. Which of the terms below best describe your reaction to the bus service? (answer as many as seem appropriate)

enjoyable _____ not enjoyable _____
informative _____ not particularly informative _____
neutral _____ other comments________________(please specify)

9. Would you recommend that others use the bus service in Glacier?

yes______ no______
comment________________________

10. Was the scheduling of the buses through Glacier...

very convenient ____? no comment ____
satisfactory ____? 
inconvient ____? (please specify why it was inconvenient)

11. The fare of $3.00 per 50 miles of travel was...

too much _____. no comment ____
about right _____.
comment________________________
12. If you did not use the Glacier shuttle please state your reasons below: ____________________________

__________________________

__________________________

__________________________

13. Would you have left your private vehicle at home if you had been aware of the shuttle service at Glacier National Park?
   yes ______  no ______  not applicable ______
   comment____________________________________

__________________________

14. With respect to travel in Glacier would you prefer:
   a public transportation system with a limitation on all private vehicles on Going to the Sun Road ______?
   a public transportation system with a partial limitation of cars on Going to the Sun Road ______?
   a public transportation system with no limitation on cars ______?
   no public transportation and no limitations ______?
   other___________________________________________?(please specify)

15. How should a public transportation system in Glacier be financially supported? (check the appropriate answer)
   entirely by government subsidy ______
   partial subsidy and fares ______
   fares only ______
   other________________________________________(please specify)
Other comments and suggestions you wish to make about transportation in Glacier National Park

In the short run this survey could help refine the shuttle bus system, making it more receptive to visitors' transportation needs and to measure the system's overall success.

If the public transportation system in Glacier should prove successful it will be necessary to determine its further direction. Extensive research into vehicle technology will be required as will long range projections of park visitation. Monorails, aerial trams and other transportation technologies should be investigated in terms of meeting both visitor need and park management criteria.
CHAPTER VII

CONCLUSIONS

References in previous chapters have been made to "successful" transportation systems. The criteria for determining the success for public transportation in national parks could be stated generally and for Glacier specifically. Generally, park transportation systems may be seen as effective if they alleviate congestion and litter on park roads, increase visitor-park personnel interpretive contact, and encourage the use of regional mass transit. Further, successful transportation systems should increase visitor safety by reducing the number of accidents and lessen the impacts of vehicle-related park use.

However, the ultimate effectiveness of a system is measured in terms of its acceptability to visitors. The question of visitor preferences with regard to transportation is a difficult one. Many park visitors prefer not to leave their automobiles behind and give up the convenience, comfort, and independence associated with their use. Public transportation must provide a service that is competitive with the auto in order to be successful. Attractive alternatives which are economically reasonable in comparison
with private vehicles will make the transition to mass transit more acceptable to visitors. In addition, systems must be flexible and sensitive to the changing needs of visitors and of the park.

Although not explicitly emphasized in this report, the environmental impact is a crucial measure of success. Proper environmental impact analysis in conjunction with transportation planning is not only required by law but essential in determining the success of the system. One may even go so far as to suggest that the very lack of transportation planning in our national parks today results in impacts of which we may not be aware. The success of park transportation will be measured in terms of its environmental compatibility with park values. Through both public testimony and scientific inquiry, transportation systems will be evaluated. Success of public transportation systems in an environmental context does not differ substantially from what has been stated so far: relieving vehicle congestion, more passenger miles per quantity of energy employed for transport, reduction in the amount of physical impact in certain areas (less litter, noise, smog) and increasing the number of interpretive (naturalist/environmental education) contacts.

Effective transportation planning in Glacier should be characterized by all of the above in addition to addressing Glacier's specific requirements. Visitors making
use of regional transportation must not be discouraged upon arrival at East or West Glacier. Hikers, owners of recreational vehicles, and others needing in-park transportation must be considered if the transportation service is to be successful.

Much of Glacier's terrain is extremely delicate and can not withstand heavy visitor use (e.g., foot travel, picnicking). A successful system in Glacier may eventually aid in channeling visitors away from critical areas or confining their use of these areas to brief stops for purposes of understanding the park's natural history. For instance, visitors now tend to concentrate their activities at the visitor center at Logan Pass which is located on an extremely delicate alpine tundra. A public transportation system could emphasize other beautiful and less fragile areas at lower elevations, for instance, for visitor use by way of transportation routing and interpretive programs.

Much will depend on travel patterns in the region as a whole and whether inter-park and intra-park systems are well coordinated. On March 10, 1977 a number of senators and representatives in the U.S. Congress introduced identical pieces of legislation. (See Appendix.) The National Access Act (S975) calls for both inter and intra-park transportation improvement with recommendations regarding Amtrak as well as 10 units of the National Park Service. Glacier National Park is listed among these 10 units. The
legislation is a strong indication that leaders in this country realize the need for related and convenient transportation networks. The legislation and related commentary deal with many of the same issues and concepts treated here. However, some criticism may be in order. Under Section 4, part C of SB 975 it is stated:

"Transportation facilities and services may be provided pursuant to this Act without regard to any preferential right or privilege which may have accrued or which may accrue to any other person under the Act of October 9, 1965..., relating to the granting of concession privileges in the parks."  

Although this is not an extremely harsh statement, it seems that the concessioners have been given a virtual slap in the face. It is true that many concessioners have not always perceived their entitlement in the same way that Park Service criteria dictates. However, as in the Yosemite and North Cascades cases have demonstrated (Chapter IV) the concessioners have not only encouraged but have actually funded public transportation services in those parks. Perhaps the proposed legislation should have encouraged joint efforts including concessioners and Park Service personnel in attacking park transportation problems.

One aspect of transportation planning and visitor use has not been dealt with; public transportation in national

parks is not an all-encompassing solution, even when all private vehicles are prohibited on park roads. As visitation increases in the various parks there may be little that can be done to alleviate people-related impacts. It is possible and worth some consideration to develop recreational areas and draw attention to natural areas closer to major population centers. Trips to the western national parks may be determined by availability of train space or visitation quotas established within each park.

Perhaps this is a somewhat pessimistic appraisal of the future. Such a forecast as this would seem to preclude America's right to tour its national parks. Yet, we may have to reassess our privileges. It may be necessary to place a greater value on the very knowledge that a beautiful park exists vs. seeing it first hand. We may have to look a little closer to home for the values that beauty and solitude provide. Thoughtful planning in urban and rural areas to include parks and serious attempts at environmental education in the schools could aid in this effort.

Public transportation in our national parks may be a short term solution to the rather overwhelming problem of park crowding. Yet transportation analyses could provide a long range perspective before we have exhausted all of our alternatives.

In an overall sense, transportation systems within our national parks could serve as models for a national
shift away from private vehicular travel, a prospect not only desirable in an environmental context but of necessity in long range energy and transportation planning.
BIBLIOGRAPHY

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Articles and Periodicals


Unpublished Material


Hummel, Don (Glacier Park Inc.) Letter to Janet Eisner, November 18, 1976.


McEldowney, George (Glacier Park Inc.) comments, 1975.


O'Mary, Pat (Glacier National Park) comments, March 25, 1977.


APPENDIXES
October 7, 1974

National Park Service
Department of the Interior
Washington D.C. 20240

Gentlemen:

As concern grows in our country over decreasing environmental resources, we must look more and more to National Parks and Monuments for the last remnants of unspoiled natural beauty. Therefore, millions of Americans visit these scenic areas annually in order to enjoy that which we have managed to preserve. It is unfortunate, however, that the cost of their enjoyment can be measured in the damage and abuse that our National Parks are made to suffer. This point can be easily exemplified when one looks at the problem of transportation to and through scenic areas.

Having had the opportunity to work in Glacier National Park for the past two summers, I have been able to observe how important a role transportation plays both in terms of accessibility and in relation to the area's ecological balance. It has already been established, as far as the latter is concerned, that the internal combustion engine has an adverse effect on the environment. Yet, our primary mode of travel is the single family automobile. Given that Americans are entitled to the enjoyment of their parks we must then provide attractive alternatives to the private vehicle. Decreasing the number of motorized vehicles traveling through scenic areas, while increasing the number of passengers per vehicle would seem to be a most desirable alternative.

Glacier Park Incorporated, a private concessioner, which maintains a number of motels and hotels in the Glacier area, does provide scenic coach trips through the park. However, these vehicles, operated by the Glacier Park Transport Company, are primarily for the purpose of transporting hotel guests from one lodging to another. Neither shuttle nor round-trip service is provided. This is most understandable from the company's point of view. As far as I have been able to determine they are not financially subsidized by any government agency. Nonetheless, visitors arriving at the park by train, plane, or bus are stranded unless they choose to stay at specific hotels within the park.

As an information—transportation agent for Glacier Park Inc. at Lake McDonald Lodge in Glacier National Park, I was in direct contact with visitors who faced various transportation problems. It was up to the agent to try to answer their questions and find solutions to their problems. Many guests arrived via some form of public transport and definitely were in need of transportation.
through the park. Others, having driven their automobiles to the area, found that they preferred not to drive the mountainous roads. They wanted to enjoy the scenery without the concern that is involved with driving a vehicle.

Facing numerous requests for transportation services we did not provide, my job became increasingly frustrating. On a space-availability basis some shuttle service was finally established. However, the basic coach service was not altered, only the length of specific trips and visitors still found themselves stranded on occasion.

Changes are now being implemented in Yosemite National Park whereby travel through the area by automobile would be prohibited. Private vehicles will be left in large parking areas outside the park and visitors transported through Yosemite via shuttle service. Such programs are a positive sign and need to be implemented on a more widespread basis.

Following the body of this letter is a list of names compiled during the summer of 1974. The list includes only those who asked for transportation through Glacier National Park which we could not provide. Names were added to the list only when the visitor initiated the interchange. The names of visitors who did not seek transportation information were not solicited. The names were accumulated over a two month period, six days a week, eight hours a day—either from seven in the morning to three in the afternoon or three in the afternoon to eleven in the evening. The survey represents only those who stopped at Lake McDonald Lodge, one of the seven establishments operated by Glacier Park Inc.

In submitting this list to you, I would hope for your careful consideration in this matter. Protection of our environmental resources while continuing to make them accessible to visitors is of the utmost importance. Efficient transportation through our parks in desperately needed and should be attained.

I am most anxious to hear your response and would be most willing to help work towards effecting the necessary changes.

Respectfully submitted,

Janet A. Eisner
595 Hicks Road Apt. 15K
Nashville, Tennessee 37221

cc: Mr. D. Hummel
Glacier Park Incorporated
1735 E. Ft. Lowell Road
P.O. Box 4340
Tucson, Arizona 85717
The following names include those visitors to Glacier National Park who were unsuccessful in securing a satisfactory response to their inquiries in reference to transportation services. The names were accumulated at Lake McDonald Lodge only but represent the many more visitors that travel through the park each summer.

<table>
<thead>
<tr>
<th>Name</th>
<th>Originating From</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Tudehope</td>
<td>Hastings, Nebraska</td>
</tr>
<tr>
<td>Mr. and Mrs. Clarence Stites</td>
<td>North Hollywood, California</td>
</tr>
<tr>
<td>Mr. and Mrs. Milton Michael, Jr.</td>
<td>Phoenix, Arizona</td>
</tr>
<tr>
<td>Del Dudek</td>
<td>South Bend, Indiana</td>
</tr>
<tr>
<td>Mr. and Mrs. N.O. Stephenson</td>
<td>Washburn, Wisconsin</td>
</tr>
<tr>
<td>Mrs. Laurel Johbson</td>
<td>Owatonna, Minnesota</td>
</tr>
<tr>
<td>Cletus Horn</td>
<td>Lincoln, Nebraska</td>
</tr>
<tr>
<td>Mrs. J. Dunwoodie</td>
<td>Spokane, Washington</td>
</tr>
<tr>
<td>Anne Iacarella</td>
<td>Minneapolis, Minnesota</td>
</tr>
<tr>
<td>Kumie Sato</td>
<td>Tokyo, Japan</td>
</tr>
<tr>
<td>Tatsuo Sato</td>
<td>Tokyo, Japan</td>
</tr>
<tr>
<td>Mitsuharu Kobayashi</td>
<td>Tokyo, Japan</td>
</tr>
<tr>
<td>Richard and Kathyrn Fournier</td>
<td>Minneapolis, Minnesota</td>
</tr>
<tr>
<td>Ola Sather</td>
<td>Norway</td>
</tr>
<tr>
<td>Allison Sargent</td>
<td>New Jersey</td>
</tr>
<tr>
<td>Mr. and Mrs. Vernon Wurscher</td>
<td>St. Paul, Minnesota</td>
</tr>
<tr>
<td>Mr. and Mrs. Joseph Tschida</td>
<td>St. Paul, Minnesota</td>
</tr>
<tr>
<td>Mickey Masuka and family</td>
<td>Clarendon Hills, Illinois</td>
</tr>
<tr>
<td>Mr. and Mrs. Nafziger</td>
<td>Eugene, Oregon</td>
</tr>
<tr>
<td>Victoria Hutton</td>
<td>Bologna, Italy</td>
</tr>
<tr>
<td>Mrs Herbert Zach</td>
<td>Waukeegan, Illinois</td>
</tr>
<tr>
<td>Florence Nusly</td>
<td>Canton, Ohio</td>
</tr>
<tr>
<td>Gladys Townsend</td>
<td>Canton, Ohio</td>
</tr>
<tr>
<td>Joyce Kieffer</td>
<td>Chicago, Illinois</td>
</tr>
</tbody>
</table>
Mr. and Mrs. Edward Probert
Mr. and Mrs. Roy Martin
Mr. and Mrs. Reginald T. Sanders
Mr. and Mrs. Rawicki
Irene Meyer
Betty Wimberg
John Brennan
Joe Brennan
Don Niedert
Lee Neidirt
Mr. and Mrs. Frank H. Smith
Ms. Opal Honea
Norris Kruse
Mcella Brown
Joe Malone
Carl Jones
Susie Lincoln
George Penning
Helen Rifkin
Bill Johnson
Tim J. Lipinski
G. Weisman
Mr. Barnes
M.F. Enke
M. J. Gann
Ms. Alton Choate
O.E. Murray

Morristown, New Jersey
Ogden, Utah
Desert Hot Springs, California
Chicago, Illinois
Wilmette, Illinois
Wilmette, Illinois
Dodgeville, Wisconsin
Dodgeville, Wisconsin
Stevenson, Washington
Portland, Oregon
Oklahoma City, Oklahoma
Edwards, Missouri
Columbia, Missouri
Glendora, California
Arcadia, California
Wayzata, Minnesota
Newton, Massachusetts
Cicero, Illinois
L. A., California
Elmhurst, Illinois
Elmhurst, Illinois
Ann Arbor, Michigan
Macclenny, Florida
Redding, California
Rapid City, South Dakota
Hot Springs, Wyoming
Billings, Montana
Eunice Cloyd
Donald Smith
David Brown
Linda Carlson
Lynda Wesley
Marilyn Hojem
David Farr
Mr. and Mrs. Harold Goodrow
Mr. and Mrs. Fred Kaphingst
John and Mildred Carey
Mr. and Mrs. Hamilton Thomas
Dr. Paul Ashley
Travis Thompson
Allan Spitz
Eleanor Porter
Harvery Buckner
S. K. Neal
Pasadena, California
Sherman, South Dakota
Calabasas, California
Arlington Heights, Illinois
Arlington Heights, Illinois
Spokane, Washington
San Pedro, California
Schenectady, New York
Coeur d'Alene, Idaho
New York, New York
Coeur d'Alene, Idaho
Chicago Heights, Illinois
Stantohsburg, North Carolina
Capetown, South Africa
Galviston, Texas
Blue Mound, Illinois
Tracay, California
Ms. Janet A. Eisner
595 Hicks Road, Apartment 15K
Nashville, Tennessee 37221

Dear Ms. Eisner:

We appreciate your comments concerning a public transportation system in Glacier National Park. We have recognized the need for such a system for several years. In 1972 subsidized trips to Logan Pass were tried on an experimental basis. The system did not work well; possibly because of its limited scope.

Three years ago we were one of several parks that had money programmed for a study to determine the type of transportation we needed, the costs, and the physical areas required for parking lots, etc. The money was never granted and consequently no study was instigated.

Because of the fuel shortage, a reluctance on the part of visitors to drive on the park's narrow roads, National Park Service vehicle length limits on the roads, and the increased number of visitors arriving at the park via the airlines, bus lines and trains, the need was more apparent this past summer. Your observations further confirm the need for a public transportation system in Glacier.

We again have programmed funds for this coming year and are hopeful that they will not be retracted because of economic conditions. We are, and shall continue to exert every effort to secure a public transportation system in Glacier National Park.

Sincerely yours,

Richard J. Munro
Acting Superintendent

cc:
Don Hummel, President, Glacier Park, Inc., P.O. Box 4340, Tucson, AZ 85717 w/cc inc.
APPENDIX C

GLACIER NATIONAL PARK----TRANSPORTATION
STUDY APPROACH

To determine to what extent the needs of the public are not being met
with reference to existing transport facilities to and through Glacier
National Park with the intent to develop recommendations for transpor­
tation system improvement.

Current Transport Problems
1. Inadequacies of present system within Glacier
   a. Frequency of service is not convenient for park travel.
   b. The cost of service is prohibitive in many instances.
   c. The size of the present fleet prevents immediate expansion
      of services by private concessioner.
   d. Tourist impact has resulted in management problems.
2. Lack of regional orientation—Visitors arriving in Montana via
   bus or plane find it difficult to make subsequent connections
   to park entrances. (Trains do service park entrances.)
3. Need for redistribution of tourist impact in relation to overall
   park plan.

Initial Study Direction and Technique
1. Develop survey to establish visitors’ needs in order to identify:
   a. prospective users
   b. frequency of use
   c. range of acceptable fares
2. Observe other parks’ transportation systems.
3. Determine general information on costs of transportation alterna­
tives including:
   a. labor
   b. equipment
   c. promotion
   d. additional parking facilities
4. Recommend specific guidelines for system implementation including
   transportation technology.

Possible Problem Solution
1. Shuttle system—development of three shuttle systems operated by
   the park concessioner and one by commercial bus lines.
2. Retention of existing traditional features:
   a. 1936 White buses
   b. "Jammers"——student driver/tour guides
3. Explore possibility and degree of federal subsidy.

Proposed Subsequent Evaluation
1. Analysis of new system
   a. public satisfaction
   b. park concept
2. Further improvements incorporated into system

Submitted by,

Janet A. Eisner
Graduate Student—Environmental Studies
PRESENT RATES FOR PARK TRAVEL
Per Person

West Glacier to:

Apgar-----------------------------1.00
Lake McDonald Lodge-----------------1.50

Lake McDonald Lodge to:

East Glacier------------------------8.50
Avalanche Creek---------------------.75
Logan Pass----------------------3.00
St. Mary's------------------------4.25
Many Glacier Hotel-----------------7.50

Many Glacier Hotel to:

Canadian Border------------------3.75
Prince of Wales Hotel-------------6.25

Canadian Border to Glacier Park Lodge (East Glacier)------7.00
Glacier Park Lodge to Two Medicine and return----------3.00
Prince of Wales Hotel to Waterton Boat Dock and return----.50
Going To The Sun

Avalanche

Lake McDonald Lodge

West Glacier

Apgar

Logan Pass

Siyeh Bend

Jackson Glacier Overlook

Sunrift Gorge

Sun Point

Rising Sun

St. Mary's

Prince of Wales Hotel

Waterton Glacier

Many Glacier Hotel

Babb

St. Mary's

Highway 89 / Chief Mountain Highway

Two Medicine

East Glacier
APPENDIX D

TASK DIRECTIVE

TRANSPORTATION STUDY
GOING-TO-THE-SUN HIGHWAY CORRIDOR
GLACIER NATIONAL PARK

RECOMMENDED.

ASSISTANT MANAGER, DENVER SERVICE CENTER
MIDWEST/ROCKY MOUNTAIN TEAM

CONCURRED.

MANAGER, DENVER SERVICE CENTER

SUPERINTENDENT, GLACIER NATIONAL PARK

MANAGER, HARPER'S FERRY CENTER

APPROVED.

REGIONAL DIRECTOR, ROCKY MOUNTAIN REGION
PROJECT DESCRIPTION: The Denver Service Center will undertake a study of visitor use and transportation alternatives for the Going-to-the-Sun Highway corridor in Glacier National Park. The study will be related to the park as a whole and to the general region of influence outside the park.

ESTIMATED COSTS: Total of 180,000 estimated to complete the project, $30,000 programmed for FY 76. Fiscal year breakdown for entire project is as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>FY '76</td>
<td>$30,000</td>
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<tr>
<td>FY '77</td>
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<td>FY '78</td>
<td>$50,000</td>
</tr>
<tr>
<td>FY '79</td>
<td>$25,000</td>
</tr>
</tbody>
</table>

ESTIMATED COMPLETION DATE: February, 1979

MANAGEMENT REQUIREMENTS:

1. Conduct a study of the present traffic patterns to and throughout the park, but primarily on the Going-to-the-Sun Road between West Glacier and St. Mary, considering the various types of vehicles, road standards, roadside developments, visitor attractions, and visitor needs.

2. Project traffic volumes and types for at least 20 years into the future. Give consideration to changing methods of travel, points of origin and destination, and economic trends.

3. Recommend interim facilities to meet any discernable current problems. Possibly a shuttle bus system between present developments would serve for some years. Propose ways to improve connections to public air, rail, and bus terminals.

3a. Consider how this system will affect envisioned Transportation system and C.P.R. contract.
4. With consideration to the Master Plan, recommend needed facilities and equipment as required to meet greater traffic volumes as it develops.

5. In addition to facility needs, outline the compatible regulatory changes needed to make the new systems effective, and the interpretive merits of various alternatives.

PLANNING CONSIDERATIONS: The Going-to-the-Sun Road over Logan Pass is the primary attraction in Glacier National Park. It is a very narrow, winding, two-way road which becomes quite crowded with visitor traffic during the busy summer season. Trailers, busses, mobile travel homes, and pickup campers find the road much too narrow and it is extremely frustrating to the usual motorist. The concessioner operates a small bus system, but primarily to serve planned tour groups traveling between his accommodations. With ever increasing numbers of vehicles, a thorough study is needed and plans made to relieve the present situation and prepare for the future.

A preliminary master plan for the park was prepared in March, 1972 and briefly describes a proposal for a transit system along the Going-to-the-Sun Highway.

The study of this system must consider the problems of noise and air pollution, interpretive capabilities, and the esthetic atmosphere of the route.
In addition to transit vehicles which may be recommended for use along the present highway, the use of tour boats at St. Mary Lake and Lake McDonald should be considered for incorporation into the system.

The Going-to-the-Sun Highway now has three primary functions - as a thru traffic route through the park, as a interpretive corridor, and as an introduction and take off route into the wilderness backcountry beyond the corridor.

There is no intention of abandoning or obliterating the present highway. The actual road itself will continue to be used and maintained for vehicles employed in a proposed "transit system", by private automobiles at certain times, and by park management vehicles for patrol, maintenance, and emergency purposes.

The land classification plan designates the Going-to-the-Sun corridor as Class 1 (General Outdoor Recreation Area) and Class 3 (Natural Environment) lands. Both of these land classes are compatible with use of the corridor for a transit system.

Park visitation continues to increase about three percent annually. Visitation in 1974 was __________ compared to 1.2 million in 1970. Only one-third of incoming visitors stop at the St. Mary development at the end of the corridor.

Highways now encircle most of the park and would complete a circumferential route. Supplementing this...
highway system, the Burlington Northern Railroad (part of the Amtrak System) provides passenger service to east and west Glacier. The National Park Service recently acquired 892 acres outside the park near east Glacier and proposes to develop an airport there.

The park is almost completely surrounded by national forests and the Blackfeet Indian Reservation. Waterton National Park adjoins Glacier on the north in Canada.

Tourist accommodations and services are available in surrounding towns and communities. However, the existing concessioner-operated accommodations in the park will continue to operate at the present level.

St. Mary and Apgar are the two major gateway developments in the park and are located at each end of the transportation corridor. Park headquarters is located at the west end near the Apgar development and will continue in operation there. The master plan proposed a transit terminal at the Apgar-West Glacier area which will function as the major information-orientation center for the west side of the park. The eastside terminal will be in the St. Mary area.

The Going-to-the-Sun Road over Logan Pass (the transportation-interpretive corridor) will remain open to visitor use between mid-June and mid-October. Logan Pass will be operated as a day-use area during that period, and will also be managed as a Experimental Interpretive Demonstration area. Logan Pass is a critical visitor concentration area with...
problems related to alpine conditions, heavy visitor use, sewage disposal, and water collection.

PLANNING APPROACH: The proposed Going-to-the-Sun transit system will have a three fold purpose—to reduce and or eliminate private automobile traffic congestion through the park; to provide a better sight-seeing and interpretive experience for the park visitor; and to assist in the transportation of visitors seeking a wilderness hiking and camping experience.

The transit system will also include boat tours at St. Mary Lake and Lake McDonald. In addition, the study will consider the flexibility of making connections with outside rail and air terminals and surrounding communities offering visitor accommodations and services.

Based on the foregoing, the study will concentrate on four major areas of concern as follows:

1. Analysis of the regional area of influence
2. Analysis of visitor use of the park and region
3. Analysis of the transit corridor
4. Analysis of transit concepts, equipment, and costs

The information obtained from the above analysis will be developed into an assessment of alternatives and environmental impacts. Recommendations will then be developed for the system as a whole and its implementation.
It is foreseeable that six separate reports will have to be prepared within the overall scope of the study, including the following: Visitor Use Study Report, Environmental Assessment, Environmental Review (to be prepared by the regional office), Transportation Study Report covering the entire project, and, if necessary, both a Draft Environmental Statement Report and a Final Environmental Statement Report.

In order to meet the requirements of park management for projected traffic volumes for at least 20 years and changing methods of travel, origin, destination, and economic trends, the transportation study should begin with a study of visitor use with emphasis upon local, regional, and national trends. Special emphasis should be placed upon the regional area of influence (copy attached) as it relates to the park. Within that region, major population centers, transportation modes, visitor services, and other recreational attractions must be considered in relation to park visitation at Glacier. The region of influence should extend into Canada because of obvious relationships to the Waterton-Glacier International Peace Park.

Since the funding for the transportation study project for the 1976 fiscal year is only $30,000, most of this amount will be used for the development of basic information on visitor use. A study proposal and contract will be prepared, and the study should be completed
Regional Impact Analysis
Transportation Study
Glacier National Park
by the end of the 1977 fiscal year in order to obtain complete monthly and seasonal information for a full year.

This research study is intended to provide the necessary data on visitor characteristics, activity preferences, origin and destination, and socio-economic information for conducting a transportation study.

Achievement of study objectives will require more than collecting demographic information. Those aspects of visitor motivation, perception, attitude and other characteristics that influence the decision to visit the Glacier Recreation Region must be explored.

Those elements of the study pertaining to visitor use and demand analyses will be conducted by a professional qualified consultant. This consultant must have experience in marketing and/or survey research methods and in human preferences concerning natural resource based outdoor recreation activities. Basic capability for social and economic research must also be provided. In addition, a simultaneous regional traffic density, circulation and distribution-counting analysis should be conducted.

The information obtained from this study will be crucial to decisions involving the economic feasibility of not only developing the in-park transportation system and support facilities, but support facilities and services outside the park including an airport proposed in the park master plan.
<table>
<thead>
<tr>
<th>PHASE 1</th>
<th>Prepare visitor use study proposal and contract, select E and award contract, begin collection of visitor use data</th>
<th>FY 76</th>
<th>FY 77</th>
<th>FY 78</th>
<th>FY 79</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11/75 to 6/77</td>
<td>25,000</td>
<td>15,000</td>
<td></td>
<td></td>
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<tr>
<td>PHASE 2</td>
<td>Complete visitor use study. Begin in-house study of transportation region, park transit corridor, transit concepts, development and analysis of alternative strategies, and prepare environmental assessment</td>
<td>5/76 to 6/77</td>
<td>5,000</td>
<td>60,000</td>
<td></td>
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<tr>
<td>PHASE 3</td>
<td>Review and process visitor use study report and environmental assessment. Region prepares environmental review. Revise reports as necessary</td>
<td>7/77 to 11/77</td>
<td></td>
<td></td>
<td>50,000</td>
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<tr>
<td>PHASE 4</td>
<td>Prepare Preliminary Transportation Plan and DES</td>
<td>12/77 to 4/78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHASE 5</td>
<td>Review and process Preliminary Transportation Plan and DES. Revise reports as necessary</td>
<td>5/78 to 10/78</td>
<td></td>
<td></td>
<td>25,000</td>
</tr>
<tr>
<td>PHASE 6</td>
<td>Prepare Final Transportation Plan and FES. Print reports</td>
<td>11/78 to 2/79</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
PLANNING TEAM REQUIRED:

Landscape Architect/Team Captain, DSC
Park Superintendent, Glacier National Park
Civil Engineer/Transportation Specialist, DSC
Interpretive Planner, DSC
Natural Scientist, DSC
Social Scientist, DSC

BASIC REFERENCES:

Draft Master Plan, March 1972
Wilderness Recommendation Report, March 1974
Interpretive Prospectus, 11/28/72
Use of Buses in Glacier National Park, memo by Bowser, 8/21/72
Report on Road Improvement Investigation, Going-to-the-Sun Highway, Glacier National Park, Montana, Clarkeson Engineering Company, July 1968
TASK Directive Meeting for Transportation Study

Present: Phillip R. Iversen, Superintendent
Dick Munro, Management Assistant
Kent Wintch, Administrative Officer
Ed Rothfuss, Chief Naturalist
Chuck Sigler, Chief Ranger
Cliff Martinka, Research Biologist
Frank Elliott, Chief of Park Maintenance
Teri Carter, Secretary

Guests: Janet Eisener, University of Montana
Dick Wittpenn, Denver Service Center
Andy Feil, Denver Service Center

The meeting was opened by Mr. Iversen. He commented he would like to get a limited transportation system going as a part of the study, rather than spending all the money on planning. Mr. Andy Feil, Denver Service Center, said that this project could involve an Environmental Assessment and Review. This would require the Regional Director's signature before anything could be started. Mr. Iversen suggested that since a transportation system does not exist yet we prepare a negative statement. Mr. Feil felt that first we need to conduct a Visitor Use study to determine when visitors come in, where they go, duration of stay, etc. Mr. Iversen said we could do this type of survey but just parkwide. Mr. Feil felt we should incorporate the region around the park to determine how much region we would be dealing with. Mr. Iversen would like to start with an infant system which would pick people up at campgrounds and various facilities. We already have voluminous files of visitor use data which resolve the matter of region.

The three main concerns during the entire meeting were:

1. Known transportation problems in the park.

2. People who would like to use a transportation system rather than drive their own cars.

3. Hikers - how they can get from one point to another or back to their original point of departure so they can get to their cars.

Andy felt we should concentrate on the problems of Glacier National Park. He felt that the transportation problem was related to the regional transportation problems. Ms. Eisener quoted connections from Great Falls and Kalispell. At the present, there is one bus leaving Kalispell daily and one bus from Great Falls daily. AMTRAK supplements the park's transportation
system now. Airports also serve the transportation needs to Kalispell and Great Falls. It is the connections from those cities to the park that remain the problem. Mr. Feil felt a regional system should be developed but did not want to complicate the matter.

Mr. Elliott mentioned the system would work in the park provided private commercial enterprise was helped along. Dick said ideally this would work but it would take much more money from the Federal government—the days of big money are gone. Also, if we went outside the park it would take considerable P.R. work. His main concern is that the park is helped.

Mr. Iversen wanted to look at the study realistically. He felt that if we didn't implement something within the budget we have, we could very likely lose the study and the money.

Ed Rothfuss mentioned that we could supplement the present system by starting with a small one and monitoring it—then crank this into the overall study. We could estimate this at a 4-5 year study and see how trail use was affected, and develop public confidence in a reliable and convenient transportation system. Mr. Iversen continued this, saying if we started a small scale model and kept our finger on it, monitoring it and letting it grow, we could control it. We could then see what the impact was and a regional, connecting transportation system would naturally evolve from this source of information.

Ed asked Janet if all the GPI buses were tied up. She replied yes. Janet felt that we would have to be careful of our schedules if we brought in another contractor. GPI's buses work well and the student drivers create a good program. Janet just wanted to make sure that the two services did not overlap each other causing redundancies. At the present time, GPI does have to transport anyone on the present limited schedule who will pay the fare provided the bus is available at that time. No bus—no transportation.

Andy Feil asked if the buses would replace the cars on G.T.S. Road. Supt. Iversen felt that this would stir up a hornet's nest and make people feel it was another bureaucratic decision. The road is well traveled between Canada and the U.S. Alberta was our second highest visitor this year. Closing the road to cars would only compound the concession problems. It would probably congest traffic around U.S. Highway 2 also. It was felt that a transportation system would discourage the use of cars, smooth the flow of traffic, and help the hikers and backpackers. Ed Rothfuss brought up the question of the relation of this study to concessions. He wondered if the buses were an alternate to oversized vehicles such as recreational motor homes and campers. If so, he felt we should offer those parties rides free on the system. This was not the general feeling of the group.

Andy Feil said it was their understanding that they would conduct a Visitor
Use Study to generate the data needed to make the necessary judgements. We have most of the visitor use data necessary. If the transportation system went in to effect the first year, the second year they could determine how the interpretation should be handled, what roads the system should tie into, and how to tie the region in around the park. Mr. Feil again mentioned that the more that was added to the process, the longer the time period would be because it drags it out. It might eventually require an Environmental Impact Statement. Mr. Iversen wanted to know if it would be feasible to start an infant system. The park would like to have a look at the system to see how it works in the smaller stages. Mr. Feil said it would depend on the impacts. Mr. Wintch brought up the fact that FY76 we will have $30,000 for the study. We now have $25,000. Mr. Feil said it was his understanding that we had $46,000 now that was to be obligated by the end of the fiscal year.

Ed mentioned that under project description - the first sentence "Going-to-the-Sun Highway corridor" should be deleted - it was.

Management Requirements - Page 1 - It was felt it was important to emphasize Going-to-the-Sun Road in this section but the study must include Many Glacier and East Glacier.

Mr. Feil wondered what our major problem was, Many Glacier, East Glacier or Sun Road? It was felt that Going-to-the-Sun Road's major problem is vehicle length and width. Ed felt if we prohibited certain types of vehicles we would be excluding a certain class of people.

Ms. Eisener stated that present transportation to Many Glacier, East Glacier or Waterton on a day trip basis was virtually impossible. This problem revolves around bus schedules not connecting at the appropriate time. If a hiker arrived at West Glacier on a bus from Kalispell and took the bus to Lake McDonald Lodge, he would have missed the bus going over the pass. He would therefore have to spend a night at the lodge or camping facility and catch a ride the next day. It was also brought up that hikers often times have to backtrack on trails due to insufficient transportation. If we could have transportation available, we could reduce trail travel to one direction, making it more efficient. Transportation would also help the utilization of day use trips.

Janet felt concession buses are well designed for their purpose. They are 7 feet in width and 28 feet in length. They wheel up and down the road just like a private auto. It was felt that a foreign vehicle or some type of substitute could be used in future years for replacement. Larger types of vehicles could be utilized on the east side as the roads could accommodate them. This would also help conserve energy. Mr. Feil asked if we see any widening of the road in the future. There are no plans in the foreseeable future to widen Going-to-the-Sun Road.
Ed mentioned that we had discussed alternatives for the persons driving their own vehicles over the road 5 years ago and tried a small system. Mr. Feil read some quotes from the Clarkson Engineering Company who conducted the survey in 1967. It was the general consensus that the road was adequate and could accommodate growth. This system was not as heavily used as hoped as people lacked the knowledge of how to use the system or that the system even existed.

Transportation to the east side was again brought up. Janet said it was a 2-day trip from the Lake McDonald Lodge to Waterton. If you left East Glacier, it was only a one day trip to Many Glacier or Waterton. It was stressed, again, that round trips were virtually impossible to plan due to bus schedules. At the present time, the train schedules do meet with GPI bus schedules.

Frank asked if we have a system with connections to the outside, how much more of an impact would we have from a regional system. Travel bureaus, airlines, these type of organizations could give us an estimate and from that we could make a broad estimate. Mr. Iversen again commented that if we try to begin with an infant system, we could then make studies and learn while the system was operating.

Andy wanted to know if there was enough information as to visitor preference, attitude, etc. It was felt that we do not have enough backcountry use statistics. We know how many people go through the entrances and the quantity of people staying in the backcountry. Andy said next summer we could put out a questionnaire to gather data and also gain input from the concessions. We could then plan from that information. He was wondering if the park was open year-round. The Going-to-the-Sun Road across Logan Pass was not open but it was stated that winter use is increasing and we also have the eagle attraction in the fall. Mr. Feil said he was not the expert on Visitor Use but that Dr. Hornbeck was. He is a Social Scientist in Rocky Mountain Region. Andy would like to get Janet and others to work with Dr. Hornbeck. We must find solutions to the problems and Dr. Hornbeck could greatly help. On trail use, Cliff suggested that Tom Stuart be considered. He is knowledgeable on the matter of trail use statistics. We have a great source of information within our structure, if we could put it together, we could assemble data easily. Cliff feels this could work and wishes to prove it to other parks.

Mr. Feil said that they would have to rewrite the Task Directive - that was why they were here - to get the park staff input and feelings. Mr. Iversen said that in view of the changing travel patterns which are undecisive and unpredictable, that 5 years is all we should project ahead. It was mentioned that one of the biggest changes in the future would be the types of transportation vehicles particularly the recreational vehicles. It was felt that recreational vehicles might get smaller but there would be no phasing out of
these types of vehicles.

In order to solve the problem of the transportation system we need to analyze the pilot system. Dick felt that if we added buses on each side of the park and see how people reacted to it and where they parked their cars, this would give us insight to the system. He felt it is very hard to separate people from their cars especially when they have their possessions inside. People want to have their cars well guarded before they will go on a transportation system. The pilot system would help firm this information up. It would give the park answers that they cannot predict. It was brought up whether or not the system could be implemented next summer and an assessment done at the end of the summer. Ed felt we needed some lead time, perhaps a year, this would allow modification of brochures, and other information sources to help people learn of the upcoming system.

Janet said that we would have to work this out with the concessioner, determine how much we would charge, and whether we would limit recreational vehicles going over the Sun Road. This should be incorporated under Mgmt. requirements - to make sure there is a clear path of communications developed with the concessioner. We will also have to crank in public involvement. Some of this could be accomplished by talking to the County Commissioners, travel bureaus, airlines, bus terminals, etc. All these type of questions will have to be resolved.

The cost of the transportation system is going to be added to the financial costs - how to support the system and who will operate the system - the park or the concessioner. Money available for the project right now will have to be resolved. Andy is going back to region and check on the $46,000.

Also under management requirements Ed felt that we should incorporate a statement of long-term consideration consistent with managing natural areas. This would include a permanent requirement looking at the long-range effects. It could serve as a parameter to monitor the system as well as a form of guidance.

Item #4 - we should elaborate here and include the Statement for Management. It was also felt that manpower and costs should be included somewhere in this paragraph.

Paragraph #5 - Ed recommended that all aspects of interpretive and historic phases be included with regards to increase the enjoyment of the visitor to Glacier National Park. If we could enhance the enjoyment of the park, we would also solve the problem of having a good system. It was felt that the promotional aspects of the program should be included. We wanted to be careful of advertising the reservation of backcountry and transportation so they do not overlap. Mr. Iversen mentioned that if you put a lid on backcountry use in one area, you will only spread things out, you never change the total use. Example - Grand Canyon, White Water Boating Regulations.
Janet Eisener also mentioned bicycles. It was felt that we cannot divorce them from the total picture. They are going to reconstruct U.S. Hwy. 2 from Martin City to West Glacier and plan to include a bicycle path in the project.

That would leave bicyclers at the door of the park. We have a bicycle path to Apgar from Park Headquarters at the present time. Supt. Iversen suggested the potential for a bicycle trail starting at the old West Glacier bridge through headquarters area to Apgar on the existing bicycle trail. Eventually extension of the trail is proposed from Apgar, around the west side of Lake McDonald. This would eliminate them on the road. Our major concern is safety. We would like to have recommendations on the best time for bicycle use on Going-to-the-Sun Road. We would also like to run a survey on attitudes of bikers - if they felt their entire trip of the GSR was safe.

Planning Considerations - mention that Going-to-the-Sun Road is a park road not a cross-country highway. Also on page 3 - it is not feasible to change or alter the present highway. On page 3 delete "and a proposed addition into Canada would complete a circumferential route." This was taken from the Master Plan - an old one. Mr. Feil wanted to know the visitation in 1974 - 1.4 million, it will be approximately 1.6 million in 1975. We should also include, on page three, how to handle hikers - analyze the hikers use. Evaluate the transportation system for day use hikers also should be included.

On page 4 - strike out "The National Park . . . proposes to develop an airport there." On the fourth paragraph, Ed commented the interpretive planning for the St. Mary Visitor Center will not be in FY76 as originally planned but hopefully in FY77. The new planning would emphasize orientation instead of nature, etc. Ed wants the Transportation Study and the Interpretive Plan and Facilities to complement each other. On the bottom of page 4 - the system should serve more than just the hiker. The principle junctions would be located at Apgar and St. Mary. East Side terminal junctions will be in St. Mary, Many Glacier, Waterton and East Glacier.

On page 5 - it was felt that the North Fork should be mentioned. Under planning approach it was felt it should be, "the proposed Glacier National Park" instead of "the proposed Going-to-the-Sun." On the third paragraph it was felt that we should add an acceptable range of fares and schedules. We would then need a map for a regional basis. If we connect the region around us, we will pull in the visitors. Mr. Feil felt we would have to make some broad assumptions and go from there. Mr. Iversen suggested the pilot program be a report in itself and that it be cranked into the transportation study. The pilot system would serve as an appendix to the transportation study.

Page 7 - it was suggested that we make quarterly and seasonal reports for a full year instead of "monthly" reports. Winter use could be cranked in
although there would be no transportation system foreseeable in the winter for some time.

Mr. Feil feels that we should conduct a Visitor Use Study for statistical information for recommendations on an accurate revision. On Page 7, paragraph two, he wants it to read, "research study is intended to provide the necessary data on travel patterns, activity patterns, demographic characteristics, origin and destination." He feels that a transportation report on conditions, uses and problems and proposed solutions will be best on this report. It must then be decided whether to hire a contractor or accomplish the study within the Service.

Cliff was against hiring a contractor for the reason that they do not know the park. We would end up doing the biggest share of the project ourselves. If it were an in-house job, we could get well qualified people who know the park and their job to accomplish the study. This could probably be accomplished at a reduced cost also. It was felt that Rocky Mountain Region has certain capabilities like graphics, statistics, etc. that could help us. All of this will require a Concept Statement which will have to be approved by the Regional Director before the project ever begins.

The final comment was on costs - we are going to try to squeeze down costs to be realistic about the project. It was felt that if we go over the $25,000 we will very likely lose the project altogether.

Respectfully submitted,

Teri Carter

Respectfully submitted,

Teri Carter
APPENDIX E

TASK DIRECTIVE

TRANSPORTATION STUDY

GLACIER NATIONAL PARK

RECOMMENDED:

ASSISTANT MANAGER, DENVER SERVICE CENTER
MIDWEST/ROCKY MOUNTAIN TEAM

CONCURRED:

MANAGER, DENVER SERVICE CENTER

SUPERINTENDENT, GLACIER NATIONAL PARK

MANAGER, HARPERS FERRY CENTER

APPROVED:

REGIONAL DIRECTOR, ROCKY MOUNTAIN REGION
PROJECT DESCRIPTION: The Denver Service Center will undertake a study of visitor use and transportation alternatives for Glacier National Park. The study will be related to the park as a whole and to the general region of influence outside the park.

ESTIMATED COSTS: A total of $50,000 ($25,000 FY '76, $25,000 FY '77) has been programmed for the study over a two year period. These funds would be insufficient to complete the study as shown on the organization framework. If the organization of the study is followed to completion, the required funds would total an estimated $120,000. (see Appendix A for cost breakdown).

The Superintendent is concerned that additional funds over and beyond the $50,000 presently programmed could not be obtained. The Associate Regional Director, Professional Services, Rocky Mountain Regional Office has indicated that additional funds could be programmed for completion of the full study if required.

In the event no additional funding could be obtained beyond $50,000, it is estimated that these funds could cover a visitor use survey and test run of buses, survey and evaluation report, and possibly an environmental assessment report, utilizing park personnel, a contractor, and a transportation specialist and environmental specialist from the Denver Service Center (see Appendix A for cost breakdown.)
ESTIMATED COMPLETION DATE: If the scope of the study is con-
strained by the $50,000 amount, the study would be terminated
by July 1, 1977. The full study would be completed by approximately
December 1, 1978 (see Time Frame, Appendix B).

MANAGEMENT REQUIREMENTS:

1. Conduct a study of the present traffic patterns to and
throughout the park, but with primary emphasis on the Going-
to-the-Sun Road between West Glacier and St. Mary, considering
the various types of vehicles, road standards, roadside
developments, visitor attractions, and visitor needs.

2. Project traffic volumes and types for at least five to ten
years into the future. Give consideration to changing methods
of travel, points of origin and destination, and economic trends.

3. Recommend interim facilities that would include implementation
and monitoring of a pilot system as part of the study to meet any
discernable current problems. Possibly a shuttle bus system
between present developments would serve for some years. Propose
ways to improve connections to public air, rail, and bus terminals.

4. With consideration to the Master Plan, recommend needed
facilities and equipment, manpower and costs of operation as
required to meet greater traffic volumes as it develops.
5. In addition to facility needs, outline the compatible regulatory changes needed to make the new systems effective, as well as an informational program and the interpretive merits of various alternatives. It is important to determine if the system adds to the visitor's interpretive enjoyment of the park.

PLANNING CONSIDERATIONS: The Going-to-the-Sun Road over Logan Pass is now a primary attraction in Glacier National Park. It is a very narrow, winding, two-way road which becomes quite crowded with visitor traffic during the busy summer season. Trailers, busses, mobile travel homes, and pickup campers find the road much too narrow and it is extremely frustrating to the usual motorist. The concessioner operates a small bus system, but primarily to serve planned tour groups traveling between his accommodations. In addition, there are other scenic spur roads in the park that provide access to concession developments, trail heads, campgrounds, and ranger stations. With ever increasing numbers of vehicles, a thorough study is needed and plans made to relieve the present situation and prepare for the future.

A preliminary master plan for the park was prepared in 1975, and briefly describes a proposal for a transit system along the Going-to-the-Sun Road.
The study of this system must consider the problems of noise and air pollution, interpretive capabilities, and the esthetic atmosphere of the routes.

In addition to transit vehicles which may be recommended for use along the present road system, the use of tour boats at St. Mary Lake and Lake McDonald should be considered for incorporation into the transportation system.

The Going-to-the-Sun Road now has three primary functions - as a thru traffic route through the park, as an interpretive corridor, and as an access and take off route for hiking use of the wilderness backcountry beyond the corridor.

There is no intention of abandoning, obliterating, or altering the present road system. The main roads will continue to be used and maintained for vehicles employed in a proposed "transit system", by private automobiles and recreational vehicles at certain times, and by park management vehicles for patrol, maintenance, and emergency purposes.

The land classification plan designates the Going-to-the-Sun corridor as Class 2 (General Outdoor Recreation Area) and Class 3 (Natural Environment Area) lands. Both of these land classes are compatible with use of the corridor for a transit system.
Park visitation continues to increase. Visitation in 1975 was approximately 1.6 million compared to 1.4 million in 1974. Only one-third of incoming visitors stop at the St. Mary development at the east end of the corridor.

Highways now encircle most of the park. Supplementing this highway system, the Burlington Northern Railroad (part of the Amtrak System) provides passenger service to east and west Glacier.

The park is almost completely surrounded by national forests and the Blackfeet Indian Reservation. Waterton National Park adjoins Glacier on the north in Canada.

Tourist accommodations and services are available in surrounding towns and communities. However, the existing concessioner-operated accommodations in the park will continue to operate at the present level.

St. Mary and Apgar are the two major gateway developments in the park and are located at principal terminal junctions of the Going-to-the-Sun transportation corridor. Park headquarters is located at the west end near the Apgar development and will continue in operation there. The master plan proposed a transit terminal at the Apgar-West Glacier area which will function as the major information-orientation center for the west side of the park.
The eastside terminal junctions will be in the St. Mary area, Many Glacier, East Glacier, and Waterton Lakes National Park in Canada. If a transportation system is to fully serve park visitors, it must connect with Many Glacier valley and also with East Glacier to utilize the Amtrak terminal.

The Going-to-the-Sun Road over Logan Pass (the transportation-interpretive corridor) will remain open to visitor use between mid-June and mid-October. Logan Pass will be operated as a day-use area during that period, and will also be managed as an Experimental Interpretive Demostration area. Logan Pass is a critical visitor concentration area with problems related to alpine conditions, heavy visitor use, sewage disposal, and water collection.

PLANNING APPROACH: A Glacier National Park transit system will have a three fold purpose to reduce and/or eliminate private automobile traffic congestion through the park; to provide a better sightseeing and interpretive experience for the park visitor; and to assist in the transportation of visitors seeking a wilderness hiking and camping experience.

The transit system will also include boat tours at St. Mary Lake and Lake McDonald. In addition, the study will consider the flexibility of making connections with outside rail and air terminals and surrounding communities offering visitor accommodations and services.
Based on the foregoing management requirements, planning considerations, and purpose, the study will concentrate on four major areas of concern as follows:

(1) Analysis of visitor use of the park
(2) Analysis of the regional area of influence
(3) Analysis of all the transit corridors
(4) Analysis of transit concepts, equipment, costs, and schedules.

The information obtained from the above analysis will be developed into an assessment of alternatives and environmental impacts. Recommendations will then be developed for the system as a whole and its implementation.

It is foreseeable that six separate reports will have to be prepared within the overall scope of the study, including the following: Visitor Use Survey Report (including the findings of a pilot or trial system), Environmental Assessment, Environmental Review (to be prepared by the regional office), Transportation Study Report covering the entire project, and, if necessary, both a Draft Environmental Statement Report and a Final Environmental Statement Report.

ORGANIZATION OF THE STUDY: If the study is to explore all the ramifications of transportation, assuming that funds were made
available and environmental statements were required, the organization of the study would be structured according to the chart in Appendix C. An explanation of each block in the chart is as follows:

1. The Study Team would conduct the study and would include personnel from the Denver Service Center and the park staff. The team would obtain the data required, make field investigations, prepare the required reports, and facilitate review of them. The following personnel would be involved:

   Team Captain: Andrew Feil, Denver Service Center
   Park Superintendent and staff
   Civil Engineer/Transportation Specialist: Howard Valentine, Denver Service Center
   Natural Scientist: Bob Jonas, Denver Service Center
   Economist: John Austin, Denver Service Center
   Social Scientist: Ken Hornback, Denver Service Center
   Interpretive Planner: (to be selected later)

All members of the team would not be engaged on a full time basis but would provide input when their expertise is needed. The estimated time required for each team member and the costs involved is detailed in Appendix A.
5. A visitor use survey is the lead component of the transportation study project. The park feels that this could be more efficiently conducted at the park level with assistance from Miss Janet Eisner of the University of Montana. Assistance in the design of the study, subsequent evaluation of the results and eventual incorporation into the transportation study report would be provided by the Denver Service Center. Visitor use data would be obtained and evaluated with respect to both vehicular and hiking use of the park. Two other important aspects of the study will include the use of a mail-back questionnaire and the operations and evaluation of a trial bus system.

6. The trial system would be an important pilot study of the visitor use survey. A similar trial system was run in 1971 and a report was prepared by the park. It would be desirable to initiate another trial run for two additional summers in the park during the 1976 and 1977 seasons. The responsibility for the operation of the system and collection of data would rest with the park while evaluation would be done by the Denver Service Center. At this point, if funds for the overall transportation project are expended and no additional funds can be secured, the study project can be terminated.

7. A regional analysis should be performed to ascertain the relationship and effects of transportation services, economic conditions,
tourist services, and recreational attractions upon the park and the park visitor. This would involve the collection of existing data from various sources in the state and region. A determination should be made first regarding how extensive the region should be. A preliminary map if enclosed to suggest a possible regional area. This phase of the transportation study would be undertaken by a team member from the Denver Service Center in consultation with the park staff.

8. This step would include an analysis of the existing conditions in the park with respect to roads and trails, scenic attractions, interpretive programs, environmental problems, management problems, resource inventory, master planning recommendations, management objectives, concessions, and other matters which have a bearing on existing and potential transportation of visitors in the park. Much of this data presently exists in the park files. All such data relevant to the total study of transportation aspects will be analyzed and will eventually appear in the transportation report and environmental documents if required. The park staff and DSC team members working together should be able to accomplish this task in a relatively short time.

9. Based on the data obtained up to this point the main task of the team now is to develop the alternatives for transportation in
the park, including schedules, modes, costs, operations and management, and related aspects including potential environmental impacts. This is where the expertise of the team and a synthesis of collected data described previously will be brought to bear to assess the problems of transportation at Glacier.

10. Public involvement will take place concurrently with various phases of the transportation study where it is determined such involvement would be beneficial to public understanding of the project and the generation of ideas regarding transportation problems. The Park Superintendent has indicated that his office should handle all public affairs matters relating to the study.

11. The environmental assessment report is the first major document of the entire study effort that consolidates all collected data. While there may be various study papers produced covering such subjects as the visitor use survey, regional analysis, etc. — all such data will eventually appear in synthesized form in the environmental assessment document. Most of the writing and editing of this document as well as the printing of it will be carried out by the Denver Service Center and be prepared for inhouse and public review. The document will be sent to the Regional Director for review and subsequent action.
12. The environmental assessment may undergo public review, and state and Federal agency review if at this point the Regional Director decides to do so.

13. At this point, it is the responsibility of the Regional Director, and his staff, to prepare an environmental review document that would analyze and determine the future course of the project, what additional documents are to be prepared, and what actions and proposals are to be considered. Either a notice of intent to prepare an environmental document or a negative declaration specifying that no environmental document is required would be issued by the Regional Office.

15. If the Regional Director directs the Service Center to proceed with the study project, a preliminary transportation study report will be prepared by the Study Team and will be based upon the course of action outlined in the environmental review document. The transportation report will cover the findings of the study and provide recommendations and viable alternative proposals for a transportation system. The document will be prepared by the Service Center, processed for review and transmitted to the Regional Director. The study could be terminated at this point if no environmental documents are required.
15. Concurrently with the preparation of the preliminary transportation study report, a draft environmental statement (DES) will be prepared by the Service Center, if heretofore directed by the Environmental Review, and transmitted to the Regional Director with the transportation study report. Both the environmental statement and the transportation report will be prepared by the Study Team, reviewed inhouse and processed for transmittal.

16. After the preliminary transportation report and the draft environmental statement is reviewed by the DSC, the Regional Office, and the park, arrangements will be made by the Regional Office to have the documents reviewed by the Washington Office, the Department, other Federal agencies, the state, conservation groups and the general public. After this review of approximately three months duration the DSC will be notified of required revisions and directed to proceed with the final documents.

17. The transportation report will be prepared by the DSC in final form, printed, and transmitted to the Regional Director for appropriate distribution, review and final action.

18. The final environmental statement will also be prepared by the DSC, printed, and transmitted concurrently with the transportation study report for appropriate distribution, review, and final action.
19. Both transportation and environmental documents must receive final review and clearance before implementation of the recommendations can take place.

20. The approval of the transportation recommendations and the final environmental statement will conclude and terminate the study project.
BASIC REFERENCES:

Draft Master Plan, 1975

Wilderness Recommendation Report, March 1974

Interpretive Prospectus, 11/28/72

Use of Buses in Glacier National Park, memo by Bowser, 8/21/72

Report on Road Improvement Investigation, Going-to-the-Sun Highway, Glacier National Park, Montana, Clarkson Engineering Company, July 1968

Shuttle Bus Experiment, memo report by Chief Park Naturalist Rothfuss, 8/31/71

Logan Pass Wooden Walkway Study, by Roberta V. Seibel, Biologist, Glacier National Park, 1/15/74

Statement for Management, Glacier National Park, Preliminary Draft, 1975
APPENDIX A

I. Estimated Cost Breakdown for Complete Study

A. Study Team (DSC personnel only)

   Landscape Architect/Team Captain (GS 13 - 1 yr.) $ 22,906
   Civil Engineer/Transportation Specialist (GS 13 -
   1/2 yr.) 13,745
   Natural Scientist (GS 12 - 1/2 yr.) 9,693
   Social Scientist (GS 12 - 2 months) 3,230
   Economist (GS 9 - 2 months) 2,322
   Interpretive Planner (GS 12 - 1 month) 1,669

   $ 53,565

B. Overhead (43%) $ 23,033

C. Visitor Use Survey and Pilot Study (conducted by Park) $ 25,000*

D. Graphics, Editing, Printing 12,000

E. Travel and Per Diem 6,500

   TOTAL COST $120,098

* This amount only available in FY 76.
II. Estimated Cost Breakdown for Study Limited to $50,000

Programmed Amount

A. Study Team (DSC Personnel only)

   Civil Engineer/Transportation Specialist (GS 13 - 1/2 yr.)  $ 6,872
   Natural Scientist (GS 12 - 1/2 yr.)  __ 9,693

B. Overhead (43%)  $ 7,123

C. Visitor Use Survey and Pilot Study (conducted by Park)  $25,000

D. Travel and Per Diem  $ 1,212

   TOTAL  $50,000
APPENDIX B

ESTIMATED TIME FRAME - CALENDER YR.

DIRECTIVE
VISITOR USE SURVEY
TEST SYSTEM
REGIONAL ANALYSIS
EXIST. CONDITIONS
DEV. ALTERNATIVES
PUBLIC INVOLV.
EVIRO. ASSESS.
REVIEW
PREL. TRANSP. REPORT
DES.
REVIEW
FINAL TRANSP. REPORT
FES
REVIEW
APPROV. - PROJ. COMP.

END OF PROJECT - 12/1/78

76 FY 77 FY 78 FY 79 FY
Organization of the study

1. Contractor
2. Study Team
3. Concessioner Consultation
4. Transportation Study
5. Trial System
6. Visitor Use Survey
7. Regional Analysis
8. Existing Conditions Report
9. Develop Alternatives
10. Public Involvement
11. Environmental Assessment
12. Public Review
13. Environmental Review
15. Des
16. Review & Revis
17. Final Transp Report
18. Fes
19. Review & Revisions
20. Approval of Reports
   End of Project Study

Appendix C
Memorandum

To: Regional Director, Rocky Mountain Region

From: Superintendent, Glacier

Subject: Comments on Task Directive, Transportation Study, Glacier National Park

Reply due: March 5, 1976

Page 1, third paragraph. The concern is not a dubious lack of future funds to expand the transportation study, but the practical and prudent necessity of such expansion. Glacier Park, Incorporated, concessioner, presently operates a limited transportation system. The park also has a considerable file of visitor use statistics, hourly traffic surveys, origin of visitors, point of entry and other detailed travel statistics.

We also believe a review of existing transportation systems in other parks is appropriate, rather than plowing much of the same ground again.

Page 2. Management requirements should address the present transportation problems. If the problems are not clearly and specifically defined, we tend to stray from objectives of the study, or overlook specific detail needs.

Glacier's transportation problems are:

1. Glacier is a popular hiking park; about 30,000 overnight visits in backcountry plus an estimated 50,000 to 60,000 day use hikers. At present, hikers are generally forced to backtrack or hitchhike in returning to their vehicles. This compounds backcountry use and the most efficient visitor use of the park.

2. Bicycle use is popular and the proposed reconstruction of U. S. Highway 2 next year includes an adjoining bicycle trail to the
doorstep of the park. Glacier National Park must be prepared to safely accommodate the anticipated increase in bicycle traffic. This should be considered in the study.

3. Four new airline flights were added in the past eighteen months to Glacier International Airport. Amtrak passenger service presently serves both the communities of East Glacier Park and West Glacier. Daily bus service also passes through both communities. These passengers find it difficult to make subsequent connections to, and within, the park.

4. The narrow, winding and sharp curves of Going-to-the-Sun Road places a necessary restriction on the size of a public conveyance.

5. Terminal parking facilities in the park are limited and we do not desire an enlargement in the park. This problem needs to be considered in the task directive.

6. The feasibility of a transportation system depends upon public acceptance, which in turn depends upon scheduling of trips, quality of equipment and range of acceptable fares.

7. It has not been mentioned that Glacier Park, Inc., a park concessioner, has a long-term contract and exclusive right to the transportation service in Glacier National Park. It would be important, indeed essential, that Glacier Park, Inc. be a partner in this study.

8. Boat trips operate on several lakes in the park. A transportation system should be integrated with this form of visitor use.

9. Horseback trips also operate from several locations and a transportation system schedule should include these corrals.

10. Interpretation should be emphasized as an important, integral part of the transportation system. This is an ideal opportunity to enhance interpretation, resource protection and visitor enjoyment directly to visitors out in the park.

Some of the above needs and concerns are expressed in scattered locations of the text. However, these are essential ingredients of the study and should be responded to in the section, "Management Requirements."

Page 2, paragraph #4. At our meeting in October 1975 we requested this revision, "With consideration to the Master Plan and Statement for
Management, recommend needed facilities, equipment, manpower and costs of operation as required to meet greater traffic volumes as it develops. Recommend long range solutions to transportation and project time increments for capacity limits.

The park also requested an analysis of the visitor use reporting system and recommendations for an improved, more accurate, visitor statistical system.

Page 8. Considering that a transportation system presently operates in the park, the composition of a team could be much reduced. We suggest team captain, park staff, concessioner and transportation specialist would be adequate.

Page 12, paragraph #11 and page 14, paragraph #15 seem repetitious.

Page 14, paragraph #16 and page 15, paragraph #19 also seem repetitious.

Page 18. Of the $50,000 planned, the park is budgeted $25,000 to conduct a visitor use survey and operate a pilot transportation system. Paragraph #5 on page 10 points out that, "a visitor use survey is the lead component of the transportation study project." The park is capable and desirous of assuming this part of the workload and contracting the pilot transportation system. However, this is an unrealistic distribution of the budget to accomplish that expensive portion of the responsibility. It is our understanding that the $25,000 (previously planned) in 1977 F.Y. is to be utilized for operation of the initial transportation system.

We anticipate that the visitor use analysis, conducted by the park, must extensively consider the impact a transportation system will have on Glacier's backcountry - how it will effect the pattern of hiking activity. Accommodation of hikers is one of the principal elements of a transportation system.

In summary, we believe a cautious expansion of the present park transportation system can be the most practical and economical approach to answering our questions and needs. Limited assistance from the Service Center for technical and professional guidance will adequately serve our needs. With this in mind, we believe the task directive could be refined and condensed to the most essential and specific statements.

Phillip R. Iversen

cc: Mr. Don Hummel, President and General Manager, Glacier Park, Inc., 1735 East Fort Lowell, Suite 7, Tucson, AZ 85719 w/cc inc. Ms. Janet Eisner, 1118 Jackson, Missoula, MT 59801 w/cc inc.
By Mr. WILLIAMS (for himself, Mr. BAYH, Mr. CAMPBELL, Mr. CHAFFEE, Mr. CHILES, Mr. CONRANT, Mr. MACGILLIVRAY, Mr. MELCHER, Mr. METCALF, Mr. RIBICOFF, and Mr. TOWER):

S. 975. A bill to improve the administration of the national park system; to establish a National Outdoor Recreation Lands System; to prohibit the use of automobiles on the national seashores and lakeshores; to prescribe means to reduce the reliance of the public on the automobile for travel to and within the national park system; to prohibit the use of automobiles in certain areas of the national park system; and for other purposes.

Mr. WILLIAMS. Mr. President, at the entrance to Yellowstone National Park, there is a sign carved in stone that says, "For the benefit and enjoyment of the people." This sign, which greets visitors at our first national park, symbolizes the dual mission of the national park system— to preserve areas of outstanding natural beauty for the enjoyment of the people, and to provide to all people the opportunity for outdoor recreation.

Unfortunately, the success of this mission has led to the failure to plan and provide for access to the parks. The great majority of our national parks and recreation areas are accessible only by private automobiles. In fact, 90 percent of all visitors to the national park system arrive by car.

This reliance on the automobile for park access has had deleterious effects on national parks in the vast expanses of the West as well as those in the fringes of our major metropolitan areas. Extensive use of cars, and their accompanying fumes, noise, and litter, can damage the fragile ecosystem of the parks and recreate their natural beauty. More and more precious parkland must be paved over for roads and parking lots to accommodate the increasing number of cars. The capital city of the park becomes more precious parkland must be paved— are thus deprived of their share of the visitor's enjoyment of the park.

For these reasons, we need to develop, provide, and promote alternatives to the automobile for travel to and within the national park system.

The National Park Service has already instituted public transportation services within the boundaries of certain parks. In some cases, there have been accompanied by restraints on the use of private vehicles. Shuttle buses and open-air trolley buses have replaced cars for circulation in some areas of the park. At Fort Matanzas National Monument, all ferry boats take people from the visitors center to the Fort. School buses are used for getting around Mount McKinley National Park. These and similar services at other parks have met with great success. When combined with interpretive programs, they can provide a high-quality educational and recreational experience.

But the Park Service does not have the authority to provide such services to parks. While some improvements in access have been made through consultation with public and private transit operators, much more could be done without major expenditure if the Park Service had the authority.

In some cases, only minor modifications in existing commuter and intercity passenger services would be needed. At Golden Gate National Recreation Area, for example, present bus and ferry routes could be extended and their schedules adjusted to accommodate recreational users. More frequent Amtrak stops at Glacier National Park, and the few great parks still served by train, would encourage more people to use this mode of access.

In other cases, shuttle bus service could be instituted from transit terminals or outlying parking lots to points within the park. A park-and-ride service at Cape Cod, for example, could reduce the need for parking lots on National Seashore lands. Shuttle buses could be used to link Mount Rushmore National Memorial to Rapid City.

New and more imaginative means of access could help to lure potential visitors away from the car. Ferry service at Gateway and rail service at Indiana Dunes and Cuyahoga could make public transit to those parks more attractive.

These access modes could then be linked with internal transit services, thus combining the mobility of automobile travel to and within the national park system.

Public awareness of these new programs and services would be the key to their success. Posters and brochures at transit terminals and other public places, articles in newspapers and periodicals, television and radio spots, and public speaker programs could help to let people know these do not need a car to visit the parks. The Congress has made great strides in creating facilities and programs to help people reach the parks, and now must work to assure that these will be used.

The time has come, therefore, to introduce a bill to focus attention on the need to improve park access. I am encouraged by the response I have received from conservation organizations and other public interest groups, Government officials, and private citizens. The original bill has been modified to reflect their views and experience.

The bill I am introducing today, along with nine of my colleagues, would authorize the Secretary of the Interior:

First, to provide for transportation services to units of the national park system at a minimum of nine parks; and

Second, to undertake park access projects at a minimum of nine parks; and

Third, to evaluate the projects and report to the Congress within 5 years, with recommendations for future park transportation projects and services.

In developing transportation projects, the Secretary would be required—

1. To consider environmental, energy, recreational, social, and other factors; and

2. To consult with public and private transportation authorities and carriers, other Federal agencies, and local citizen groups.

Mr. President, I ask unanimous consent that the bill and two pertinent articles from National Parks and Conservation Magazine be printed in the Record. There being no objection, the bill and articles were ordered to be printed in the Record, as follows:

S. 975

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLES AND DECLARATION OF POLICY
Sec. 2. (a) The Congress hereby finds that—

(1) the purpose of the national park system is to preserve outstanding natural, scenic, historic and recreational areas for the enjoyment, education and inspiration of all people;

(2) one of our primary national goals is to conserve energy and to promote more efficient use of our scarce energy resources; and

(3) units of the national parks system have recently been established near major metropolitan areas, in order to provide access,
national opportunities for urban residents, many of whom do not have access to personal
motor vehicles.
(4) by the majority of our national parks are accessible primarily or solely by
personal motor vehicle;
(5) policies which unnecessarily require people and facilities to serve the nation's park
system to rely on personal motor vehicles are often inconsistent with the purposes of
parks and in our national energy goals.
In that they—
(A) diminish the natural and recreational values of parks, including environmental
damage and by requiring roads, parking and other facilities in ever-increasing numbers
and size;
(b) encourage the inefficient use of energy; and
(c) exclude people without access to personal motor vehicles, particularly the
elderly, the young and the handicapped.
(b) It is therefore the policy of the Congress to make national parks as accessible
as possible to all people in a manner consistent with the preservation of the parks and the
conservation of natural resources by encouraging the use of transportation modes other than
personal motor vehicles for access to and travel within the park systems.
DEFINITIONS
Sec. 3. As used in this Act, the term—
(1) "Secretary" means the Secretary of the Interior; and
(2) "National Park System" means any unit of the national park system.
AUTHORIZATION
Sec. 4. (a) Subject to the provisions of section 5(d)(3), the Secretary is authorized—
(1) to contract with public or private agencies to provide transportation services for access to
parks;
(2) to substitute such services or capital equipment for facilities provided by public
or private agencies or carriers;
(3) in the absence of suitable and adequate agencies or carriers, to operate such services
directly;
(4) to acquire, purchase, lease or agreement-exiang capital equipment for such
services, including rail transportation, buses, ferries, bicycles, and other environmentally
sound, high-volume, energy-efficient vehicles;
(A) to provide or contract for capital equipment suitable and available for use
in transportation services for such services, to acquire new equipment, or contract for the
construction of new equipment;
(6) to construct, operate, and maintain facilities by or in connection with roads, trails, hiking
ways, and other transportation rights-of-way and facilities, including buildings and utility
systems, outside the boundaries of parks; and
(7) where necessary for transportation services, to acquire, by purchase, donation,
exchange, or transfer, land, waters, and interests in land outside the boundaries of parks, if
a part of which property shall be administered as part of the park: Provided, That the
Secretary shall not acquire property except by the appropriate committees of the Senate
and the House of Representatives unless at least 60 days prior to such acquisition.
(b) The Secretary shall establish information programs to inform the public of
park access opportunities and to promote the use of transportation modes other than
personal motor vehicles for access to and travel within parks.
(1) Transportation facilities and services may be provided pursuant to this Act
without regard to any preferential right or privilege which may be acquired by or which may
accrue to any other person under the Act of October 9, 1965 (79 Stat. 501, relating to the
grants of conservation privileges in the parks, and without regard to any requirement
under laws of the United States or of any State that the provision of such
facilities must first satisfy criteria of con-
venience and necessity.
PARK TRANSPORTATION PROJECTS
Sec. 5. (a) In furtherance of the policy of this Act, the Secretary shall develop proj-
ects for transportation services for access to parks. In developing such projects, the Sec-
retary shall consider, without limitation, the following:
(1) the possibility of modifying existing public transportation facilities and services to
improve access to parks;
(2) the carrying capacity of the park;
(3) the environmental impact of the project on the park's surroundings;
(4) the energy-efficiency of the project;
(5) the special needs of poor, elderly, young, and handicapped persons;
(6) the economic costs and benefits of the project; and
(7) the recreational potential of the project.
(b) The Secretary shall consult with local, regional, and State transportation author-
ities, public or private agencies or carriers, to coordinate public transportation services
and facilities for the people of the area served by the proposed transportation facilities.
(c) In determining what project to develop, the Secretary shall consider the
following:
(1) the public notice of the project, by publication in the Federal Register and in a
national newspaper of general circulation in the vicinity of the affected park;
(2) the need for a public notice held a public meeting or meetings at a location or loca-
tions convenient to the affected park; and
(3) the report in detail any project which would involve an expenditure of more than
$100,000 in any fiscal year, not less than 60 days prior to implementing such project, to
the President of the Senate and the Speaker of the House of Representatives for
transmission to the appropriate committees.
SELECTION OF PARKS
Sec. 6. (a) The Secretary is authorized to implement, within one year of the effective
date of this Act, the following transportation projects developed pursuant to section 5 for
parks which shall include, but not be limited to, the following:
(1) Cape Cod National Seashore, Massachusetts.
(2) Chiliwack Valley National Recreation Area, Ohio.
(3) Fire Island National Seashore, New York.
(4) Gateway National Recreation Area, New Jersey and New York.
(5) Glacier National Park, Montana.
(6) Gulf Islands National Recreation Area, Point Reyes National Seashore, Calif-
nia.
(7) Indiana Dunes National Lakeshore, Indiana.
(8) Mount Rushmore National Memorial, South Dakota and Wyoming.
(9) Yellowstone National Park, Wyoming, Montana, and Idaho.
(b) In selecting parks for transportation projects pursuant to paragraph (a), the Secretary shall consider the
following:
(1) the number of poor, elderly, young, and handicapped persons to be served;
(2) the environmental impact of present modes of access to parks;
(3) the extent of using the park;
(4) the cost of implementing projects at a park to the number of persons to be served;
(5) the number of poor, elderly, young, and handicapped persons to be served;
(6) the percentage of residents in the area around the park who do not have access to
personal motor vehicles.
MONITORING AND REPORT TO CONGRESS
Sec. 7. (a) The Secretary shall monitor park transportation projects implemented pursuant
to this Act, in order to identify their effects on—
(1) park visitation;
(2) use of personal motor vehicles for access to and travel within the parks;
(3) the environment of the parks, and
(4) the number of vehicles located in close proximity to the parks.
(b) Within 3 years of the effective date of this Act, the Secretary shall evaluate park
transportation projects implemented pursuant to section 6, and report to the Con-
gress his findings and recommendations for future park transportation projects and
services.
EXPENDITURE LIMITATION
Sec. 8. In carrying out the purposes of this Act, the Secretary may not spend more than
$1,000,000 for fiscal year 1977; $2,000,000 for fiscal year 1978; and $5,000,000 for fiscal year
1979.
IN AND AROUND THE NATIONAL PARKS
ALTERNATIVES TO THE AUTO
(1) By Andrew D. Gilman
That you don't know what you've got 'til it's gone.
They paved paradise
And put up a parking lot.
Consider a scene on a typical summer weekend at the great valley of Yosemite National
Park in 1963. Traffic is at a standstill, and that which can be seen as you look up to the sky
is a long line of cars in which motorists sit, staring to the sky. The eye can see—hors blare;
exhaust pipes spew out noxious, odoriferous, visible fumes; a song cloud hovers two hundred
feet above; bottles, cans, and paper litter the ground; people are tense, irritable, and grumpy.
In 1960 park roads in Yosemite had begun to resemble the San Francisco Freeway at rush
hour. Some visitors became so frustrated that they turned around and drove back to their
hotels. Yosemite was getting too crowded. Some visitors became so frustrated that they
turned around and drove back to their hotels. Yosemite was getting too crowded. Some visitors
became so frustrated that they turned around and drove back to their hotels. Yosemite was
gaining so fast that people were starting to think of Yosemite as one big parking lot.
As a result of these abuses, unfortunately not alone in its auto problem. Similar bumper-to-bumper
congestion still is not uncommon in Yellowstone, Great Smoky Mountains, and Grand Canyon
national parks. Before the creation of a public transportation system, the visitors to these parks
were stranded on the roads for hours. In fact, areas of Mount McKinley National Park hiked up so
much that vegetation began to suffer, and wildlife was nowhere to be seen.
As a result of such threats to park resources and in an effort to prevent further
abuse, the Park Service has expanded the original Yosemite experiment to include free
(low-fee) alternate transit systems in sev-
eral other National Park Service areas.
Greenb rush and Trailways bus companies and Amtrak take some steps to promote state and park-tolocated, multi-modal tours. But the law of supply and demand traps these carriers in the glut of the years. Indeed, most people choose public transportation—an option that needs to be better advertised—running lines for the spur lines are low because they would be used only seasonally.

All interstate rail, bus, and air schedules should show the most important park terminals, but information about connecting service with the parks is not readily available.

Packaged tours offered by major carriers and travel agencies have become very popular. These tours include transportation, lodging, some food services, and entrance fees. Typically they cost $50 to $75 per day if much travel is involved.

Amtrak, national bus companies, and some regional airlines now offer travel passes for unlimited travel for a given period of time, similar to the Eurail passes in Europe.

When examining public access to the parks, three problems consistently stand out: cost, convenience, and travel knowledge. At present, travel to parks for families is still cheapest by private auto. Even if it were more expensive, the car remains more reliable than bus or train. More equipment can be carried, travelers don't experience lapsed time between connections, and cars permit added mobility at the destination. And even with the most complete transit systems—efficient, on-time, inexpensive service to parks, shuttles at gateway towns, and public transit within park—perhaps the most telling fact of all is that the average person's lack of travel sophistication would still be a major obstacle.

A mailman claims the advent of the automobile caused Americans to lose their talents of discovering how to get places. They don't know about their options.

By far the most difficult to estimate is the public on how to use themselves of and adjust themselves to the use of mass transit.

Sooner or later America will accept concepts of Spaceship Earth and learn to deal with the finiteness of its resources. A major step toward this goal will be the gradual end of the love affair with the automobile. But, great love dies slowly. The National Park Service policies may encourage other, more permanent relationships to grow.

The Park Service can be justifiedly proud of its successes in promoting public transportation to the National Park System. However, no amount of careful planning and progressive policies will help the parks unless more money and more personnel are available to implement the programs. The Service may never be able to totally reclaim the problem and public transit within park from private travel. The promise of the average person's lack of travel sophistication would still be a major obstacle.

The advent of the automobile caused Americans to lose their talents of discovering how to get places. They don't know about their options.

By far the most difficult to estimate is the public on how to use themselves of and adjust themselves to the use of mass transit.

Research by the U.S. Department of Transportation indicates that modern passenger trains are at least five times more efficient than jett air craft and at least five times more efficient than the average automobile. It follows that the embargo of oil the exporting nations will find Americans either taking trains to the national parks or not visiting them at all.

Any loss of individual mobility must be weighed against the great savings railroads make in the use of the land. The carrying capacity of one track has variously been estimated as the equivalent of a twelve- to sixteen-lane expressway. And a single lane of highway averages less than five miles per hour, whereas the distance between the rails of a standard gauge track is but 4 feet 8 1/2 inches.

Before the 1960s, of course, when both land and energy were far more abundant, such statistics were ignored. The low cost of fuel likewise assured the automobile and airplane. But the development of the presence train merely on the strength of personal convenience. In the fifty years between 1920 and 1970 the number of daily passenger trains in the United States fell from 20,630 to barely 500, and most of these were but ghosts of their former grandeur and utility.

On May 1, 1971, the National Railroad Engineer Corporation was inaugurated, a quasi-public company chartered by Congress.

The Congres sional Record—Senate

March 10, 1977
to assume control of all but a handful of the
union's remaining intercity streamliners.

The corporation, popularly known as Amtrak,
retained service on the more major routes:
Chicago—Seattle, Chicago—San Francisco,
Chicago—Los Angeles, New Or-
leans—Los Angeles, and Los Angeles—
Seattle.

The addition of a second train between
Chicago and Seattle expanded service in the
West to its present configuration.

Another oil embargo, however, would find
Amtrak ill-equipped to handle even a small
fraction of the passengers who annually enjoy
the national parks. Only one major reserve
in the West—Glacier—is an official Amtrak
station. The situation, with regard to Yoserni­
te more revealing of the level to
which rail passenger service in the region has
decreased. Once, no less than five major rail-
roads, the first national park on trains such as
the Yellowstone Comet and Yellowstone Special.

Two of the lines, the Northern Pacific and
Union Pacific, had the competitive edge with
spur tracks that terminated right at the
Gardiner Gateway and West Yellowstone respec-
tively. Today the closest Amtrak train, the North Coast
Ziawatha, must transfer passenger business
more than fifty miles north of the park.

The direct rail link to the South Rim of the
Grand Canyon, made famous by John Muir's
endorsement in Century Magazine, is also
history. The tracks are still in place, not even a freight train apparently
has used the line in more than three years.

Passengers to the Canyon detrain from Amtrak's
Southwest Limited at Flagstaff, Arizona, and
ride the remaining eight miles by motor-
coach.

Yet it is the parks that author Rufus Steele
once christened the "Circuit of the Pearls"—Breccia
Breaks National Monument, and the North Rim of the Grand
Canyon—that fare worst of all. During the 1970s,
Amtrak responded to the request of F. Edward
director Stephen T. Mather, the Union Pacific
Railroad opened the reserves of southern
Utah to train service via a combination of
rail and motorbus service. A close relationship
between the Union Pacific and the parks lasted well into the 1980s and early 1991.

Then the train fare became Amtrak, all passenger service on the main line through Utah came to an end.

During the Reagan Era, Section XII of the Nation-
al Association of Railroad Passengers, a non-
profit consumer organization, petitioned Amtrak
for restoration of this route. Surely it is now
in greater importance as the gate-
way to the "Cedel's Circuit," since broadened
with the addition of Canyonlands, Capit-
tol Reef, and Arches national parks.

The failure of Amtrak to respond to NARP's petition underscores the lack of
preparation for another energy crisis at both the federal and corporate levels. It is there-
fore fortunate that western railroads opened
the national parks in the first place and thus,
more than a dozen sets of tracks that is suited to current needs whenever they arise. Direct rail connections to the boundaries of both Yellowstone and the Grand Canyon could be restored by rehab-
ilitating existing branch lines. Similarly, popular entrance to Mount Rainier, Grand Tetons, Rocky Mountains, and Yosemite are only a few miles distant from major spurs of the Milwaukee Road, Union Pacific, and Colorado Railways respectively.

At the very least, these tracks must not be
allowed to deteriorate. The Yosemite Valley Railroad, completed in 1907, already is long gone; the Shasta and the rails could be rebuilt, albeit at a far greater cost than the resolution proposed by
Park Service officials in 1984, the year of its dismisement.

Adding to existing branch lines, or build-
ing entirely new ones, should also be con-
sidered. For obvious reasons only the most
popular tourist rail connections; today all are heavily patron-
ted. No tracks should enter a national park
proper, of course. Still, environmentalists should not be completely unconstruc-
tion on the fringes of the reserves is the best hope of setting the impact of visitor facili-
ties in the parks to acceptable levels of the
dominiel. An innovation born of the magni-
ficence of the Colorado Rockies, since 1945
its elevated glass-enclosed observation decks have thrilled travelers with an unexcelled
panorama of the passing landscape. As surely as buses alone cannot pick up the slack in the
Yosemite area, so Amtrak's rail travel will not recapture the hearts of the
American people without the features that made it unique. Only when these, too, are restored, may all of us join in rediscovering the truth of that once familiar slogan: "Getting there is half the fun."

By Mr. HUDDLESTON:

S. 976. A bill to amend the Perishable
Agricultural Commodities Act, 1930,
relating to practices in the marketing of
perishable agricultural commodities;
the Committee on Agriculture, Nutrition,
and Forestry.

Mr. HUDDLESTON, Mr. President,
last May the Senate Subcommittee on
Agricultural Products, and Practices in the
Stabilization of Prices, which I chair,
held a hearing on legislation which would
permit the Senate to set the Perishable Agricultural Comodidi-
ities Act's fees included necessary to finance adequately the
administration of this self-supporting act.

Under existing law only a uniform fee
not in excess of $100 is permitted. The legis-
lation on which we held hearings during
the last Congress was not reported by my
subcommittee because we were unable to
devote sufficient time to the proposal
before the sine die adjournment.

The Perishable Agricultural Commodi-
ities Act, generally referred to as PACA,
is designed to protect producers, shippers,
distributors, and retailers from unfair
practices in the marketing of perishable agricultural commod-
ities.

Commission merchants, dealers,
and buyers engaged in the business of han-
dling fresh or frozen fruits and vegeta-
bles in interstate and foreign commerce
must be licensed under PACA. In addi-
tion, larger retailers are subject to the
act and are required to be licensed. Those
who handle produce for the account of
other persons are required to give a true
and correct accounting to their principals.

Buyers and sellers must live up to the
laws. Those who handle price discrimination, and buyers must
pay promptly for their purchase. False
or misleading statements, misbranding,
et cetera, are prohibited.

When there is an apparent violation of
the act, the order to the retailer to com-municate with the respondent party, make
the necessary investigation, and endeavor to
bring about an amicable, informal settle-
ment. Where informal settlement of a
complaint is not possible, the Department
complainant is afforded the opportunity to
file and pursue a formal complaint under
the law. The Department determines whether a violation exists, the loss of
amount of damages to be paid, and inures
NATIONAL PARKS ACCESS

The SPEAKER pro tempore. Under a previous order of the House, the gentleman from New York (Mr. BINGHAM) is recognized for 15 minutes.

Mr. BINGHAM. Mr. Speaker, today I am introducing a bill which would, if enacted, significantly improve the national park system. This bill, which is co-sponsored by 34 of my colleagues including Parks and Insular Affairs Subcommittee Chairman PHILIP BURTON, is identical to one being introduced by Senator HARRISON WILLIAMS in the Senate today.

This bill would authorize the National Park Service to provide transportation access to and from national parks. Beyond that it would direct the Secretary of Interior to implement, within 1 year, much needed transportation projects for the following units of the National Park System:

- Cape Cod National Seashore, Massachusetts
- Cuyahoga Valley National Recreation Area, Ohio
- Fire Island National Seashore, New York
- Gateway National Recreation Area, New York/New Jersey
- Glacier National Park, Montana
- Golden Gate National Recreation Area, California
- Point Reyes National Seashore, California
- Indiana Dunes National Lakeshore, Indiana
- Mount Rushmore National Memorial, South Dakota
- Yellowstone National Park, Wyoming/Montana/Idaho

Transportation systems for other national parks could be implemented later.

The need for this legislation is apparent to anyone involved with the workings of the National Park System. Most units are accessible only by automobile. Parks as different as Mount Rushmore—20 miles from Rapid City, S. Dak.—and Gateway—within the New York/New Jersey metropolitan area—share the same problem—inaccessibility to public transit. There is hardly a unit of the park system that could not be improved by provision of a shuttle bus, jitney, bikeway, or ferry. But today the only form of transportation access to most parks is the private automobile—the most fuel-consumptive and polluting of all possible modes. Reliance on the automobile has caused environmental damage and requires that more and more parkland be devoted to roads and parking lots. Traffic congestion on access roads adversely affects local communities and detracts from the visitor’s enjoyment of the park. The exclusive use of cars for park access is also contrary to our Nation’s energy conservation policies. Automobile pollution is a problem in many parks today. The scarcity and high cost of gasoline will be a problem for parks tomorrow.

The reliance on automobiles is also inequitable. People who do not own cars are effectively denied access. Those who bear the greatest burden of this inequity—the poor, the elderly, the very young and the physically handicapped—are thus deprived of their share of America’s parkland heritage.

This bill is essential to deal with this situation. Under present law the National Park Service does not have the authority to spend Federal money for public transportation outside park boundaries. This is especially ironic because several laws do authorize the Federal Government to fund from 70-100 percent of the cost of access highways to and from parks. Under Title 23 United States Code the Department of Interior, Agriculture, and Transportation administrates a number of programs which allow Federal funds to be used outside the boundaries of Federal land if necessary to provide access to Federal tracts. In the Lake Mead National Recreation Area, the Glen Canyon area and in 13 other national recreation areas the Federal Government finances the cost of maintaining and operating an extensive highway access system. The intent of this bill is far from unprecedented. The only thing new is the emphasis on public and not private transit.

This bill specifically authorizes the Secretary of Interior to develop transportation projects for access to parks. It directs the Secretary to consider the environmental, economic, and energy impact of any proposed project. The bill provides for full consultation with local authorities, other Federal agencies, and interested public. The Secretary would have to report to the Congress on any project costing over $100,000. In carrying out the provisions of this bill the Secretary is authorized to spend not more than $1,000,000 the first year; $2,000,000 the second year; and $3,000,000 the third year. These amounts are small compared to the amounts currently being squandered on gasoline and in supporting other automobile costs. The time has come for this bill. The Park Service needs this authority and hundreds of thousands of people all over the Nation need this kind of service.