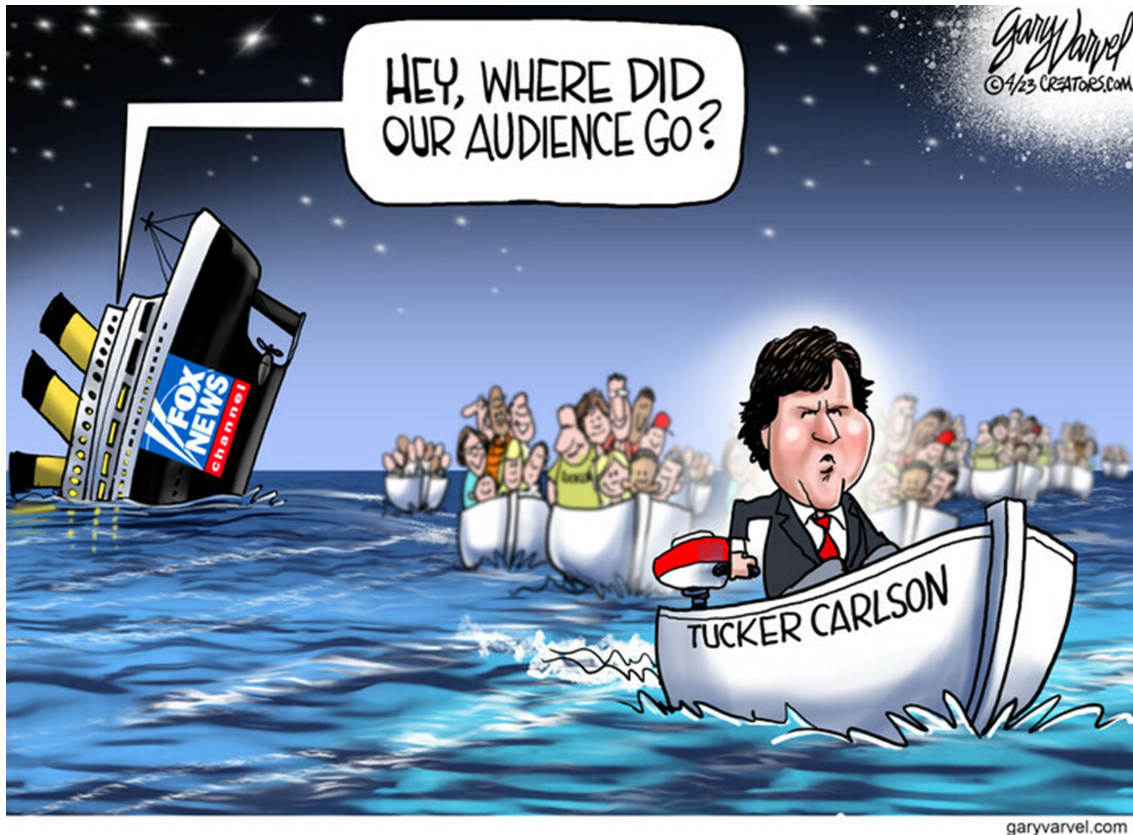


HALF-FULL REPORT 04/28/23

<https://www.2thepointnews.com/half-full-report-042823/>



Shifting

**Fortunes
Lithium in the West
Sudan Erupts in the East**

Energy



The socialist president of Chile,

Gabriel Boric, announced last week that his government is nationalizing the country's lithium industry. Many in the media declared the news shocking, but hey, socialists will do what socialists always do.

He justifies the transition to a sustainable economy and the global South's future leadership role.

Chile owns 40% of the world's proven lithium reserves, equal to the percent of global proven copper reserves under Chilean control. Under the plan, the lithium industry will be put under Codelco, the national mining company that runs the Chilean copper industry.

Chilean proven reserves are the largest in the world but rank lower than Bolivia and Australia, using less technical measures such as lithium resources that might not be recoverable. Combined with Argentina and Bolivia, Chile is part of the Lithium Triangle of massive high-altitude salt flats visible from space.

These salt flats are coveted assets as they are crucial to producing electric vehicle batteries outside China. Or at least they were, as Bolivia awarded lithium production and battery manufacturing contracts to two Chinese firms, giving China a significant foothold in South American lithium.

Nationalization is likely the first step toward awarding similar processing contracts to China.

I have first-hand experience with Codelco and was deeply involved in designing and building a sulfuric acid recovery plant at the El Teniente Mines and its copper smelter in Chile. I found the mines and smelting operations to be of a size and scale unmatched elsewhere in the world. They genuinely believe in scale economics. Workers are disciplined, robust, and dedicated as they combine their high wages with a sense of patriotism. However, the tendency towards massive operations makes improvement difficult as the economic penalty for interrupting operations is considerable.

Plants are managed with an eye to political realities, and a form of political commissar often attends company meetings. One such truth is that pollution control is not an issue with nationalized industries.

The worst pollution damage I have ever observed directly, with my own eyes, was in Chile, extending across South America to the Amazon. Copper is extracted from the ore by reacting it with sulfur and then removing the sulfur from precipitated copper sulfate in a smelter. The sulfur is vented to the atmosphere in huge volumes, forming a sulfuric acid mist that kills everything downwind.

For decades, deforestation in the Amazon was blamed on everything from farmers to McDonald's Corporation. In reality, these plumes of death extend from the nationalized copper processing facilities that are always, somehow, off limits for discussion. The same socialist government that gets away with this will mine and process the lithium. They will use oil and possibly coal to drive the machinery.

Unlike Bolivia, Chile has a shortage of natural gas and relies on light oil to power heavy industry. Only one pass through the Andes is suitable for building a large natural gas pipeline, and its ownership has been in dispute since the 1879 War of the Pacific fought over Chilean nitrates. Chile has a navy but the American Navy generally guarantees Chile's import and export traffic as part of the USA's policy of freedom of the seas.

A case can be made for China's new aircraft carriers to protect the raw material pipeline from South America and Africa. I expect lithium production from South America to switch into high gear but not to be exceptionally efficient from a labor and production input perspective. Nationalized operations push economies of scale past the point where diseconomies of scale emerge.

Other Chinese development projects I have worked with in Venezuela and Brazil include machinery that is often an exact copy of American or European designs. One such brand-new plant in Venezuela included iron

castings that carried the AC markings of the old Allis Chalmers Corporation. The Chinese copied the equipment in an iron foundry.

Nationalization means that Chile's decision will substantially increase the global lithium supply and create a price floor based on the inefficiencies of its economic system.

The financial door to the economic development of lithium brines in Alberta and elsewhere in Canada might have just opened. Extracting Canadian lithium requires different technology, including high-capacity wells and the concurrent development of carbonate-bearing minerals that react and precipitate lithium from the brines. Although the brine technology is used daily to make milk of magnesia which is later converted to magnesium metal, the sister process with lithium is still just at the pilot plant scale.

The bottom line: Lithium production in North America and Australia will likely be competitive with South America. That is, if the process can be scaled up correctly, and the Canadian government does not also nationalize its lithium.

A competitive process in the Northern Hemisphere poses a big problem to the WEF and the plan to replace industry based on iron and steel, abundant in the North, with aluminum, copper, and lithium, which are in excellent supply in the South.

Americans, Canadians, Australians, and Europeans are very good at making things from steel, concrete, and plastics. We are OK, but not great with aluminum because the richest deposits are in Latin America, Cuba, and Jamaica. Is it a coincidence that the WEF demonizes steel, concrete, and plastics (oil), precisely the materials at the base of the free economies?

One can argue that the tech industry and chips form another economic pillar but not a permanent advantage, as geography does not determine silicon chip production. The move to aluminum vehicles with lots of copper, lithium, and rare materials such as neodymium represents an organized effort to replace Northern Hemisphere private enterprise with Southern Hemisphere state-owned production. Chile is as much an example of state production as Saudi Arabia, China, and Nigeria.

TTP re-ran one of Dr. Jack Wheeler's articles discussing the global warming religion and original sin against Mother Earth last week. *Global Warming and Original Sin*. It seems that free-market economies can only commit sins against Gaia.

In any event, electric propulsion makes the most sense when part of a hybrid vehicle, with the electric motor playing the role of a waste energy recovery system, like the turbocharger in a conventional car.

Charge! Will Mean Something Else in the Woke Army

Department of Energy Secretary Jennifer Granholm proposes replacing all military vehicles powered by diesel fuel with electric vehicles by 2030. She discussed her plans in Wednesday's Armed Service Committee meeting during questioning by Sen. Jodi Ernst, R Iowa.



John Rich 
@johnrich



Yes Joe. let's make the entire military fleet

action, preparing the battle space will soon involve stringing power lines and installing plenty of charging stations across the contested territory. What could go wrong?

The woke military already has 640 environmental justice commissars leading towards immobility in support of Biden's executive order this week requiring embedded Democrat Party operatives within all levels of Executive Departments in the name of *Environmental Justice*.

Perhaps this plan has been in the works for a while. It looks like justification for abandoning \$80 Billion worth of equipment in Afghanistan.

Shifting the military mission from warfighting to social justice while shifting from rugged steel vehicles powered with domestically produced diesel fuel to lithium sourced from socialist nations aligned with China in three years might be more challenging than the Administration believes.

First, our enemies must make less lethal weapons, as aluminum vehicles facing Russian artillery would lead to a social justice problem. Ms. Ganholm and General Milley should get on the phone with Putin now and demand softer weapons.

Then we need to start designing all these new weapons and vehicles. Three years means there is no time to waste. One way will be to immediately require all university students to switch majors to science and engineering. It is unfair for some to master calculus and physical chemistry while others might have problems. So in the name of social justice, everyone graduates at the top of the class. Handing out all "A's" solves the competency problem.

Next, the vehicles and the factories to build them, the plants to make the aluminum, the raw material supplies, the electrical grid to turn the machinery, and the environmental permits will all need to be designed and produced.

If we learned anything from Covid, science is something to be believed in, not tested. So it is now efficient to go from concept to finished product in one step. No testing or research is required. Just ask AI to figure it out!

If we can't build all of Ganholm's icky factories because they might impact a person of color, we can undoubtedly outsource re-equipping our entire military to China. They won't even look at the plans, they promise!

Who on the entire planet is more qualified to decide the armed forces' future other than Sec. Granholm? After all, she has that smooth NPR voice that means she can do anything.

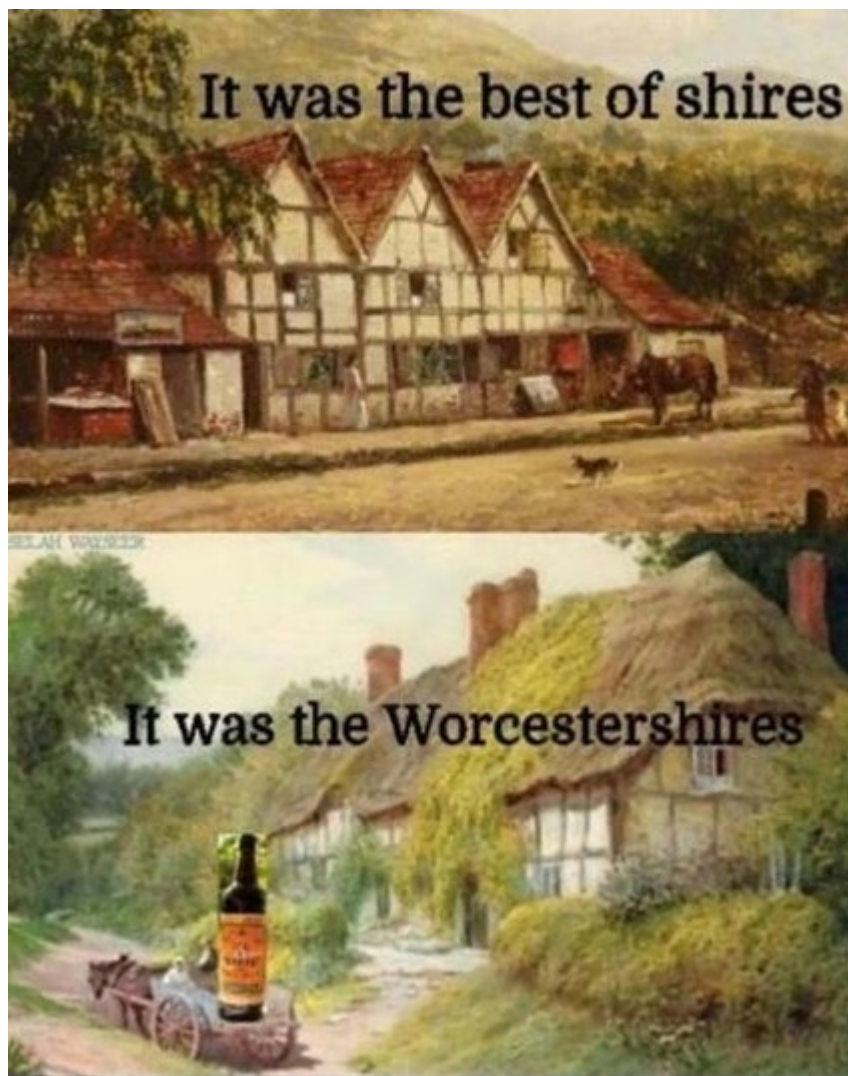
The real danger is not the Sec of Energy's stupidity nor General Milley's woke cowardice. The real threat is the plan to embed thousands of Democrat party operatives into every office and meeting within the Executive.

It happened, and billions of dollars were allocated to fund environmental justice operatives. The diversity officers were just the beginning.

AI and the Gods of Olympus

The current debate in universities is whether students can access AI from their phones during exams. Taking a picture of the exam question, uploading it, and copying the answer saves the student a lot of time while ensuring

perfect results for the instructor.



It seems to be baked into the cake that the

university experience devolves into social events, conversations with various AI tools, and tuition bills. This thinking appears to be at the root of the government's notion that vehicles, aircraft, and ships can be redesigned and replaced in 6 1/2 years.

Ms. Ganholm is shilling for General Motors, which committed to replacing its entire production run of gasoline and diesel vehicles by 2035. GM cannot make it happen, and everybody knows this. Even with unlimited access to the treasury, GM cannot produce reliable electric vehicles at scale. No company can, nor can any government.

The bubble will eventually burst, and scapegoats will be slaughtered.

But what shall be done with universities full of students no longer committed to developing critical thinking skills or developing expertise?

The federal debt to GDP ratio is nearly 1:1, which has not occurred since WWII. The numbers reflect the true nature of national productivity. America is not productive enough to cover the debt, and conditions are worsening.

There will be a moment, a Minsky Moment, as described in yesterday's [Skye's Links Here](#), when people realize that the jig is up. Fortunes will be lost, careers will be ruined, and real estate will be repossessed. But it might become the best of times for those who put in the effort to develop critical thinking skills and the courage to

stand against the crowd.

We experienced the best from our communities and the worst from our communities through Covid.

Nobody regrets not taking the Covid jabs, while millions who trusted in propaganda now curse the government for their weakened health. Substituting the smoke and mirrors of AI software tools for developing critical thinking skills is dooming much of the university-educated class to irrelevancy.

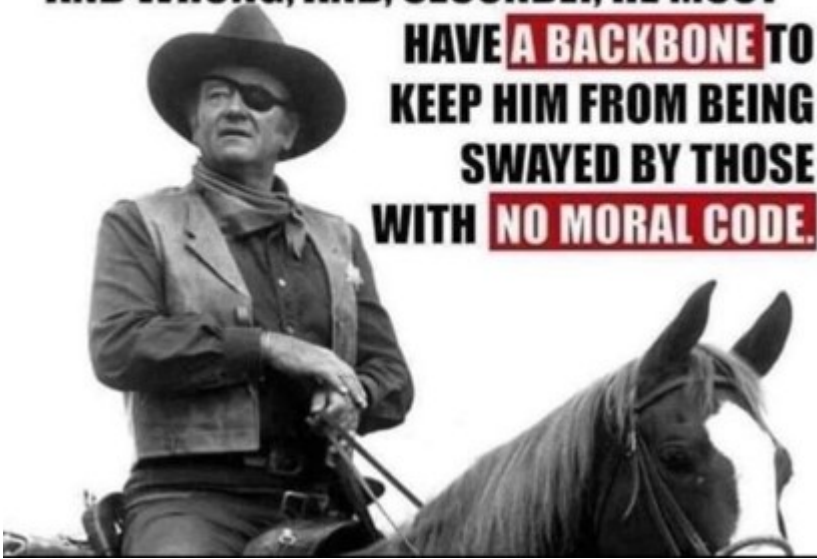
That is the bad part. The good part is that the productivity and worth of individuals who persist in developing their minds and skills will increase.

We Have Been Here Before

Seven million American men between 25-54 have punched out of the workforce, with thousands more walking off the job each month. Their absence is not counted in labor productivity figures because they no longer seek work. The rate of employed men vs. the general population has not been this low since 1939. Studies have been commissioned by many to figure out what is going on.

Several findings have emerged. Firstly, the seven million represent those with less education. While many have drug problems, and 1/8th have felonies on their records, the drugs, and arrests do not account for the trend when proper statistical methods are used.

**EVERY MAN NEEDS TWO THINGS
TO LIVE A SUCCESSFUL LIFE.
FIRST, HE NEEDS A MORAL CODE OF RIGHT
AND WRONG; AND, SECONDLY, HE MUST
HAVE A BACKBONE TO
KEEP HIM FROM BEING
SWAYED BY THOSE
WITH NO MORAL CODE.**



Many, perhaps most, receive disability and other

transfer payments. Each state has a different tier to authorize benefits. My state fast-tracks individuals claiming to be suicidal. Checking the “thinks about killing myself” box on the standard form is the golden ticket.

Labor demand is not the issue. The 18% decline in factory employment in China before 2010 no longer affects the labor market. Demand has grown enough to overcome this. Racial quotas have a measurable effect, but it is more of a problem for employers that compete against each other for the small numbers of highly qualified minorities.

Many punched-out men either do not have families, have kids raised by single moms, or live with a partner holding a job with full benefits. Their life purpose is to be cool; it is easier to be cool online than in the real world.

The studies are starting to identify some common denominators. The non-workers spend over 2,000 hours per year in front of a screen. Much time is spent scrolling, and porn is a huge factor. But the most significant use of time is creating and maintaining inauthentic personal narratives.

The Boston Federal Reserve has studied the labor problem. It concludes that the subjective feelings of less educated men relative to their peers – the envy of the more prosperous – drive escapism into online fantasy worlds.

These men own little, contribute little, and are happy.

What aligns them with modern university students in their early belief that group membership in a labor union was the ticket to success rather than personal investment in productivity. The failing men never landed those union jobs and were consequently paid market rates. The modern university student trusts in the woke culture membership to generate income and might substitute computer browsing for critical thinking development.

Soon enough, a vast population of tuned-out college-educated “quiet quitters” will lack sufficient productivity to hold back their envy relative to peers. What an opportunity for those who are productive! The money and government might fail, but it looks good for those who avoid the envy trap.

Over There

Russia lost a Mig 31 near Murmansk this week from

an engine fire. It possibly threw a turbine blade, sealing the plane’s fate. Russia cannot presently build turbine engines and relied upon Ukraine to produce engines during the cold war. Not many countries can make quality jet engines, as modern machines rely on exotic metals and advanced techniques. Critical spares are either drying up or have been exhausted, with Russian allies attempting to fill the gap.

Russia is running out of citizens trained and educated during the USSR days and is becoming a repair and make-do country in the physical world. They are still very competitive in the cyber world, for now. However, the problem plaguing seven million poorly educated American men and insufficiently skilled university graduates is overtaking Russia.

Russian stuff is breaking down. Even if spare parts suddenly become available, Russia is losing its skilled men in Ukraine. We are watching a technological culture die.

Extrapolating Russia’s skill gap in 2023 to a future United States, those entering the trades should experience strong tailwinds. It won’t be long before the twin pillars of diversity and environmental justice make conditions unacceptable for minorities to perform hot and dirty work. The auto industry has demonstrated that robots are not the answer.



assassination attempt against Putin this past weekend. A UJ-22, about the size of a half-scale Cessna or Piper Cub, flew from Ukraine to Moscow with 17 Kg of C-4 explosives. It targeted a new industrial site that Putin was to visit. The drone has several navigation systems, including GPS and inertial navigation, immune from jamming.

It crashed due to a technical failure and not due to Russian air defenses. Perhaps it operated via GPS or remote control, and the signal was blocked. Ukraine denies this.

Regardless of the cause, a new dimension in warfare is open and active. The USA has been droning enemies of the state for about two decades. Hunting foreign heads of state is something new. Every think tank in the world asks itself whether Russia would cease hostilities should Putin be killed.

This was at least the third drone attempt against Putin; each has been closer than the one before. This drone crashed a few miles away from the target.

This past Sunday, Taiwan began jamming GPS satellite signals over Taiwan without explanation.

Sudan

It looks like a whole civil war is

underway in Sudan. This week marks the third of fighting between two generals for Khartoum, the capital. The Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF) under General Mohamed Hamden Dagalo are hammer and tong at it.

Most countries have evacuated their citizens by land to Ethiopia or by air. However, the United States has abandoned its citizens after pulling out embassy staff. Even CNN is criticizing Biden.

China has dispatched the PLA Navy while the American Navy is anchored in nearby Djibouti.

It appears that the State Department or the military cannot evacuate Americans without White House authorization, even though other countries report mild resistance. Two Americans have been killed so far.

Biden likely prefers to let 16,000 Americans be captured, killed, ransomed, and tortured rather than allow media images to remind voters of his surrender in Afghanistan. If a secret mission is in the works, it must be very private.

The WHO and the US State Department appear to be collaborating to keep Western media out of Sudan by releasing the now obligatory biowarfare lab scare story. It is abundantly clear that the double mask-wearing, triple-jabbed journalism corps are terrified of viruses. The very mention of germs, in a world teeming with germs, is enough to prevent the journo types from doing their jobs.

Media manipulation is that easy.

What is going on? It is hard to say, but whatever the truth, Russia's attempt to build a naval base on Sudan's Red Sea coast, within striking distance of Syria and capable of blockading the Suez Canal, is likely central to events.

Tucker

A lot has been written about Tucker

Carlson's departure from Fox. In many slots, Fox News is down by about half its viewers. From the perspective

of BlackRock, a substantial owner of Fox News stock and an alleged deep financier of the private equity firm, Staple Management, that owns Dominion Voting Systems, the defamation lawsuit against Fox resulted in an accounting entry. Dominion's ownership is actually hidden behind the private equity wall, and has never been fully disclosed in public.

The settlement might have been reversed by now as BlackRock preferred the nearly one-billion-dollar settlement rather than allow the matter to go to trial and establish that Dominion did indeed steal the election.

With the same fund likely owning both plaintiff and defendant, the legal fees were saved, Tucker was fired, and the election still avoids court discovery.

The good news is excellent. Tucker Carlson is pulling phenomenally well on Twitter, and his presence could turn Elon Musk's investment into a solid financial gain. Others sacked by Fox News for politically inappropriate comments during election seasons include Lou Dobbs, Bill O'Reilly, Dan Bongino, Laura Logan, Greta Van Susteren, Jedediah Bilah, and Kimberly Guilfoyle. If Musk can pull them together on Twitter, then cabal news as we know it will be destroyed.

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