Arrange for Change
NASA
Climate Change is Happening
There is Much We Can Do
Service is already working to respond to these changes.
nge for change?

Telling the Stories of Climate Change

By John Morris and Brooke Carney

Communication about the changing climate in Alaska's parks has been underway for over a decade. As the evidence, scientific understanding, and collective knowledge of its causes and implications become better understood, so also have the approaches for discussing it with our many audiences. Throughout the Alaska region, NPS employees are working together and across disciplines to raise awareness about this global issue, provide the best available scientific explanations of its impacts, and cultivate a hopeful response.

In the words of the NPS Director Jon Jarvis, "One of the most precious values of the national parks remains their ability to teach us about ourselves and how we relate to the natural world." Our communication approach is to let the changes occurring in our parks do just that—teach us to be integrated in the natural world, not act in opposition to it.

Shaping the Stories

The Alaska Region's Climate Change Response Strategy, consistent with the NPS national strategy, supports efforts to collaborate and use parks as centers of continuous learning, as indicators of changing climate and trends. It identifies that we use contemporary communication methods to provide products and programs that help audiences understand what is happening in Alaska's parks and how we might respond to changes we're already seeing. To meet professional standards, effective communication products are developed around three primary characteristics: 1) strong relevant messages, 2) defined specific audiences, and 3) appropriate techniques that truly connect the participants to meanings. In this article we will examine some current products and on-going efforts that exemplify best practices.

Figure 1. Earth to Sky partners with the "Arrange for Change" national traveling display.

The Climate Change Response Strategy identifies four key messages about climate change that guide communication efforts in the Alaska Region.

- Climate change is happening and human activities are contributing to and accelerating it.
- Changing climate has consequences for parks, people, and the planet.
- The NPS is responding with practices that address climate change.
- The choices we make now may help to avoid significant impacts in the future.

Communicating about climate change brings unique challenges. New information about the impacts of climate change is emerging all the time. The science used to identify and explain the various phenomena associated with climate change and its effects is often complex. Evidence that covers large areas over longer time scales is often hard for the average person to grasp. Public understanding and perceptions don't necessarily match scientific understanding.

There are many audiences to reach with these messages about climate change. We begin by developing reports and training materials for our internal audiences, —our staffs, managers, and colleagues—to prepare us in preserving and protecting the parks. We've been working to grow and connect to the nearby audiences which include partners, community members, and stakeholders who have history and proximity to the places we manage and the stories they tell. Because this issue of changing climate is so wide-reaching, it requires that we bring together these players more holistically than ever before. New mechanisms are being used to do so, like holding scenario planning or community organizing workshops where all can engage in the dialogue, learn the science, solve the problems, and understand their consequences together, as a community. The changes being discussed will be with us for decades; it's best to have all parties present for the learning phase so when decision points are confronted, everyone has a better understanding of the concerns.

As for external audiences, from students to park travelers to virtual visitors, many additional products will be in demand to reach and keep them informed over the decades to come. As the populations learns to use new technologies, and to absorb information about the world at a faster and faster rate, so too must we stay current and deliver meaningful ways for them to easily engage in their "public" resources. New devices, and new ways of using them, is making the challenge of communicating through interactive and rapidly evolving social media a vigorous and growing demand for interpreters.

With these challenges in mind, NPS staff members are working on communication products and programs that address the needs of many audiences and deliver messages in meaningful and relevant ways. The resulting communication efforts consider both public perceptions (*Brownlee et al. 2011, Thompson et al. 2011, Gram et al. 2012*) and scientific evidence.

Climate Change Stories, Many Approaches for Many Needs

To assist with public outreach efforts, the Alaska Region has developed several traveling displays that explain the primary principles associated with how climate works, how it's changing, and how the effects of these changes are being measured over the long term. These exhibits are in use year round, in park visitor centers, at national conferences and meetings, and at numerous special events and workshops focused on climate change and sustainability around Alaska. Some of the AKR parks are beginning to develop exhibit panels on this issue as well. One such example, at Kenai Fjords at Exit Glacier, examines how all of us can 'Do Our Part" and responding to climate change and its implications. All of these displays not only provide information and observations to stir the viewer's thinking, they can also provide a catalyst for informal interpretive conversations with rangers and staff about the relevance of changing climate to that location or park. Those conversations are some of the best outreach opportunities and on-going strategies for raising awareness that the NPS has.

Fact sheets and brochures for park visitors and the general public have been developed by various parks and programs. Some help visitors understand the unique local climate and its effects, like explaining the wet seasons of Klondike Gold Rush, while others highlight specific landscape features, such as the rapidly melting glaciers in Glacier Bay. Online videos and podcasts are being created to engage audiences with the sights, sounds, and site-specific conditions that scientists are discovering in the parks. KEFJ podcast, briefing statements, and summaries have been developed to educate internal audiences. Examples include resource briefs and reports on glacier monitoring and change, phenology monitoring and change, and permafrost monitoring and change.

While these and the many other unlisted efforts are a good start, we have a long way to go before all audiences are reached, all stories told, and the overall goal of climate change literacy is reached. Toward that end, there are several efforts currently underway that will be finalized in late 2013 and early 2014. These efforts include a wayside exhibit on phenology at Kenai Fjords' Exit Glacier visitor area, two reports—a technical one and a more general interpretive one—detailing the status and trends of glaciers in Alaska's national parks, and an interactive photography database documenting landscape change in southwest Alaska parks. In addition, a region-wide working group of interpreters, scientists, and partners from the University of AK, SNAP program, are developing a first-of-its-kind, statewide visitor's guide about climate change in Alaska's national parks (http://www.nps.gov/akso/nature/climate/index.cfm). Not only will this publication be available in parks across the state, an electronic version of it will be available online, with many added interactive features to help tell the stories of change from the parks. All of these efforts are contributing to a broad and engaging conversation about climate change, and about us in a world that addresses it.

Figure 2. Doing Our Part exhibit at Exit Glacier Nature Center (KEFJ).

Revisiting Leopold

In 2012, The National Park System Advisory Board produced the "Revisiting Leopold" report. In the report, the committee advises "the American people—including but not limited to visitors and residents of communities near parks—must be recruited as 'co-stewards' of the national parks. The public must be made aware of the challenges facing the National Park System and urged and empowered to take action to preserve and protect these resources as part of their enduring responsibility as citizens." Creating compelling outreach materials is one of the best ways to accomplish this task. Maybe those citizens in the future will be benefactors of an incredible story about the collaborations of civilization that responded in the face of a global event.

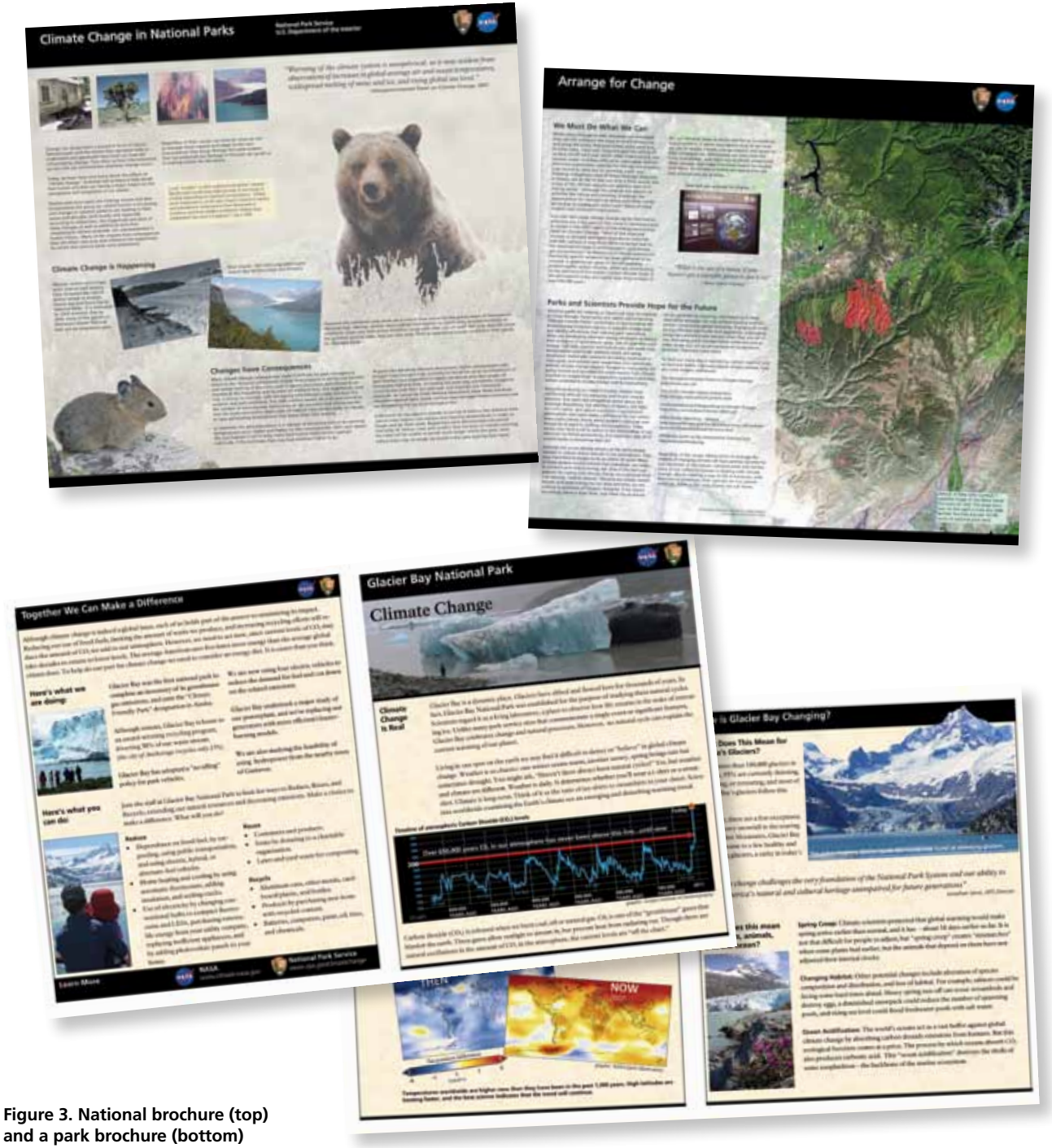

Figure 3. National brochure (top) and a park brochure (bottom)

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