



Future Nuclear Deterrence

New Capabilities / New Assumptions

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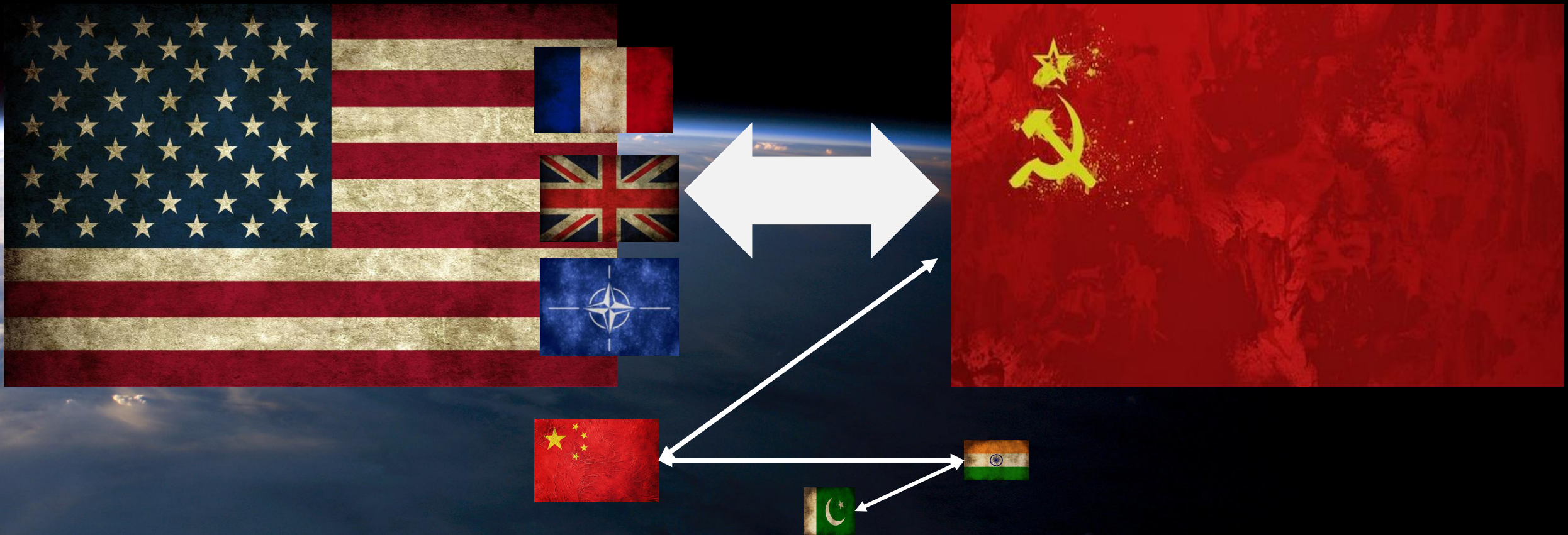
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“The first, the supreme, the most far reaching act of judgement that the statesman and commander have to make is to establish...the kind of war on which they are embarking”

~Von Clausewitz, On War

FUTURE

Cold War Nuclear Balance (~1985)





Russian Federation

- **Sarmat**: A heavy ICBM can reportedly carry 10 to 15 nuclear warheads, or multiple Avangard HGVs, over the North Pole or South Pole to mainland U.S. targets.
- **Avangard**: Hypersonic Boost-Glide Vehicle (HGV) is carried aboard an ICBM before being loosed at its target. It is meant to evade enemy missile defense systems.
- **Poseidon**: A nuclear-powered, underwater drone that could create a radioactive “tsunami” to strike U.S. coastal targets.
- **Burevestnik**: A nuclear-powered cruise missile offers unlimited range and second-strike capability.
- **Kinzhal**: Air-launched, dual-capable hypersonic ballistic missile, a theater-range system already in service.
- **Tsirkon**: Sea-launched, dual-capable hypersonic cruise missile is a threat to both sea and land targets.



People's Republic of China

- The PRC aims to modernize, diversify, and expand its nuclear forces, exceeding 2020 projection (DIA).
 - Up to 700 deliverable nuclear warheads by 2027.
 - At least 1,000 warheads by 2030.
- At least three solid-fueled ICBM silo fields, cumulatively containing hundreds of new silos.
- Establishment of a full nuclear triad (addition of H-20 Bomber, Jin-class SSBN)
- Nuclear-capable IRBMs
- Aims to “achieve a great rise in strategic capabilities,” accelerate the pace of development and make enhanced “breakthroughs...in strategic deterrence capability.”

“I don’t know if it’s quite a Sputnik moment, but I think it’s very close to that. It has all of our attention.”

~CJCS General Milley

A Possible Future (~2040)

