

Geopolitical Nuclear Force Context

DR. CHRISTOPHER YEAW

NSRI ASSOCIATE EXECUTIVE DIRECTOR



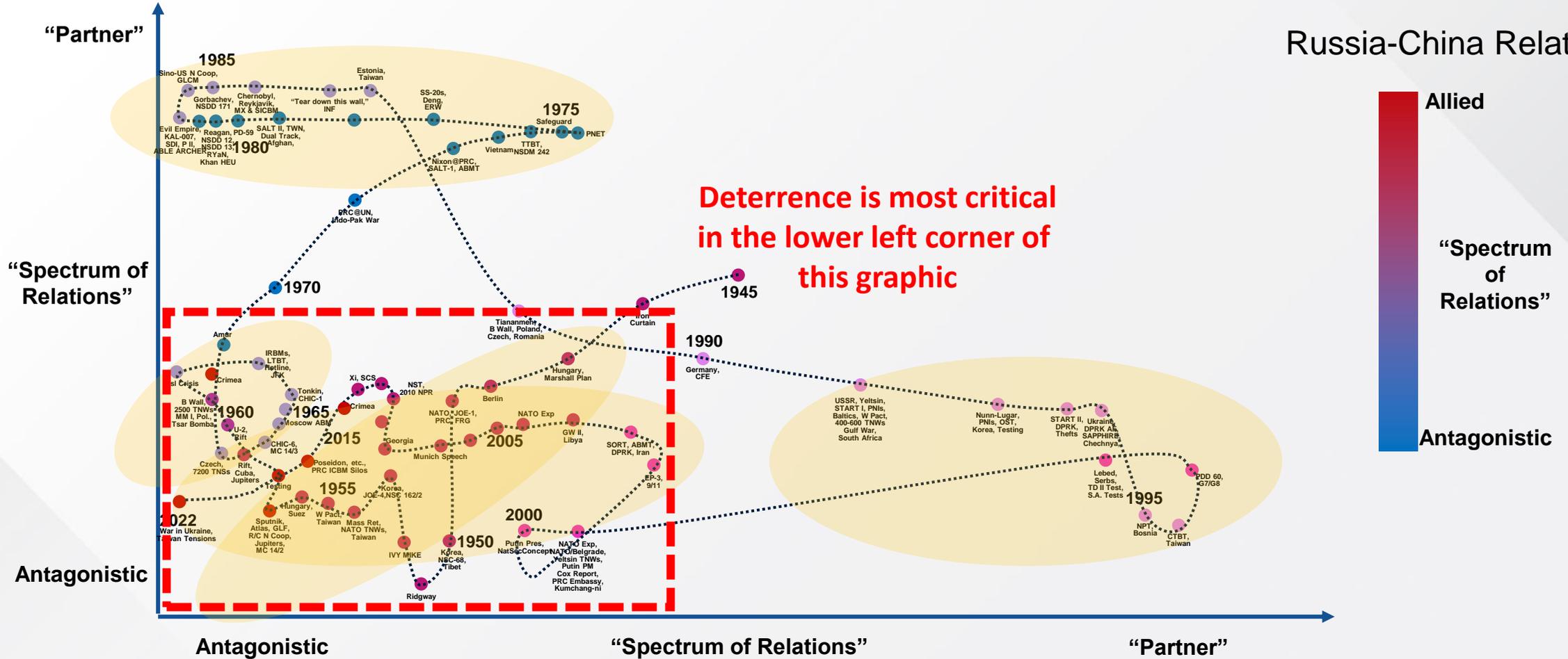
**NATIONAL STRATEGIC
RESEARCH INSTITUTE**

at the University of Nebraska

The Dual-Rival Deterrence Dilemma

US-China Relations

Russia-China Relations



US-Russia Relations

“

The Commission recommends that this urgent expansion of the capacity of the U.S. nuclear weapons defense industrial base and the DOE/NNSA nuclear security enterprise include the flexibility to respond to emerging requirements in a timely fashion.

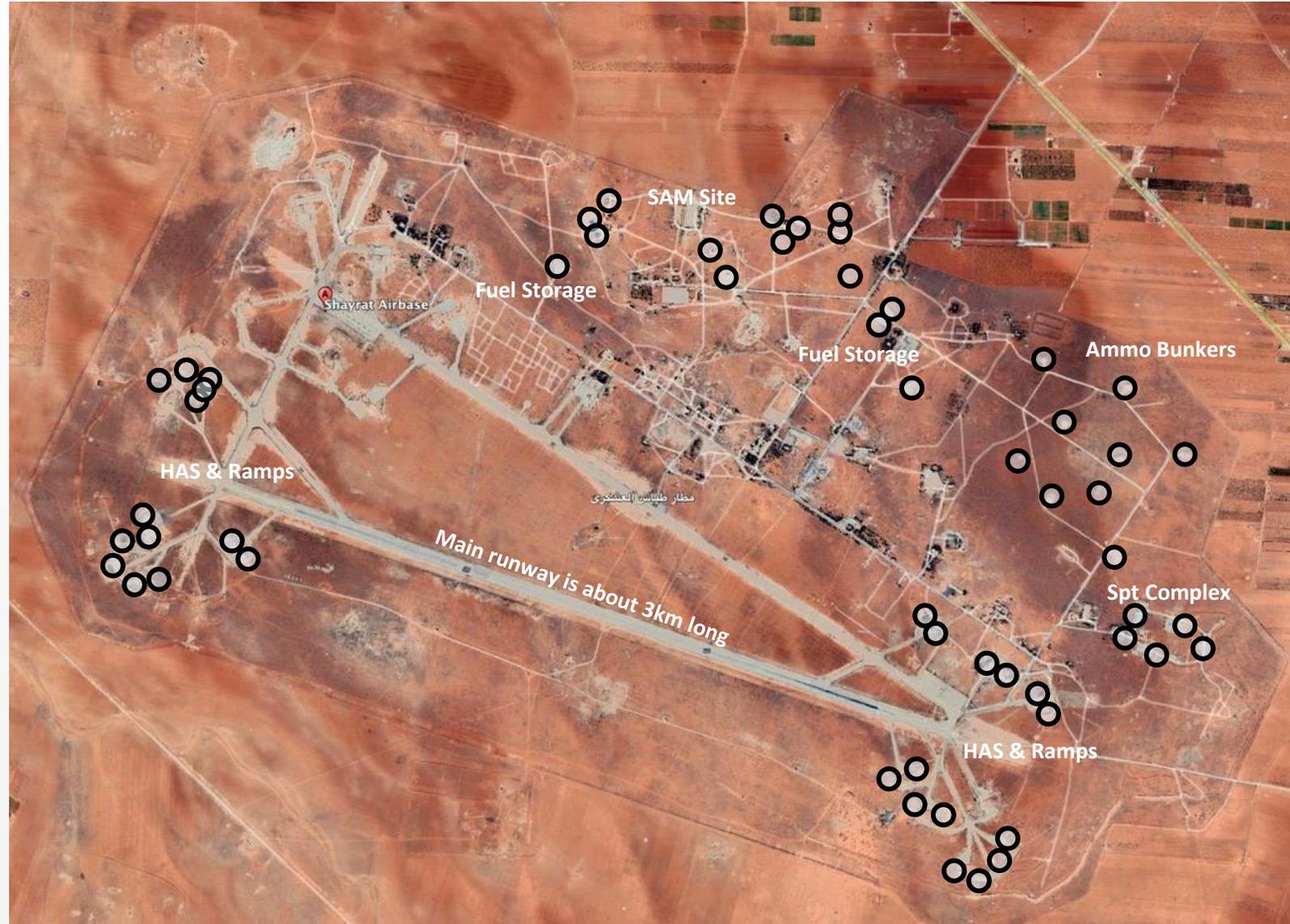
2023 STRATEGIC POSTURE COMMISSION



ONE SUCH "EMERGING REQUIREMENT"

Theater Nuclear Weapons – Economy of Munitions

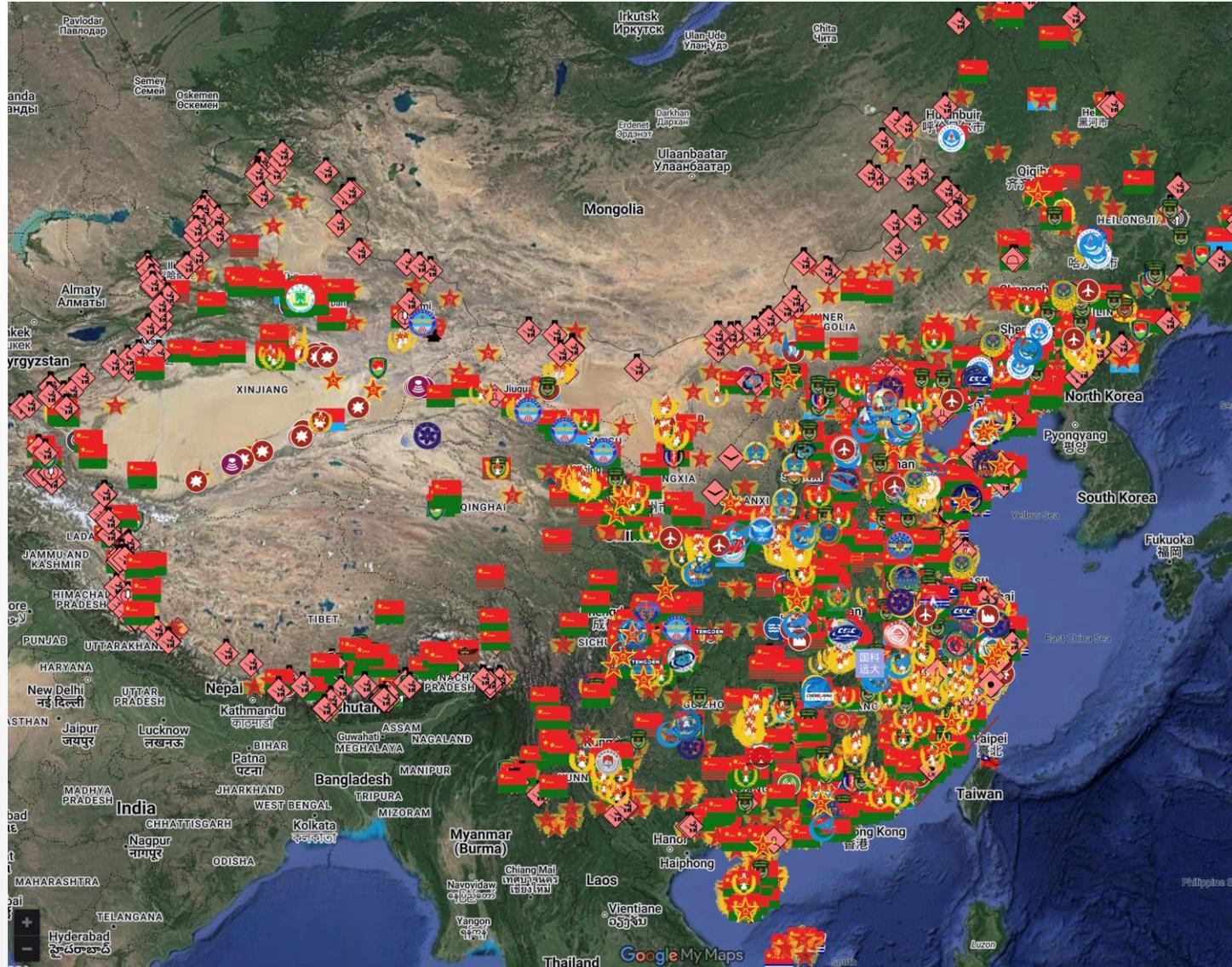
US attack on Syria's Al Shayrat Airbase used 58 tomahawk missiles.



ONE SUCH “EMERGING REQUIREMENT”

Taking the “Moral High Road” Against China

c. 50 conventional strikes
times ... ?



Map by college student, Joseph Wen, taken as a screen capture from his website.

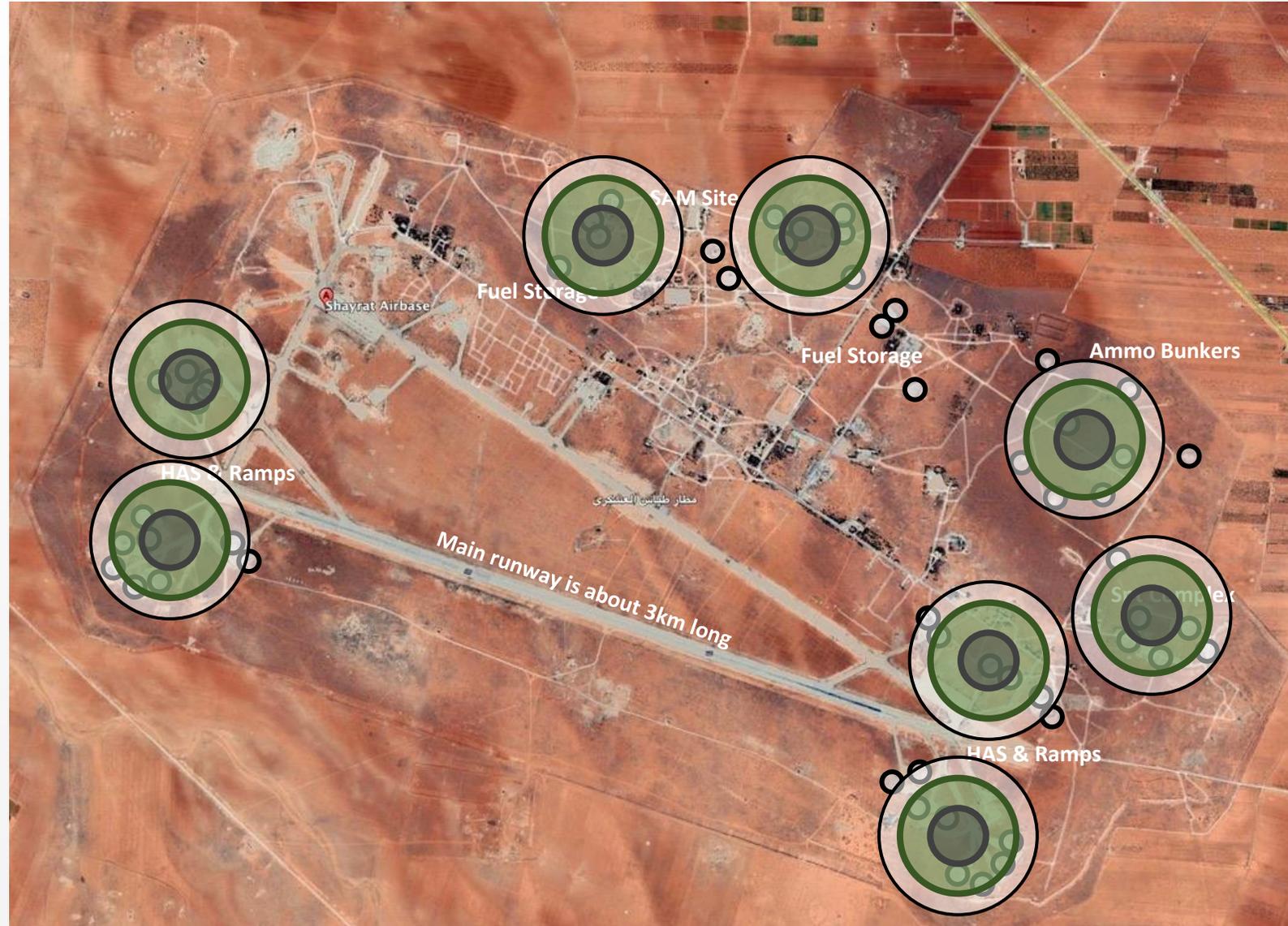


ONE SUCH “EMERGING REQUIREMENT”

Theater Nuclear Weapons – Russia’s Ultra-Low Yield Warheads

US attack on Syria’s Al Shayrat Airbase used 58 tomahawk missiles.

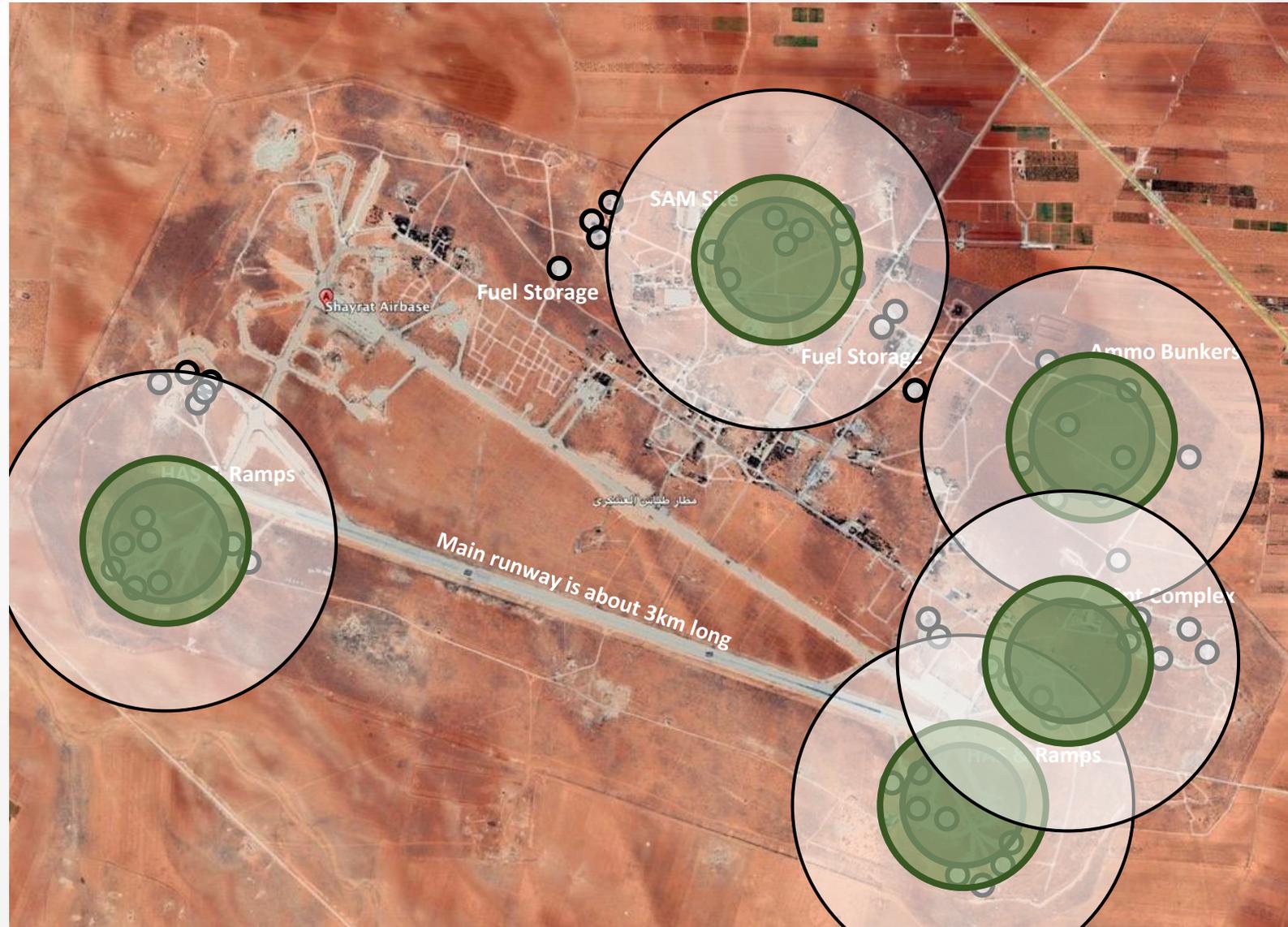
Eight 30-ton nuclear weapons would have replicated almost all of the damage (likely only leaving seven targets to survive).



ONE SUCH "EMERGING REQUIREMENT"

Theater Nuclear Weapons – Alternative Very-Low Yield Warheads

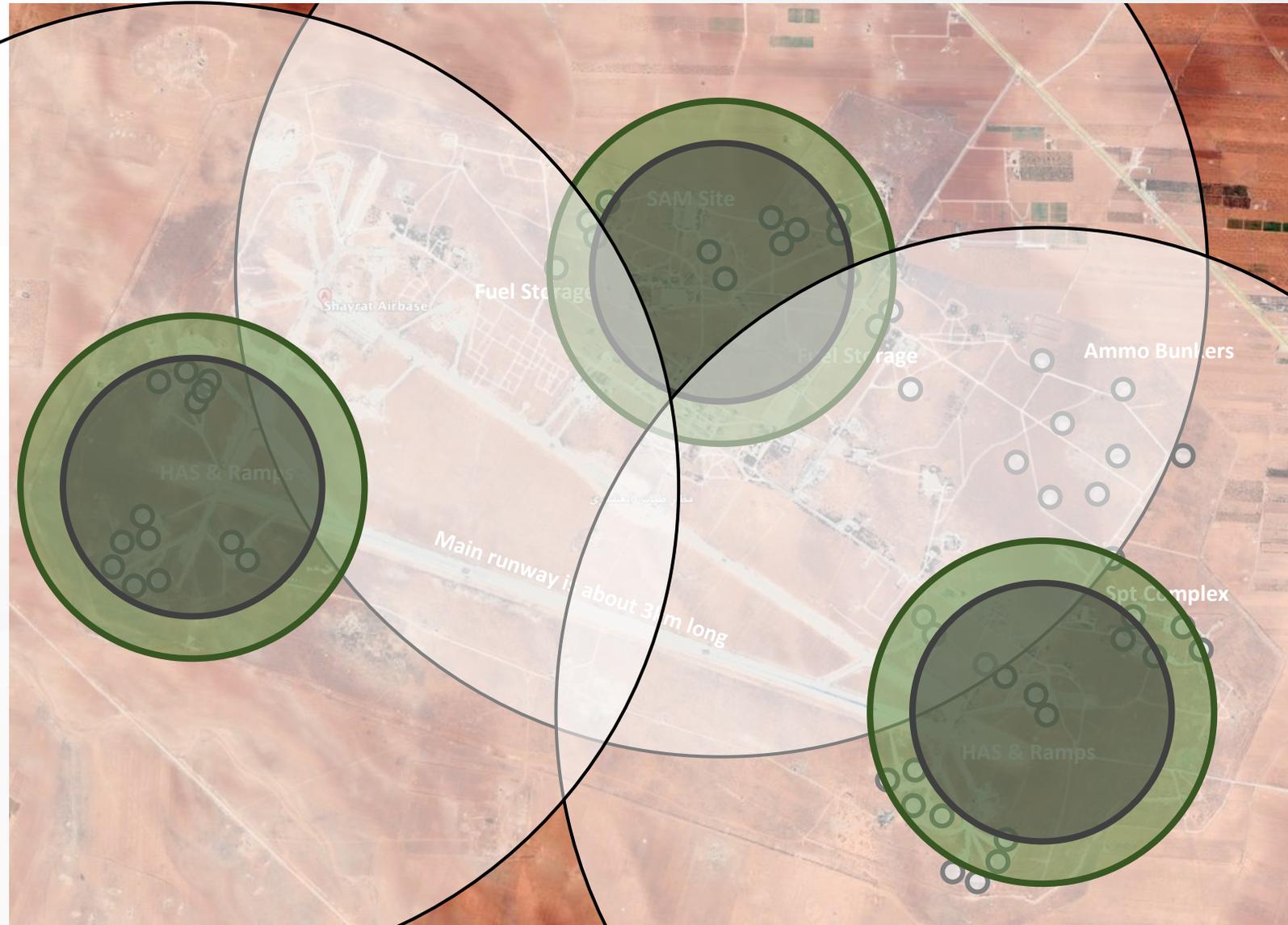
Five 300-ton nuclear weapons would have replicated most of the damage, but 19 of the 58 targets would likely have survived.



ONE SUCH “EMERGING REQUIREMENT”

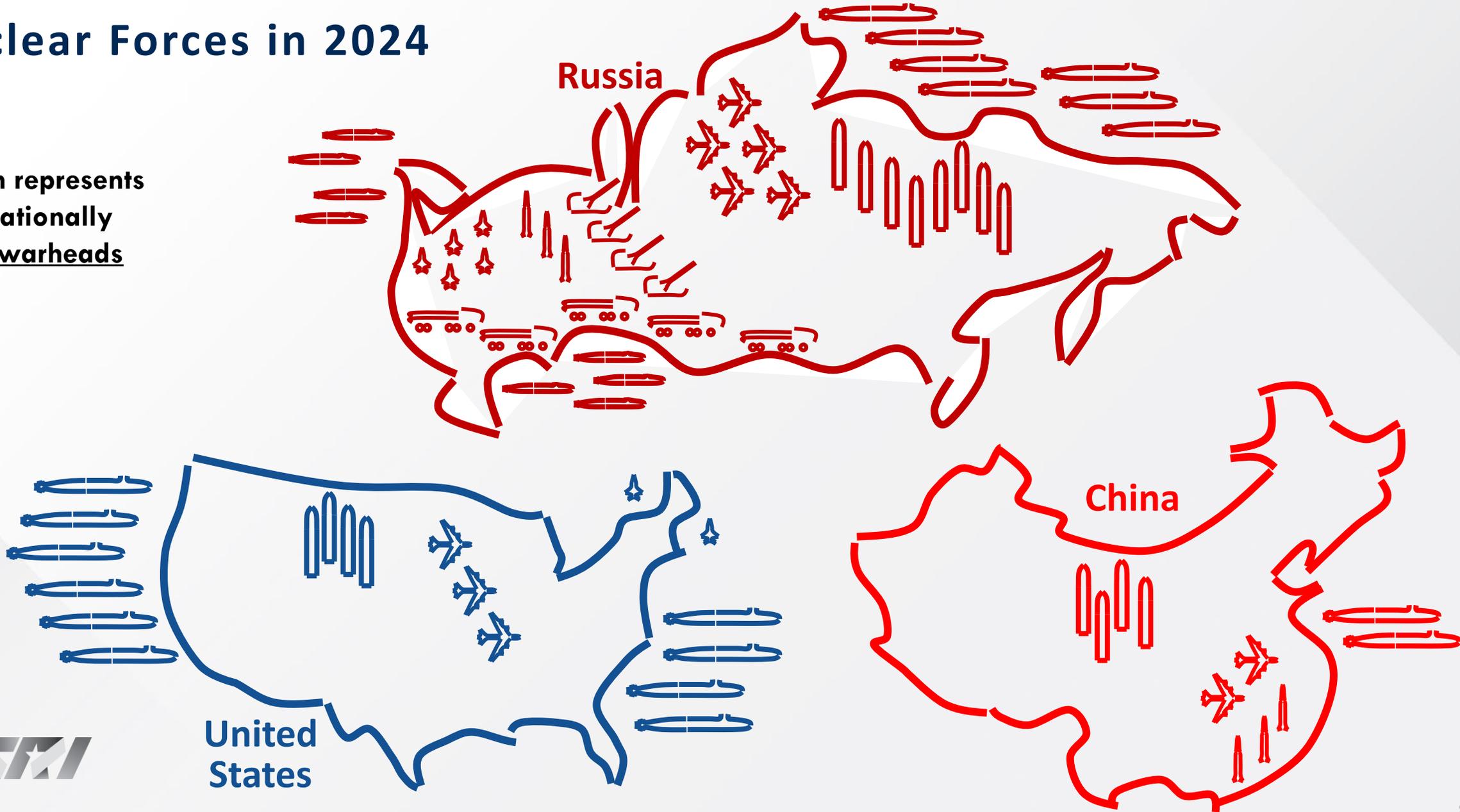
Theater Nuclear Weapons – “Low Yield” Is Not Ideally Suited

It would have required three 7kt nuclear weapons, and even then almost a dozen targets would likely have survived.



Nuclear Forces in 2024

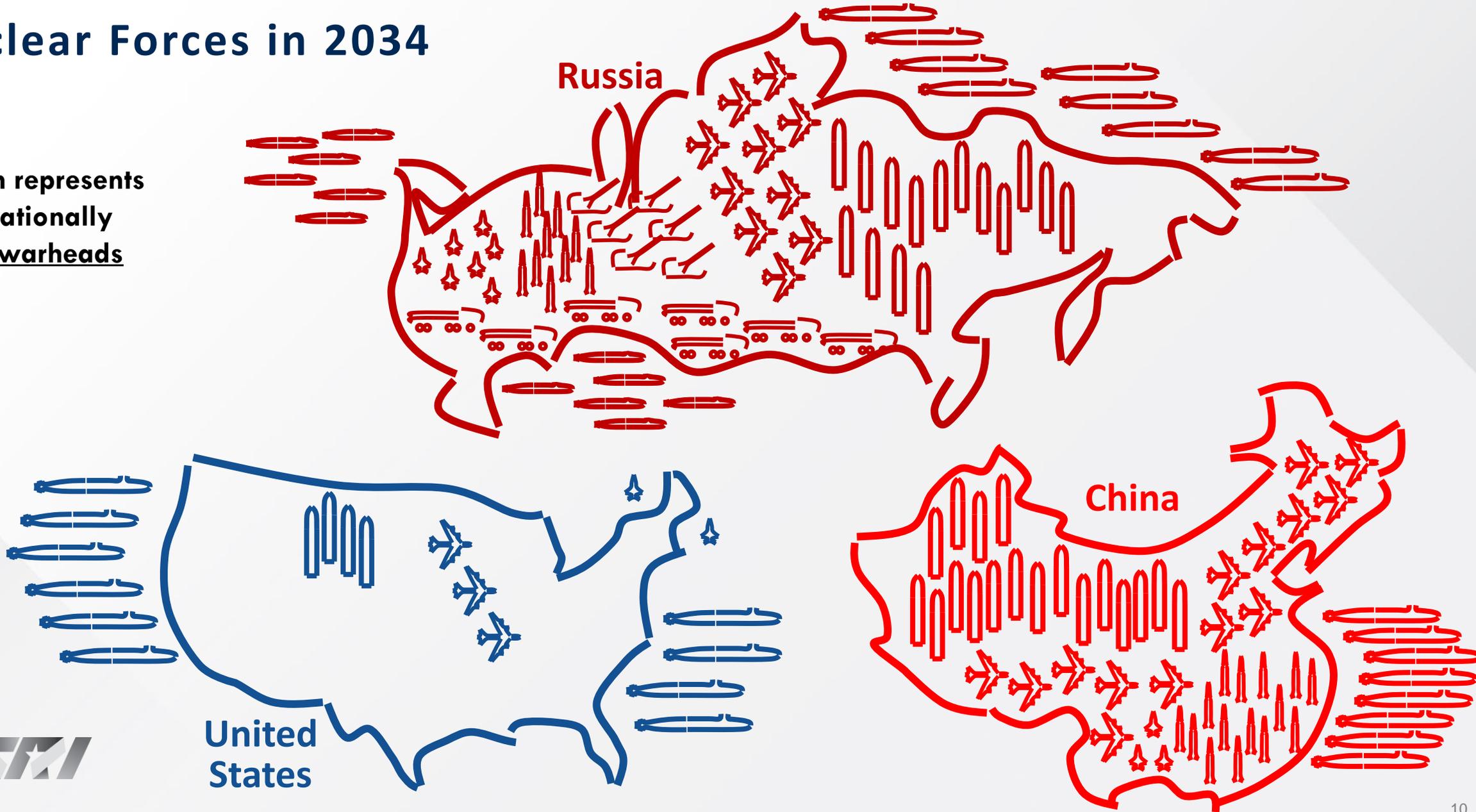
Each icon represents
100 operationally
relevant warheads



United States

Nuclear Forces in 2034

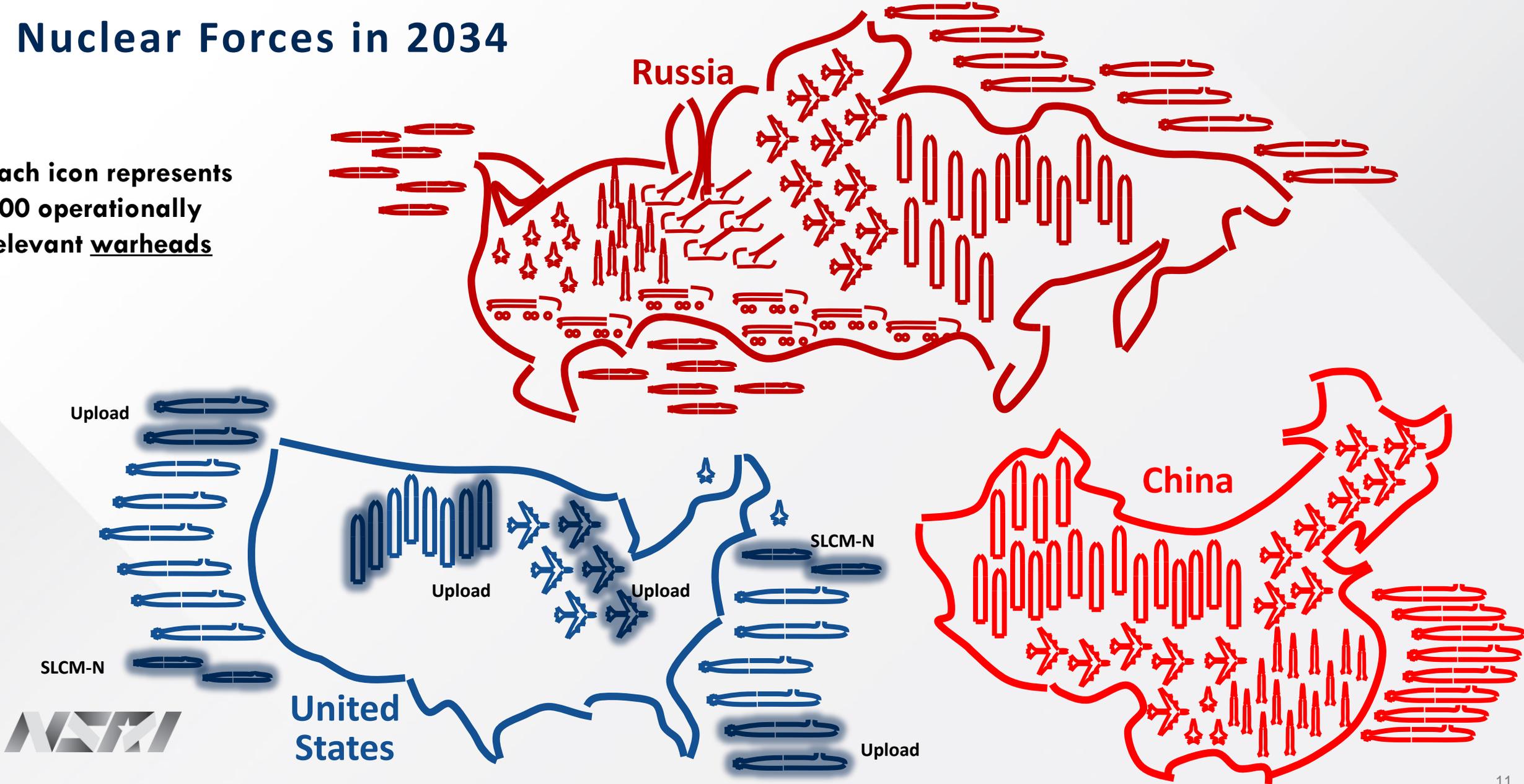
Each icon represents
100 operationally
relevant warheads



United
States

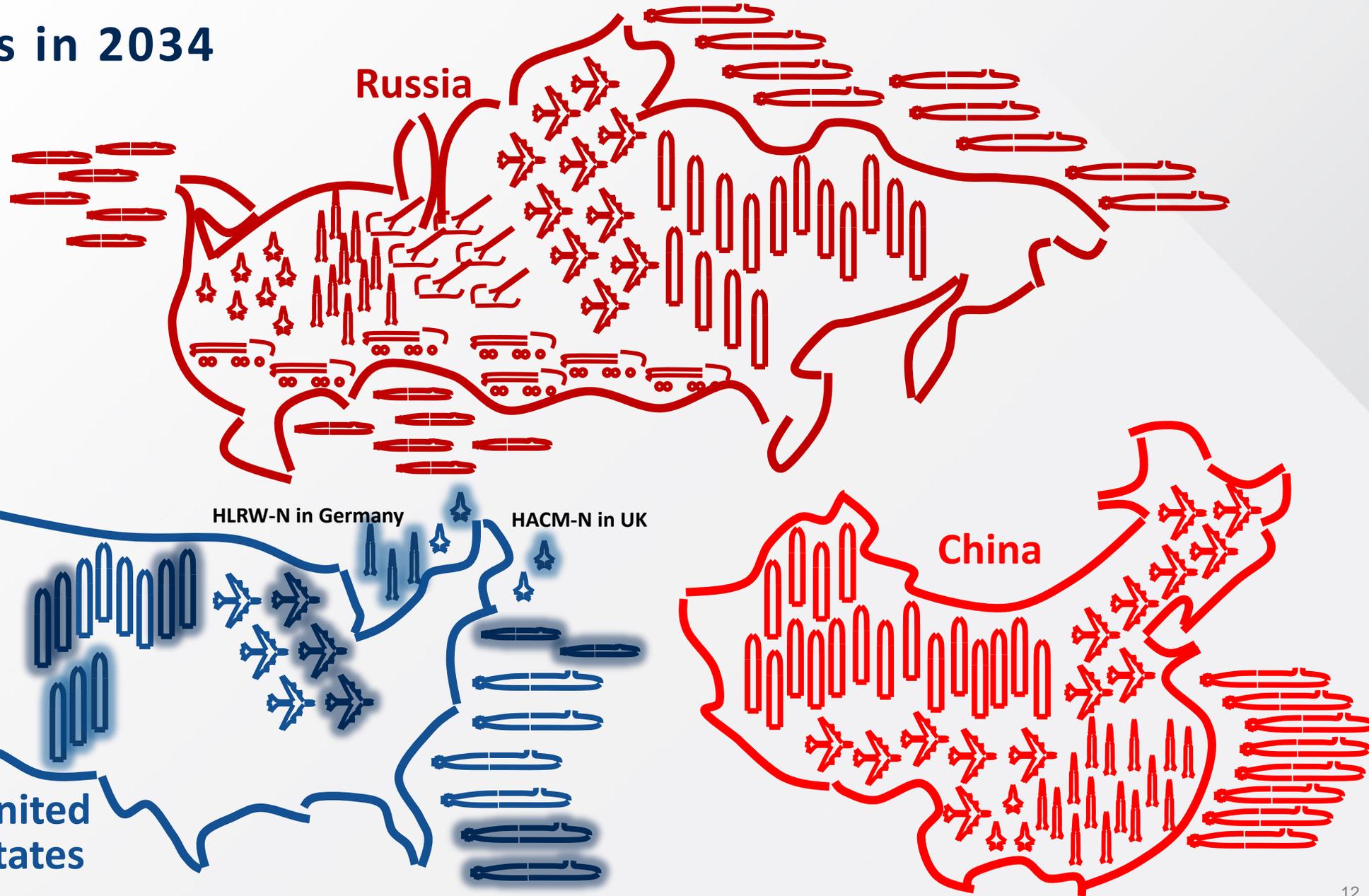
Nuclear Forces in 2034

Each icon represents
100 operationally
relevant warheads



Nuclear Forces in 2034

Each icon represents
100 operationally
relevant warheads



HERW-N in AK

HLRW-N in Germany

HACM-N in UK

China

United States



What Should We Re-Think?

- ✓ TRITIUM PRODUCTION!!
- ✓ PIT PRODUCTION IS BEYOND "URGENT" ... WE ARE WAY FURTHER BEHIND THAN WE USUALLY THINK!
- ✓ RE-USE OF STORED PITS FOR THEATER WEAPONS
- ✓ NEWLY ARRIVING HYPERSONIC WEAPONS IN THE THREE SERVICES MIGHT BE RAPIDLY ADAPTED TO RECEIVE SMALL NUCLEAR WARHEADS AS A VARIANT
 - ✓ Military requirements are urgently needed in order to impel NNSA into an urgent warhead production posture
 - ✓ Clear implication from the 2024 Strategic Posture Commission Report is that such theater weapons are needed ASAP
- ✓ "DILUTE AND DISPOSE" SHOULD BE RE-CONSIDERED
 - ✓ Our rivals will be fielding a combined operational force well in excess of 10,000 warheads within a decade!!
- ✓ GIVEN THE RUSSIA – CHINA – DPRK – IRAN ALIGNMENT, ASSUME THAT THE 70+ MT OF SEPARATED WEAPONS GRADE PLUTONIUM IN RUSSIA MIGHT BE INTERNATIONALLY AVAILABLE TO "ALLIES"
- ✓ EXPANDED BASING OF US NUCLEAR WEAPONS, AND THE SURETY ISSUES INVOLVED

