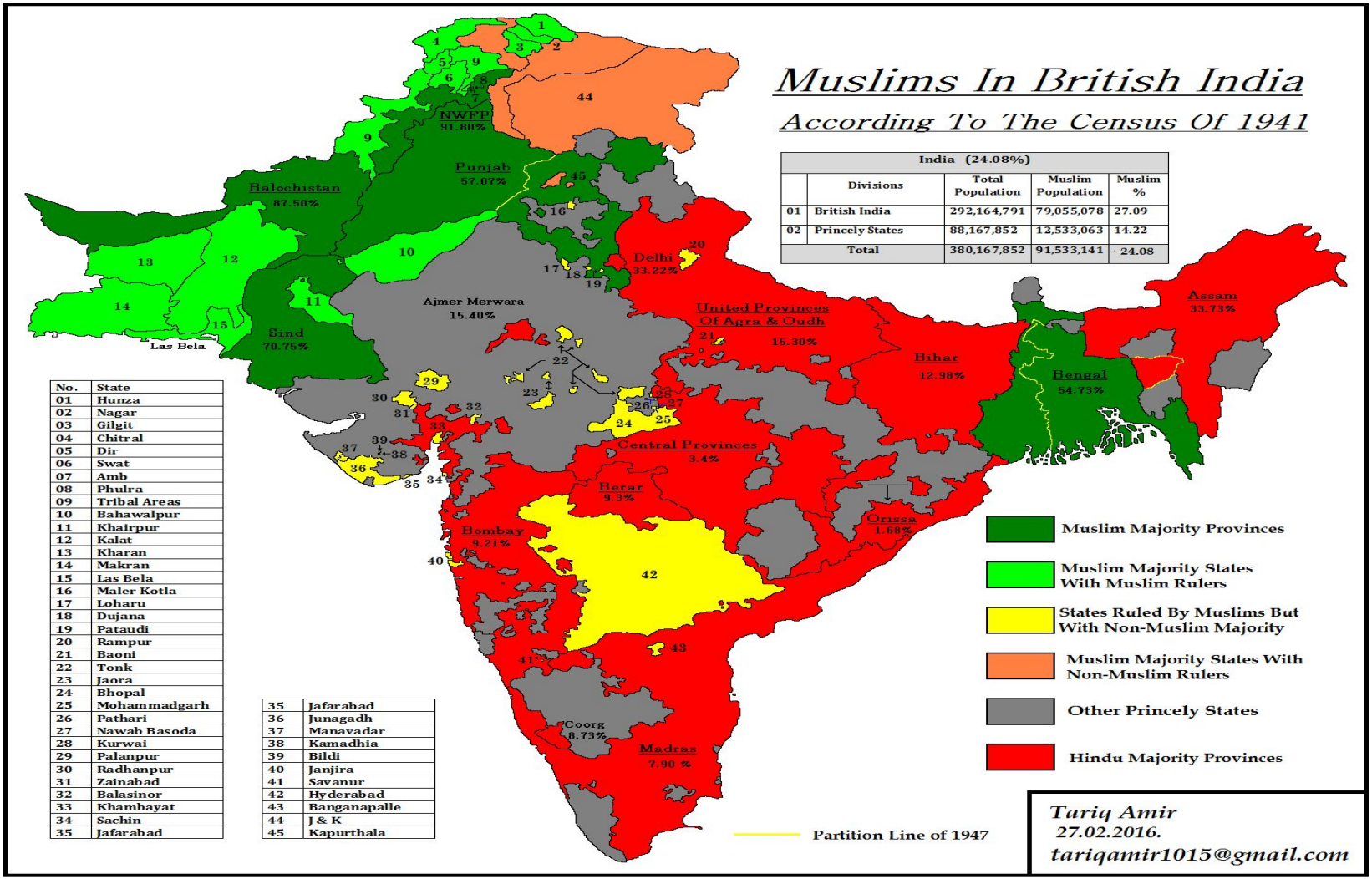
Pakistan's Nuclear Weapons

Schelling-esque Ambiguity Personified

Rabia Akhtar
University of Lahore - Pakistan
61st ISODARCO, Andalo, Italy


Extent of British India
Under direct British rule
Princely state / Dependency
British India military Commands
1. Western Command, 2. Northern Command
3. Southern Command, 4. Eastern Command
5. Burma Independent District
Bihar Administrative division / territory
Capital (Calcutta 1772 - 1931, New Delhi 1931 -)
AFGANISTAN
PERSIA
REPUBLIC OF CHINA
NEPAL (nominally independent)
BHUTAN (nominally independent)
Tejen
Merv
Balkh
Nishpur
Herat
Kabul
Ghazni
Kandahar
Zaranj
Kerman
Zahedan
Bam
Hormuz
Giligit
Gilgit
Ladakh
Srinagar
Kashmir and Jammu
Peshawar
Jammu
North-West Frontier Province
Lahore
Jullundur
Punjab
Chenab r.
Sutlej r.
Ambala
Punjab States
Quetta
Baluchistan
Multan
Panipat
NEW DELHI
Delhi
Rampur
Bareilly
Indus r.
Bahawalpur
Bikaner
Ganges r.
Agra
United Provinces
Lucknow
Fatehpur
Yamuna r.
Baluchistan States
Larkana
Jaipur
Rajputana
Jodhpur
Ajmer
Ajmer-Merwara
Gwalior
Kota
Udaipur
Tis
Ormara
Karachi
Hyderabad
Sind
Gulf of Oman
Indus Delta
Muskat
Bahla
OMAN
Bhuj
Rajastan, Gujarat & Central India
Jabalpur
Indore
Cambay
Junagarh
Nagar Haveli
Diu (Portugal)
Daman (Portugal)
Bombay Presidency
Aurangabad
Nandar
Bombay
Pune
Bidar
Hyderabad
Kolhapur and Deccan States
Kolhapur
Bijapur
Goa (Portugal)
Bhatkal
Mysore
Mangalore
Bangalore
Mysore
Mahe (France)
Laccadive Is.
Calicut
Kochin
Madras States
Madurai
Jaffna
Madras Presidency
Vijayanagar
Nellore
Arcot
Pulikat
Madras
Pondicherry (France)
Karaikal (France)
Yanam (France)
Machilipatnam
Vishakhapnam
Arabian Sea
Bay of Bengal
Lhasa
Punakha
Katmandu
Sikkim
Sadiya
North-East Frontier Tracts
Cooch Behar
Assam
Carchar
Manipur
Upper Burma
Tripura
Mandalay
Chittagong
Eatsern India
Allahabad
Varanasi
Patna
Gaur
Bengal
Dacca
Chandernagore
CALCUTTA
Bihar
Central Provinces
Rajpur
Sambalpur
Nagpur
Orissa
Balasor
Cuttack
Puri
Gandjam
Bhawanipatna
Godāvari r.
Ganges Delta
Arakan
Lower Burma
Bassein
Rangoon
Mawlamyine
SIAM
Bangkok
Andaman & Nicobar Is.
Port Blair
WORLD HISTORY


Muslims In British India
According To The Census Of 1941
India (24.08%)
Divisions | Total Population | Muslim Population | Muslim %
01 British India | 292,164,791 | 79,055,078 | 27.09
02 Princely States | 88,167,852 | 12,533,063 | 14.22
Total | 380,167,852 | 91,533,141 | 24.08
NWFP 91.80%
Punjab 57.07%
Balochistan 87.50%
Sind 70.75%
Las Bela
Ajmer Merwara 15.40%
Delhi 33.22%
United Provinces Of Agra & Oudh 15.30%
Bihar 12.98%
Assam 33.73%
Bengal 54.73%
Central Provinces 3.4%
Berar 9.3%
Bombay 9.21%
Orissa 1.68%
Coorg 8.73%
Madras 7.90 %
Muslim Majority Provinces
Muslim Majority States With Muslim Rulers
States Ruled By Muslims But With Non-Muslim Majority
Muslim Majority States With Non-Muslim Rulers
Other Princely States
Hindu Majority Provinces
Partition Line of 1947
No. | State
01 Hunza
02 Nagar
03 Gilgit
04 Chitral
05 Dir
06 Swat
07 Amb
08 Phulra
09 Tribal Areas
10 Bahawalpur
11 Khairpur
12 Kalat
13 Kharan
14 Makran
15 Las Bela
16 Maler Kotla
17 Loharu
18 Dujana
19 Pataudi
20 Rampur
21 Baoni
22 Tonk
23 Jaora
24 Bhopal
25 Mohammadgarh
26 Pathari
27 Nawab Basoda
28 Kurwai
29 Palanpur
30 Radhanpur
31 Zainabad
32 Balasinor
33 Khambayat
34 Sachin
35 Jafarabad
35 Jafarabad
36 Junagadh
37 Manavadar
38 Kamadhia
39 Bildi
40 Janjira
41 Savanur
42 Hyderabad
43 Banganapalle
44 J & K
45 Kapurthala
Tariq Amir
27.02.2016.
tariqamir1015@gmail.com

Colonial rule

Before Partition, Hindus accounted for nearly 70 percent of British India's population while Muslims made up only a quarter. Although most Muslim-majority communities were in the north, religious groups were dispersed throughout the country.

After Partition

Dividing the country by religion proved difficult, especially in the provinces of Punjab and Bengal, which had near-equal Hindu and Muslim populations. The resulting creation of a noncontiguous Pakistan forced millions of Hindus and Muslims to relocate.

Rosemary Wardley, NG Staff.
Source: The CShapes 2.0 Dataset, Guy Schvitz and others, *Journal of Conflict Resolution*, 2022

Pakistan's Security Dilemma and the Indo-Pak Wars

1. **First Indo-Pak War (1947-1948):** Also known as the First Kashmir War, it took place immediately after the partition of British India in 1947. The conflict was over the princely state of Jammu and Kashmir.
2. **Second Indo-Pak War (1965):** This war was primarily fought over Kashmir. The conflict began in April 1965 and escalated to a full-scale war in September 1965. The war ended with a United Nations-mandated ceasefire and the signing of the Tashkent Agreement in 1966.
3. **Bangladesh Liberation War (1971):** The conflict started as the Bangladesh Liberation War, leading to the creation of Bangladesh. India intervened in support of the Bangladeshi independence movement, resulting in a full-scale war between India and Pakistan. The war ended with the creation of Bangladesh and the signing of the Instrument of Surrender on December 16, 1971. Followed by the Shimla Agreement in 1972 and creation of the LOC

1972 Shimla Agreement

Zulfiqar Ali Bhutto, President of Pakistan and Indira Gandhi, Prime Minister of India

The Line of Control (LOC) between India and Pakistan

The Nuclear Flashpoint

Pakistan's Nuclear Weapons Program

1965 and 1971: The War and the Dismemberment of Pakistan

1972: Pakistan begins its nuclear weapons program. Intelligence about India's forthcoming PNE

1974: India conducts a nuclear test (Smiling Buddha), leading to increased urgency in Pakistan's nuclear program. AQ Khan comes back to Pakistan to give Pakistan a uranium bomb

1983 & 1987: Pakistan conducts cold tests indicating advancements in nuclear capabilities. Pakistan Atomic Energy Commission (PAEC) works on the plutonium route to the bomb

1998: In response to India's nuclear tests (Operation Shakti), Pakistan conducts a series of nuclear tests (Chagai-I and Chagai-II).

Indian Nuclear Tests in 1998

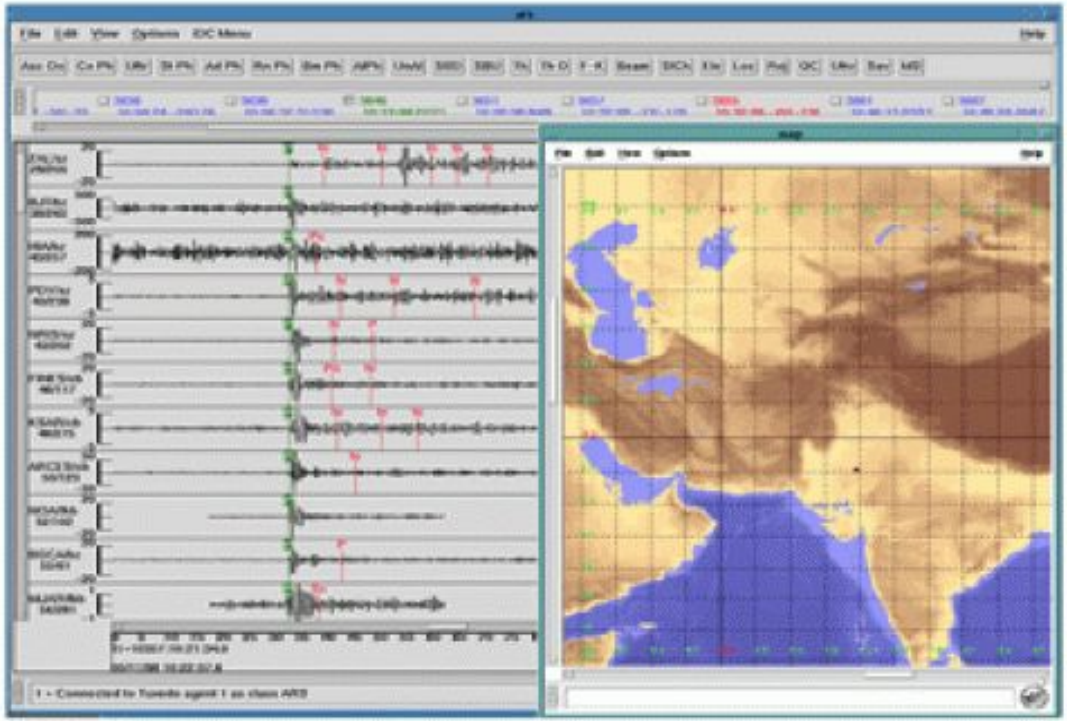
1. **May 11, 1998:**
   - Shakti I: A fission bomb with a reported yield of 45 kilotons.
2. **May 13, 1998:**
   - Shakti II: A fusion (thermonuclear) bomb.
   - Shakti III: A fission bomb with a reported yield of 200 kilotons.
   - Shakti IV: A fission bomb with a reported yield of 0.2 kilotons.
   - Shakti V: A fission bomb with a reported yield of 12 kilotons.

Pakistan's Nuclear Tests in 1998

1. **May 28, 1998**
    - Chagai I: 5 tests, boosted fission devices, 32kt and 1kt (4)
2. **May 30, 1998**
    - Chagai II: 1 test, 15 kt, miniaturized boosted fission device

Seismic Waveforms and Regional Map
Indian Nuclear Test: 11 May 1998

CTBTO PREPARATORY COMMISSION

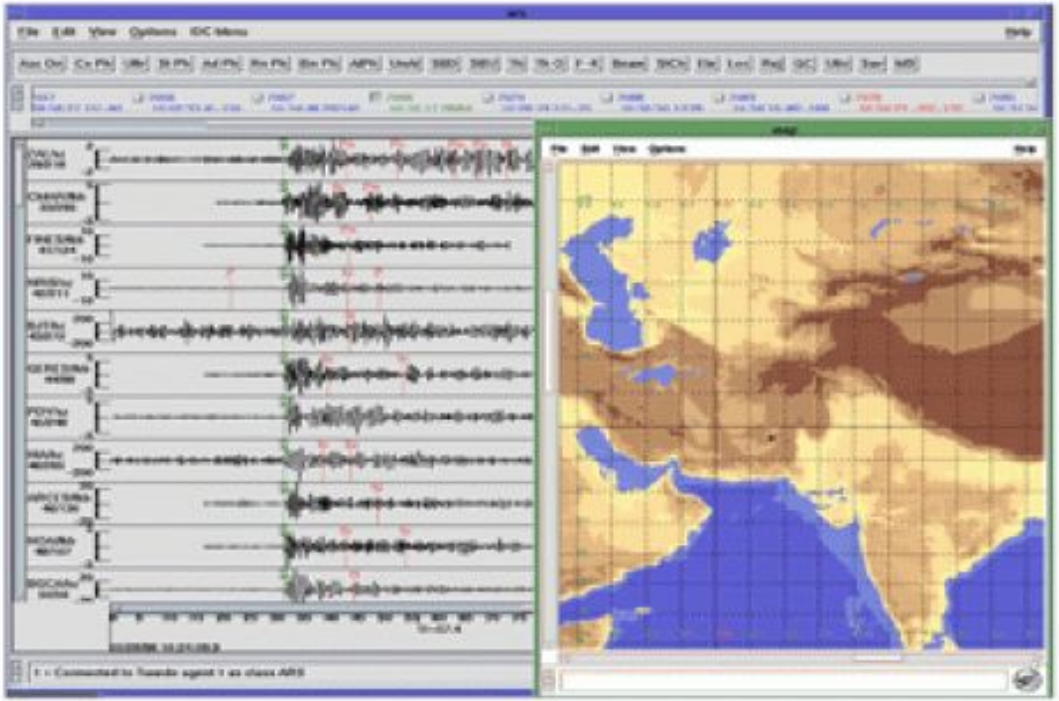


Origin Time:	1998/05/11 10:13:44.2
Coordinates:	27.09°N
	71.69°E
	+- 13-14 km
m_b = 5.0	M_S = 3.2

IDC Solution			Ground Truth		Difference
OT (GMT)	LAT (N)	LON (E)	LAT (N)	LON (E)	

Seismic Waveforms and Regional Map
Pakistani Nuclear Test: 28 May 1998

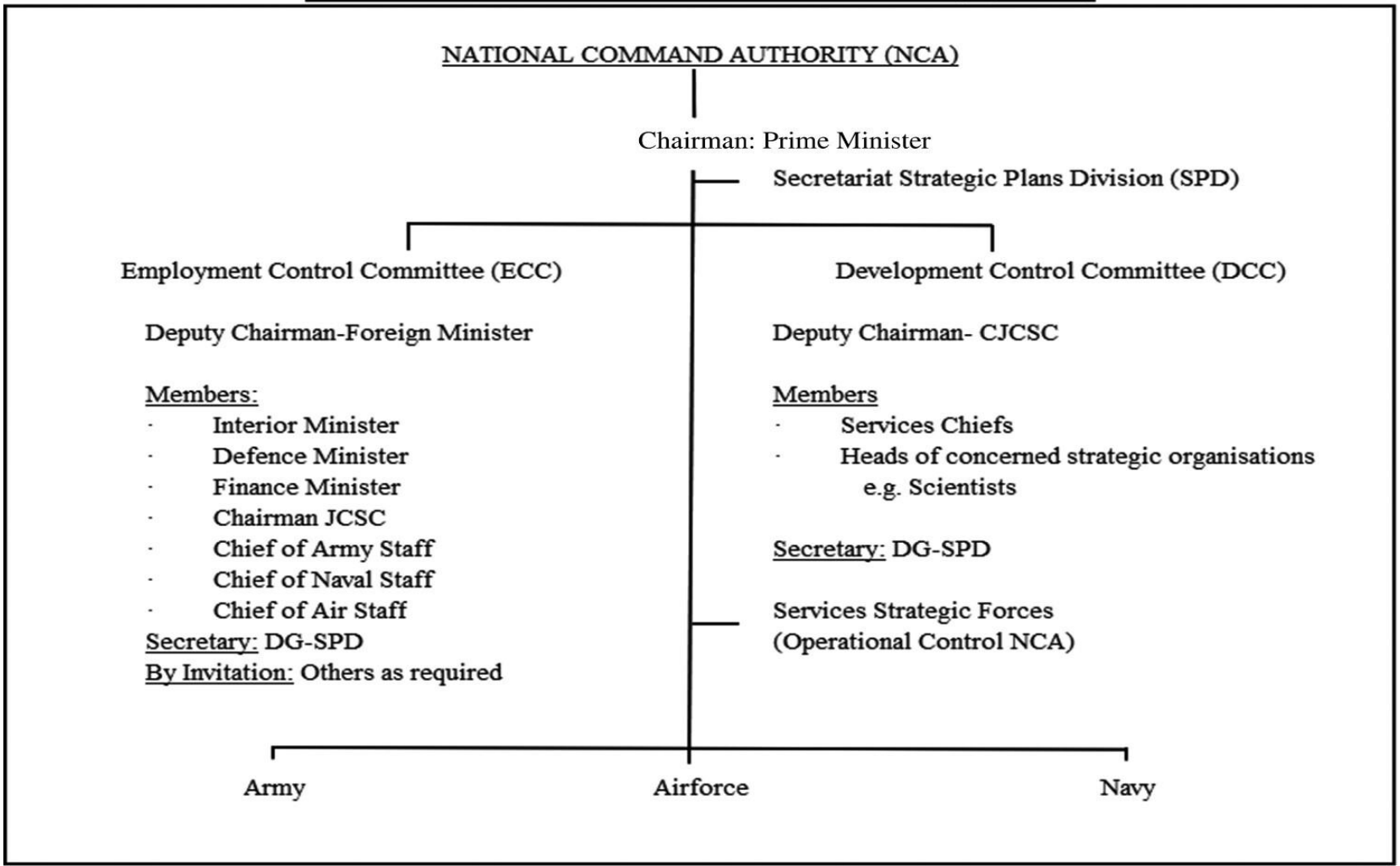
CTBTO
PREPARATORY COMMISSION



Origin Time:	**1998/05/28 10:16:17.6**
Coordinates:	**28.91° N**
	64.84° E
	+- 13-15 km
m_b = 4.9	**M_S = 3.5**

IDC Solution			Ground Truth		Difference
OT (GMT)	LAT (N)	LON (E)	LAT (N)	LON (E)	

Pakistan's National Command Authority (NCA)



Nuclear Doctrines of India and Pakistan: A Comparison

India	*Pakistan*
Credible minimum nuclear deterrence	Credible minimum nuclear deterrence
Assertive command and control structure/civilian control	Assertive command and control structure/civilian-military control/flexibility towards delegative C2 with the induction of TNWs
No First Use (nuclear retaliation against chemical and biological weapons attacks)	No No First Use
Massive retaliation designed to inflict unacceptable damage, Assured Retaliation	Massive and Assured Retaliation
Counter-value and counter-force targeting	Counter-value and counter-force targeting
Robust ballistic and cruise missile programme/induction of SSBNs (moving from dyads to triads)	Robust ballistic and cruise missile programme
Nuclear weapons-instruments of retribution	Nuclear weapons-for defensive use only, not for war-fighting

Pakistan's Nuclear Thresholds: Go Figure!

Pakistan's nuclear weapons are a double edged sword: deter a conventional war with India and a nuclear war

2002 Interview, Gen. Kidwai stated 4 nuclear thresholds for Pakistan:

1. Space Threshold: loss of large parts of territory
2. Military Threshold: destruction of large parts of land or air forces
3. Economic Threshold: economic strangulation
    a. 'Indian naval blockade or possibly also the placement of Indian dams on rivers flowing from Kashmir that could be used either to dry up or flood Pakistan's Punjab plains, depending on how India's military operations were to unfold.'
4. Political Threshold: political destabilization or large scale internal subversion

Pakistan's Nuclear Policy

- Pakistan's policy will continue to be based on a minimum credible deterrence (full spectrum deterrence which still remains CMD)
- It will avoid getting embroiled in a strategic arms race with India.
- It will continue to support international arms control regimes, which are non-discriminatory in nature.
- Pakistan's nuclear policy will be conducted with 'restraint' and 'responsibility'.
- It will participate in the FMCT negotiations.
- It will refrain from further nuclear testing. However, this commitment is subject to change in case India decides to resume testing.
- Pakistan will strengthen existing controls on the export of nuclear technology through administrative and legal mechanisms.

Table 1. Pakistani nuclear forces, 2023.

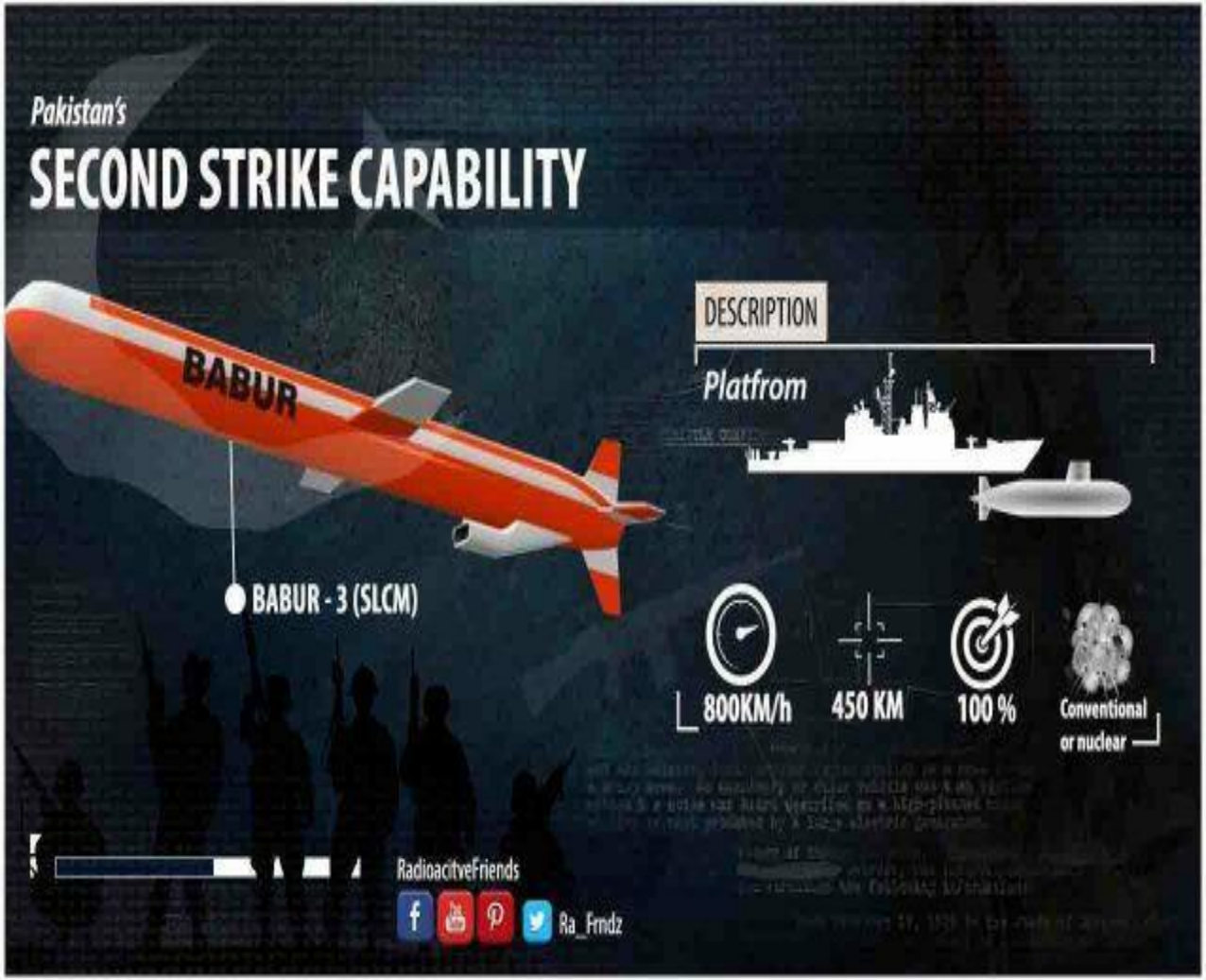
Type/designation	Number of launchers	Year deployed	Range (kilometers)[a]	Warhead x yield (kilotons)[b]	Number of warheads[c]
Air-delivered weapons[d]					
Mirage III/V	36	1998	2,100	1 x 5-12 kt bomb or Ra'ad-I/II[e] ALCM	36
[JF-17][f]	-			Ra'ad-I/II ALCM	-
Subtotal	*36*				*36*
Land-based weapons					
Abdali (Hatf-2)	10	2015	200	1 x 5-12 kt	10
Ghaznavi (Hatf-3)	16	2004	300	1 x 5-12 kt	16
Shaheen-I/A (Hatf-4)	16	2003/2022	750/900	1 x 5-12 kt	16
Shaheen-II (Hatf-6)	24	2014	1,500	1 x 10-40 kt	24
Shaheen-III (Hatf-6)	-	-2024	2,750	1 x 10-40 kt	-
Ghauri (Hatf-5)	24	2003	1,250	1 x 10-40 kt	24
Nasr (Hatf-9)	24	2013	60-70	1 x 12 kt	24[g]
Ababeel (Hatf-?)	-	-	2,200	MIRV/MRV?	-
Babur/-1A GLCM (Hatf-7)	12	2014	350[h]	1 x 5-12 kt	12
Babur-2/-1B GLCM (Hatf-?)	-	-[i]	700	1 x 5-12 kt	-
Subtotal	*126*				*126*
Sea-based weapons					
Babur-3 SLCM (Hatf-?)	-	[j]	450	1 x 5-12 kt	-
Other stored warheads					[8]
Total	162				170[k]

PAKISTAN'S BALLISTIC AND CRUISE MISSILES

Missile forces play a central role in Pakistan's defense strategy to offset the conventional military advantages of India, its main rival. Islamabad deploys primarily short and medium-range ballistic missiles, but it has also been making strides in cruise missiles. Pakistan's missile and nuclear programs have benefited from Chinese technical assistance, and evidence points to Pakistani cooperation with Iran and North Korea as well.

CSIS | MISSILE DEFENSE PROJECT

February 2021



Babur-III is a submarine-launched cruise missile (SLCM) having a range of 450 kms and the ability to deliver various types of payloads including nuclear warheads. On March 29, 2018, Babur-III was tested from a submerged platform off Pakistan's coast in the Arabian Sea. It uses "underwater controlled propulsion." It struck undisclosed location on the land. Babur-III was first tested in January 2017

Chinese Submarine Supplies, 2015

PAKISTAN – 8 x Type-039B Yuan Class

NAVALNEWS

Total Submarines in Fleet: 8

- Ballistic Missile Submarines (SSBNs): 0
- Nuclear-Powered attack submarines (SSNs): 0
- Diesel-electric attack submarines (SSKs): 5
- Mini Submarines (SSMs): 3
- Air-independent propulsion (AIP) enabled: 3/8

India-Pakistan military balance

Faced with India's conventionally superior armed forces, Pakistan has built up stocks of short and medium-range nuclear missiles

PAKISTAN	ACTIVE MILITARY PERSONNEL	INDIA
= 50,000	653,800	1.4 million
MAIN BATTLE TANKS		
= 200	2,496	3,565
COMBAT AIRCRAFT		
= 50	433	889
ATTACK HELICOPTERS		
= 50	273	805
DESTROYERS/FRIGATES		
= 2	9	27
AIRCRAFT CARRIER		
		1
SUBMARINES		
	8	16
NUCLEAR WARHEADS		
= 10	140-150	130-140
MISSILES*		
= 2	60	54

Source: IISS, SIPRI *Short and medium-range ballistic missiles Picture: AP © GRAPHIC NEWS

Full Spectrum Deterrence

According to Gen. Kidwai (2023), "full spectrum deterrence" implies the following:

- "That Pakistan possesses the full spectrum of nuclear weapons in three categories: **strategic, operational and tactical, with full range coverage of the large Indian land mass and its outlying territories**; there is no place for India's strategic weapons to hide.
- That Pakistan possesses an entire range of weapons yield coverage in terms of kilotons (KT), and the numbers strongly secured, **to deter the adversary's declared policy of massive retaliation**; Pakistan's "counter-massive retaliation" can therefore be as severe if not more.
- That Pakistan retains the liberty of choosing from a full spectrum of targets in a "target-rich India," notwithstanding t**he indigenous Indian BMD or the Russian S-400, to include counter value, counter force and battlefield targets.**"

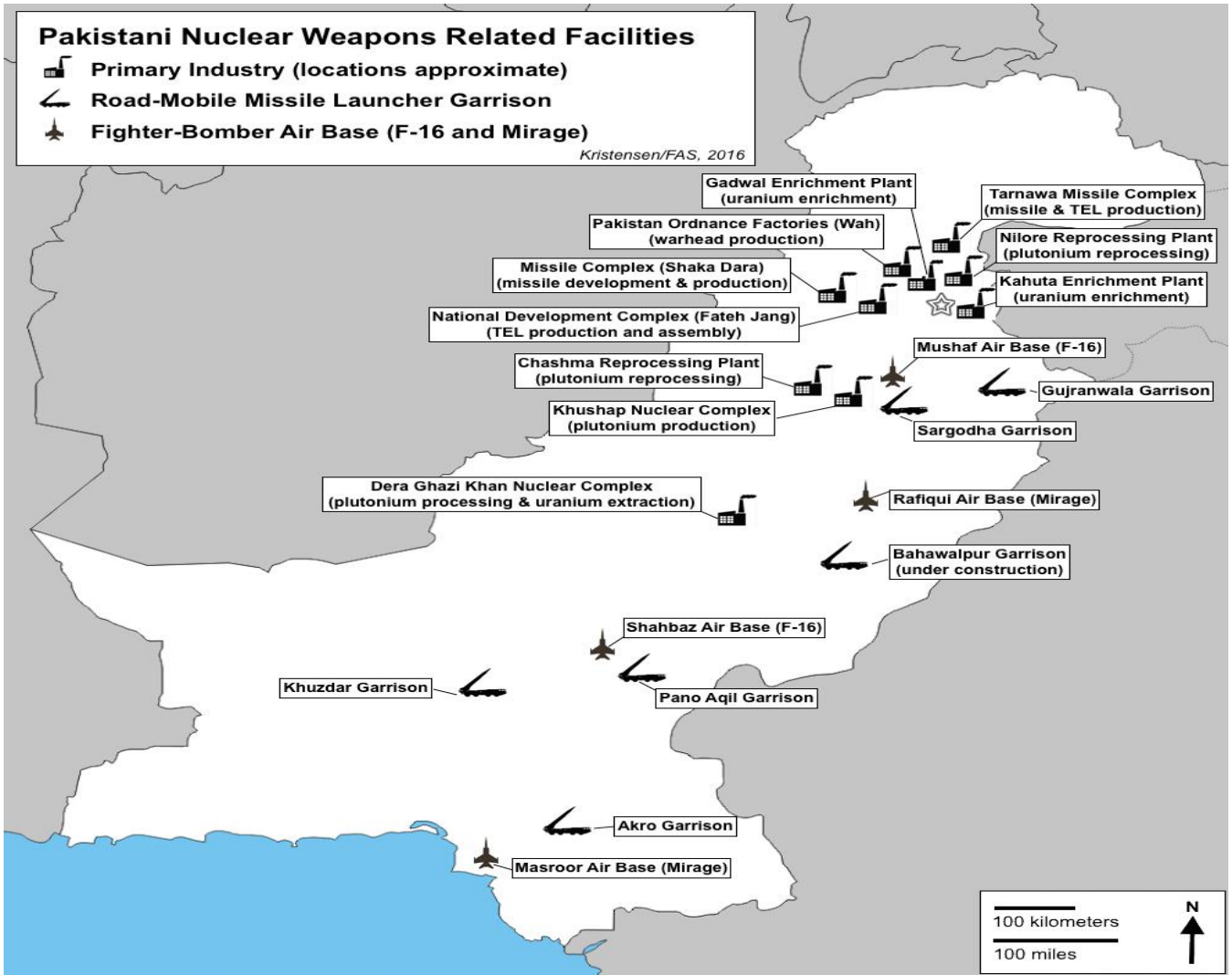
Kidwai: “full spectrum” aspect of Pakistan’s deterrence posture encompasses both “horizontal” and “vertical” elements.

The **horizontal aspect** refers to Pakistan’s nuclear “triad” encompassing the Army Strategic Force Command (ASFC), the Naval Strategic Force Command (NSFC), and the Air Force Strategic Command (AFSC).

The **vertical aspect** refers to three tiers of destructive yield—“strategic, operational, and tactical”—as well as a range coverage **“from zero meters to 2750 kilometers,” allowing Pakistan to target the entirety of India”**

Survivable Strategic Force

Because of operational security concerns, no details have been revealed about the measures taken to ensure survivability, but presumably they involve an emphasis on **mobile systems, camouflage, hardened and deeply buried facilities, and strict compartmentalization of information about the plans, locations, and standard operating procedures governing the movement, deployment, and possible employment of strategic forces**.


Pakistani Nuclear Weapons Related Facilities
Primary Industry (locations approximate)
Road-Mobile Missile Launcher Garrison
Fighter-Bomber Air Base (F-16 and Mirage)
Kristensen/FAS, 2016
Gadwal Enrichment Plant (uranium enrichment)
Tarnawa Missile Complex (missile & TEL production)
Pakistan Ordnance Factories (Wah) (warhead production)
Nilore Reprocessing Plant (plutonium reprocessing)
Missile Complex (Shaka Dara) (missile development & production)
Kahuta Enrichment Plant (uranium enrichment)
National Development Complex (Fateh Jang) (TEL production and assembly)
Mushaf Air Base (F-16)
Chashma Reprocessing Plant (plutonium reprocessing)
Gujranwala Garrison
Khushap Nuclear Complex (plutonium production)
Sargodha Garrison
Dera Ghazi Khan Nuclear Complex (plutonium processing & uranium extraction)
Rafiqui Air Base (Mirage)
Bahawalpur Garrison (under construction)
Shahbaz Air Base (F-16)
Khuzdar Garrison
Pano Aqil Garrison
Akro Garrison
Masroor Air Base (Mirage)
100 kilometers
100 miles
N

India-Pakistan Nuclear Crises

- **Stability-Instability Paradox**
  - **Stability at the Nuclear Level:**
    - At the strategic or nuclear level, a stable deterrent relationship exists when both adversaries possess a second-strike capability.
  - **Instability at the Conventional Level:**
    - **The paradox arises when the stability at the nuclear level leads to a perception of reduced risk of an all-out nuclear war.** As a result, the adversaries may feel more inclined to engage in conventional conflicts or provocations, believing that the nuclear deterrence will prevent the situation from escalating to a full-scale nuclear war.
  -

1. **Kargil Crisis (1999):**
    - While not a direct nuclear crisis, the Kargil conflict raised concerns due to the possibility of the conflict expanding and escalating into a larger war, possibly involving nuclear weapons.
2. **Parliament Attack (2001):**
    - After the attack on the Indian Parliament in December 2001, both countries deployed large military forces along their border, escalating tensions and raising fears of a potential nuclear conflict.
3. **Mumbai Attacks (2008):**
    - The terrorist attacks in Mumbai in November 2008 strained relations between India and Pakistan. Though not a direct military confrontation, there were concerns about the potential for a military response and escalation.
4. **Surgical Strikes (2016):**
    - January 2016 Pathankot attack and Sep 2016 Uri attack
        i. In September 2016, India conducted "surgical strikes" across the Line of Control (LoC) in response to a militant attack on an Indian army base in Uri. While this did not lead to a full-scale war, it increased tensions and raised the risk of escalation.
5. **Pulwama Attack (2019):**
    - In February 2019, a suicide bombing in Pulwama, Kashmir, targeted Indian paramilitary personnel. India blamed Pakistan for supporting the militants responsible. Tensions escalated, leading to aerial engagements and fears of a larger conflict.

Noises about India ditching No First Use?

- Indian ideological temptations are real, irrationality is a possibility leading to miscalculation of reality, militarized Hindutva nationalism being the main driver
- Quite likely that in its strategic arrogance and superiority complex, India will misread Pakistan's capability, resolve, and thresholds again to provoke retaliation in Balakot 2.0
- Pakistan's Quid Pro Quo Plus (QPQP): The 2002 red-lines (spatial, military, economic and political thresholds) are no longer the benchmark of predictability associated with Pakistan's nuclear behavior.
    - Evolution in Pakistan's doctrinal thinking where the **'P' in QPQP** is '**the threat that leaves something to chance'.**

Confidence Building
Measures Between Pakistan & India

1949

Karachi Agreement to establish Ceasefire Line; The CFL in Kashmir was re-designated as the LoC following the 1971 war

1960

Indo-Pak Agreement on Border Disputes established 'Ground Rules' to regulate the activities along the West Pakistan-India border.

1966

The Rann of Kutch Tribunal Award

1966

The Tashkent Declaration

1972

The Simla Accord

1982

Indo-Pak Joint Commission established to facilitate discussions at ministerial level

1988

Agreement on 'Non-Attack' on each other's nuclear facilities signed and ratified in 1991.

1999

Missile Notification Pact

The Lahore MOU called upon both sides to discuss their respective nuclear doctrines & security concepts

2003

Ceasefire agreement

2006

Both countries agreed to setup a Joint Anti-Terrorism Institutional Mechanism

2021

Pakistan & India agree on strict observance of all agreements along LoC

IPRI Islamabad Policy Research Institute
Research | Innovation | Dialogue | Policy

Source: NDU Journal

Indo-Pak Nuclear CBMs

1. **Non-Attack on Nuclear Facilities Agreement (1988):** Both countries committed not to attack each other's nuclear facilities.
2. **Agreement on Pre-Notification of Flight Testing of Ballistic Missiles (2005):** Aimed at reducing the risk of misinterpretation of missile tests.
3. **Reducing the Risk from Accidents Relating to Nuclear Weapons (2007):** Agreement to reduce the risk of accidental use of nuclear weapons.
4. **Agreement on Reducing the Risk of Accidents Relating to Nuclear Weapons (2007):** Another agreement aimed at preventing accidents related to nuclear weapons.

1998-2023: What's the Trend

1. South Asian Strategic Stability: Deterrence Stability+Crisis Stability sans Arms Control Stability
2. Outsourced Escalation Control - Too much Uncle Sam
3. No Bilateral Crisis Management Mechanisms
    a. On March 9, 2022, India accidentally launched a BrahMos cruise missile, which crossed the border into Pakistan and traveled approximately 124 kilometers before crashing near the town of Mian Channu - No joint investigations
4. Regulated Ceasefire on the LoC
5. Bipolar nature of communications :)
6. CBMs, YES! Fragile trust but no incentives for arms control
7. Disinformation Campaigns and Fake News - Spy Games
8. Militarized Hindutva Nationalism - No playbook
9. Elections 2024 in Pakistan and India

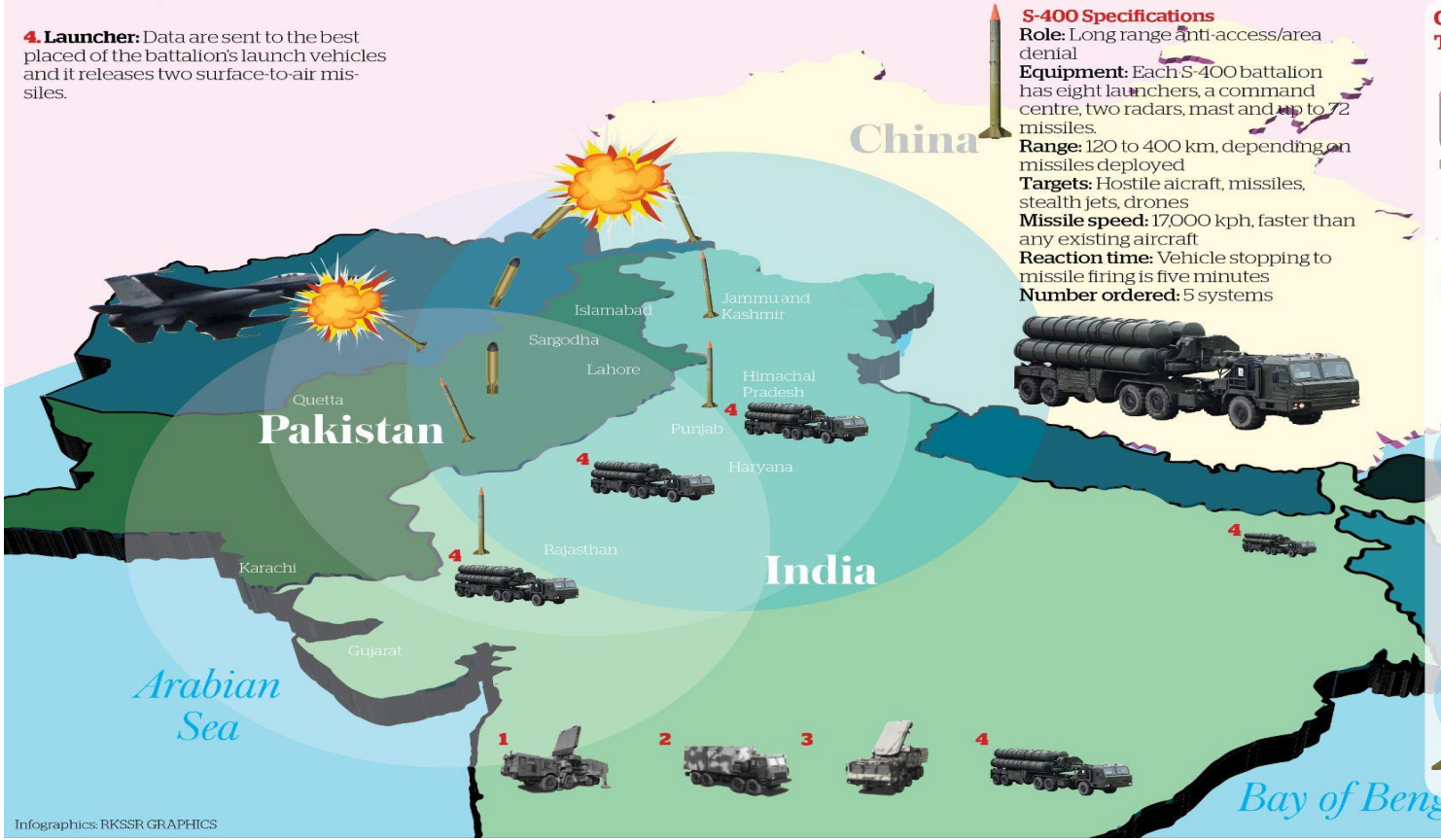
SAFER SKIES: HOW THE S-400 WILL DEFEND INDIA

1. High altitude tracker: The S-400's powerful AESA radar scans the sky in a 360-degree sweep. If any incoming threat is detected, the radar's computer helps determines if it is a missile, aircraft, cruise missile or drone. The system can track between 100 and 300 targets simultaneously.

2. Mobile commad centre: Weapons operators inside the command post communicate with friendly forces, monitor threats and prioritise targets, but the system can work autonomously.

3. Fire control radar: Once the target is identified, the command centre orders the fire control radar to launch missiles.

4. Launcher: Data are sent to the best placed of the battalion's launch vehicles and it releases two surface-to-air missiles.



S-400 Specifications

Role: Long range anti-access/area denial
Equipment: Each S-400 battalion has eight launchers, a command centre, two radars, mast and up to 72 missiles.
Range: 120 to 400 km, depending on missiles deployed
Targets: Hostile aircraft, missiles, stealth jets, drones
Missile speed: 17,000 kph, faster than any existing aircraft
Reaction time: Vehicle stopping to missile firing is five minutes
Number ordered: 5 systems

COMPONENTS OF INDIA'S THEATRE MISSILE DEFENCE

SHORT RANGE
Spyder: 15 km
Origin: Israel
Role: Cover for fast moving armour, troops
Speed: 4939 kph
Order: 1800 missiles

Akash: 25 km
Origin: India, DRDO
Role: Protection for static armour, troops
Speed: 3704 kph
Order: 3000 missiles

MEDIUM RANGE
Barak 8: 70-90 km
Origin: Israel-India/ DRDO
Role: Protection against missiles, aircraft
Speed: 4939 kph
Order: Missile under development

LONG RANGE
S-400 Triumf
Origin: Russia

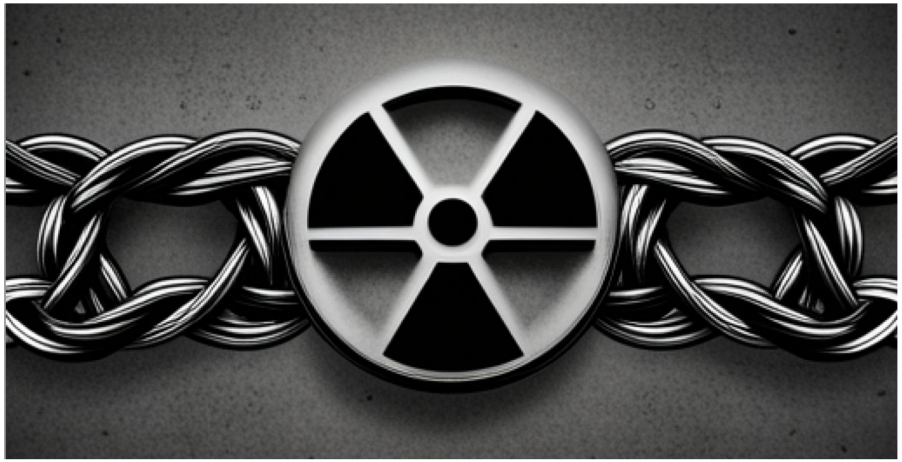
Infographics: RKSSR GRAPHICS

The Nuclear Tetraplex: New Influences on the Indo-Pak Dyad

Issues | International Security

The Inevitability of the Emerging Nuclear Tetraplex

October 17, 2023 7553 0

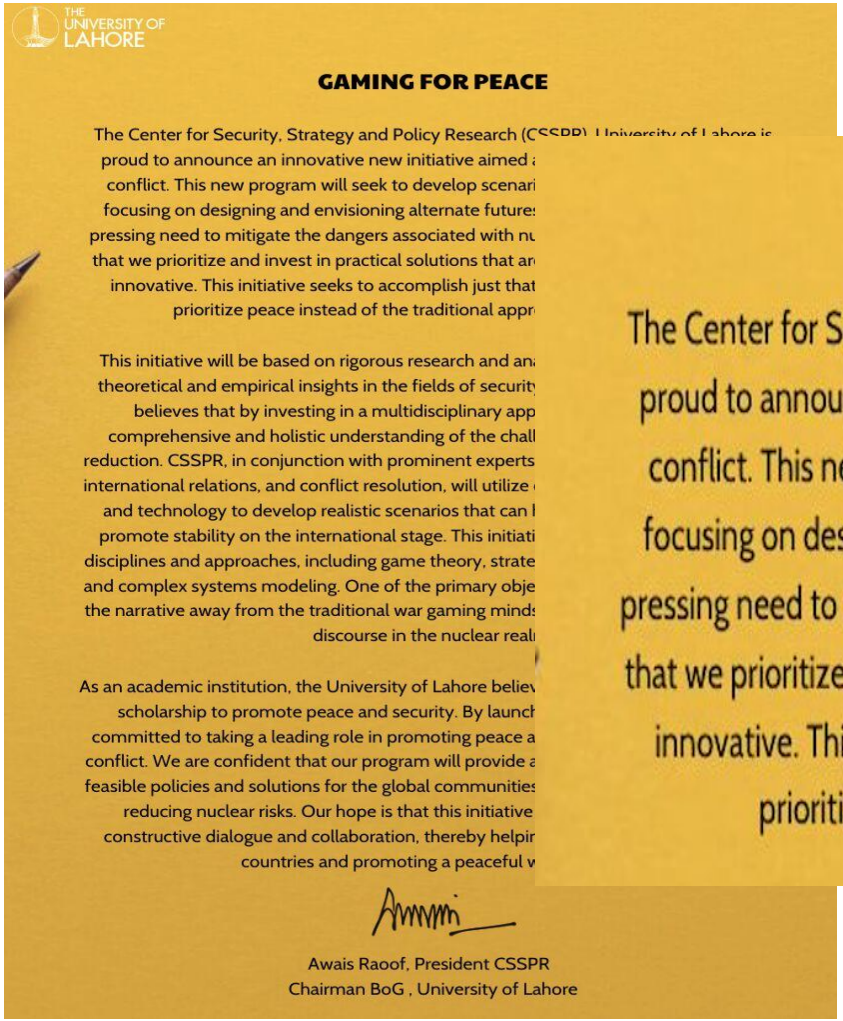


Rabia Akhtar

The architecture is currently grappling with a range of multifaceted challenges due to the intricate strategic chain connecting several key countries. This chain, which includes the United States, China, India, and Pakistan, has inadvertently positioned Pakistan at the tail end of the chain, rendering it susceptible to the disruptive impacts of an ongoing arms race. This situation further exacerbates Pakistan's security dilemma, exponentially increasing the complexity of the prevailing security landscape in the region.

The second order effects of the Strategic Chain

India's efforts to modernize its military are driven, in large part, by its concerns about China's growing influence in the region. With China's military buildup being seen as a response to the United States' presence in the same area, a delicate balance emerges. In this multi-dimensional dynamic, Pakistan finds itself delicately maneuvering through the ebb and flow of power dynamics and strategic landscapes. Consequently, it is compelled to dedicate substantial resources to match the prowess of its more formidable neighbors.



THE UNIVERSITY OF LAHORE

GAMING FOR PEACE

The Center for Security, Strategy and Policy Research (CSSPR), University of Lahore is proud to announce an innovative new initiative aimed a
conflict. This new program will seek to develop scenari
focusing on designing and envisioning alternate future
pressing need to mitigate the dangers associated with nu
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innovative. This initiative seeks to accomplish just that
prioritize peace instead of the traditional appr

This initiative will be based on rigorous research and an
theoretical and empirical insights in the fields of securit
believes that by investing in a multidisciplinary app
comprehensive and holistic understanding of the chall
reduction. CSSPR, in conjunction with prominent experts
international relations, and conflict resolution, will utilize
and technology to develop realistic scenarios that can
promote stability on the international stage. This initiati
disciplines and approaches, including game theory, strate
and complex systems modeling. One of the primary obje
the narrative away from the traditional war gaming mind
discourse in the nuclear reali

As an academic institution, the University of Lahore believ
scholarship to promote peace and security. By launch
committed to taking a leading role in promoting peace a
conflict. We are confident that our program will provide a
feasible policies and solutions for the global communities
reducing nuclear risks. Our hope is that this initiative
constructive dialogue and collaboration, thereby helpir
countries and promoting a peaceful w

Awais Raoof, President CSSPR
Chairman BoG , University of Lahore

GAMING FOR PEACE

The Center for Security, Strategy and Policy Research (CSSPR), University of Lahore is proud to announce an innovative new initiative aimed at reducing the risk of nuclear conflict. This new program will seek to develop scenarios for nuclear risk reduction, focusing on designing and envisioning alternate futures that promote peace. With a pressing need to mitigate the dangers associated with nuclear weapons, it is imperative that we prioritize and invest in practical solutions that are not only sustainable but also innovative. This initiative seeks to accomplish just that by designing scenarios that prioritize peace instead of the traditional approach of war gaming.