

Critical Minerals Institute Toronto - May 2025

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Disclaimer/Warning

Those who do not know history are destined to repeat it....

Ready, Set, Fire

1914

- A global scene largely dominated by empires
- World had been on edge for half a decade with a number of "false alarms"
- A few practice wars largely in the Balkans
- All big players had mobilization plans and were eager to "get started"
- Populations were supportive and jingoistic
- Global shipping was massively dominated by Britain
- Most of the European combatants had all the metals/minerals they needed in their territories or empires
- War materiel was high-tech compared to twenty years before but low-tech compared to now

1939

- The empires were largely as before WW1
- World had been on edge since 1918 despite that being "war to end all wars"
- A few practice wars China, Abyssinia
- Big European players had mobilization plans but only Germany was "geared up"
- Populations outside of Germany were not enthused
- Global shipping still largely dominated by Britain
- War was getting more high-tech (planes, armour, communications)
- Japan was poorly provided with most of what it wanted
- Oil was a must-have which Europe had very little of (excepting Rumania)

And Now....

2025

- A 19 84 type scenario with global scene largely dominated by three blocs (US, China, Russia) elbowing each other for dominance
- · Russia big and weak with few friends, China strong and has no friends, US had friends (now has fellow-travellers)
- A few practice wars Ukraine, Israel and some regional/internal struggles (Ethiopia and Sudan)
- Big players either don't have mobilization plans or they aren't known. Russia is mobilized and yet saw flocks of the conscriptable decamp
- Populations not supportive in West
- · Global shipping is massively dominated by China. However, satellites make most shipping visible and thus vulnerable
- Most of the combatants in WW1 and, to a lesser extent, WW2 had all the metals/minerals they needed in their territories or empires, now almost nothing.
- The empires are long gone and some sell to the highest bidder
- War materiel is exceedingly high-tech, both in composition and metal inputs (REEs for example weren't a thing in WW2)

Key Military Metals/Minerals

HEADLINE METALS

- Tungsten
- Antimony
- Rare Earths (and not for magnet metals necessarily)
- Tin
- Beryllium

STAPLES

- Aluminium
- Iron Ore + MetCoal = Steel
- · Zinc/Lead
- Nickel
- White phosphorous
- Titanium
- Alloy metals Manganese, Vanadium & Niobium
- Food!
- · Oil!!

Access, Access, Access

CHINA'S WEAKNESSES

Strong on shipping, but with a key weakness in dependence on distant sources

- South Africa for Chrome & Manganese
- Brazil for Niobium & iron ore
- Australia for iron ore
- DRC/Zambia for Copper
- Chile for Copper

CHOKEPOINTS

- Straits of Malacca
- Panama Canal
- Suez Canal
- South Atlantic
- South China Sea

Out with the new....

They say that truth is the first victim in war...

But... the "green agenda" will be the first victim next time around

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Modes to Success

MINE THE METALS

 100 years ago, there was no such thing as an "explorer"... a miner was actually mining, or wanting to mine

MINE THE MARKET

No intention of production. Looks like a duck, walks like a duck and quacks like a duck but it isn't a
duck. The Pentagon can spot them coming, but they can't see that the Pentagon has them worked
out. JOGMEC, KORES et al. were burnt by this crowd 2005-12.

MINE THE MINISTRY

• The new game in town. Who needs investors when we have bureaucrats we can milk? DoD still resistant to fakers, but Australian government, the UK, the EU and to a lesser extent, Canadian, governments are doling out money to the otherwise unviable.

Summary

Both the Western powers and China are vulnerable to supply shocks in the event of an outbreak of hostilities.

Long supply lines and a lack of "friends" makes China more vulnerable than the West.

Stockpiling metals is the "next best thing" to production on both sides.

Outbreaks of hostilities do not allow the luxury of time in developing new mines in strategic metals.

Governments might need to seize control of critical mineral projects to move them forward if companies "drag their feet" on getting them into development/production.



Thank You

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