California Water and Infrastructure Report

Formerly, the "California Drought (and Flood) Update"

For April 18 , 2019

by Patrick Ruckert

Published weekly since July, 2014

An archive of all these weekly reports can be found at both links below:

http://www.californiadroughtupdate.org

https://www.facebook.com/CaliforniaDroughtUpdate

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"In the spring of 1212, a twelve-year-old boy named Stephen, from the village of Cloyes in France, began preaching in the village and surrounding areas, declaiming that he had been selected by God to lead a Crusade of Children to rescue the Holy Land. He traveled to the Shrine of St. Denys in Paris. There, the shrine was turned over for his exclusive use, and thousands, mostly children, came to hear him. Many of them returned to their villages and their message soon became a contagion. According to contemporary reports, perhaps more than half of these recruits were young girls."

What Are the Children Telling Us?

A Note To Readers

Alexandria Ocasio-Cortez, the "eco-warrior" has declared again and again that there are only eleven years remaining to "save the planet" from the destruction wrought by human beings, and on January 23 of this year she predicted: "The date is January 23, 2031. The world has just ended. No humans are left on the planet once known as 'Earth.'"

On the other hand, we have a 12-year-old boy in Texarkana, Arkansas who has built a working nuclear fusion device in his parents garage. No pessimism, end of the world for him; there is a future and he is going to help create it.

Both stories can be found in The Feature, below, this week.

Also In This Week's Report

We begin with, once again, the California drought is gone. At least for now.

More than 100 years ago the Los Angeles Aqueduct began bringing water from the Sierras to Los Angeles. We use a news article to provide the reader with some background to that spectacular project.

Though officials of both the California State Water Project and the federal Central Valley Project have increased the amount of water that contractors have requested, still, even with abundant precipitation, there is not enough water in the state for all the requirements of all of its people. We also include a couple of items of why that is so.

The Drought Contingency Plan legislation for the Colorado River was signed by President Trump this week. Though the Imperial Valley Water District objects and files a suit over the potential threat to exacerbating the crisis of the Salton Sea.

An article that I characterize as ”Even Fox News Gets It Right Once In Awhile-- Build Infrastructure,” does provide some useful comments on both the current disaster and on what we used to do: “Overbuild,” providing not only that which was required at the time, but also what future generations would need.

On the economic policy front you will find an article on how the repeal of the Glass-Steagall law in 1999 created the 2008 collapse and has, at least until we restore it, permanently robbed the American people. Also we have an article on how China Has Adopted the American System.

This week's Feature, as discussed above, concludes the report this week.

One More Time: The California Drought is Gone

The following article provides some technical background on measuring snow and the water equivalent.

Record-Breaking Snow Season Breaks Sierra Nevada Drought

FreightWaves , FreightWaves.com
April 17, 2019
Tons of snow the past several months have catapulted parts of the Sierra Nevada Range into the record books, busting a year-long drought at the same time. Now that we're halfway through April, we're over the hump as far as the meat of the snow season. But many peaks got a dusting the past couple days (April 15 and 16, 2019) – a dusting, that is, compared to storm totals from earlier this year.

Adding It Up

Liquid equivalent – how much water results from snow melt – varies from storm to storm. The general rule of thumb is that 10 inches of snow melts into one inch of water. But sometimes the snow is light, dry and fluffy, requiring more of it to melt down to an inch of water. In these cases, the snow-to-water ratio may be as high as 15-to-1 or 20-to-1. In other instances, the snow is wet and heavy, so it takes less of it to melt down to one inch of liquid. Therefore, the snow-to-water ratio may be as low as 5-to-1. The total precipitation for a region is rainfall plus the liquid equivalent snowfall.

David Rowe, a meteorologist at the National Weather Service (NWS) office in Sacramento, California, told FreightWaves that, on average, the northern Sierra Nevada receives total average precipitation of 51.8 inches for a season. The season, or "water year" in California, runs from October 1 through

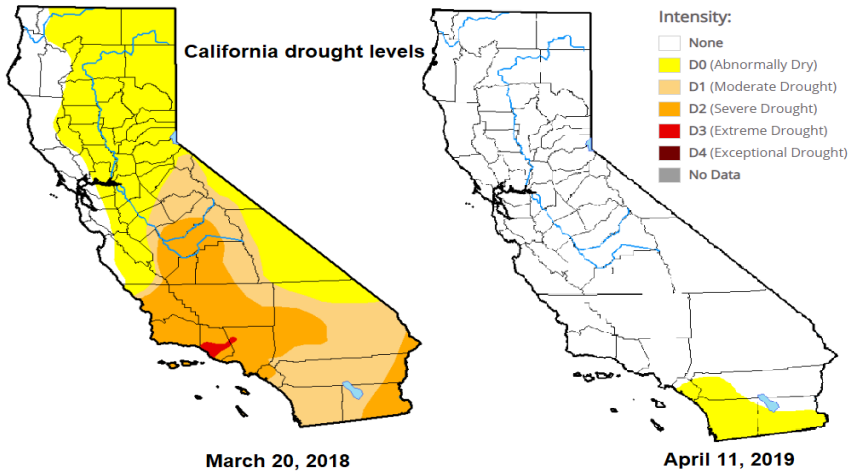
September 30. Through March 2019, this season is up to 60.6 inches (based on the average across eight reporting stations), placing it as the fourth-wettest season on record. Here's how it compares to the top three wettest seasons:

- *2016-2017 94.7 inches*
- *1982-1983 88.5 inches*
- *1997-1998 82.4 inches*
- *2018-2019 60.6 inches*

Keep in mind that the current water year still has six months to go, so its season could move up in rank.

Planting The Seeds

The hydrologic cycle, also known as the water cycle, involves the continuous circulation of water in the Earth-atmosphere system. The water is the motion of the water from the ground to the atmosphere and back again, through the processes of precipitation, transpiration and evaporation.



Source: U.S. Drought Monitor

All of the Sierra Nevada was in a drought, to varying degrees, in March 2018. A little more than a year later there's virtually no drought left in the entire state of California. The stellar snowfall this season in the high elevations, along with plenty of rain in the lower slopes, is great for agriculture!

The Los Angeles Aqueduct

With the abundant precipitation, including a great snowpack, this year, not only are the northern reservoirs full, but the Los Angeles Aqueduct is expected to flow at or near full capacity for much of the year. But, first, here is the report I wrote in 2013 on the building of the Los Angeles Aqueduct and its creator, William Mulholland:

A Prometheus Among Us:
William Mulholland Brings the Water to Los Angeles

"These are the wages for befriending man,
To whom, flouting divine authority,
You have so rashly and wrongfully surrendered
The property of the gods"
Prometheus Bound by Aeschylus

By Patrick Ruckert
October 19, 2013
http://www.californiadroughtupdate.org/william-mulholland-and-the-building-of-the-los-angeles-aqueduct/

What the Latest Eastern Sierra Snowpact Measurement Means for the LA Aqueduct

by Jonathan Lloyd

April 12, 2219

https://www.nbclosangeles.com/news/local/Eastern-Sierra-Nevada-Mountains-Los-Angeles-LA-Aqueduct-Water-Supply-Snow-508496661.html

After a series of winter storms, the Los Angeles Aqueduct is expected to flow at or near full capacity for much of the year.

What to know:

Based on the snowpack survey, the Los Angeles Aqueduct will flow at or near full capacity for much of the year.

This season's tall snow drifts are in sharp contrast to a dry 2018, when eastern Sierra snowpack was at 66 percent of normal.

Statewide, snowpack was at 162 percent of average in early April.

The final snowpack measurement in the eastern Sierra Nevada Mountains showed levels well above average after winter's unrelenting storms in California.

The snowpack is an important measurement for water managers who determine how much water Southern California can expect to received from the Los Angeles Aqueduct, a system of channels and tunnels that stretches hundreds of miles from the eastern side of the 400-mile long Sierra Nevada Mountain range to Los Angeles. Snow in the mountains melts in spring, running off into the aqueduct and other water delivery systems around the state.

Based on the snowpack survey, the Los Angeles Aqueduct will flow at or near full capacity for much of the year.

Relying on gravity instead of pumping stations, the aqueduct spans more than 230 miles from the Owens Valley to Los Angeles. In an average year, it provides about half of Los Angeles' total water supply. In the following 12 months, the aqueduct is expected to provside about 119 billion gallons, supplying water for about 70 percent of Los Angeles' water demand, according to the Los Angeles Department of Water and Power.

This season's tall snow drifts are in sharp contrast to a dry 2018, when eastern Sierra snowpack was at 66 percent of normal. In 2017, snowpack levels were at 203 percent following historic winter storms.

California has had more than 30 atmospheric rivers since the start of the water year in the fall with six in February alone, according to the department of water resources.

And here is a historic collection of photos from the building of the Los Angeles Aqueduct more than 100 years ago. I include below one photo from the collection.

Historic Photos: How Water Flows From the Eastern Sierra Nevada Mountains to Los Angeles

By Jonathan Lloyd

29 Photos

February 18, 2019

https://www.nbclosangeles.com/multimedia/Los-Angeles-LA-Aqueduct-Historic-Photos-Construction-Owens-Valley-Sierra-Nevada-Mountains-William-Mulholland-Water-Supply-419713053.html

Published Nov 15, 2017

One of the most significant features of the aqueduct is known as the Jawbone Siphon. It's an example of the riveted steel pipelines that cross deep and wide canyons along the aqueduct route. Considered one of the most challenging projects, the pressure siphon piping is made up of different diameters to help move water across vast stretches of the canyon.

Whoopee! But, Still, Even With Abundant Precipitation, There Is Not Enough Water in the State for All the Requirements of All of Its People

South of Delta agriculture allocation raised to 65%

April 17, 2019

From the Bureau of Reclamation:

> *The Bureau of Reclamation Wednesday issued updated Central Valley Project South-of-Delta allocations for the 2019 contract year. This update reflects ongoing water supply improvements due to continued precipitation in March and early April.*
>
> *"This has been a great year for California's water supply," said Mid-Pacific Regional Director Ernest Conant. "The increased precipitation has allowed us to increase the amount of water we allocate to our South-of-Delta contractors. Our goal is to maximize the supply available to our contractors in the short term, while continuing to improve the reliability of CVP water supplies in the long run. This is the type of year when additional storage and conveyance capacity would benefit the CVP."*
>
> *With this month's update, South-of-Delta agricultural water service contractors'*

allocations are increased to 65% of their contract total. South-of-Delta allocations for municipal and industrial contractors' allocations are increased to 90% of their historic use.

The CVP Friant Division's allocation remains unchanged for Class 1 contractors at 100%. However, the period for uncontrolled season deliveries to Class 2 contractors has been extended to April 30. (The first 800,000 acre-feet of available water supply is considered Class 1; Class 2 is considered the next amount of available water supply up to 1.4 million acre-feet).

All other CVP contractors' allocations were previously increased to 100% of their contract totals in recent months.

Precipitation has been well above average in 2019. Snowpack throughout the state is still more than 150% of average for this time of year, allowing Reclamation to meet full allocations for most CVP water users. However, Reclamation has had ongoing challenges in providing higher allocations for South-of-Delta water service contractors in recent decades. Even in above average water years, threatened and endangered species' requirements, storage limitations and lost conveyance capacity from land subsidence pose challenges on Reclamation's ability to export water South-of-Delta.

Water supply updates are posted at https://www.usbr.gov/mp/cvp-water/index.html.

And Here Is Part of Why Not

Full allocations hard to reach despite storms

State, federal officials say they're limited in how much water they can send south of the Delta.

Tim Hearden | Apr 10, 2019

https://www.farmprogress.com/regulatory/full-allocations-hard-reach-despite-storms

Even as winter and early-spring storms have filled reservoirs to the brim and piled snow on Sierra Nevada mountaintops, state and federal officials say they're limited in how much water they can send south of the Sacramento-San Joaquin River Delta.

California's lead water agency on March 20 set anticipated deliveries to contractors at 70 percent of requested supplies. The Department of Water Resources' (DWR) update came a few days after the U.S. Bureau of Reclamation announced that agricultural operations north of the Sacramento-San Joaquin River Delta will receive their full supplies while south-of-Delta ag contractors will receive 55 percent.

"A 100 percent allocation is rare even in wet years due to Delta pumping restrictions to protect threatened and endangered fish species," DWR spokeswoman Maggie Macias tells Western Farm Press in an email. "The last 100 percent allocation was in 2006. Prior to 2006, it had been 30 years since there was a 100 percent allocation."

Many factors have limited the federal Central Valley Project's (CVP) ability to provide higher or full south-of-Delta deliveries even in wet years, asserts Christie Kalkowski, a spokeswoman for Reclamation's Mid-Pacific Region. They include regulatory constraints and limited capacity in reservoirs and canals, she says in an email.

RESPONDING TO RAIN

Most of the state's major reservoirs are at or above their historical averages for this time of year. Lake

Oroville, the SWP's largest reservoir, was at 82 percent of capacity and 105 percent of average on April 9, according to CDEC. The DWR began using the Oroville Dam's refurbished main spillway for the first itme last week, with expectations of releasing as much as 20,000 cubic feet per second (cfs) to make room in the lake for more stormwater and runoff.

About 50,000 cubic feet per second (cfs) of water is released from Shasta Dam in mid-March. Despite full reservoirs and a big snowpack, San Joaquin Valley water users will get less than their full allocations again this year.

Shasta Lake, the CVP's centerpiece reservoir, was at 92 percent of capacity and 111 percent of its historical average as of April 9, the state's water agency reports. San Luis Reservoir, the largest off-stream reservoir in the United States where water is stored for the SWP and CVP, was at 98 percent of capacity and 108 percent of average. In Southern California, SWP's Castaic Lake was at 88 percent of capacity and 98 percent of average.

ALLOCATIONS A BOOST

The DWR's 70 percent allocation was a boost from the 35 percent announced in February. The updated CVP allocations on March 15 were an increase from the 70 percent and 35 percent, respectively, announced in February for contractors north and south of the Delta. The Friant Division's allocation is 100 percent for Class 1 water.

However, the fact that most San Joaquin Valley growers will still receive less than their full contracts after two of the last three winters have been extraordinarily wet provides more fuel for farm groups pushing for water policy reforms.

Growers and industry groups blame the 27-year-old Central Valley Project Improvement Act and subsequent environmental laws and judicial decrees for drastically reducing pumping from the Delta.

They point to hundreds of thousands of acres on the valley's Westside that have been left fallow in recent years because more and more surface water has been left in-stream for imperiled fish.

One solution should be to build more storage so that more excess water in wet years could be carried over, the groups say.

"Despite a much-above-average snowpack, many California water users will still face water shortages in 2019," California Farm Bureau Federation President Jamie Johansson says. "That underlines the need to improve our water infrastructure, so we can make more efficient use of water for both our economy and environment."

Dire Need for Temperance Flat

April 15, 2019
https://californiaagtoday.com/dire-need-temperance-flat/

By Jessica Theisman, Associate Editor

Mario Santoyo, Executive Director at San Joaquin Valley Water Infrastructure Authority, explained the dire need to build Temperance Flat Dam to California Ag Today recently, and the possible consequences if it is not built.

"With the new groundwater sustainability law coming into play, it is going to basically shut down a lot of farming," he said.

If farmers cannot prove that they are replenishing the amount of groundwater as they are taking out, they are not going to be allowed to use the groundwater pumps.

Temperance Flat would provide additional storage opportunities—up to an additional 1.2 million acre-feet—and will allow farmers to have carryover water from year to year. This will carry the farmers through the dry years, and it will give the allowance to stabilize the groundwater condition.

"Three billion dollars represents the full construction of the dam," Santoyo said."This is the targeted budget for the dam. If the funds can be collected and in time, the dam will be fully operational by 2033."

The Colorado River: Drought Contingency Plan legislation signed by President Trump

'Monumental achievement': Trump signs Colorado River drought plan

By Jonathan J. Cooper, Associated Press

Tuesday, April 16, 2019 | 5:50 p.m.

https://lasvegassun.com/news/2019/apr/16/monumental-achievement-trump-signs-colorado-river/

PHOENIX — President Donald Trump on Tuesday signed a plan to cut back on the use of water from the Colorado River, which serves 40 million people in the U.S. West.

The Colorado River drought contingency plan aims to keep two key reservoirs, Lakes Powell and Mead, from falling so low they cannot deliver water or produce hydropower. It was negotiated among the seven states that draw water from the river.

Mexico also agreed to store water in Lake Mead on the Arizona-Nevada border if the U.S. legislation was approved by April 22.

Arizona and Nevada agreed to keep water in Lake Mead when it falls to certain levels. The cuts eventually would loop in California if the reservoir drops far enough.

The Metropolitan Water District, which supplies drinking water to millions in Southern California, agreed to shoulder California's share of cutbacks if they're needed. That pledge cut out the Imperial Irrigation District, which has the largest entitlement to Colorado River water and had said it would only participate in the arrangement if it secured money to resolve environmental problems at the shrinking Salton Sea.

State water managers and federal officials have cited a prolonged drought, climate change and increasing demand for the river's flows as reasons to cut back on water usage.

The drought plan calls for cutbacks through 2026. The states are scheduled to begin negotiations soon over even more severe cuts to deal with a long-term shortage in water on the Colorado River.

A view of the bathtub ring at Lake Mead as viewed from Hoover Dam Monday, June 26, 2017. Photo: Steve Marcus

President Trump signs bill endorsing Colorado River drought plan

By Andrew Nicla,
Arizona Republic
April 16, 2019
https://www.azcentral.com/story/news/local/arizona-environment/2019/04/16/president-trump-signs-bill-endorsing-colorado-river-drought-plan-doug-ducey/3490986002/

President Donald Trump signed a bill Tuesday authorizing a plan for Western states to take less water from the overburdened Colorado River.

The president's signing capped a years-long process of sometimes difficult negotiations among the seven states that rely on the river. Trump announced his approval of the bill in a tweet, calling it a "big deal" for Arizona.

Snowpack could delay shortage

Glen Canyon Dam, near Page, permanently altered the flow of the Colorado River through the Grand Canyon, turning the flow from warm and muddy to cool and clear. (Photo: Michael Chow, Emmanuel Lozano/The Republic)

This winter's above-average snowpack across the Colorado River basin could help the region avert that formal declaration of a shortage for another year. This week, water managers at the Bureau of Reclamation estimated that the level of Lake Mead will probably be near elevation 1,084 by the year's end, above the trigger point for a shortage of 1,075 feet above sea level.

But even without a shortage, Arizona and Nevada may face water cutbacks starting next year under the drought plan. If federal officials determine in August that Lake Mead is likely to be below 1,090 feet at the start of next year, water deliveries to Arizona would be cut about 6.9 percent, and deliveries to Nevada would be cut 2.7 percent.

Larger cutbacks would occur if Lake Mead is projected to be below 1,075 feet at the start of a future year. And California would also contribute by taking cuts sooner than it would be required to under the existing rules, when the reservoir reaches 1,045 feet.

Mexico has also pledged under a separate deal to contribute by temporarily leaving more water in Lake Mead.

Arizona gets nearly 40 percent of its water from the Colorado River. The state's plan for divvying up the water cutbacks involves deliveries of "mitigation" water to help lessen the blow for some farmers and other entities, as well as compensation payments for those that contribute water.

Water managers say the plan acts as a temporary "bridge" for more negotiations toward a plan for dealing with potential shortages after 2026.

The river provides for about 40 million people and more than five million acres of irrigated farmland.

Imperial Irrigation District sues to block Colorado River drought plan

By Bettina Boxall
Apr 18, 2019 | 3:00 AM
https://www.latimes.com/local/lanow/la-me-imperial-sues-mwd-colorado-drought-plan-20190418-story.html
Just as a long-negotiated agreement for how California and six other Western states will deal with drought on the Colorado River was about to cross the finish line, the river's biggest user put up a roadblock.

The Imperial Irrigation District in southeast California filed a lawsuit Tuesday asking a state court to block the plan until more analysis is done on the accord's environmental impacts.

The filing is the district's latest attempt to put the brakes on the drought pact until the federal government provides $200 million for restoration of the shrinking Salton Sea.

Imperial holds senior rights to the single biggest allocation of river water on the entire length of the Colorado River.

The Salton Sea, which is sustained largely by irrigation drainage from croplands in the Imperial and Coachella valleys, has declined as Imperial and other farm districts have taken land out of production to sell water to MWD and San Diego.

As the shoreline recedes, lake bed contaminated with agricultural chemicals and other pollutants has turned to dust, fouling the air.

California will not be required to take less from Lake Mead until its water level falls to an elevation of 1,045 feet above sea level. This year's wet winter has pushed that further into the future, with federal water managers projecting Mead's Jan. 1 elevation at 1,084 feet.

The snowpack in the upper river basin is 130% of average. Spring and early summer river flows into Lake Powell, which releases supplies to Mead, are expected to run at 128% of average.

California Dispute Threatens Drought Contingency Plan To Protect Colorado River

By Associated Press
April 18, 2019
https://kjzz.org/content/888991/california-dispute-threatens-drought-contingency-plan-protect-colorado-river

Even Fox News Gets It Right Once In Awhile-- Build

Infrastructure

Tom Basile: Infrastructure, not immigration, is key to Trump's legacy

By Tom Basile | Fox News

April 14, 2019

https://www.foxnews.com/opinion/tom-basile-infrastructure-not-immigration-is-key-to-trumps-legacy

The situation at the southern border is a made-for-television issue. It's politically polarizing and complex. It's a human drama unfolding every day. President Trump is right to sound the alarm about destitute migrants illegally crossing the border only, for many, to be permanently ensnared by our taxpayer-funded social welfare complex.

However, the key to the president's re-election and his greatest potential for a lasting legacy isn't a border wall or immigration reform. It is embracing a bold plan to deal with another real threat to America's long-term economic vitality – our infrastructure crisis..

America's infrastructure, once a symbol of our economic dominance and national resiliency, is crumbling. The great bridges, dams, airports, tunnels and roads of America were each longer, higher and more advanced than the next. They were once icons of American innovation. Americans were proud of these concrete and steel veins and arteries that connected us. They were the envy of the world.

Our infrastructure was overbuilt and overengineered, anticipating the nation's growth and expansion. It was built to enhance our national security and personal safety.

When President Eisenhower commissioned the interstate highway system in the 1950s, he put hundreds of thousands of Americans to work for four decades building nearly 50,000 miles of roads. The system expanded the average Americans' reach across the country. The Hoover Dam was built in anticipation of massive growth in population and electricity needs.

The tunnels under the Hudson River are a vital artery for Amtrak's Northeast Corridor, which serves more than 800,000 people per day. They are nearly a century old and the proposed Gateway Project to replace them and enhance rail infrastructure will cost more than $20 billion.

According to the U.S. Chamber of Commerce, more than 60,000 bridges are considered structurally deficient nationwide. One out of every five miles of road across the nation is in need of repair. A 2017 report of the American Society of Civil Engineers estimates that roads will need a $2 trillion in investment over the next decade. The organization gave the United States a D+ rating in 2017 for the state of our infrastructure.

Even Some Speculators Now Realize That Glass-Steagall Protects Us All

The Bankers Vig & The Price We Pay: The Economic Cost of Repealing Glass-Steagall (excerpts)

Authored by Michael Lebowitz via RealInvestmentAdvice.com,

04/17/2019
https://www.zerohedge.com/news/2019-04-17/bankers-vig-price-we-pay-economic-cost-repealing-glass-steagall?fbclid=IwAR02A-AsiqtTwp4OB1i2B30TCz916LyZVKCFQU2nT_T5s1oxbqlyJt1cRRs

Regulation is a form of interventionism representing a direct or indirect tax on the economy. More often than not, regulations are sand in the gears of the economic engine with few redeemable benefits and a multitude of unintended consequences. However, sometimes regulation is well worth its cost as it provides benefits that outweigh the economic tax and the burden put on others.

The Glass-Steagall Act of 1933 was one such example. While the act narrowed the lines of business in which banks could participate, it protected the banks and, more importantly, the nation's populace from economic depression. Many factors have weighed heavily on the economy in recent years, and in our opinion, the repeal of Glass-Steagall is one of them. Its repeal in 1999 provides a clear breakpoint in the history of financial institutions and the activities this regulation once restricted.

The Glass-Steagall Act of 1933 was enacted to combat over-reaching banking activities that led to financial instabilities and fueled the Great Depression. The act's primary purpose was to prevent another banking collapse like the one that was crippling banks and leaving depositors penniless at the time. The legislation's main thrust was to separate traditional banking activities from trading and investing practices. From 1933 until its repeal in 1999, banks taking deposits were prohibited from trading and underwriting in non-government and non-investment grade securities. The act did not prevent financial crises from occurring, but it certainly prevented a crisis anywhere near the magnitude of the Great Depression.

In 1999, Congress passed the Gramm-Leach-Bliley Act (also comically known as the Financial Services Modernization Act of 1999) which repealed Glass-Steagall. The repeal, heavily lobbied for by the banking sector, was promoted to the public as a means to unleash bankers' ability to provide more capital and liquidity to spur economic activity. Less than ten years after the Gramm-Leach-Bliley Act was signed, financial institutions imploded to a degree not seen since the Great Depression. Without the lifeline of massive tax-payer funded bailouts, unprecedented monetary policy, and questionable accounting standards changes, the financial carnage from the crisis of 2008 might have equaled or even surpassed that of the Great Depression.

When banks take a bigger share of the economic pie, labor, investment activity, corporations and shareholders suffer. ***The removal of Glass-Steagall has resulted in a large shift of capital from those that consume and innovate to the financial intermediaries or the economic bookies.*** **(emphasis in original)**

China Has Adopted the American System

While the spectacular development of infrastructure in China is unmatched anywhere in the world today, how China has done that is no different from how the United States developed to be once the most advanced nation in the world in industry, infrastructure, science and space. As one commentator put it, until about 1970 the U.S. "overbuilt" its infrastructure-- that is we built not just what we needed today, but what we would need 50 years into the future.

The following article should be an eye-opener for all:

China isn't cheating at trade. It's just running America's old plays. (excerpts)

Jeff Spross
April 12, 2019
https://theweek.com/articles/834610/china-isnt-cheating-trade-just-running-americas-old-plays?fbclid=IwAR23vzCqX-E6YUY64GxxsHpttBjMbLgkcKm9lb4gq-E1YOBSQp6x_AS2UIA

Ask American politicians why we're in a trade war with China, and they'll probably tell you it's

because China cheats: They use tariffs, technology transfer, and other policies to gain an unfair advantage in global competition.

But ask Chinese officials, and they'll probably say they're doing what's necessary to develop economically. As big as China's economy is, its economic output per person is still quite low. The Chinese might tell you America isn't demanding they stop cheating; rather, it's demanding rules that guarantee China can never develop.

And frankly, they'd probably be right.

Now, the global free trade order — which is enforced by a web of institutions like the World Bank, the International Monetary Fund, and the World Trade Organization, with the U.S. and a few other Western governments backing them up — has imposed a relatively coherent set of rules on countries over the last few decades. Those rules not only emphasize the free movement of goods and trade across borders, but of capital and finance as well. The rules try to minimize public subsidies and direct industrial policy, while promoting balanced government budgets and tight money — all of which ensure that economic development is directed overwhelmingly by private investors. China really does flout those rules. And you could understand why other countries that follow the rules, even at significant cost to themselves, would get very annoyed.

But there's also this: Neither America nor Britain nor the other major Western powers became rich by following these rules themselves. Indeed, China's current strategy is basically a mishmash of what Western countries did from the early 1800s through the end of World War II. "Between 1816 and the end of the Second World War, the U.S. had one of the highest average tariff rates on manufacturing imports in the world," the economist Ha-Joon Chang noted in 2003. Add in the inherent costs of oceanic trade, and "we can say that the U.S. industries were literally the most protected in the world until 1945." It was none other than Alexander Hamilton who made the case for protectionism and direct industrial policy, to lift a young America's living standards.

Over its history, the U.S. has used subsidies and industrial policy to support everything from agriculture to transportation to health research. Once it gained its freedom from Britain, America was absolutely shameless about snatching technology and intellectual property from its former colonial master. British entrepreneurs and inventors were paid to resettle in the States, bringing their ideas with them; Americans copied British plans and industrial designs under cover of diplomatic tours; occasionally, America rewarded people for outright stealing tech from Britain.

By comparison, China's "forced" technology transfer is pretty tame: It's simply a condition placed on any foreign investor who voluntarily decides to do business in China's domestic market.

There's a similar story with different variations for France, Germany, Sweden, and others. In 1885, the German economist Friedrich List acerbically noted that great powers tended to grow their own industries through protectionism, until they were big enough to be basically invulnerable in the global market. Then the they "kicked away the ladder" by converting to free trade policies, and demanding others do the same. That phrase provided the title for Ha-Joon Chang's article. (And later a book.) It also raises the final question: Under the modern free trade regime, is development for poorer countries even possible?

Yet the fact remains that global free trade is a game that's largely rigged against China and the rest of the developing world. For all his bluster, Trump's trade war looks destined to preserve that game as is. And you can hardly blame China for refusing to play a game it can't win.

Feature

Not All Children Have Joined the Hysterical Children's Crusade

Recent weeks has seen the manipulation of hundreds of thousands of children, mostly in Europe and the U.S. leaving school and demonstrating to stop climate change. With signs and slogans announcing the end of the world if climate change is not stopped now, these children, some as young as eight years old, knowing virtually nothing of the science of climate, or much else, have been manipulated to fear the future by the usual think tanks and environmental organizations, and encouraged to strike and march by political leaders.

At least one 12-year old, though, has demonstrated the optimism about the future that all children, if not abused and manipulated, should also have that optimism.

Following the article on the 12-year-old scientist, we have an article on an earlier "children's crusade," also built on hysteria, but this one resulted in the death of thousands of those children. Excerpts of the article is all we have space for here.

This 12-year-old built a nuclear reactor at home using equipment he found on eBay

Jessica Dawid and Ruqayyah Moynihan,
Business Insider Deutschland
https://www.businessinsider.com/12-year-old-builds-nuclear-reactor-at-home-with-equipment-from-ebay-2019-4

- *Jackson Oswalt, now 14 years old, managed to build a nuclear fusion reactor in his parents' garage around two years ago.*
- *The teen built the device using online videos and pieces of equipment he'd bought on eBay.*
- *Oswalt may also be given a letter of recommendation from his school for a scholarship.*

Having a go on your PlayStation, going to the cinema with your friends, playing outdoors — that's how the spare time of most 12-year-old children looks.

That's not how it is for Jackson Oswalt though. Two years ago, the now 14-year-old achieved something even some of the most renowned scientists have been unable to: he carried out nuclear fusion, in his parent's garage in Texarkana, Ark.

"One day I had a sudden epiphany," wrote the teen on amateur physicist forum, Fusor. "I realized that I could be the absolute best at whatever video game, but in the end it still wouldn't mean much. I realized that, in the grand scheme of things, video games had no role to play."

It was at this point that he decided to dedicate himself to science and to pursue a new hobby — nuclear fusion.

Jackson Oswalt built a nuclear reactor in his room

While other children want a bicycle or a game console for their birthday or Christmas, Oswalt ordered the parts he needed for a nuclear reactor from eBay.

Instead of watching videos of gamers, Oswalt would watch physics videos — his parents agreed to give him financial support if he promised to first check through expert guidelines on a forum and to pay attention to their tips and advice.

They spent somewhere between $8,000 and $10,000 collecting the parts he needed to build his nuclear reactor, and also footed a bill for 50,000 volts and radioactive radiation.

Using Open Source Fusor Research Consortium— an online forum for amateur physicists — Oswalt relied on trial and error to ensure he was taking the appropriate measures to build a reactor and successfully carry out fusion reactions.

What Are the Children Telling Us? (excerpts)

by Robert Ingraham

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https://larouchepub.com/eiw/public/unlisted/2019/eirv46n14-20190412/olp875_wq312/4614-what_are_the_children_telling.html?utm_source=sendinblue&utm_campaign=EIR__April_12&utm_medium=email

April 6—On March 30, 2019, the Swedish 16-year-old, Greta Thunberg, was honored with a "Special Climate Protection Award" at the Golden Camera ceremony in Germany. Thunberg, who the day before had led a 10,000-person demonstration in front of the Brandenburg Gate, received the award to a standing ovation, amidst the gushing adulation showered on her by the assembled movie and television stars, paparazzi, authors, academics, activists and politicians.

The occasion for the award was Thunberg's leading role in catalyzing the March 15th world-wide "School Strike for Climate" demonstrations which took place in more than 100 nations, with at least 1.4 million—primarily very young—students participating, all around the demand for strict adherence to the proposals of the Intergovernmental Panel on Climate Change (IPCC) for reducing global carbon emissions, dismantling industry, and eliminating key components of the modern economy.

Like her only marginally less delusional U.S. counterpart, Alexandria Ocasio-Cortez, the "eco-warrior" Thunberg has routinely engaged in "end-times" prophecies. In speeches, letters and proclamations, she has declared again and again that there are only eleven years remaining to "save the planet" from the destruction wrought by human beings, and on January 23 of this year she predicted:

The date is January 23, 2031. The world has just ended. No humans are left on the planet once known as "Earth."

Innocent and the 'Innocents'

At this juncture, let us look back at another era, when a similar fever of hysteria gripped a generation of the very young.

In 1198, Innocent III was elected Pope. Historians have dubbed him the "great crusading Pope." Not only did he organize the Fourth Crusade, he also called into existence numerous bloody "crusades" in Europe itself, including the infamous Albigensian Crusade in France, as well crusades in Spain and the Baltic region.

A graduate of the Bologna School of Jurisprudence, where the curriculum centered on the teaching of bestial Roman Law, Pope Innocent's writings unveil a soul tormented by a profound pessimism. His premier work is De Miseria Conditionis Humanae (On the Wretchedness of the Human Condition). It is divided into three parts: first, the wretchedness of the human body; second, man's futile ambitions; third, the decay of the human corpse, the anguish of the damned in hell and the Day of Judgment.

Shortly after his investiture, in 1198, Innocent issued his first "crusading letter," sending it to all the archbishops of the West. He directed the call to arms not only to kings and emperors, but to counts and barons and even to cities. For the next 18 years, Innocent's proclamations kept up a drumbeat for the urgent demand that Europe take up arms to defend Christianity. The issue of the Crusades—as a holy mission—permeated all of European culture throughout those decades. Doom and destruction were predicted if the people of Europe failed to act. Processions, special masses, sermons and other interventions were carried out non-stop in thousands of towns and villages to energize the "crusading spirit." As one historian puts it:

There had long existed an ancient custom of the Church, observed on St. Mark's day, April 25th, called the "Litania Major," or Greater Litany. It was a processional litany, instituted centuries before by Gregory the Great, during the ravages of the plague, but generally still maintained in Latin Christendom. On this day the altars were shrouded in black, and priests and people went through the streets of towns and cities, chanting prayers and carrying crosses likewise draped. From this last feature, the day was popularly called the "Black Crosses." At the time of which we are speaking, this ceremony was adapted to commemorate the sufferings of those who had died in the defense of the Holy Land, and to implore mercy in behalf of the Christians now beleaguered there, as well as of the many others that were pining in slavery. We can well imagine that such an observance, accompanied by stirring sermons and vivid threats and promises, would have excited the people, especially the young, who had neither the experience nor the judgment requisite to discern the hopelessness of the Crusades, and the delusiveness of such appeals.

The Crusade Begins

In the spring of 1212, a twelve-year-old boy named Stephen, from the village of Cloyes in France, began preaching in the village and surrounding areas, declaiming that he had been selected by God to lead a Crusade of Children to rescue the Holy Land. He traveled to the Shrine of St. Denys in Paris. There, the shrine was turned over for his exclusive use, and thousands, mostly children, came to hear him. Many of them returned to their villages and their message soon became a contagion. According to contemporary reports, perhaps more than half of these recruits were young girls.

Some of these acolytes traveled as far as Burgundy and Champagne. A second point of origin for the crusade was Cologne. Here, a ten-year-old boy named Nicholas began to preach and recruit. He too claimed to have received a command from God. As in France, Nicholas quickly recruited thousands of adherents, and some of his followers, known as "minor prophets," traveled to other regions, and their fervor, and the message of their holy mission, enticed many more to join.

By the end of June, Nicholas was prepared to set off on the Crusade, but a disagreement arose as to the route, and his "army" split into two groups. Nevertheless, in early July, Nicholas and those who chose to follow him, numbering at least 20,000, departed for the Holy Land.[fn_2] They traveled southward along the Rhine, their numbers stretched out for several miles along the road.

Many wore makeshift uniforms and special hats. They carried banners and crosses, proclaiming their mission. They sang as they marched, mostly hymns to Jesus and Mary. They possessed no weapons, because they believed that the Muslims would lay down their arms at the sight of them. At each new village, their entrance created great commotion, and they won new recruits from the astonished and enraptured children. Their message was simple: God had chosen the children to save Europe and rescue the Holy Sepulcher.

Soon, however, reality intervened. They reached the Alps, and many perished in the crossing, from accidents, hunger, and disease. In Italy they were set upon by roving bands who kidnapped large numbers of them and stole many of their possessions. They were at the mercy of any who saw fit to molest them. Yet, they continued.

On August 25th, they arrived at the gates of Genoa. According to contemporary reports, no more than 7,000 remained of the 20,000 who had left Cologne. They were granted permission to enter the city and marched to the seashore, having been promised that the sea would part, giving them a land route to march to Jerusalem. When this failed to happen, the band began to disintegrate. Some decided to remain in Genoa; others resolved to return home, almost all of whom perished or disappeared along the way. The small number that remained with the "army" marched on to Pisa. There, some obtained sea passage. It is reported that two shiploads of children set sail for the Holy Land. There is no record of them arriving; no one knows what happened to them.