Sleeping on Tungsten—America's Hidden Armor and Critical Minerals Crisis

written by InvestorNews | June 29, 2025

June 29, 2025 — Tungsten may be the densest word in Washington's defense briefings, but Jack Lifton insists policymakers are still missing the point. "Tungsten is used in armor-piercing ammunition," the Critical Minerals Institute co-chair told InvestorNews host Tracy Hughes. "When that round hits the target, the very, very hard tungsten core penetrates the armor… then the explosive charge takes care of whoever thinks they're being protected." That lethality, Lifton argues, makes tungsten indispensable—even if social-media pundits overstate its role in missile noses. "Tungsten alloys are brittle," he said. "I can't imagine a guided missile having an armor-piercing nose when you're traveling at 5,000 miles an hour with a huge amount of explosive, or an atomic weapon, behind you."

Yet the metal's strategic value is eclipsed by America's strategic complacency. Lifton recalled advising the Pentagon in 2007: "I said, 'Why isn't tungsten on the list?' They said, 'We've never had a problem sourcing tungsten.' Think about that when you try to sleep easily." Today the United States still relies on a single approved vendor for the tungsten rods that pierce enemy armor, while almost all mining and fabrication remain "guess where—China." North America mines virtually none; Canada's output is "a little," but nowhere near enough to fill military demand. The asymmetry is stark: more than 80 percent of primary supply is Chinese, while the U.S. defense industry has at most "two companies" capable of making ductile tungsten metal products. "The problem for the U.S. military," Lifton warned,

“is they only had one vendor… I never found out if they ever got a second.”

His frustration is rooted in CMI’s broader mandate. Based in Toronto, the Critical Minerals Institute connects governments, capital, and industry to secure minerals essential to national security and the clean-energy transition. Tungsten’s absence from earlier critical-mineral lists, Lifton said, was a symptom of policy made by rear-view mirror: “They’d never had a problem, therefore it wasn’t a problem.” He once suggested buying a stockpile from Beijing—“Tell them we might have a war with you, we need something to shoot back at you”—only to be asked if he was joking. “No,” Lifton replied, “I think I’m being tragic.”

The tragedy, he believes, is that a mineral “everyone’s talking about” still lacks serious domestic investment. Until North America excavates its own tungsten veins—and cultivates more than one supplier of finished rods—the nation’s frontline armor-piercing rounds will depend on the very country they’re meant to deter.