

**Testimony for the Subcommittee on National Parks, Forests and Public Lands of the
Committee on Natural Resources**

**Oversight Hearing: “Expanding Access to Federal Lands for People with
Disabilities”**

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Introduction

My name is Wm. Lee Little and I am the founder and CEO of BarZ Adventures, and the inventor of the GPS Ranger™ video tour guide solution that delivers multimedia content based on location using GPS (Global Positioning System) technology. The GPS Ranger system is a proven technology that can assist the National Parks, Forests and Public Lands in expanding access for people with disabilities.

Executive Summary

The GPS Ranger multimedia tour guide system offers a quality and cost effective platform solution for the National Parks, Forests and Public Lands to meet ADA guidelines and expand access to Federal Lands for people with disabilities. An electronic platform that delivers geo-referenced content based on location, the system allows the park service to meet several accessibility challenges with one solution. Due to the flexible nature of the system, the GPS Ranger has the ability to deliver a variety of information in a variety of different methods, in any language and captioning and quick content updates can be made so data is timely and accurate.

Contextual Background

According to the 2000 U.S. Census, there are 56 million people with disabilities in the United States. Of the 69.6 million families in the U.S., 20.3 million families have at least one member with a disability.

According to Harris Interactive, 71% of adults with disabilities (or more than 22 million people) have traveled at least once in the past 2 years. This includes 21 million pleasure/leisure travelers. There is also a subgroup of more frequent travelers in the disability community – 20% of all adults with disabilities travel at least 6 times every 2 years.

Disabled Americans are visiting the country’s National Parks and Public Lands in greater numbers, and these visitors deserve equal access to outdoor developed areas. With such substantial numbers of disabled travelers in the United States, the decisions, statutes and regulations placed regarding equal access to Public Land resources will have wide-spread and far reaching consequences to the American public.

Background

The GPS Ranger™ automated tour guide system was designed with the National Parks and Public Lands visitor in mind.

The idea for the GPS Ranger came in 2001 while visiting Yellowstone National Park. The maps and navigational aids that were available to visitors were simplistic, interactions with park rangers were nearly non-existent and accessibility to many park highlights was extremely limited and only for the English speaking, able-bodied visitor.

After leaving Yellowstone, I continued to ponder this situation. I wondered why people continue to visit and support the parks if the resources are not in place to learn and experience the greatness of the venue.

Doing some research, I learned about the three tenants of the NPS: protect, preserve & educate. Those three tenants are valuable for all Public Lands. My experience in Yellowstone started the gears in motion for the development of the GPS Ranger automated tour guide system with the goal to meet all three tenants. The GPS Ranger meets all three and also meets accessibility needs.

The GPS Ranger™ System

The GPS Ranger is a hardware and software communications platform that is designed to “trigger” location based or geo-referenced multimedia for electronic story telling.

Here is how it works: Every point on earth has a latitude longitude coordinate beamed down from the 24 GPS satellites orbiting the planet. The GPS Ranger is a rugged handheld computer with a built-in GPS receiver. When a user comes within range of a point of interest, the GPS Ranger will automatically present or “trigger” a multimedia file that has been stored in the unit to correspond with that location. This file can be audio, video, text, animation, historical photos, music, or any combination thereof.

BarZ Adventures offers everything needed to create a complete educational, entertaining and accessible interpretive tour solution, including custom hardware, software and multimedia content creation. We work with clients in varying degrees to utilize their existing interpretive content and media holdings to create or assist them to create their GPS Ranger tours. For someone comfortable in developing multimedia content, they will find that developing a GPS Ranger tour is neither difficult nor expensive since we use industry standard multimedia content creation tools.

BarZ Adventures can create walking, driving, or boating tours for any location in the world, for any demographic and in any language. This also means we can create tours to address any disability.

GPS Rangers are currently deployed (through cooperating associations and concessionaires within the resource, unless otherwise noted) at:

- Martin Luther King Jr. National Historic Site
- Vicksburg National Military Park
- Death Valley National Park
- Cedar Breaks National Monument
- Shenandoah National Park
- Independence National Historical Park (through the Independence Visitor Center Corporation)
- Zion National Park (through an independent tour operator)
- Bryce Canyon National Parks (through an independent tour operator)

Please See Image 1 in Exhibits Attachment

In addition to National Parks, GPS Rangers are currently available at zoos and city walking tours, both domestically and internationally.

The GPS Ranger Provides Support for ADA

During the product development stage, BarZ Adventures met and presented the GPS Ranger technology to the leaders at Harpers Ferry Center, the interpretive media center of the NPS. During the presentation, I was asked about ADA compliance. At their strong encouragement and at an expense completely bore in-house, BarZ embarked on developing the technology to support ADA guidelines.

The GPS Ranger system now allows consistent interpretive and guiding information to be delivered to all, regardless of ability or disability, which can be utilized to support ADA compliance efforts in a number of capacities.

The GPS Ranger Offers Digital Signage

The GPS Ranger is proficient in helping those with physical disabilities by highlighting availability and locations of accessible tools and amenities in outdoor developed areas. As new construction and alterations are made to Public Lands such as the addition of wheel chair accessible parking, picnic tables, fire rings, camping spaces, ramps, restrooms, etc., communication of such amenities is easily and accurately communicated to visitors on the system's GPS activated maps. Electronic presentation of facilities information allows users to drill down into menus easily for greater detail.

Please See Image 2 in Exhibits Attachment for example

In line with proposed guidelines (T321.2), trail signage describing the running slope, cross slope, clear tread width, surface type, trail length, trail elevation (at trailhead); and maximum elevation attained can all be entered into the GPS Ranger platform database, communicated to visitors both on location or on demand, and can be updated as needed instantly and cost-effectively as facilities development evolves.

The back-end system of the GPS Ranger allows approved administration to log into the protected *Central Editing Facility* and update content quickly with the click of a mouse. Information is updated nightly to all of the GPS Ranger units (as they are stored and charging on the venue rack) or a manual sync of new information can be instituted during the day if important updates need to be reflected on the devices for visitors to see immediately. The low-cost and ease of updates allows information to be communicated to visitors without the long lead time of ordering physical signage or brochures and without the substantial expense.

The digital platform of the GPS Ranger system allows powerful information, such as available from the “National Parks: Accessible to Everyone” online resource, to be delivered dynamically when and where it is most needed, as disabled visitors are out experiencing America’s Public Lands. Information is power and readily available accessibility information will further empower all Americans to take advantage of this country’s vast outdoor developed and recreational areas.

The GPS Ranger Supports Other ADA Efforts

The GPS Ranger supports accessibility for the deaf and the hard of hearing through the use of captioning and sign language. Interpretive information, facilities advisories and any other audio content can be delivered through captioning and/or ASL to deliver functional equivalency and equal access to such content. The time consuming and often costly task of securing sign interpreters is by-passed by offering an electronic interpretive tool that can communicate with everyone, regardless of ability or disability.

BarZ Adventures is committed to expanding accessibility through its products and has partnered with CSD (Communication Service for the Deaf) to bring deaf and hard of hearing friendly tours to venues across the nation.

According to Rick Norris of CSD (from an Associated Press article related to the Independence National Historical Park GPS Ranger tour in ASL), "There are 28 million people who could conceivably benefit from this. (They) are looking at this to be something that could catapult or launch a nationwide trend, where a lot of our national parks or zoos, anything with a guided tour, would have this sort of technology,"

Please See Image 3 in Exhibits Attachment

The GPS Ranger also delivers consistent messaging to the visually impaired with full audio description that is triggered automatically based on location of the user. The GPS Ranger has been approved by the National Center on Accessibility and the National Association of the Deaf for its ability to meet the needs of visitors with disabilities.

The GPS Ranger Does Not Undermine Preservation Goals

The GPS Ranger system is a completely non-invasive interpretive solution. The system does not require any additional signage or waypoints, nor does it require any special

antennas or other technology infrastructure for system deployment and repetitive usage by visitors.

Signage is subjected to the elements and can be costly to maintain and update with new information, not to mention the degenerative effects which excessive signage can have on the scenic beauty of Public Lands.

Please See Image 4 in Exhibits Attachment

The GPS Ranger platform simply utilizes the existing GPS signals that are fully operational in all of our Public Lands. GPS Ranger systems utilized to deliver on-site information as digital signage relieves the significant expense of physical signage purchase, installation and maintenance and helps to maintain the unfettered beauty of outdoor areas.

The GPS Ranger is the Better Way to Offer Equal Access to Public Lands

The GPS Ranger can be programmed to meet federal goals for full access to Public Lands for all visitors.

In response to the NPS's media centers request and at our own expense, BarZ Adventures developed the first GPS Ranger captioning tour at Martin Luther King Jr. National Historic Site in 2007. Understanding the importance of the need, we initiated the creation of full captioning and American Sign Language tour versions as part of our installation of the Independence National Historical Park tour. At our expense, we decided to add the ASL tour version to prove that the GPS Ranger can support ADA statutes and to set the bar for accessibility for interpretive information.

Please See Image 5 in Exhibits Attachment

Throughout the Public Land system there are a variety of tour solutions on offer which are not ADA compliant. At Ellis Island and Statue of Liberty, Alcatraz and at the USS Arizona, to name a few, there is an audio-only solution in place that doesn't address ADA statutes. Furthermore cell phone tours are becoming more popular and common. The Boston Freedom Trail, Valley Forge, and the National Mall are just some of the few parks which use cell phone tours to deliver interpretive content which is not equally accessible to all visitors and which are not ADA compliant. Earlier this month, we received an open RFP for an audio-only museum tour for the Smithsonian American Art Museum which is also not in line with ADA guidelines for providing equal access to all visitors. These examples illustrate that venues and resources in both the public and private sector need guidance in expanding access for people with disabilities.

The GPS Ranger is a cost effective communications platform not only for accessibility reasons but also designed to support the interpretive mission of the Parks by providing rich and meaningful content at the point of interest of the visitor. As mentioned earlier, the GPS Ranger system can be programmed to support multiple "tours" both for the

accessible market as well as for the general domestic and international visitor to meet the interpretive goals of the resource. “Universal design” allows the Ranger unit to be used to enrich the experiences of all visitors to Public Lands – the young or old with age-appropriate content, the disabled with accessibility specific information or the non-English speaker with content delivered in any kind of foreign language or ASL.

Traditionally, supporting accessibility is difficult and expensive in the Public Lands. A few weeks ago, a BarZ Adventures representative was at the Grand Canyon in a meeting with the Chief of Interpretation. While there, a request for a sign interpreter was made so that a deaf guest could visit the park and experience the interpretive messages like other visitors to the park. In this circumstance, the NPS staff reported that finding personal sign interpreters for their deaf visitors is complicated due to timelines and the logistics of their remote location, as well as costly to secure and not 100% reliable.

Closing Thoughts and Way Forward

The GPS Ranger with sign language, captioning or audio description offers multiple benefits. It saves the park or resource the on-going expense of providing sign interpreters; it allows the deaf and visually impaired visitor to arrive without extended pre-planning and tour the park on their own schedule and at their own pace. A consistent and quality message is always delivered and there is never of the problem of ‘no-shows’ of hired interpreters. Furthermore it minimizes the amount of special way-finding signs that are needed to be constructed and maintained to accommodate these audiences, while also delivering more detailed and up-to-date data about accessibility features in the field where it is most needed and valued.

In nearly all cases, the content creation, set-up and installation costs of the GPS Ranger system can be recouped or off-set within a matter of months.

The GPS Ranger platform can be purchased by the Park Service or resource administration and rented to park visitors for a fee or donation, or borrowed free of charge. The systems can be underwritten by donors such as the National Park Foundation or corporate sponsors. Additionally, GPS Ranger systems can be leased by cooperating associations or concessionaires and then rented to park visitors for a low daily fee. Today the GPS Ranger tour is available to National Park visitors for about the same cost as a movie ticket.

The GPS Ranger is proven technology that is enjoyed and valued by visitors, and that is ready to be deployed now to address accessibility issues and expand access to federal lands for people with disabilities.

In closing, I hope that this committee will take a leadership role to address access in Public Lands. The position you take will have a trickle-down effect outside of the federal land system and effect decisions at venues such as the Smithsonian which is currently considering an audio-only tour. State parks, theme parks and attractions, zoos, arboretums and gardens, city walking and college campus tours will all be affected by the

decisions and guidance that is handed down from this committee in regards to accessibility to outdoor spaces and venues across the United States.

I welcome your comments or questions.

Sincerely yours,

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