

# Nuclear Dynamics in Asia: Evolving Nuclear Strategies and Forces of Russia and China

Brian Carlson and Michael Chase

# Key Questions (1)

- What are the most important recent developments in Russian nuclear strategy and force modernization and what do they mean for nuclear dynamics in Asia?
- How does Russia view Chinese nuclear forces and strategy?
- What are the most important recent developments in Chinese nuclear strategy and force modernization and what do they mean for nuclear dynamics in Asia?
- How does China view developments in Russian nuclear forces and strategy?

# Key Questions (2)

- In what areas do Russia and China have shared interests, incentives for cooperation, or at least shared concerns about the US?
- What Russia-China cooperation is taking place in these areas?
- What has China learned from Russia's nuclear strategy and forces and are any lessons that China may have learned from Russia reflected in possible changes in China's nuclear strategy and forces?
- Is it possible that China will copy trends in Russian strategy or force modernization?
- What are the implications of the above developments in the areas of future arms control, regional security and stability, and the interests of the US and its allies and partners in Asia?

# Recent developments in Russian nuclear strategy

- The government's military doctrine, published in December 2014, says that Russia:
  - shall reserve for itself the right to employ nuclear weapons in response to the use against it and/or its allies of nuclear and other kinds of weapons of mass destruction, as well as in the case of aggression against the Russian Federation with use of conventional weapons when the state's very existence has been threatened.

# Recent developments in Russian nuclear strategy

- Russia believes that nuclear forces, especially strategic nuclear forces, are indispensable for Russia's security and status as a great power.
- Russia has a strong desire to maintain nuclear parity with the United States.
- Russian officials have made statements in recent years suggesting a nuclear strategy that is more aggressive than described in the official military doctrine.
- But no confirmation of a change in nuclear strategy.

# Current Russian nuclear force modernization trends

- Intercontinental ballistic missiles
- Submarines and SLBMs
- Strategic bombers
- Nonstrategic (tactical) weapons
- Recently unveiled capabilities

# Recent developments in Chinese nuclear strategy

- China has maintained a No First Use (NFU) policy since its first nuclear test in October 1964
- Defense White Papers and Chinese military publications continue to reflect NFU policy
- But some doctrinal publications suggest possible exceptions
  - Some Chinese authors argue that “lowering nuclear threshold” could deter enemy from launching conventional attacks against certain types of strategic targets



# Key Features of Force Modernization Outlined in 1980s

- “In order to continuously increase the effectiveness of nuclear counterattack capability, it is necessary to continuously move toward mobile launch and miniaturization developments, further increase the survivability of the strategic missiles, improve their ability to penetrate and their accuracy, and appropriately increase the number of missiles and launch units, and improve operational command and support systems.” – Gao Rui, 战略学 (*Science of Strategy*), Beijing: Military Science Press, 1987

# Current Chinese Nuclear Force Modernization Trends

- Chinese Defense White Papers and other publications state China aims to build “lean and effective” nuclear force
  - Department of Defense reports China is “both qualitatively and quantitatively improving its strategic missile forces”
- China is moving toward a more survivable nuclear posture in form of triad that will include silo-based and road-mobile ICBMs, nuclear-powered ballistic missile submarines (SSBNs), and nuclear-capable bombers



# DF-31AG ICBMs on Parade in Aug 2017



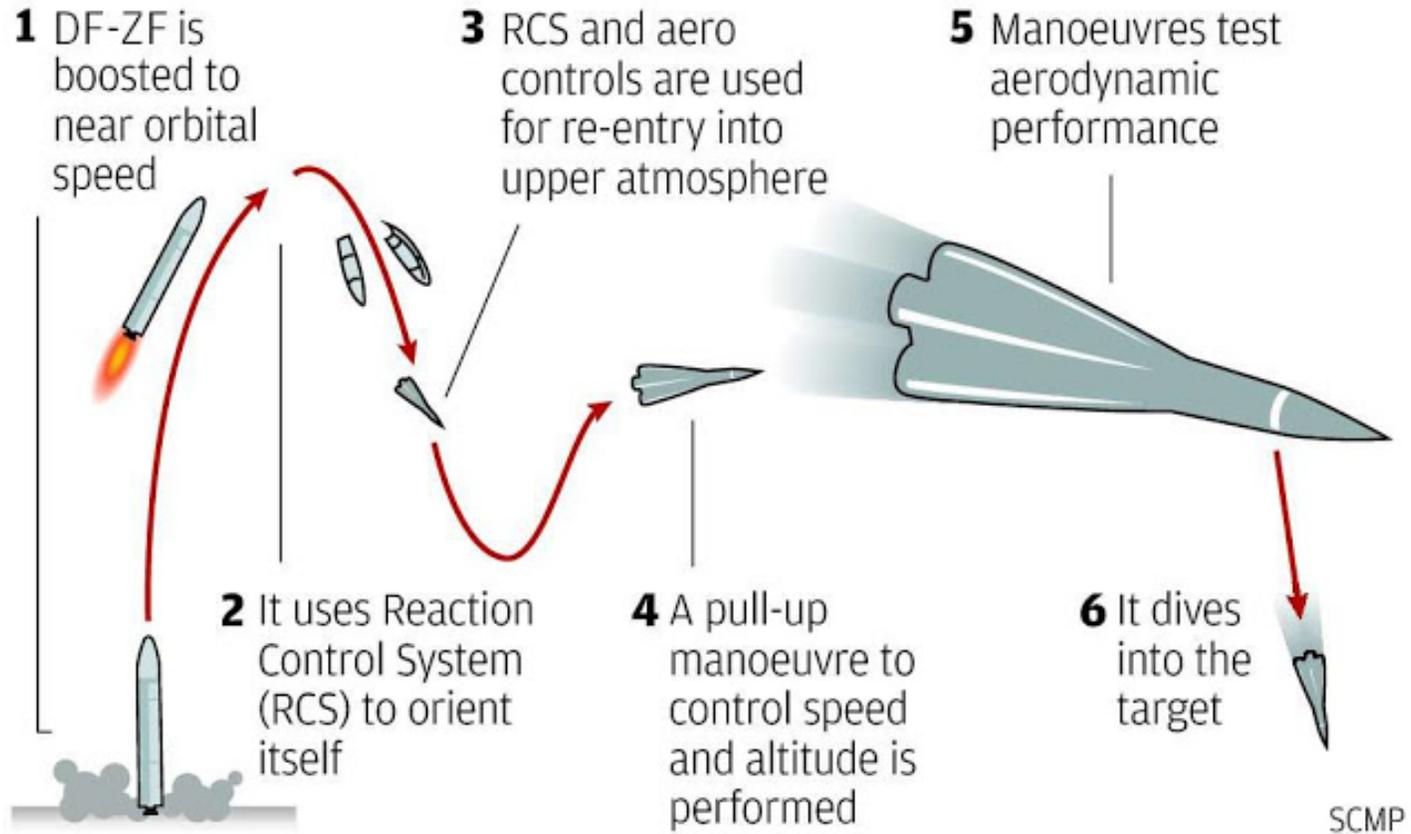
# DF-41 ICBM Under Development

- China is also developing the DF-41, a new road mobile ICBM possibly capable of carrying multiple independently targeted re-entry vehicles (MIRVs)
- Mentioned in Chinese media and pictures have appeared on Internet



# China is Developing Hypersonic Glide Vehicles

## How it flies



# PLA Navy and Nuclear Deterrence

- China's defense white papers state the PLA Navy (PLAN) is enhancing its “strategic deterrence and counterattack” capabilities, a clear reference to the Type-094 SSBN and JL-2 SLBM combination
  - The Type-094 SSBN and the JL-2 give China its first credible sea-based nuclear deterrent
  - China plans to improve on these capabilities with a future SSBN and SLBM

# PLA Air Force and Nuclear Deterrence

- PLAAF was once assessed as having a nuclear deterrence and strike mission, but does not appear to have a nuclear role today
  - Why this changed is not entirely clear
- PLAAF appears poised to regain nuclear mission
  - In addition to enhancing survivability and flexible strike options, nuclear capability could be part of PLAAF's vision of becoming "strategic air force"
- PLAAF has announced new long-range bomber under development

# Areas in which China and Russia share concerns about the United States

- China and Russia share concerns about implications of:
  - US “hegemony” generally
  - US missile defense developments
  - US CPGS developments
- Shared concerns reflected in a number of ways, including cooperation in the form of exercises such as recent China-Russia anti-missile exercises
  - Will China and Russia increase cooperation in any of these areas?
  - Or will China copy trends in Russia’s approach?