



Highlands Record

June 2012

NPS Welcomes Internationally Acclaimed Climate Research Facility

Things are ‘looking up’ at the Highlands Center as we prepare to host a year-long “Two Column Aerosol Project” (TCAP) funded by the Department of Energy’s Atmospheric Radiation Measurement (ARM) Climate Research Facility (www.arm.gov). Developed in 1989, ARM is a multi-laboratory interagency program known for being a key contributor to national and international research efforts related to global climate change. ARM operates permanent climate observatories in three key climate regions around the world; the North Slope of Alaska, the Southern Great Plains in Oklahoma, and the Tropical Western Pacific. In addition to their permanent sites, ARM also operates aerial and mobile facilities, one of which will soon be coming to CCNS.

From July 2012 to July 2013, the ARM Mobile Facility will operate from the Highlands Center to measure clouds, water vapor, aerosols, solar energy, and atmospheric radiation. There will also be weather balloons equipped with radiosonde telemetry packages, consistent with National Weather Service requirements, launched four times per day throughout the year. Complementing the ground-based measurements, instrumented aircraft will conduct intensive research flights over the site in July 2012 and



CCNS Park Planner Lauren McKean and Los Alamos National Lab Field Instrument Deployments Manager Kim Nitschke stand before the future site of ARM Mobile Facility. *Photo courtesy of ARM*

January 2013. The aircraft will fly in stacked formation to simultaneously obtain measurements of aerosol and cloud properties within two columns of air—one column above the ground site and the other a few hundred kilometers east of Cape Cod, over the ocean.

Scientists from Pacific Northwest National Laboratory have stated their specific research objective at the Cape Cod site is “to quantify aerosol properties, radiation, and cloud characteristics

at a location subject to both clear and cloudy conditions and clean and polluted conditions.”

ARM and its mobile facility operations teams have previously collected data for research efforts in the Maldives, India, Colorado, Azores, China, Germany, Niger, and California. CCNS is excited for ARM and its team to call Cape Cod home while they continue to work to improve scientific understanding of global climate change!

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Highlands Fest 2012

Looking Up to a Greener Tomorrow, Today!



Join the Highlands Center partner organizations for this year's Highlands Fest! To be held at the Highlands Center in Truro on **Saturday, June 23, from 10 AM to 1 PM (rain date Sunday June 24)**. This year's fest will be focused on Climate-Friendly Park awareness and initiatives, both within the park and in our community.

The creation of engaging sculptural globes to showcase global climate issues will be the focus of this year's public participatory event. Volunteers are invited to assist in the painting of several cement spheres, which will depict a variety of earth and globe designs. The inspiration for the globes is the result of the one-year deployment of the Department of Energy's Atmospheric Radiation Monitoring System Mobile Climate Research Facility, which will be gathering data at the Highlands Center beginning in July. A mural will also be painted, depicting "Climate Friendly Park" logo - one of the programs of the National Park Service's Green Parks Plan - with a goal to address climate change by reducing greenhouse gas emissions and implementing sustainable practices such as, energy conservation and waste recycling. Cape Cod National Seashore is proud to be a participating park in the Climate Friendly Park program, and we look forward to marking our support through our public art! All ages and abilities are invited to participate—no painting experience required!

Highlands Fest is an annual celebration of the Highlands Center at Cape Cod National Seashore with its seven partner organizations: AmeriCorps Cape Cod, Cape Cod National Seashore, Fine Arts Work Center in Provincetown, Highlands Center Inc., Payomet Performing Arts Center, Provincetown Center for Coastal Studies, Truro Center for the Arts at Castle Hill. The mission of the partners is to foster the unique and cultural heritage of Cape Cod by engaging in a sustainable environment in which scientific research, arts creation, and educational programs can flourish.

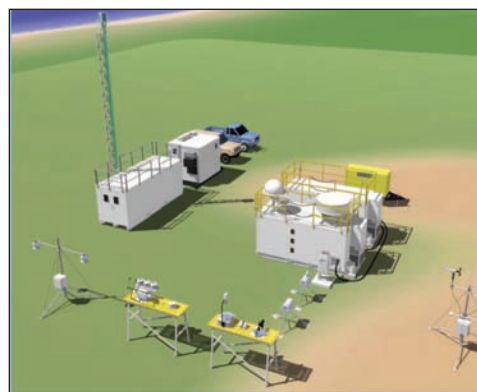
Questions?

Alexandra Heyn, AmeriCorps Cape Cod Member
Cape Cod National Seashore, (598) 957-0703

WALK: TRURO'S COLD WAR PAST AND OUR CLIMATE'S FUTURE

**Mondays, at noon
July 2 through August 27
1½ hours, ¾ mile. Free.**

Tour the former North Truro Air Force Station with a National Park Service ranger. Learn about its role in our Cold War past and exciting plans for its future as the Highlands Center. This year the site will host a Department of Energy atmospheric radiation measurement facility. On the walk we may see the launch of a balloon that provides data used in improving climate models.



More than Meets the Eye - An artist's rendering of the instrumentation that will be operating during the ARM deployment at the Highlands Center. These containers and instruments will be used to obtain measurements for climate research. *Image courtesy of ARM Climate Research Facility*

Directions to Highlands Center:

Take Route 6 to the Highland Light Exit in North Truro onto Highland Road. At the end of Highland Road, take a right onto South Highland Road. After approximately .6 miles, take a left onto Old Dewline Road. Highlands Center is at the end of the road.

The Highlands Center Mission: The Highlands Center fosters the unique cultural and natural heritage of Cape Cod by facilitating scientific research, the arts tradition, and educational programs atop the dramatic sea cliffs of Cape Cod National Seashore.

AmeriCorps Gets Things Done 2012!



AmeriCorps members display the usefulness of their brand-new benches!

On April 20th Year 13 AmeriCorps Cape Cod members and several Cape Cod National Seashore staff members gathered for the very successful 2012 Highlands Center Clean-up Day. Together teams worked to create 6 new seating benches for both the ARC Classroom outdoor education programs, Castle Hill kiln area, and Payomet Performing Arts Center. Under the direction of Joyce Johnson, members also assisted with making several cement globes, which will be painted during the Highlands Fest on June 23rd. Last, but certainly not least, members dug in by repairing planters and filling them with native species, and weeding and re-dressing gravel pathways. Come check-out their hard work - the Highlands Center is really starting to shine!



The ARC Lab Classroom's front walkway gets a 'facelift' with a fresh dressing of gravel.



A few of the globes in mid-construction await their next layer of cement. Come paint them with us at Highlands Fest!

Partner Programs

Payomet Performing Arts Center

Another exciting season of music, theater (including youth theater classes) and humanities planned for this summer at their tent at Highlands Center, North Truro, such as David Bromberg (July 1) Rosanne Cash (July 3) John Mayall (July 16) Rickie Lee Jones (July 29) Sierra Hull (August 2) Carolina Chocolate Drops (August 12), and others. The centerpiece of the summer will be a fully staged, professional production of Shakespeare's *A Midsummer Night's Dream*, opening Thursday, June 28 and running through August 11. Weekly family and children's shows, and children's theater and acting classes will take place twice a week under the supervision of Payomet Education Director, Tessa Bry. For tickets or more details, call the Payomet at 508-487-5400 or visit payomet.org.

Truro Center for the Arts at Castle Hill: Wood Firing

Castle Hill will be firing the wood fired pottery kiln at Highland Center on June 18-20 from Tuesday morning into Wednesday night. We will be unloading the kiln on Saturday (June 23) at 9 AM. Next firings are August 27 - 29, and October 6 - 8. Stop by and learn about the use of wood as a fuel source for clay art!

For more information call 508-349-7511, or visit www.castlehill.org

Provincetown Center for Coastal Studies

Seal Cruise in Pleasant Bay, Orleans - June 15 and August 10.

Coastal Studies Sunset Whale-watch Benefit with the Dolphin Fleet
MacMillan Wharf, Provincetown - Saturdays, June 30 and July 28

WHALE WEEK - A Celebration of the Sea! Provincetown - July 23 to 28

Details and reservations from Cathrine Macort at (508) 487-3622 x 103,
cmacort@coastalstudies.org

NPS Atlantic Research Center

Tuesday, August 28 - Science Symposium - Hear scientists present findings of their research projects within the park to the public at the ARC classroom, an all day affair.

Questions? Contact Megan Tyrrell, Ph.D. Research & Monitoring Coordinator, Megan_Tyrrell@nps.gov



National Park Service
U.S. Department of the Interior

Cape Cod National Seashore
99 Marconi Site Road
Wellfleet, MA 02667

EXPERIENCE YOUR AMERICA

Partners Welcome New HCI Board

Mark Watson, chief executive officer and founder of Keel Asset Management in Chicago and Harwich Port, is the new president of the board of Highlands Center, Inc. Mr. Watson is no stranger to the workings of nonprofits, public entities, financial planning, investments, or Cape Cod. In addition to his financial skills and great enthusiasm for the Highlands Center, Watson also is currently active on the board of the Community Development Partnership, Wellfleet Harbor Actors Theater, Harwich Historical Society, and other initiatives. He brings ten new, diverse board members to the table. We look forward to the results of the hard work Mr. Watson with Highlands Center Inc., the Highlands Center Partners, and the National Seashore put forth together!

Agricultural Preservation and Education

A fresh idea has 'sprung up' in the Historic Harvest Garden! This year the bed will contain plants used throughout history as medicines. The children participating in Sustainable CAPE's 4-H programs will plant the garden, built by AmeriCorps and NPS, to serve as an educational display in front of the ARC classroom throughout the season. While participating, children will also gain valuable lessons in environmental leadership and community service.



National Park Service
U.S. Department of the Interior

Cape Cod National Seashore

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This issue of the Highlands Record was created by AmeriCorps - Cape Cod member Alexandra Heyn with assistance from Cape Cod National Seashore's Marianne McCaffery.

For additional information concerning the Highlands Center at Cape Cod National Seashore, contact:

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The National Park Service cares for the special places saved by the American people so that all may experience our heritage.