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STATEMENT BY

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Chairman Wicker, Ranking Member Reed, and distinguished Members of the Committee, it is an honor to appear before you today to address a matter of profound importance to the United States: the security and resilience of U.S. Supply Chain's Critical Minerals.

The very foundation of our National Defense, our economic prosperity, and our technological leadership rests upon a reliable supply of essential materials. For decades, we made the intentional decision to outsource these capabilities. This led to the erosion of our industrial strength and placed our security in the hands of nations that do not share our interests. Today, I am here to report that the Department of War, in concert with our partners across the government and in the private sector, is taking decisive action to reverse this trend and restore American industrial sovereignty.

The term "Critical Minerals" is not an abstract economic classification, it is a roll call of the essential building blocks of modern warfare. The neodymium iron boron magnets in the guidance fins of a Tomahawk missile, the cobalt in the high-performance alloys of an F-35's jet engine, the gallium arsenide in the advanced radar systems that protect our fleet, the nickel in the batteries that power our soldiers' communications gear—these are not commodities; they are capabilities. They represent the margin of victory in a potential conflict.

For too long, we have treated these vital inputs as simple commodities, subject to the whims of global markets. We have watched as the complex, capital-intensive, and often challenging work of mining, separating, and processing these minerals has migrated overseas. The result, is a strategic vulnerability of the highest order. Today, the United States is over 90% import-reliant for around 25 critical minerals, and over 50% reliant on foreign sources for more than 50. A significant and, in some cases, dominant share of the global processing capacity for these and other minerals is consolidated within China's borders.

This is not a hypothetical risk. China has demonstrated its willingness to weaponize its dominance of Supply Chains. Its temporary suspension of rare earth exports to Japan in 2010, was a shot across the bow for the entire industrialized world. The more recent export controls on gallium and germanium, and intrusive licensing requirements imposed on numerous other materials, are a stark reminder that Beijing views its control over these resources as a lever of geopolitical power, to be used to coerce and constrain its rivals. We cannot, and we will not, allow the operational readiness of the United States Armed Forces to be held hostage by the strategic calculus of an adversary.

The challenge is immense, but so is our resolve. The Department of War has developed and is actively implementing a comprehensive, long-term strategy to mitigate these risks. Our approach is not one of autarky or isolationism, but of strategic resilience. It is built upon four mutually reinforcing pillars: first, aggressively revitalizing our domestic production capabilities; second, strengthening our alliances and "friend-shoring" Supply Chains with trusted partners; third, driving innovation in substitution and recycling to reduce demand; and fourth, modernizing the National Defense Stockpile to serve as a strategic buffer against disruption.

Today, I will detail our progress in each of these areas, highlighting the powerful tools we are deploying—including the Defense Production Act (DPA) and the Industrial Base Analysis and Sustainment (IBAS) program—and the strategic investments we are making to secure our industrial future.

The first and most crucial pillar of our strategy is the revitalization of a robust, end-to-end domestic Supply Chain. The U.S. is blessed with significant geological endowments of many critical minerals. The fact that we are import-reliant is not a consequence of geology, but of policy and economics. For decades, a combination of burdensome and under-resourced permitting processes, unfair competition from state-subsidized foreign entities, and a lack of sustained investment has hollowed out our domestic industrial base. We are now systematically rebuilding it.

Our primary tools in this effort are the authorities granted under Title III of the DPA, the funding provided under the IBAS program, and the loan authorities granted to the Office of Strategic Capital (OSC). These allow the Department to move beyond the role of a mere customer and act as a strategic partner with industry, de-risking private investment and catalyzing the development of capabilities that the market, on its own, has failed to provide. Additionally, we are working with interagency partners and key international partners and allies in addressing joint critical mineral opportunities.

The MP Materials partnership that was signed last year for rare earth magnet Supply Chains, while transformational, is just one component of a much broader portfolio of investments aimed at onshoring critical mineral production:

- Gallium is an essential mineral for integrated circuits, solar cells, and radar systems, among many other key defense and industrial applications. Although we have more to do, DoW's recent $29.9M award to recover gallium and scandium from alumina processing waste will help reduce our 100% dependency on foreign sources for gallium.

- Germanium is a major supply constraint in our defense optics Supply Chains. DoW's recent awards in this area will greatly improve capacity at multiple nodes of our domestic germanium supply chain to include recycling, metal refining, and germanium crystal growth.

- Graphite for Anodes: Batteries need anodes as well as cathodes. The U.S. is currently 100% import-reliant for battery-grade graphite, with most coming from China. To remedy this, we have invested $35.3 million to accelerate development of a vertically integrated graphite anode supply chain in Alaska, linking a large, high-grade graphite deposit with an advanced processing facility.

- Titanium for Aerospace and Armor: The U.S. has long been a leader in titanium technology but has become increasingly reliant on foreign sources for titanium sponge, the primary metal input. Our $47.1 million investment is supporting the scale-up of a breakthrough technology that can produce high-quality titanium powder directly from minerals or from scrap, reducing costs and energy consumption while strengthening the domestic supply chain for this critical aerospace and armor material.

These are just a few examples. Since the beginning of the Administration, the IBAS program and DPA authorities have channeled $975 million into 15 projects aimed at expanding the domestic production of strategic and critical materials. We are also very grateful to Congress for the $5 billion provided for minerals in the One Big Beautiful Bill Act (OBBBA).

We are actively seeking new opportunities to invest in everything from antimony and tungsten to manganese and beryllium, addressing vulnerabilities across the entire spectrum of the Department's needs.

While our primary focus is on revitalizing domestic production, we recognize that complete self-sufficiency is neither achievable nor desirable. Our second pillar, therefore, is to build a resilient network of trusted international partners—a concept we refer to as "friend-shoring." The goal is to create a collective industrial base among allied nations, diversifying our Supply Chains away from geostrategic rivals and ensuring multiple, redundant sources of supply.

Our closest allies are also our most important partners in this endeavor. These are nations that share our commitment to free markets, the rule of law, and responsible and sustainable practices.

- Australia: Our partnership with Australia is a cornerstone of our friend-shoring strategy. Australia possesses some of the world's largest and highest-grade deposits of rare earths, lithium, cobalt, and other critical minerals. We are working closely through the Australia – U.S. Critical Minerals and Metals Taskforce to align our investment strategies, promote joint ventures between our respective companies, and accelerate the development of new mines and processing facilities in Australia that can directly feed into the U.S. Defense Industrial Base.

- Canada: The deep integration of the U.S. and Canadian Defense Industrial Bases makes Canada a natural and essential partner. The U.S.-Canada Joint Action Plan on Critical Minerals, signed in 2020, provides a robust framework for collaboration on securing supply chains for a wide range of minerals, including nickel, potash, uranium, and cobalt. We are working with our Canadian counterparts to map our complementary geological resources and processing capacities and to identify opportunities for joint investment to create a more resilient North American industrial ecosystem.

- Our friend-shoring strategy is not just about securing raw materials, it is also about collaborating with downstream manufacturing partners like Japan and South Korea. These nations are world leaders in the production of advanced technologies like batteries, semiconductors, and permanent magnets. By partnering with them, we can ensure that as we and our other allies bring new upstream resources online, there is a secure and reliable downstream demand outside of the People's Republic of China, completing the "mine-to-metal" or "mine-to-battery" supply chain among trusted allies.

The third pillar of our strategy focuses on the demand side of the equation. In addition to increasing the supply of Critical Minerals, we must also work to reduce our long-term dependence on them. We are pursuing this through a two-pronged approach: investing in the development of substitute materials and creating a robust circular economy through advanced recycling.

Every material for which we can design a substitute is a material we no longer need to source from a contested supply chain. The Department of War, through its world-class research and development enterprise, including the Defense Advanced Research Projects

Agency (DARPA), the Office of Naval Research (ONR), and the Air Force and Army Research Laboratories (AFRL, ARL), is at the forefront of this effort.

- The Environmental Microbes as a BioEngineering Resource (EMBER) program will develop a biotechnology-based separation and purification strategy for Rare Earth Elements (REEs) from under-utilized domestic sources such as phosphate mine waste, acid mine drainage, and electronics recycling processes. The program aims to deliver multiple capabilities such as the separation of REE mixtures into individual elements using aqueous processes; inter-conversion of REE salts/oxides to facilitate production of manufacturing-ready forms (e.g., halides, phosphates, nitrates); and new assays for high-throughput analysis of REE-containing cells and biomolecules.

- Cobalt-Free Battery Chemistries: The Department is a major investor in the development of next-generation battery technologies. A key focus of this research is reducing or eliminating the use of cobalt, a material whose supply chain is plagued by geopolitical risk and ethical concerns. We are supporting research into a range of alternative chemistries, from high-manganese cathodes to lithium-sulfur and solid-state batteries, that promise to deliver equal or greater performance without reliance on cobalt.

- Hypersonic Materials: The intense heat and stress experienced by hypersonic vehicles demand exotic materials and alloys. We are funding research into ceramic matrix composites (CMCs) and new superalloys that can withstand these extreme environments, reducing our reliance on traditional materials like tungsten and rhenium.

The second prong of our demand-side strategy is recycling, or what is often termed "urban mining." The accumulated stock of end-of-life military hardware, consumer electronics, and industrial equipment represents a vast, untapped domestic reserve of critical minerals. We are investing in the technologies and infrastructure needed to mine this resource.

A past $4.2 million investment in Nebraska is a prime example. This project is developing and expanding production of terbium oxide from recycled fluorescent light bulbs. Terbium is a vital rare earth for many magnets in defense systems and is in short supply as it makes up less than one percent of total rare earth content in most deposits. By developing a recycling solution for this rarest of rare earths, this project is providing key and timely capability to the defense industrial base.

Similarly, we are funding research and pilot projects to develop efficient and economical methods for recovering cobalt, lithium, and nickel from spent lithium-ion batteries, and for extracting rare earths from the permanent magnets in old hard drives, electric motors, and defense equipment. Our goal is to create a true circular economy, where the materials from today's systems become the feedstock for tomorrow's capabilities, and to complement the need for new mining.

The final pillar of our strategy is the modernization of the National Defense Stockpile (NDS). The NDS was created in the aftermath of World War II to provide a strategic reserve of raw materials to sustain the nation through a prolonged conflict. However, the nature of warfare and the structure of our industrial base have changed dramatically since the 1940s.

Therefore, we are undertaking a fundamental reimagining of the NDS to make it a more dynamic and effective tool for 21st-century national security.
Our new approach to the NDS has several key elements:

- Moving Down the Value Chain: We are increasingly focused on the acquisition of higher-purity, processed materials further downstream in our supply chains. In the case of rare earths, for instance, this means ensuring the acquisition of separated high-purity oxides, metals, and alloys—and even finished components like magnets—rather than just unrefined concentrates. This ensures we are stockpiling the materials that represent the true bottlenecks in the supply chain.

- Dynamic Requirements and Authorities: The list of materials and quantities required for the NDS must be a living document, constantly updated to reflect changes in military technology, geopolitical risk, and the status of the domestic industrial base. We are working with Congress to secure dedicated, no-year funding for the National Defense Stockpile Transaction Fund, and operationalizing the flexible authorities already granted by Congress to take advantage of time-sensitive acquisitions to better mitigate immediate risk and ensure as well as enable offtake agreements to send a reliable demand signal to industry to ensure we have the materials necessary to withstand the increasingly frequent shocks to the Defense Industrial Base caused by adversarial economic practices.

We are grateful for the $2 billion provided for the NDS by the OBBBA and urge Members of this Committee to continue to support resourcing this national asset. A wellfunded, modern NDS is one of the most cost-effective insurance policies our nation can buy.

The Committee has asked for an update to the 'chiclet chart' that details how China's influence puts systems at risk – and shows graphically how the Department is addressing this. An updated copy of this chart is included with this written testimony.

Our strategy and investments are focused on turning red into green on this chart. In concert with our interagency partners, we are actively progressing projects and negotiations related to all these minerals. It is clear we have a great deal of work to do to reverse thirty-plus years of counterproductive industrial policy.

We do not have thirty years to resolve this issue. My team is working tirelessly to address this. I could not be prouder of their work.

It is clear we must continue to accelerate our efforts. I look forward to working with the Committee on this vital issue.

Rebuilding our Critical Minerals Supply Chains is a generational undertaking. It will not be accomplished overnight. It will require sustained investment, sustained focus, and a sustained partnership between the government, industry, and our allies. The investments we are making today will take years to mature into fully operational, at-scale capabilities. There will be setbacks along the way. Our adversaries will not stand idly by; they will continue to use their market power to try to undermine our efforts.

But we will not be deterred. The security of our nation and the future of our industrial strength are at stake. The Department of War is committed to this mission for the long haul. We are using every tool at our disposal to onshore, "friend-shore," innovate, and stockpile our way to a more resilient future. We are making America a hard target for economic coercion and ensuring that our warfighters will never depend on the goodwill of an adversary for the tools they need to defend our nation.

I thank the Committee for its continued support of our efforts and for its leadership on this vital national security issue. I welcome your questions.