

California Drought Update

by Patrick Ruckert

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<http://www.californiadroughtupdate.org>

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Note to Readers

This week's report is longer than usual because I have included an extended excerpt from a presentation by Ben Deniston from a recent *LaRouche PAC* webcast. Deniston's presentation discusses a critical topic that is constantly raised, but never really discussed: Sustainability. Deniston presents the topic from a top down scientific standpoint. I hope you all study it thoroughly.

One More Time Congress Fiddles While California Burns

Senator Dianne Feinstein and Barbara Boxer introduced a new bill into the Senate this week to address the drought and water crisis. A Republican bill, passed in the House a few months ago, which sharply hits the environmentalist policy that prevents water from being directed to agriculture, has no chance in the Senate. The Feinstein led bill is somewhat different, and as the *San Francisco Chronicle* headline puts in on July 29, "Dianne Feinstein's drought package splits from GOP strategy."

Maybe the Senate Republicans will support it, maybe not. But, it really does not matter since the Congress has, and continues to demonstrate, that it is incapable of doing what must be done, which I presented in last week's report: <http://www.californiadroughtupdate.org/2015/07/24/california-drought-update-for-july-23-2015/>

The total spending the bill encompasses provides all the evidence required to judge that it not a serious piece of legislation-- \$1.3 billion over ten years. That is not even enough to build one dam. In addition, the same day she introduced her bill, the U.S. Bureau of Reclamation released its final environmental impact and feasibility reports on a proposal to raise the height of Shasta Dam up to 18-1/2 feet, which is one of the proposals in her bill, and would cost, ironically, \$1.3 billion-- the same amount for the entire Feinstein bill. The Bureau's report states that the federal government will not do it! Nevertheless here are a few excerpts from the *Chronicle* article referenced above:

"The California Emergency Drought Relief Act, co-sponsored by fellow California Democratic Sen. Barbara Boxer, would supply money for desalination plants for coastal cities, new and expanded dams, groundwater-recharge projects, water recycling, and expanded habitat for fish that biologists warn are hurtling toward extinction.

"The legislation calls for \$1.3 billion in new federal spending over the next decade, nearly half of it for dams. It would be part of a larger Western drought bill that Alaska Republican Sen. Lisa Murkowski is seeking to move through the Senate.

"This year, Feinstein said, she wanted to take a longer view that incorporates climate change and the likelihood that California's droughts will become harsher and more frequent.

“It’s evident to me that we can’t depend on the Sierra Nevada snowpack, that this is a disappearing phenomenon, and it’s apparent to me we’re an ocean state,” Feinstein said. ‘We’ve got water all along one side, and desalination becomes an obvious alternative.’

The Senate bill also spotlights recycling, which recovers wastewater, and water conservation, both of which Feinstein called an ‘obvious alternative.’

Feinstein would give a big boost to five long-standing dam proposals, including raising Shasta Dam, the state’s largest, and the dam at Los Vaqueros Reservoir in Contra Costa County. Her bill would also help pay for a new dam on the San Joaquin River near Fresno and a new reservoir north of the delta.

Her legislation also calls for storing more water underground by recharging depleted aquifers, which many see as a promising alternative or complement to dams.”

The Drought, Climate, and Weather Forecasts

I covered the potential El Nino two weeks ago, so I'll just add the following: First, a headline from *Capital Public Radio* on July 22: “Climate Scientist: Don't Count On El Nino To End California's Drought;” and this from the *San Francisco Chronicle* article on July 26, “Getting to know El Nino: 5 things to understand:”

“In reality, some of the state's wettest winters have occurred when no El Nino was present, or during the opposite condition, La Nina, in which the Pacific Ocean is cooler than usual.

“Fact is, out of 23 El Nino events over the past 65 years, only nine resulted in wetter-than-average winters.

“There have been only four strong El Ninos in the past 65 years. Two led to wet winters. The other two were drier than average.”

And climate scientist Jay Famigiletti said, according to *Capital Public Radio* on July 24:

“The deficit right now is somewhere around 12 trillion gallons of water,’ says Famiglietti. ‘So we need to replace about 12 trillion gallons of water in storage, in snow, in groundwater, in our reservoirs. That’s going to take about three years of above-average precipitation.”

So, once again, we shall see what El Nino brings.

The forecast for the West for the next few months is more of the same: high temperatures and little or no precipitation. This is from the *Capital Press* article of July 23, “No relief in sight for parched West:”

“We’re expecting it to get worse. You’re going to see deterioration in the region,’ said Dave Simeral, research meteorologist at the Western Regional Climate Center.

“Given higher-than-normal temperatures over the past two months, streams and rivers are likely to heat up to the point of causing fish kills in some areas,’ he said.”

And as reported by youngma@news.com.au, on July 24, the California’s Department of Water Resources, in a video, reported on the “disturbing extent of water loss to great lakes” (referring to

California's largest reservoirs):

“Disturbing aerial footage captured by California’s Department of Water Resources team shows the devastating effect the record-breaking four-year drought has had on the ravaged state.

“The footage, taken at Northern California’s Folsom Lake, Lake Oroville and Shasta reservoirs this week, details the parched landscape that has been gradually dwindling as California struggles to curb an ever-increasing demand for water.

“Lake Oroville, which is used to fill taps in Los Angeles and San Francisco, is nearing a record low, while last month at a meeting of the State Water Resources Board, officials warned Folsom Lake could be 96 per cent empty by January 2016. (emphasis added)

“The National Oceanic and Atmospheric Administration estimates at least 300 to 400 inches of rain would be needed (to) fall in order to raise levels out of the red.” (emphasis added)

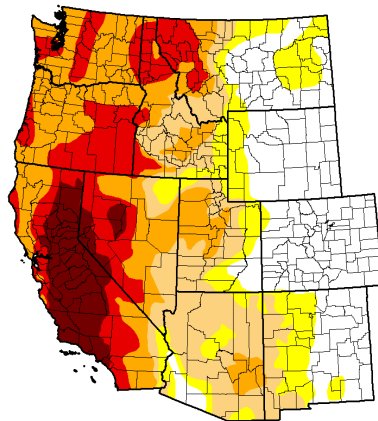
As the drought spreads east and north, the states of Oregon and Washington are now experiencing the kind of conditions California experienced one or two years ago. As reported by *Capital Public Radio* on July 16:

“Hot and dry conditions during the past 60 days have impacted the region’s agricultural sectors, fisheries, and wildland fire conditions.

"According to the July 6, 2015 USDA National Agricultural Statistics Service Crop Progress and Conditions report, non-irrigated crops in parts of Washington are showing signs of stress. Pastures in central Washington are reported as being short and extremely dry. In southeastern Washington, the winter wheat harvest is expected to be two weeks ahead of schedule."

The *U. S. Drought Monitor* of July 28 reports that Oregon has jumped from 34 percent of the state in “extreme drought” last week, to 48 percent this week. And Washington State, the same week, has jumped from zero percent in “extreme drought” to 32 percent.

Below is the graphic from *U.S. Drought Monitor* for July 28, 2015. As you can see, 46 percent of California falls in the “exceptional drought” category. It is to be noted that exactly one year ago, California's drought condition leaped from 36 percent of the state in “exceptional drought” to 54 percent in one week. The rest of the West, that is almost one-third of the nation, is in one or another drought condition. The darker the color, the more severe the drought, with the darkest color signifying “exceptional drought.”



U.S. Drought Monitor for July 28, 2015-- The West

More Destruction from the Drought

Citrus

Citrus growers are getting hit hard. The following is excerpted from *Ag Alert of the California Farm Bureau Federation* article, "Citrus growers try to survive water cutbacks," by Christine Souza on July 22:

"The ongoing drought and water shortages are scarring the California citrus belt on the east side of the San Joaquin Valley, where blocks of citrus trees are abandoned or have been removed, and for-sale signs and well-drilling rigs are common. Farmers in citrus-growing regions that have no surface water and very little groundwater are scrambling to locate enough water just to keep trees alive.

"Many east side citrus growers depend on water from the Friant-Kern Canal, a federal irrigation project with its primary source of water from the San Joaquin River, delivering water from Chowchilla to south of Bakersfield.

"For a second consecutive season, the 20-plus irrigation districts that receive water from this project face a zero allocation of water.

"In areas where farmers don't have access to groundwater, groves of trees, such as navel and Valencia oranges, are being removed so that water can be diverted to more valuable citrus varieties, such as mandarins and lemons.

"Joel Nelsen, president of California Citrus Mutual in Exeter, said he estimates that between 20,000 and 25,000 acres of citrus trees will be removed this year, due to lack of water. That amount of acreage would generate roughly 650 jobs, he said."

Livestock

And the livestock industry is expecting to lose \$100 million this year. As reported on July 20 at marketplace.com:

"The persisting record drought in California is expected to hit the state's livestock industry hard -- resulting in a projected drop of \$100 million in revenue this year, according to a [study](#) by researchers at the University of California-Davis.

"According to the researchers, the lack of rain in early 2015 caused cow and calf numbers to be lower than normal, and the shift from irrigated pasture will decrease forage for feeder cattle. California feedlots fatten beef calves from dairy steers, leading to a reduced cattle supply.

"Overall, we expect the cattle and calf industry will lose about \$100 million, comparable to 2014,' the researchers wrote in their analysis to the California Department of Food and Agriculture."

Salinity in the Delta

Then we have this report from the *Orange County Register* from *AP* on July 25, under the title: "Drought-starved San Joaquin River Delta becoming saltier as ocean pushes inland." Underlining the point I made about state officials juggling water supplies as crises multiply around the state, the article reports that:

"State officials say they are struggling to keep portions of the Sacramento-San Joaquin River Delta

fresh as saltier water from the San Francisco Bay pushes inland during another summer of drought.

“Normally, rivers push back saltier water and keep the delta fresh. But because of the drought, the rivers are low and bay water is invading parts of the estuary, the Stockton Record reported....

“The state Department of Water Resources and U.S. Bureau of Reclamation earlier this year asked regulators to temporarily weaken certain salinity standards in the west Delta to hold back more bay water. The request was granted.

“But officials say even those weakened standards have been exceeded in two locations — one on the Sacramento River at Three Mile Slough and another on the San Joaquin River at Jersey Point.

“We knew things were going to be tight,’ John Lehigh, who oversees operations of California’s water delivery system, told the State Water Resources Control Board this week.”

Fish Kills

All three West Coast states report large numbers of fish kills in the streams and rivers due to low water levels and high temperatures, with salmon especially hard hit. Some reports describe the die-off as as alarming and devastating. The reports are too numerous to tally here.

Pay More for Less

I have reported on this before, but now it is becoming more widespread across the state. As the water customers of the hundreds of water districts across the state cut their water use, the districts, which have fixed costs are raising their prices for water. So, even if you cut your water use by 25 percent, you may still end up with a higher monthly bill. Here is just one example. As reported by the *San Diego Union-Tribune* on July 27, titled, “Saving water adds up to rate hikes--Conservation hurts agency finances, so rates must increase,” San Diego will raise its water rates by 17 percent:

“As water use goes down, the rates charged are going up. And many of those good citizens, who are dutifully pitching in for the public good, are outraged. But the retail water agencies, who directly supply residential, business and agricultural customers, say they have little choice.

“The financial logic is inexorable. If you sell less of something, to balance the budget you must either cut costs, raise the price, or a combination of both, the agencies say.

“And with many costs fixed, such as bond payments for capital expenditures and the cost of maintenance, some kind of rate increase is nearly inevitable.”

Farmers Counter the Lies About Agriculture, Once Again

The Agricultural Council of California released an excellent statement this week, taking on the lies about agricultural water use. While countering the often repeated charge that 80 percent of California's water goes to agriculture (agriculture uses 40 percent, cities 10 percent and the environment 50 percent), the report, “Misinformation Persists During California Drought,” provides much more, and quotes from Agricultural Council President Emily Rooney:

“More than 41 percent of California’s irrigated farmlands have already received deep cuts. With lawmakers debating the curtailment of groundwater rights, some established as far back as 1914, the situation for food producers could become even direr. With 600,000 acres of farmland expected to be

followed this year, a 30 percent increase over 2014, the existing water restrictions could result in over 23,000 farm-related jobs lost and a potential \$5.7 billion economic hit this year.

“‘Conservation is nothing new to agriculture,’ Rooney stated. ‘Farmers have been using technology to increase efficiency of water use for nearly 30 years.’ Most farms now incorporate water-saving drip irrigation and plant crops that generate more value with less water.

“These efficiency gains apply to individual farms and industry subsets alike. For example, despite a recent media focus on how much water they use, almond growers using advanced production practices have helped improve their water efficiency by 33 percent for every pound of almonds grown today. And almond growers aren’t alone. The water-footprint of a glass of milk is 65 percent smaller today than in 1944, and similar improvements may be seen in all sectors of California agriculture. California farmers are extraordinarily efficient with water, as crop production has risen 43 percent between 1967 and 2010 per acre foot. Today, one farmer can feed 155 people every day for a year as a result of new technologies and more efficient farming practices, compared to 19 people in 1940.

“In addition to farmers improving water efficiencies, agricultural water allocations have been cut significantly, and the cuts involve greater repercussions for future generations of producers and our food supply,’ said Rooney. On average, the water supply for California farmers from Redding to Bakersfield has been cut by 70 percent, and 44 percent of California’s farmland will receive no surface water allocations at all in 2015. ‘Quite simply, farmers are already facing devastating cuts in the ongoing drought,’ stated Rooney.”

The full report is here: <http://www.businesswire.com/news/home/20150728006357/en/Misinformation-Persists-California-Drought#.Vbf6OfmIm4o>

The Ag Council posted the chart below to make its points:



Agricultural Council of California

THE LAY OF THE LAND

93% OF CALIFORNIA FARMS ARE FAMILY OWNED
AS OF 2012

10% AMOUNT OF INCOME AVERAGE U.S. FAMILY SPENDS ON FOOD

SOME DEVELOPING COUNTRIES SPEND 75%

MOST DEVELOPED COUNTRIES SPEND **25 PERCENT**

TODAY 1 U.S. FARMER FEEDS **155** PEOPLE
COMPARED TO 19 IN 1940

ROUGHLY **50%** OF THE U.S.'S FRUITS, NUTS AND VEGETABLES COME FROM CALIFORNIA

CALIFORNIA WATER USE
50.2% ENVIRONMENT
40.9% AGRICULTURE
8.9% URBAN

WATER-FOOTPRINT OF A GLASS OF MILK
IS 65% SMALLER TODAY THAN IN 1944

2014 41.6% OF CALIFORNIA'S IRRIGATED FARMLAND HAD ITS WATER SUPPLY CUT BY **80% OR MORE**

2015 ALMOST 30% OF IRRIGATED FARMLAND WILL GET NO SURFACE WATER AT ALL

TOTAL 2014 DROUGHT STATEWIDE ECONOMIC COST

2.2 BILLION DOLLARS
17,100 JOBS

OVER THE PAST 30 YRS ALMOND GROWERS HAVE IMPROVED WATER EFFICIENCY BY **33%**

AN ESTIMATED 428,000 ACRES WERE FALLOWED IN 2014 IN 2015, IT IS ESTIMATED THAT **800,000 MORE ACRES** WILL BE FALLOWED

Additional information is available at AgCouncil.org.

From the Agricultural Council of California

On the Lighter Side: Hysterics Break New Ground

This one was reported last week, but it is such an over-the-top statement I just have to report it again. Governor Jerry Brown said this at the Vatican conference last week on climate change: *“We don’t even know how far we’ve gone, or if we’ve gone over the edge,.... There are tipping points, feedback loops. This is not some linear set of problems that we can predict. We have to take measures against an uncertain future which may well be something no one ever wants. **We are talking about extinction.** We are talking about climate regimes that have not been seen for tens of millions of years. We’re not there yet, but we’re on our way”* (emphasis added). As far as I know, not even the most extreme of those promoting the idea of man-caused climate change have predicted that global warming would cause mankind to go extinct.

Our second example comes from a man who has given us predictions in the past that just did not come true. That man is James Hansen, former lead scientist for NASA, and a superstar of the man-caused global warming crowd, who released a study on July 20, that forecasts that, *“glaciers in Greenland and Antarctica will melt 10 times faster than previous consensus estimates, resulting in sea level rise of at least 10 feet in as little as 50 years”* (Slate, July 20, 2015, by Eric Holthaus). Hansen is no longer at NASA, but when he was, sometime in the late 1990s, he predicted that the West Side Highway (which runs along the Hudson River in New York City) would be totally under water by 2008. Now, I have not been to New York City for awhile so I can't personally testify that the highway is under water, but I have not seen any reports that it is, much less any other part of the city. (Thanks to *Families Protecting the Valley* for the earlier prediction by Hansen).

Desalination

On July 21, the Santa Barbara City Council voted to spend \$55 million to reactivate the city's desalination plant. Once in operation, the plant will provide about 40 percent of Santa Barbara's water.

What is Sustainability?

Environmentalists, politicians and especially the press hammer away on the theme that everything we humans do must be “sustainable.” Well, what does that mean? If asked that question, most will respond with some vague generality about “lowering mankind's ecological footprint,” another vague, but clearly a complaint about “mankind abusing the environment.”

Take agriculture, for example. The demand is that only “sustainable farming methods” should be allowed. Tell that to a farmer in California's Central Valley who is farming the same land his grandfather farmed, and today is getting more than double the output from that same land.

The *LaRouche PAC* webcast of July 3, 2015, featured a presentation by Ben Deniston, in which he discusses one aspect of this fraud: The often repeated demand for “the need for sustainability; that we go to a sustainable economy, we have to have a sustainable policy.”

Below are extended excerpts from that presentation, which begins with a discussion of the nature of mankind. The entire presentation can be viewed here:

<https://www.youtube.com/watch?v=s2lb8yoE0MY>

BENJAMIN DENISTON: Thanks, Jason. I think just to start, there's I think two aspects to this issue as

it's been put forward. On the one side, we have -- as we've documented on the LaRouche PAC website, as Mr. LaRouche has said repeatedly, as we've said on these webcasts, as we've said in Executive Intelligence Review magazine -- we have an active Satanic policy. A stated explicit commitment from the British royal family and their associates, to reduce the world population to one, maybe two, maybe a few billion people. So, on the one side, this is an active factor of evil, of Satanic evil pushing this population reduction policy. And we've covered this in depth; we're going to be covering this in more depth, nailing this for what it is -- an oligarchical, Zeussian mentality attempting, going for the biggest genocide mankind has ever seen. And willing to pick any fraud they can, and promote any fraud they can to promote their pre-established policy, their pre-established ideology. Currently, a lot centering around this fraud of some man-made climate change catastrophe. So, that's on the one side; we have this active factor of evil. But I think there's another element, which is the stupidity and the immorality of the general population who go along with this fraud. People who really should know better; but are either duped, or capitulate to going along with this evil policy.

And what I want to talk about today, coming off of some of Mr. LaRouche's emphasis on this in the recent period, is I think the deeper issue in this is the profound lack of understanding of the true nature of mankind. What is the human species that we're a part of, that we're fighting for in this process? A lack of the needed positive conception of what mankind is, where mankind needs to go, to inform people as to how to win this fight. A failure to understand this absolute scientific distinction between mankind and the animals, and the world of the beasts. As we've been presenting, for example, a failure to recognize the critical importance of embracing this galactic principle which I'm going to talk about; and a failure to accept what this perspective tells us about the true meaning of mankind. So, I think in the context of what's coming up around this encyclical, around this escalation in depopulation program of the royals.

I think the central issue to be put on the table is the real nature of progress; the real nature of progress for mankind. The characteristics of truly human creative progress, and how that defines this distinction of man from beast. And Mr. LaRouche was emphatic earlier today, that mankind creates the future; the future isn't deduced, it doesn't unfold from prior events. It's an actual process of creative action, of creation. It's the bringing into being of something fundamentally new in the universe; something that did not just unfold from the prior state, something whose existence does not come from the past, but from the actions of the intervention and the actions of human individuals, human beings, the human mind.

And without that, mankind degenerates; without that continual commitment to the creation of these new states, society degenerates, culture degenerates. And if we allow that to be destroyed -- that commitment to the future -- mankind will go extinct like an animal species. If we behave like an animal species, if we reject this human process; this uniquely human characteristic of the creation of the future, we will go extinct like other animals go extinct.

And for example, take what's discussed often as the need for sustainability; that we have to go to a sustainable economy, we have to have a sustainable policy. This is tied together with this whole Green ideology. Well, what does this mean? To sustain something means to keep something at a certain level; to take a process and maintain that process as it is at that level. That's what it means to sustain something. People are saying that's what we should be doing; we should be finding a fixed level of existence with the environment and sustaining that level of existence. But this is insane; this is unnatural, this goes against the natural order. And not even just for mankind, this goes against the natural order even for the animal world. Even for the animal world itself, outside of the distinction of mankind, this is an unnatural idea. It's unscientific; just look at the evolution of life on Earth. It's not

sustainable; it's revolutionary. Look at the extinction rate of animal life on Earth. The estimates are that over 99% of every animal species that's every lived on this planet has gone extinct. And the people who have done these estimates, put the number at somewhere over 5 billion species extinct; gone, never to be seen again. And these weren't just like single events; this was a continual process of extinction, this continual background extinction rate. You might have periodic events -- comet impacts, large catastrophic events associated with so-called mass extinctions; but those are just a few peaks of this activity.

There's always an extinction rate; there's always a process of extinction going on. Species are going; new species are coming, other species are going. Why? Because the system is organized around a certain type of progress. What's the characteristic of that progress? What's the rule? Increasing energy-flux density, not sustainability. The species that are associated with or express a lower energy-flux density get replaced; they go extinct. They get replaced with the development of new species, expressing a higher energy-flux density. That's what the entire evolutionary record shows; this directionality.

So, even in the so-called natural world, the animal world, this idea of sustainability doesn't exist. The only thing that's sustainable in the natural world, is the creation of new, higher-order states. For the animal world, that process is associated with extinction, and replacement of species with new species. Individual animal species don't progress. At any one point, some species might express a stage, a certain stage in the evolutionary process; but they didn't create that stage. They're subject to it; and they're replaced when the system moves forward -- or maybe cast aside to some lower order role. So, that's the nature of the animal world. For mankind, it's profoundly different. Again, animals don't create the future; they're subject to the future. Mankind uniquely, something we don't see anywhere in the animal world, has the ability to create the future. And this means something interesting; this means mankind provides for his own existence. The needs for mankind are not just something given to mankind by the natural world. Again, any animal species, its needs, its resources are provided by the natural world. For mankind, it's not provided, it's the product of man's own action; it's a creation of mankind.

I think this gets to a useful way to dismiss this insane fraud of this fanaticism with this Gaia cult; this worship of Mother Earth as the all-giving provider of everything. That Mother Earth brings us everything we need; it's all a product of Mother Earth that allows mankind to exist as mankind is. And this crap even got into the encyclical. To just read a short quote, it says: "Praise to you, my Lord, through our sister Mother Earth, who sustains and governs us; and who provides various fruits with colored flowers and herbs." So, Mother Earth, who sustains and governs us, and who provides for us. This is just wrong. It's not scientific, it's not based in reality; it's ridiculous. It's a form of pagan worship, but it's even outdated; it's a couple of centuries old, I would say. Because as we've discussed on these webcasts, on the LaRouche PAC site, if you really want to talk about the supposed bounties of the Earth, what's provided by the Earth we live on, well, you can't talk about it. We have to talk about the galaxy; what about the galactic system? The Earth doesn't provide everything that exists on the Earth. We're getting more and more indications that the characteristics we experience on Earth are products of these higher-order systems. We're talking about the natural world, life, the biosphere, evolution. That takes us back to the galaxy. We see indications that the anti-entropic development of life, the process that created the biosphere we have now, shows a direct correspondence to the relationship of our Solar System with the galaxy. We see this kind of harmonic relationship between the periodic increase and decrease in the bio-diversity record, in the number of species living on the planet; which rise and fall in direct correspondence with the motion of our Solar System through the galactic system. Experiencing these different galactic environments. It indicates to us that if we want to

understand life, we can't just look at Earth; we have to look -- and not at just the Sun and Solar System -- we have to look at the galaxy, the galactic system.

And you see this in climate, as well. The Earth's climate, the changes in the climate that people are so afraid of right now, are not produced by the Earth. The Earth's climate is not a product of the Earth system; it's not even a product of the Solar System. The Sun plays a major role, obviously, but if you want to take, for example, the largest periods of climate change over the past half billion years, the past few hundred million years, we see indications that it is the effect of our galactic system. These major shifts from so-called ice house to so-called hot house modes of the Earth's climate, correspond to the motion of our Solar System through the spiral arms of our galaxy. These are not produced by changes on Earth; these are produced by the galactic system. And then subsumed within that, as kind of a lower order effect, you have changes in the Sun and the Solar System. So, you have this kind of nesting of causality, where the galaxy plays the biggest role in determining climate change; according to the records we have. Then you have the effects of the Sun and the Solar System more broadly; changes in the Earth's orbit and things like that. And then you have, beneath that, changes in certain processes local to the Earth itself; changes in ocean cycles, things like that.