

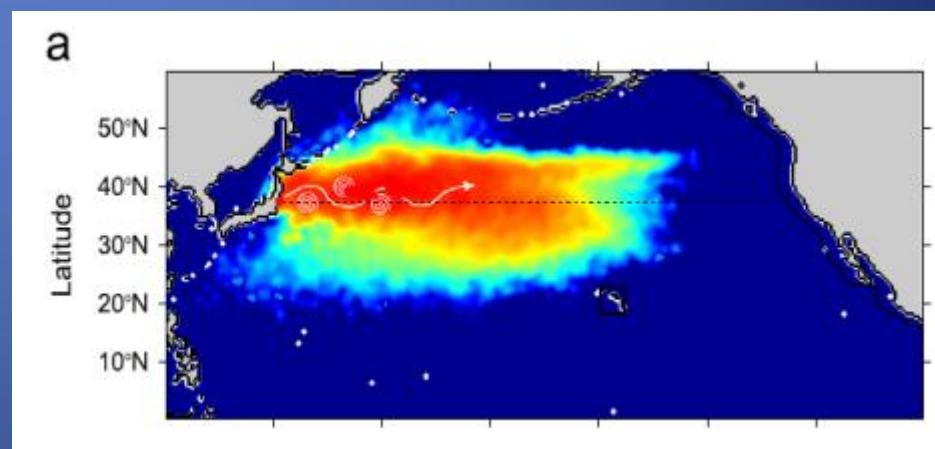
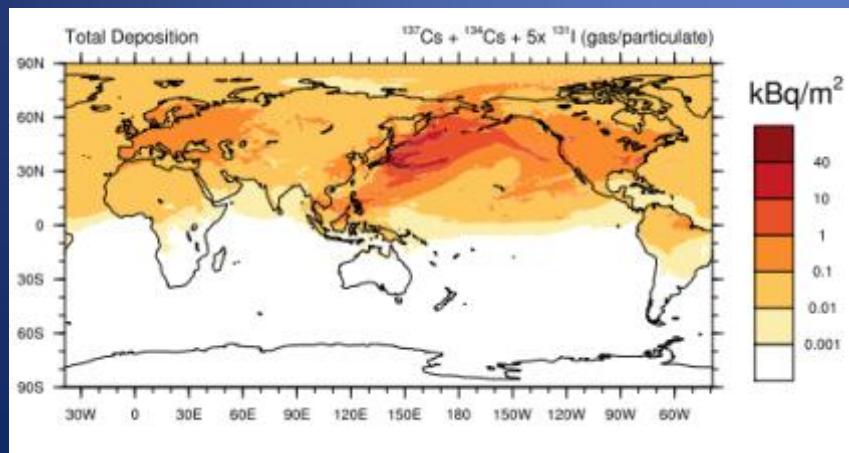
# **A Bering Strait Ocean Sample....**

**Gay Sheffield  
UAF, Alaska Sea Grant  
Marine Advisory Program**

**NOME, ALASKA**



# FUKUSHIMA FALLOUT....?





**Summer 2011...  
Unusual Mortality Event**

**Unknown cause**

**100s of cases**

**Bering to Beaufort**

**4 species**



Nov 2013

Avian Cholera

New to Alaska  
New to several  
species



# The Nome Nugget®

Alaska's Oldest Newspaper

• USPS postage • Single Copy Price - 50 Cents in Nome •  
VOLUME CXIV NO. 6 February 06, 2014

## Lack of radiation monitoring irks scientists, public

By Diana Haider

The March 11, 2011, tsunami that originated from Japanese waters worried the public and scientists alike as the plume of radioactive ocean water from the failed Fukushima Dai-ichi nuclear plants proceeded to move on



Photo by Jason Baldwin  
**HOOP TIME** — Nome Nanook Outer Hoops down, backed up by Degnan Lawrence in the background, goes for a shot as the Unalakleet Wolfpack defend their basket. See more photos and story on pages 8-9.

## Nome experienced fifth warmest January on record

By Diana Haider

Weather stations back up what Nomeans felt all along: The last week of January was balmy compared

### On the Web:

[www.nomenugget.net](http://www.nomenugget.net)

E-mail:

[nugget@nomenugget.com](mailto:nugget@nomenugget.com)



8 08605 43163 3

nature in Nome are officially going into the record books as the fifth warmest January on record since the National Weather Service began gathering data in 1907.

During the month to have had the state high on Sunday, with 49°F.

On Friday, Campbell had the highest chance to be the state's hot spot as the mercury soared to 48.2°F.

Campbell's brother Merlin Koonooka reported that he had launched his boat right from the beach to go seal hunting. After a successful day, he said, the water became choppy and the sky foggy as the hunters headed home.

In front of Nome, open ocean shows a little wind, waves on the surface, where last year sea ice remained

pitched their shades.

"Clouds drop in the building willows. Brown ducks and gray slate walls are the norm. And while the sun is shining, it is warm, an unusual phenomena for January of this late date. What's that?"

"That is a preview of what the future brings," said Jon Walsh, Chief Scientist at the International Arctic Research Center of the UAF Climate model suggests that winters such as the 2013/2014 season could become more common toward the end of the century, Walsh said.

"It's not going to happen every year, but it will happen more often."

continued on page 16



Photo by Nikolai Jevneff  
**HARBINGER OF SPRING** — A boreal chickadee (*Poecile hudsonicus*) perches on a willow branch in Nome.

Feb. 2014



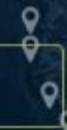
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# HELP FUND A LOCATION

Contributions from scientists and concerned citizens around the world have left us with samples that we do not have funding to analyze. Please consider supporting our ongoing effort to analyze samples from throughout the Pacific for signs of Fukushima radiation—or you can provide support directly to work being done at one of the locations below.

SUPPORT ONGOING ANALYSIS

VIEW CURRENT RESULTS



## SEWARD, AK

- » Fund this location
- » View in Google maps



## GULF OF ALASKA, AK

- » Fund this location
- » View in Google maps



## KODIAK ISLAND, AK

- » Fund this location
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## BERING STRAIT/NOME, AK

- » Fund this location
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## KACHEMAK BAY, AK

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## VANCOUVER, JERICHO BEACH, BC

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## UCLUELET, BC

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## BELLA COOLA, BC

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## HOT SPRINGS COVE, BC

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## BOWEN ISLAND, BC

- » Fund this location
- » View in Google maps



March 2014



Photo by Lizzy Hahn

OFF THEY GO — Elm's Bob Sacchus was the first racer out of the gate in the Bering Sea Lions Club Nome-Golovin Snowmachine Race, which started at noon on Saturday.

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VOLUME CXIV NO. 13 March 27, 2014

## Nome Common Council votes to increase Port fees

By Sandra L. Medearis

Fees at Port of Nome are ready, set, to go up for the upcoming ship going season.

The Nome Common Council voted the revised port tariff 10 into second reading Monday night.

The Port of Nome Commission handed the tariff up to the council

panel for approval after raising fees by 5 percent across the board for all categories of use at the boat storage age.

Last spring, Port of Nome raised its fees by 10 percent across the board. At that time commission is tentatively planned to take fees an other five to 10 percent for 2014 and

2015.

Home ported vessels dry docked within the Port of Nome that remain idle throughout the applicable period will pay a flat rate for winter season and a different schedule of rates for the summer season. The fees for small vessels shorter than 32 feet have been reduced in both seasons while

operators of larger vessels will see an increase. The commission has taken into consideration that longer vessels cover a significant footprint at a port already crowded.

If the council approves the tariff revision for final passage after next regular meeting, the document sets fees for idle storage thus: For winter, vessels 32 feet and under in length, \$200, a decrease of \$20; over 32 feet, \$7,000, an increase of \$120; vessels over 52 feet to 72 feet, \$2,000, an increase of \$60; vessels over 72 feet to 92 feet, \$4,500,

For summer rates: 32 feet and under, \$400, a decrease of \$40; over 32 feet to 52 feet, \$200, up by \$30; over 52 feet to 72 feet, \$7,000, up by \$700; over 72 feet to 92 feet, \$2,200; vessels over 92 feet, \$3,200.

The winter storage season lasts six months, whereas the summer storage covers five months.

The port commission debated on fee hikes over several weeks seasons before unanimously approving the draft tariff document that went to the Council.



MARCH MADNESS — Shaktooth Wolverine Vern on "Ergo" Rock drives hard for two against Klukwuk Chieftain opponent, during the March Madness State basketball tournament held in Anchorage last week. See story on page 7.

Photo by Jon Zemel

## Radiation sampling to happen for Bering Strait

By Sandra L. Medearis

Regional conservationists and government officials don't believe the radiation from Fukushima poses any threat to fisheries or marine life, data is not enough to put concerns of coastal areas' species and substrate uses to rest.

University of Alaska, Fairbanks Marine Advisory Program agent Greg Steffens and Norton Sound Economic Development put money to wards a crowd sourcing website organized by marine radio chemist Dr. Ken Buesseler of the Woods Hole Oceanographic Institution and its Center for Marine and Environmental Radiation.

The website is part of the project "How radioactive is our ocean?" and functions as a portal for donations. These donations are going towards the analysis of ocean waters for radioactive materials at a specific site.

For each \$600 raised, a sample can be sent to Dr. Buesseler's lab in

Massachusetts.

"People throughout our region have repeatedly asked for testing of our subsistence foods and water," said MAP agent Greg Steffens.

"Seals fell sick with a still un-known disease, we've had the documented first cases of avian cholera in Alaska, we've had unusual animals like the beaked whale showing up dead on the beach near Gambell and each time people throughout the re-

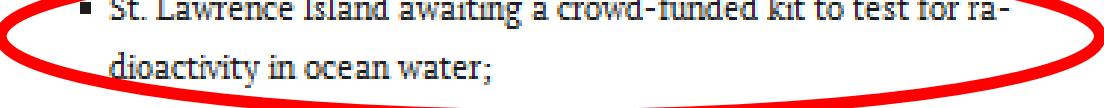
continued on page 4



## Update News: April 14th, 2014

By [Zachariah Hughes](#), April 14, 2014

In Monday's news:

- Nome Police investigate weekend collision that killed Savoonga man;
- Legislature moves through a minimum wage bill despite opposition from supporters of a similar ballot initiative;
- St. Lawrence Island awaiting a crowd-funded kit to test for radioactivity in ocean water; 
- Jeff King wins the Kobuk 440 sled-dog race in Kotzebue.

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08:14



April 2014

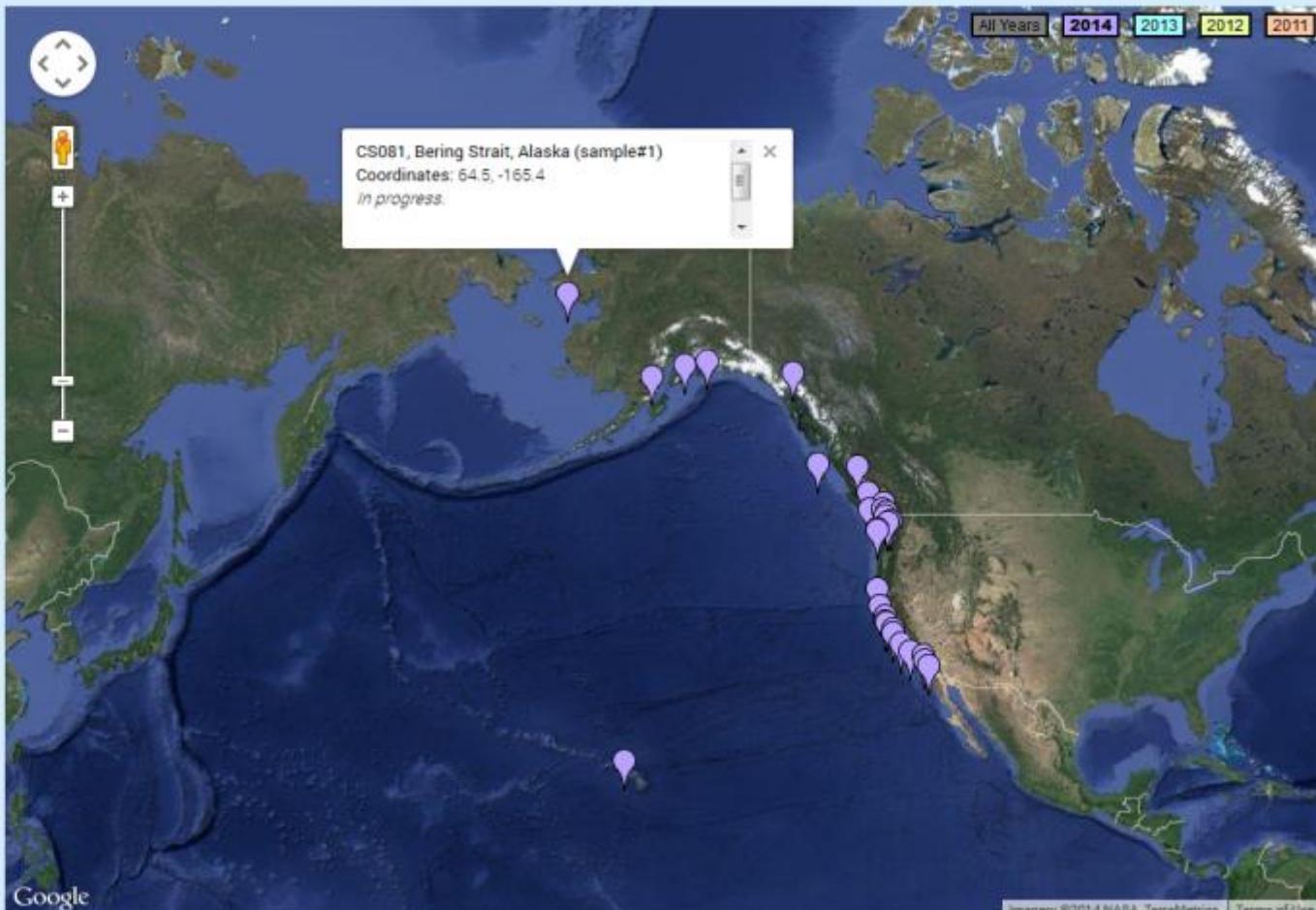
April 2014





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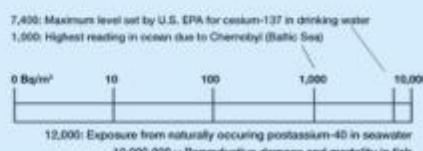
# CURRENT RESULTS



May 2014

## HOW WE ANALYZE SAMPLES AND REPORT DATA

Samples collected by scientists and citizens for Our Radioactive Ocean are analyzed in our labs at WHOI using a method that is capable of detecting extremely low levels of radioactivity produced by cesium isotopes in seawater. We report our data in units of Bequerels per cubic meter of seawater (Bq/m<sup>3</sup>), where one Bequerel is equal to one decay event per second.



## UPDATES

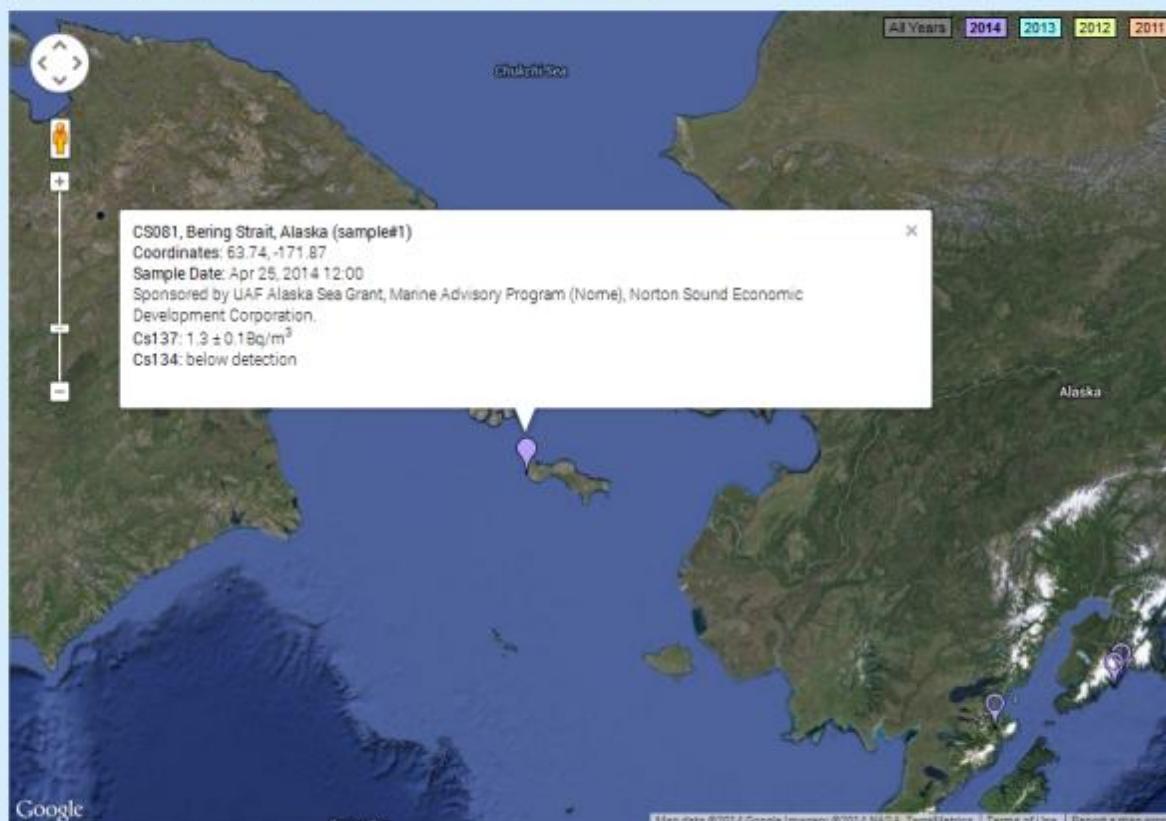
January 28, 2014

The first results from seawater samples come



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# CURRENT RESULTS



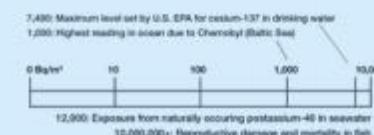
## June 2014

## HOW WE ANALYZE SAMPLES AND REPORT DATA

Samples collected by scientists and citizens for Our Radioactive Ocean are analyzed in our labs at WHOI using a method that is capable of detecting extremely low levels of radioactivity produced by cesium isotopes in seawater. We report our data in units of Bequerels per cubic meter of seawater (Bq/m<sup>3</sup>), where one Bequerel is equal to one decay event per second.

### ANALYSIS

- Once we receive a sample in the lab, we first weigh it and measure the salinity of the water. Then we add a known quantity of stable cesium (Cs) to the sample (see step 4 below) and slowly pass (1 ml/min) the sample through a 5 ml column of potassium-nickel-hexacyanoferrate composite ion resin beads. This resin is specifically designed to selectively separate cesium (stable or radioactive) from the sample and has been optimized here for use



## UPDATES

June 2, 2014

So far, none of the seawater samples taken from the Pacific Coast have contained any trace of radiation from Fukushima. They have contained the same levels of radiation that were evident in the Pacific Ocean before the Fukushima accident. These levels of

# Normal levels detected in sea water sampled for radiation

By Diana Haecker

Last week, the Center for Marine and Environmental Radioactivity associated with the Woods Hole Oceanographic Institution, released the radiation results of a seawater sample taken from the Bering Sea near Gambell.

The results show a non-detectable level of Cesium 134, the radionuclide associated with the Fukushima nuclear plant. The lab also tested for Cesium 137, another Fukushima associated element, results show a level of 1.3 Bq per 264 gallons. This, said UAF researcher Doug Dasher, is very near normal background levels. "Levels of concern for bioaccumulation would be hundreds of Becquerel, if not thousands per square meter," Dasher said.

Regional concerns that the Bering Sea could be radioactively contaminated from the 2011 failure of the Fukushima Dai-Ichi nuclear power plant spurred local organizations to act.

In March, University of Alaska, Fairbanks Marine Advisory Program agent Gay Sheffield and Norton Sound Economic Development put money towards a crowd-sourcing website organized by marine radio chemist Dr. Ken Buessler of the Woods Hole Oceanographic Institution and its Center for Marine and Environmental Radiation.

The website is part of the project "How radioactive is our ocean?" and functions as a portal for donations. The donations are used towards the analysis of ocean waters for radioactive materials at a specific site. For each \$600 raised, a sample can be sent to Dr. Buessler's lab in Massachusetts.

In April, a sampling kit headed to Eddie Ungott in Gambell, who then took a ride out to the edge of the sea ice, about 4.5 miles offshore from Gambell and filled the bucket with five gallons of Bering Sea water. The sample was then put on a Bering Air flight to Nome and then sent to Woods Hole, Massachusetts.

So far, one sample was collected and has been analyzed, but experts say that it would be wise to continue monitoring radioactive levels once a year.

Although the results indicate that the current radioactive levels stem from the fallout of nuclear weapons testing done in the 1950s and 1960s by several countries, unknowns remain. Doug Dasher cautioned that it is not known if the computer models were accurate when they predicted the radioactive plume would arrive at the U.S. West Coast in spring of 2014.

Dasher also said there is a big gap in offshore monitoring of seawater radiation to track the plume.

He also pointed out the need to sample seawater along the Aleutian Island chain.

Despite the concerns of scientists and residents, no funding is available for Dasher to buy chemicals to process samples or to hire a technician to help with the task.

He hopes to get a few water samples from the UAFs Seward Line, a long-term observation program in the Gulf of Alaska to research the marine ecosystem's response to climate variability. "We keep hoping to find support to where we can sample sea water on a yearly basis," he said. In the meantime, the crowd-sourcing website to finance another round of testing is the region's best bet to get a second sample analyzed.

The federal Food and Drug Administration is sampling commercially caught fish for radiation, but besides that effort, Dasher, in collaboration with the North Slope Borough are the only entities to sample marine mammals for radiation.

So far, Dasher said, the ringed seal samples he was provided did not show any elevated levels of Cs 137. The tests were done in conjunction with the federal Unusual Mortality Event investigation to find answers to a mysterious disease that affected ice seals along the Alaskan coast, peaking in 2011.

Next sample..?

 HOW RADIOACTIVE IS OUR OCEAN?

My Personal Page

Bering Strait  
64.49N 165.40W

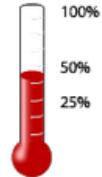
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\*Currency shown: US Dollar

\$

My Fundraising Goal:  
**\$600.00**

Money Raised to Date:  
**\$305.00**



A red circle highlights the donation input field and the fundraising goal/money raised section.



Join us in our efforts to monitor the spread of radiation from Fukushima and its impact on the ocean

Nearly 3 years after the accident at Fukushima, questions remain about how much radioactive material was (and continues to be) released and how far and fast it dispersed in the Pacific. The Woods Hole Oceanographic Institution and their Japanese collaborators have been gathering and testing samples, some from as close as 1/2 mile from the damaged reactors, since 2011.

Now they want to help people like me gather samples on the Pacific Coast of North America. I am trying to raise the funds needed to test the waters near me for traces of cesium-137, the most abundant radioactive isotope released. Any amount you give is tax-deductible and will help add to our knowledge about the movement of radioactive isotopes across the Pacific. If this sample is fully funded, please consider supporting another site—or you can propose that this location be sampled again later so we can monitor the Fukushima plume as it peaks over the next few years.

<http://ourradioactiveocean.kintera.org/faf/donorReg/donorPledge.asp?ievent=1092921&supid=403480945>