

BREA NEWS

www.bnl.gov/bera/activities/brea/

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January/February 2021

BREA Meetings

BREA meetings are held on the second Tuesday of every month (except for August), at 1 p.m. All BREA members are invited to participate. ***As long as the BNL site continues to be closed to retirees, BREA may arrange an alternate mode of communication. Watch for email notices.***

Meeting Schedule

January 12, 2021 ***via video link, BNL site closed to retirees***

February 9, 2021

March 9, 2021

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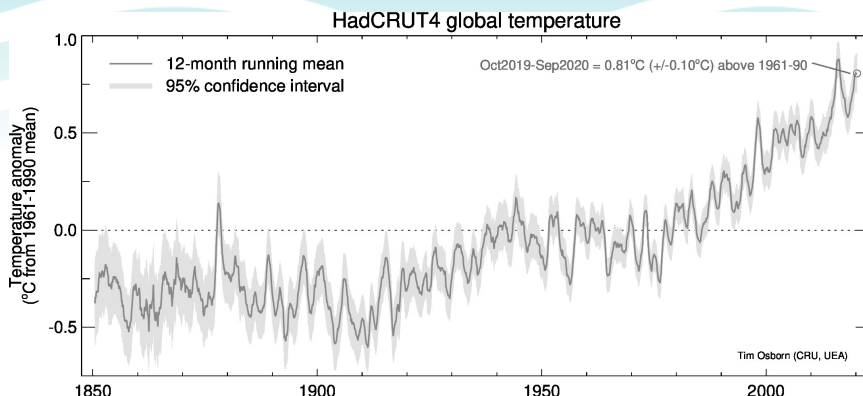
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Global temperature rise from 1850 to 2020. Read reports on climate change, pages 2-3.

From the President

by Arnie Moodenbaugh, moodenba@optonline.net

To fellow BREA Members,

We hope you have had a good holiday season. In the holiday spirit, BREA members have endorsed charitable contributions of \$2,500 to LICares and \$2,500 to the Covid-19 response fund of United Way of Long Island (UWLI). Our UWLI contribution is part of BNL's annual United Way campaign. Retirees can make personal contributions to UWLI using a credit or debit card at <https://www.unitedwayli.org/bnlpledgeform>. You can also mail a personal check to United Way of Long Island, Attn: Donna Horoski, 819 Grand Boulevard, Deer Park, NY 11729. Please indicate that your donation is for the BNL/BSA United Way Drive.

Laura Miller has recently agreed to assume the duties of BREA Secretary. We thank her for her careful and complete minutes for recent BREA meetings.

For the February 9 meeting BREA meeting, John Hill, BNL NSLS-II Chair, will join us on Zoom to describe how NSLS-II is supporting pandemic-related research. We will email a

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Retirees Report: Climate Change Part 2

In the 2020 November/December issue of BREA News, we heard from BREA members about wildfires in California. Here are more reports about climate change. First, Steve Schwartz, BREA member and BNL senior scientist emeritus, answers a basic question.

Is climate change real?

The answer is of course yes. Just look at the ice ages. Climate does change.

But the question should really be, “Is climate changing on the time scale of a human lifespan and are humans responsible?” Again yes. By virtually every measure – observational, theoretical, modeling – fossil-fuel combustion results primarily in CO₂ emissions, which warm the climate.

Then the question is what can we do about it. The short answer is reduce those emissions. That will diminish the problem, but because CO₂ accumulates in the atmosphere and remains for decades to centuries, reducing emissions will really have the effect of diminishing the problem for our children and grandchildren, who will inherit the CO₂ that we have left in the atmosphere and the resultant changed climate.

What is really required is reducing fossil CO₂ emissions to zero, and quickly. That is a really tough problem given our essentially total reliance on fossil fuels to meet our energy needs: heating, cooling, transportation, manufacturing. Zeroing CO₂ emissions is a tough challenge, tougher than the Manhattan Project, tougher even than World War II itself. Somehow, collectively, the nations and the peoples of the world must rise to that challenge.

– Steve Schwartz, Center Moriches, New York



Ice floes in the Arctic Ocean
– NOAA News 050208

Wetter and Cooler in Oklahoma, and the Dry Line Marches East

This is a largely anecdotal account of my experience with climate change to date in Norman, Oklahoma, where I live. The last few years have been unusually wet. And, according to the National Oceanic and Atmospheric Administration’s website, 2015 was the wettest year in the recorded history of OK – 1903 to present. That year, a 30-foot section of my driveway washed out.

Besides wetter, the last three summers in OK have been somewhat cooler than usual. Historically, from mid-July to mid-September, we had averaged 20 or so days in which the high temperature reached or exceeded 100°F. This year we had one day; the previous two years, not more than five each year. And the past few winters have been warmer than usual. I have noticed because water in the stock tanks seldom freezes anymore, let alone for days at a time as was usual when I left the state. The last real snowstorm here was in 2010.



David Dougherty in Oklahoma

I returned to Oklahoma in 2008, after having been gone for 40 years, and bought 20 acres and built a house in far northeast Norman. It is noticeably different, but not really worse. As reported in the Seattle Times article of September 20, 2020, “Underwater and On Fire,” one measurable effect has been the movement eastward of the “dry line” that had historically coincided with the 100th meridian. The 100th meridian defines the western boundary of Oklahoma and slices the main body of the state from the panhandle.

That line had nominally split the continental United States, with dry and brown conditions
(continued on next page)

to the west and wet and green conditions to the east. Since 1980, that century-old “dry line” has reportedly moved 140 miles to the east. The dot on my map that represents Norman sits 148 miles east of the state’s western boundary. My house is 18 miles northeast of downtown Norman. Also, historically, we haven’t had a serious drought since the 1950s, when I was in grade school and junior high.

I grew up in Enid, OK, which is flat, flat, flat farmland. I prefer trees and land with “character.” Norman is so hilly, in fact, that my granddaughter does not like driving here because she can’t see very far with the hills. The advantage is that this area has never, from what I have heard, had a tornado that touched the ground. They just hit the hills and either bounce up or dissipate.

– David Dougherty, Norman, Oklahoma

Sea Level Rise – Be Careful Where You Retire Now!

I left Brookhaven Lab for Jefferson Lab in 2000, and bought a house on the Chesapeake Bay in Hampton Roads, Virginia. At that time climate change was barely in the news, and I don’t even recall having read any articles about sea-level rise. Now, and particularly since Hurricane Sandy, sea-level rise is frequently in the headlines, and waterfront homeowners like me are noticing its impact.

In the news, the effects are currently described in terms of “nuisance flooding” of roads. When I arrived here, this happened roughly twice a year in low lying areas, but it happens now up to around 14 days a year. Projections take this up to 100 days per year by 2050 (Burgos et al., Geophysical Letts. 2018;**45** 12432).

There are now good websites with sea-level data; <https://sealevelrise.org> is a good one. This site shows that sea level rose on Long Island by around 3 inches during the years I worked at BNL (1979–2000). I lived in Harbor Hills, and we did not notice this on our local Port Jefferson beaches.

Since we moved into our house in Virginia, local sea-level rise has been 4 inches. This has resulted in the water being 12 inches closer to our house, which is quite noticeable to us. While it will take many decades at this rate to reach the house, at 7 feet above mean high water, the main impact happens now during tidal surges, one of which actually was 6 feet during Hurricane Isabel in 2003. Projections are for sea level here to rise well over another foot by 2050.

Clearly there are similar things happening on Long Island, and they will first affect low-lying areas on the South Shore. The reference above states that around Battery Park it took 48 years for the sea level to rise by 6 inches, but it is forecast to do that again in just 14 years.

There is some good news too! In the almost 20 years that I have lived here, the Chesapeake Bay has been getting steadily cleaner, mainly by reductions in run-off from farms and waste-water discharges. The result has been a dramatic resurgence of oysters. When I first moved here, we had none under and around the dock shown in the photo. In fact, I raised some in cages. Now there are tens of thousands of them along our waterfront. Blue-crab harvests have also been climbing. As the water clears, sunlight reaches down and grasses grow again, further bootstrapping a restoration of the bay. A long way to go, but a great start.

Climate change is indeed affecting us. We could all help by staying informed and taking action. For example, I installed solar panels to power a geothermal HVAC system for the house, eliminating the burning of fossil fuels! We do need a little supplemental power, but we can buy green power here.

– Gwyn Williams, Hampton Roads, Virginia



Gwyn Williams in Virginia

Membership Renewal

Look up what year your membership expires by going to BREA's website:
<https://www.bnl.gov/bera/activities/brea/>

To renew, fill out the form below.

PLEASE PRINT

Last name: _____

First name: _____ MI: _____

Address: _____

Phone: _____ Email: _____

Membership type:

☐ annual (\$10)

☐ 5 years (\$40)

☐ Life (\$95)

Date: _____ Check amount: _____

MAKE YOUR CHECK OUT TO BREA

☐ I want to receive BREA News by mail via the U.S. Post Office.

☐ I want to receive BREA News by email only. Do not mail it to me via the U.S. Post Office.

Mail form and check (made out to BREA) to:

Beth Lin, BREA Membership Chair
 81 Westchester Drive
 Rocky Point, NY 11778

– Beth Lin, Membership Chair
hellybylin@yahoo.com

In Memoriam

We deeply regret to inform you of the passing of the following BNL retirees.

Bob Brown, 94, September 26, 2020

Constantino (Connie) Economos, 90, November 9, 2020

More information can be found at BREA's website:
www.bnl.gov/bera/activities/brea. To post an obituary for a deceased BNL employee or retiree, email information to msrowe.hi@gmail.com or mail it to BREA (see the panel below for BREA's address).

President's Message (continued)

specific invitation and agenda for this meeting. Put it on your calendar now as a reminder and contact me at (631)288-5309 or moodenba@optonline.net if you miss the invite.

We encourage you to participate in BREA's Zoom meetings. It's been fun seeing familiar faces from all over the country.

"Open enrollment" is now closed for Medicare plans. BNL has a contract with SelectQuote Senior, an insurance agency, to help retirees sign up for Medicare B Supplement and Advantage C plans. You MUST use SelectQuote to enroll in order to qualify for the BNL retirement health benefit. Benefits are PERMANENTLY LOST if you enroll via the Medicare website or with a different insurance agency. If you want to share your experiences with SelectQuote, contact me at my phone number or email address (above).

At present, BNL is in Phase 2 of reopening. Some information is available at <https://www.bnl.gov/COVID19/>. Retirees are not allowed on the BNL site, with a very limited exception for those who have a PO Box.

– Arnie Moodenbaugh, moodenba@optonline.net

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