



The Nuclear and Missile Threat Since 1991

James J Wirtz

Naval Postgraduate School

Monterey, CA



FPRI Butcher History Institute
26-27 April 2014

A Cup Half Full, or Half Empty?

- “Decoupling” Nuclear Weapons From World Politics
- Three Nuclear Trends
- Missile Proliferation
- Is this Nuclear Disarmament?

“Decoupling” Nuclear Weapons

- Nuclear Weapons Losing Strategic Relevance
- Lack of Political Support
 - Bush vs. Obama NPR
- Planning/Operational/Deployment Changes
- Modest Modernization to “Stasis”
- CTBT & “Living Art”
- Sociological Factors

Got your Gouge Sheet?

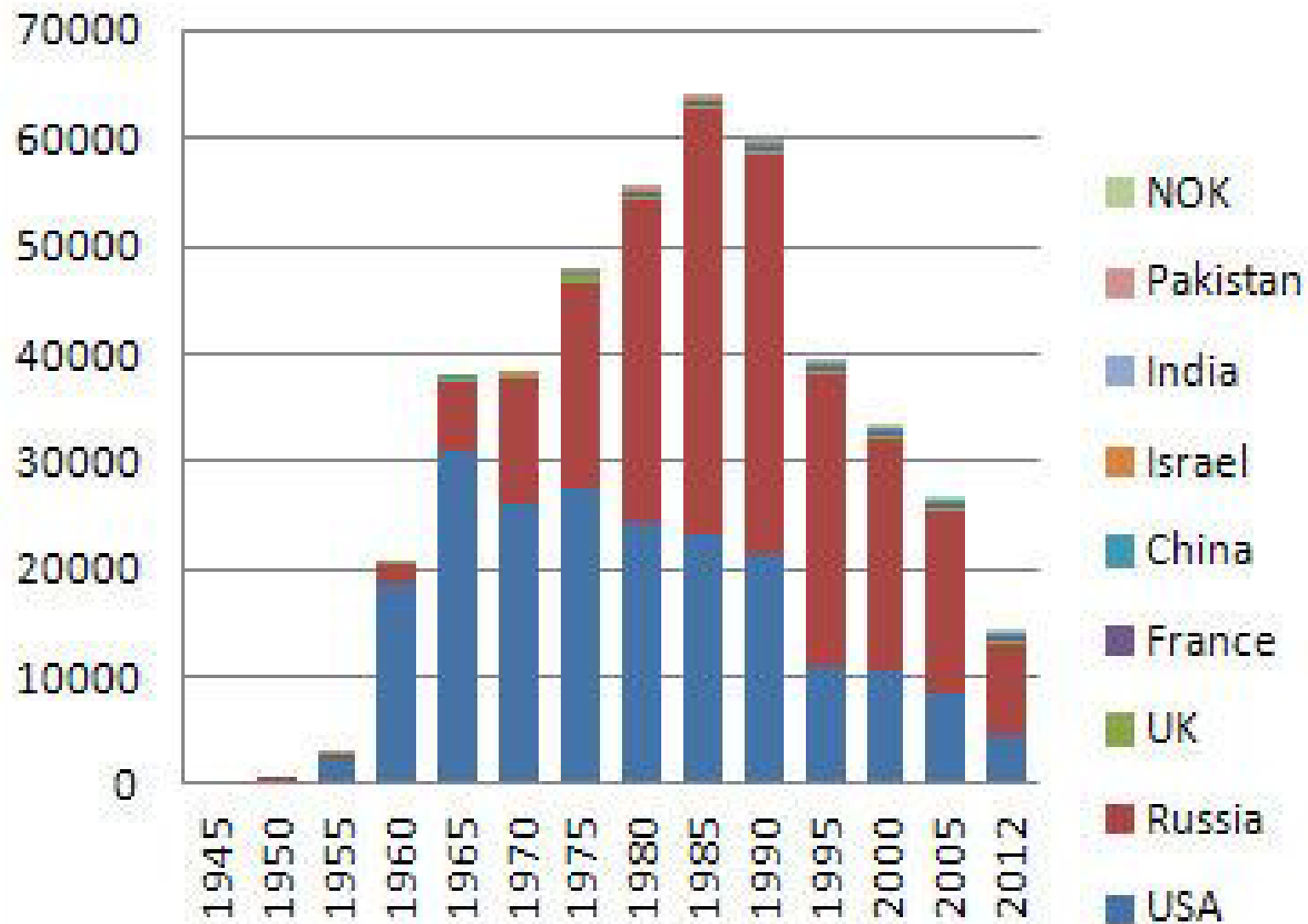


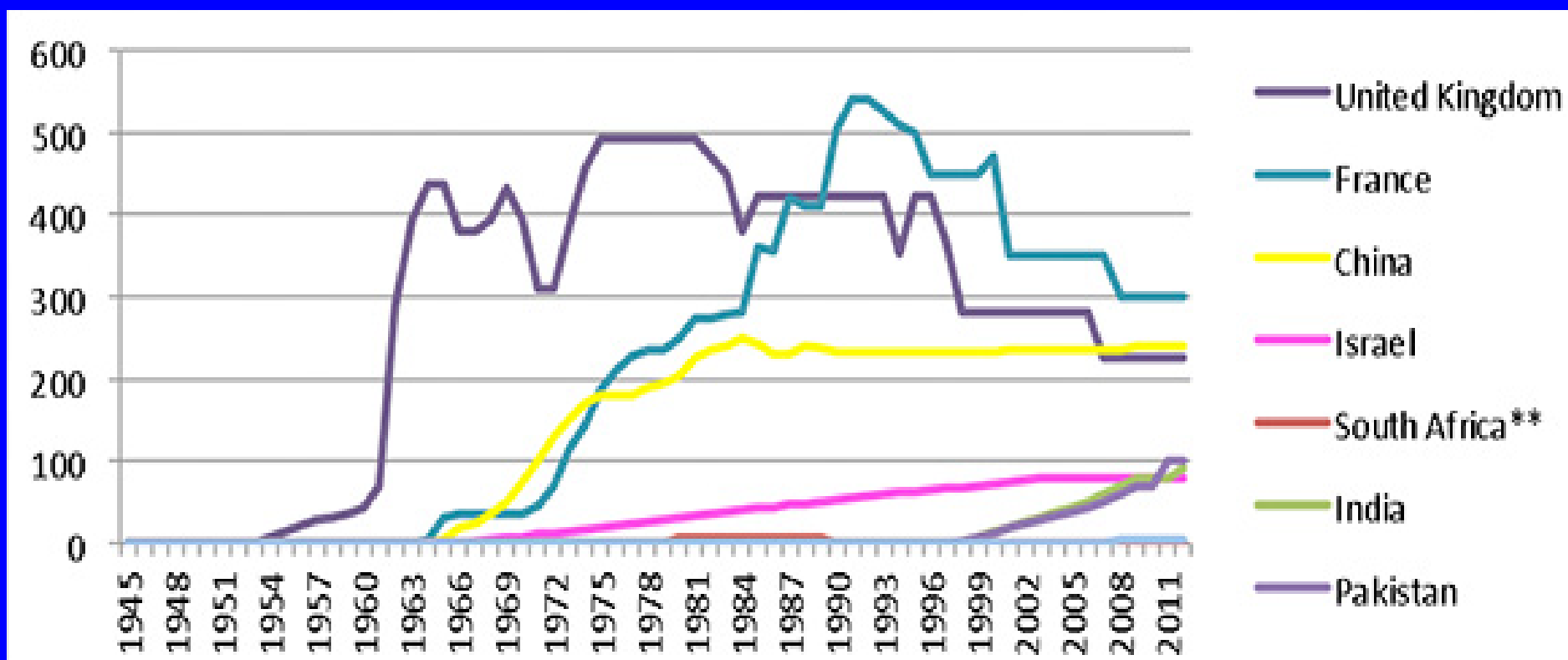
- 1) An EMT-team [an electromechanical maintenance team consisting of enlisted missile maintainers] has penetrated L03 and L05 to clean a clogged drain in the sump system after a big spring storm. It's been 15 minutes since your last authentication with the team and you receive a seismic alarm at L04. After referencing LF [Launch Facility] Faults, what will you do?
- *A) Declare Security Situation?*
- *B) Contact FSC [flight security controller] and have him get two authentications from the security guards at L03?*
- *C) Contact L05 and get 2 authentications from the EMT Team?*
- *D) Contact MMOC [Missile Maintenance Operations Control]?*

Trend 1:
Nuclear
Weapons as a
Diminishing
Asset

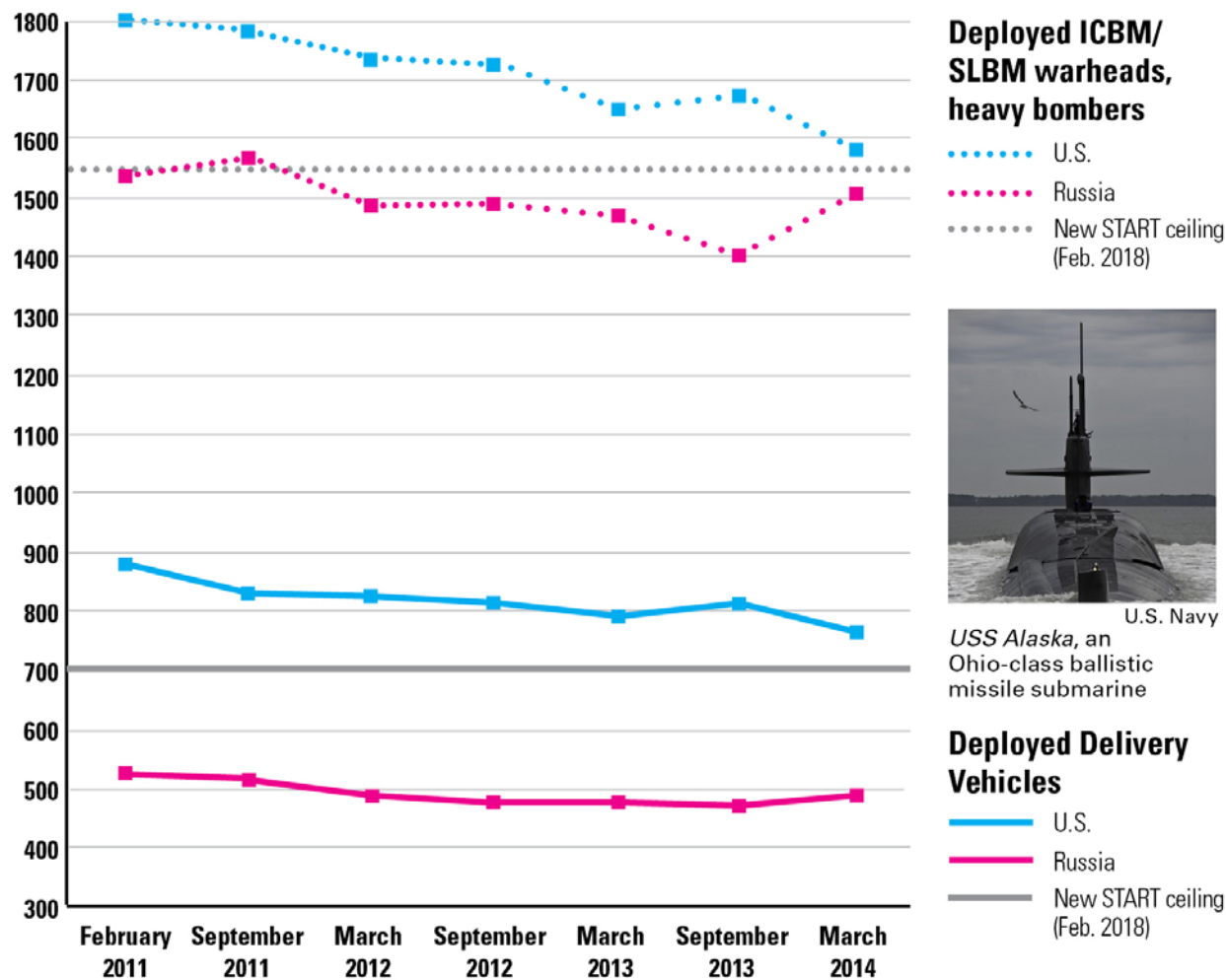


Number of Nuclear Weapons Worldwide





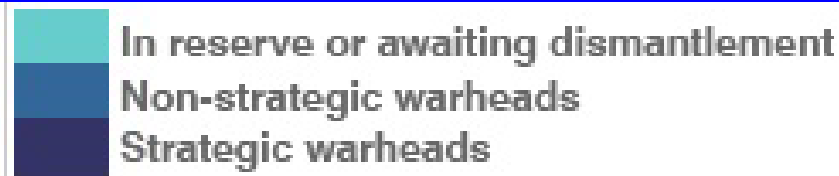
New START Data Exchange Numbers For Deployed Warheads and Deployed Delivery Vehicles



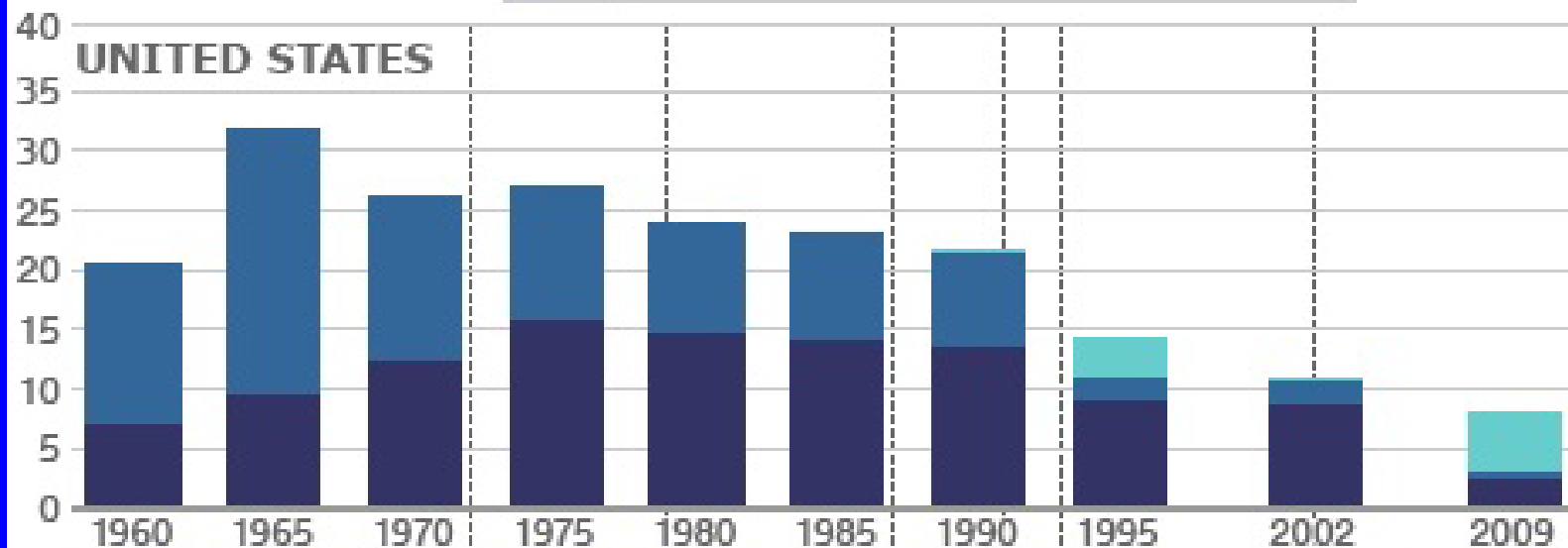
U.S. Navy

USS Alaska, an Ohio-class ballistic missile submarine

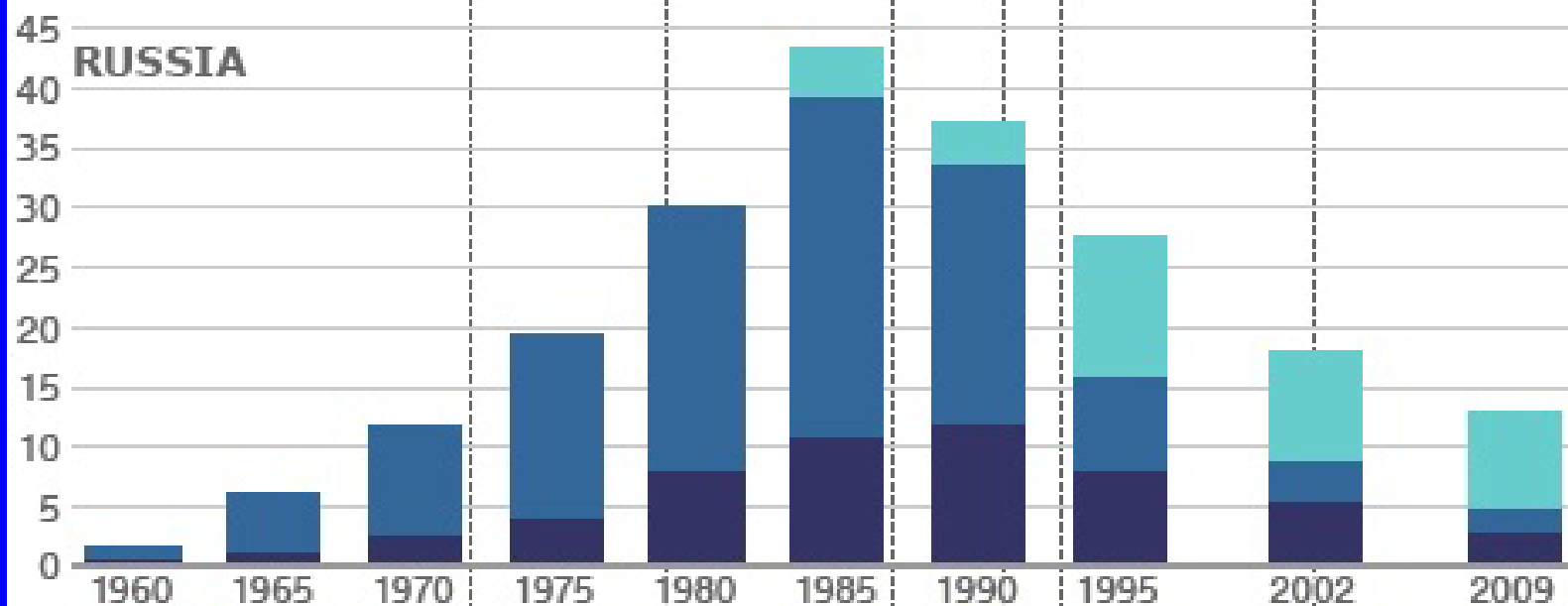
Number of warheads
Thousands



UNITED STATES



RUSSIA



Trend 2: The Problem Cases



Nuclear Weapons as a Growth Industry: Crisis Instability & Nuclear Cascades

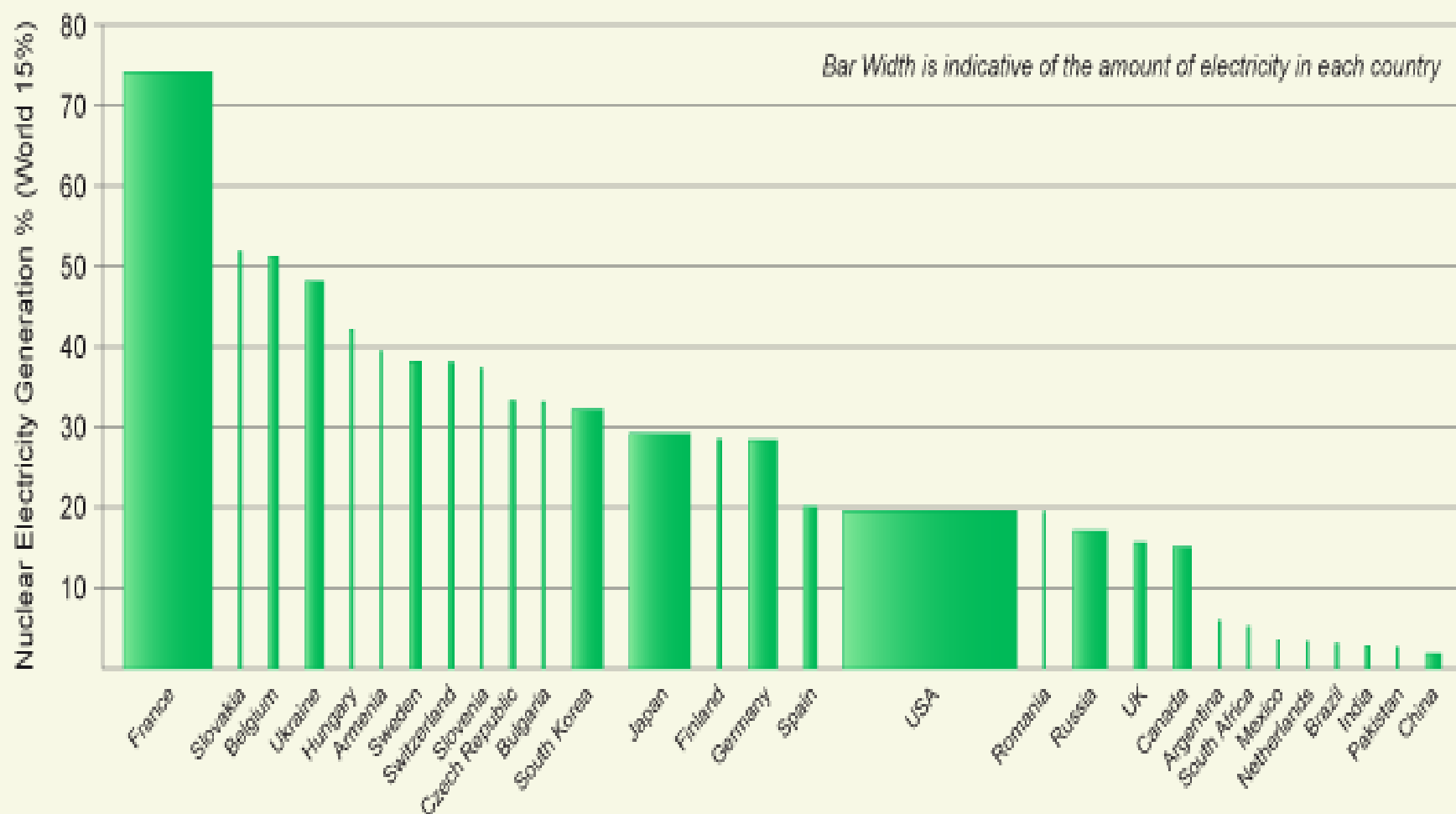
- India & Pakistan
 - Cold Start vs. Tactical Nucs/Conventional Integration
- North Korea
 - Japan, Korea, Taiwan —Cascade
- Iran
 - Israeli Preventive War, Extended Deterrence, Egypt, Saudi Arabia, Turkey —Cascade

Trend 3: Nuclear Renaissance

- Medium Term Solution to Global Warming
 - Proliferation Risk
 - Safeguards?
 - Security?



Nuclear Electricity Generation 2010



Missile Proliferation



2012 Rail Mobile
test from
production lot –
Fits in Sub tube

Agni III, 2 stage,
4,500km range, 2,490
kg throw weight, 40
meter CEP, solid fuel



Estimated Ranges of Current and Potential Pakistani Ballistic Missiles

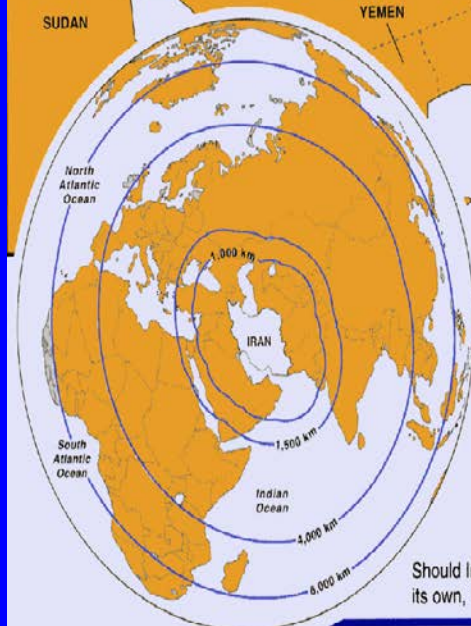
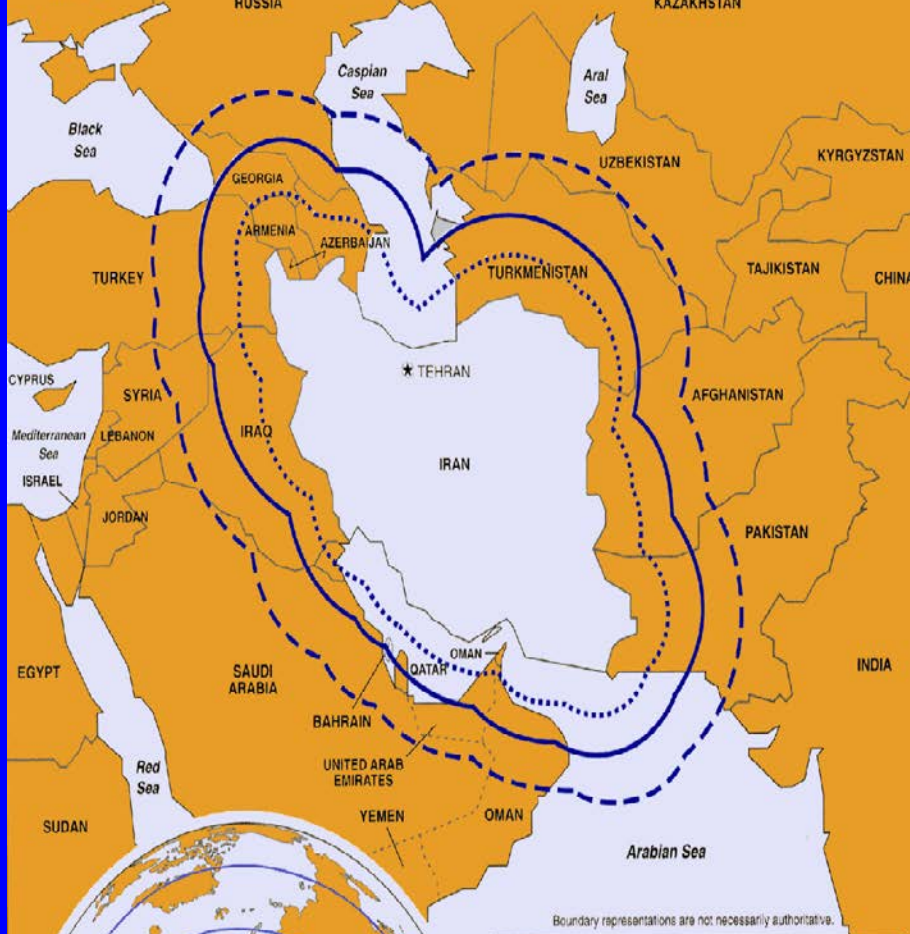


The Indian Army, in 2004, announced a new military strategy called “Cold Start.” Rather than spending months mobilizing massive armoured formations for major attack deep into Pakistan, the new plans called for creating smaller highly-mobile units with supplies pre-deployed at positions close to Pakistan, so that Indian forces could attack within three days’ of authorization . The attacks would be at multiple points to challenge Pakistan’s defensive planning and deployments. Importantly, the scale of the Indian forces would allow them only to take small slivers of Pakistani territory. It was hoped that the limited scope of the planned operations would stay below the threshold that would cause Pakistan to use nuclear weapons. [2]

The idea of Cold Start still has not been translated into real military capabilities, but the idea itself had been enough to drive the Pakistani Army to seek a counter, which resulted in the development of Nasr missile system. However , according to experts , the testing of the missile is a strong indication by Strategic Forces Command that the thresholds have further gone down to counter the conventional disparity in case of such low scale conflict .



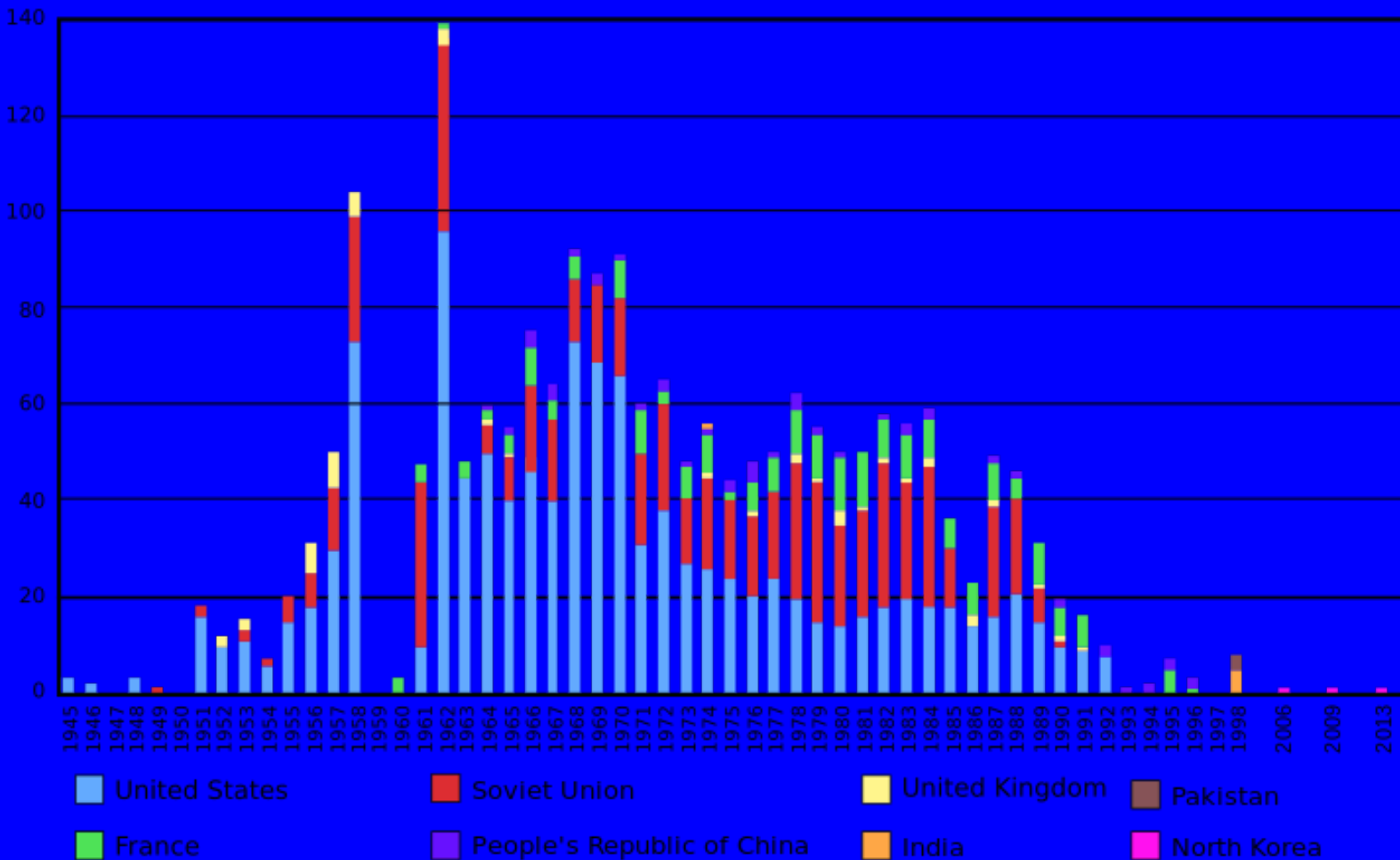
The ISPR statement's mention of full-spectrum deterrence at tactical and strategic level, Mansoor Ahmed from Quaid-e-Azam University's Department of Defence and Strategic Studies, who specializes in Pakistan's national deterrent and delivery program believes, means the Nasr missile system has been "fully integrated into the centralized command-and-control structure through round the clock situational awareness in a digitized network centric environment to decision makers at National Command Center."



IRAN		
Current Missile Delivery System	Range (km)	Source
..... CSS-8	150	China
—— SCUD B	300	Libya; North Korea
- - - SCUD C	500	North Korea
Potential Missile Delivery System	Range (km)	Potential Source
No Dong	1,000 +	North Korea
Taepo Dong 1	More than 1,500	North Korea
Taepo Dong 2	4,000-6,000	North Korea

Should Iran receive long-range missiles from North Korea, or develop its own, it could threaten a much wider area.

Is This Nuclear Disarmament?

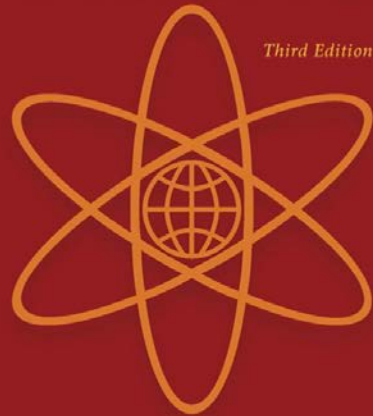


Half Full or Half Empty?

- Decoupling is Occurring
- Trends are robust and resist insults
- Disarmament “unplanned”
- Causal Forces Unclear
 - Would Nuclear Use Reverse or Accelerate Trends

THE SPREAD OF NUCLEAR WEAPONS

AN ENDURING DEBATE



Third Edition

SCOTT D. SAGAN
KENNETH N. WALTZ

ON LIMITED NUCLEAR WAR

IN THE 21ST CENTURY

EDITED BY
JEFFREY A. LARSEN
KERRY M. KARTCHNER

FOREWORD BY THOMAS SCHELLING

**COMPLEX
DETERRENCE**

Strategy in
the Global Age

EDITED BY T. V. PAUL, PATRICK M. MORGAN, AND JAMES J. WITZ