

## **Editor's Notes: Make China Pay for Pulling the Rare Earth Card**

Stew Magnuson

August 27, 2019

In May 2014, then-Russian Deputy Prime Minister Dmitry Rogozin threatened to cut off the supply of Russian-made RD-180 rocket engines to the United States as the two great powers tussled diplomatically about the invasion of Ukraine.

"Wait! What?" said hundreds of members of Congress. "We depend on Russia for national security launch rocket engines?"

Most of them didn't have a clue, but they readily approved funding for the U.S. industrial base to develop its own rockets, which eventually will mean a loss of jobs and trade for Russia.

Five years later, as the United States and China engage in a bruising trade war, the Association of China Rare Earth Industry — a consortium of six state-owned companies — said in an Aug. 5 statement that "U.S. consumers must shoulder the costs from U.S.-imposed tariffs," according to the South China Morning Post.

And there it is: finally someone in China foolish enough to pull out the nation's rare earth monopoly card. Hopefully with this wake-up call, Congress will make China find out the hard way what Rogozin learned in 2014.

The nation needs to take action to end China's monopoly on these critical elements that are necessary for everything from smartphones to critical weapon systems such as the F-35, along with just about everything Pentagon officials have called the weapons of the future: hypersonics, directed energy and robotics. None of them will work without rare earth elements.

A few weeks before the threat was delivered, proponents lobbying for the rebirth of the U.S. rare earth industry gathered on Capitol Hill to make their case to congressional staffers in a panel titled, "China's Rare Earth Monopoly: And Why it Has Not Been Solved."

Here is the crux of what they said, and what has been spelled out in black and white in numerous studies including last year's Defense Department report: "Assessing and Strengthening the Manufacturing and Defense Industrial Base and Supply Chain Resiliency of the United States."

First, China 25 years ago set out to create a monopoly on rare earth elements knowing that they would be crucial in the production of modern electronics. Except for about 10 percent of the world's supply produced in Japan, it has largely accomplished that goal. It controls mines and, most importantly, the means of refinement and production.

That second part is crucial. The United States has rare earth elements in abundance. But anything it digs up now has to be sent to China for refinement. "Rare earth elements" is a misnomer. They aren't that "rare" and can be found in the leavings of other minerals already being mined in the United States such as copper.

"America is blessed beyond belief with mineral resources — more than any other country in the world," Cato Institute Senior Geoscientist Ned Mamula, said at the panel.

Back in 1980, the U.S. government in an effort to keep tabs of thorium — a crucial element in the manufacture of nuclear fuel — passed stringent regulations on how it should be handled during mining. Heavy rare earths come from thorium-bearing byproducts of commodities such as iron ore, titanium, zircon and rock phosphate. Mining companies decided to bury these byproducts rather than risk liability, thus inadvertently killing off the U.S. rare earth industry at the dawn of a new technological age. (See James Kennedy's article in the March 2019 issue of National Defense.)

Since then, Congress has made feeble attempts to remedy the situation. A little money has gone into finding substitutes for these elements, but to no avail. Unpassed legislation attempted to revive the mining industry through deregulation, but as the rare earth consultant Kennedy said during the panel, this is not a mining problem. It's an economic problem. China holds all the cards and if a private-sector company challenges its monopoly, the state-owned companies can simply lower the price of the element until the upstart firm can no longer make a profit and it's run out of business.

Fortunately, there is legislation written and ready to be voted on as soon as Congress returns from its summer break and collectively decides it is time to take down the Chinese monopoly.

Sen. Marco Rubio, R-Fla., in July introduced the RE-Coop 21st Century Manufacturing Act, which would "establish a privately funded, operated and managed rare earth refinery cooperative responsible for coordinating the establishment of a fully integrated domestic rare earth value chain to serve U.S. national security interests and restore American competitiveness of critical advanced manufacturing industries," a statement from the senator's office said. A House version is expected soon. That all follows an Aug. 3 White House Executive Order on Critical Minerals, which will seek to create a strategy to end U.S. reliance on foreign sources of all strategically important minerals, not just rare earths.

Proponents say a co-op will cost taxpayers nothing and will protect producers from the vagaries of the free market, just as other co-ops have in the past. The thorium that had the non-proliferation crowd concerned enough to inadvertently kill off the rare earth mining in the 1980s, could be placed in a thorium bank.

This legislation may or may not be the solution, but Congress needs to get its head out of the sand and take a look at it with the urgency it showed in 2014 with the RD-180, or try something else — and soon. If it succeeds in thwarting China's goal of dominating rare earth elements, it will have won an important economic battle with Beijing that will not only benefit U.S. workers but close off a real national security vulnerability.