

September 20, 2023

# SYLLOGE ON CHINA

**Focus: Nuclear, Space, Missiles and other Security Issues**

**An Initiative by Indian Pugwash Society and Centre for Nuclear Issues and Arms Control (MP - IDSA)**



INDIAN PUGWASH SOCIETY

## **China sows disinformation about Hawaii fires using new techniques**

David E. Sanger and Steven Lee Myers

The New York Times, September 11, 2023

When wildfires swept across Maui last month with destructive fury, China's increasingly resourceful information warriors pounced. The disaster was not natural, they said in a flurry of false posts that spread across the internet, but was the result of a secret "weather weapon" being tested by the United States. To bolster the plausibility, the posts carried photographs that appeared to have been generated by artificial intelligence programs, making them among the first to use these new tools to bolster the aura of authenticity of a disinformation campaign.

<https://www.nytimes.com/2023/09/11/us/politics/china-disinformation-ai.html>

## **China poised to surpass the U.S. as the world's top nuclear power producer**

Robert Rapier

Forbes, September 11, 2023

However, China is the fastest-growing major nuclear energy producer, more than tripling its nuclear power generation over the past decade. At the current growth rate, China will surpass the U.S. as the world's largest nuclear power producer within a decade. As the world's largest consumer of coal, it is encouraging to see China ramping up nuclear power. India, the world's second-largest coal consumer, is also increasing its nuclear generation, albeit much more slowly.

<https://www.forbes.com/sites/rrapier/2023/09/11/china-poised-to-surpass-the-us-as-the-worlds-top-nuclear-power-producer/?sh=1c26a7c26092>

## **Is China in decline, and what does that mean for the US?**

Rana Foroohar

Financial Times, September 11, 2023

But if China can't manage the transition, what does that mean for the US? China's share of global growth is far higher now than two decades ago. It's a top export destination for eight of the G20 countries, including the US. While decoupling across trade and financial markets will continue with (in my opinion) even greater speed in the future, it will take time to create the market redundancy that will help offset the input inflation that is part of paying the true cost (in terms of decent labour and carbon standards) for global goods.

<https://www.ft.com/content/587bb165-324c-490e-b5d0-8fbab9485a09>

## **Can India Challenge China for Leadership of the ‘Global South’?**

Damien Cave, Mujib Mashal and David Pierson

The New York Times, September 12, 2023

Beijing may not be especially concerned. “China definitely regards India as a major rival, particularly in Asia due to New Delhi’s increasingly close ties with the U.S., but not in terms of global south leadership,” said Eric Olander, the editor of the website China Global South Project. “China is very confident that India can’t compete with Beijing in the key areas that matter most to developing countries, namely development finance, infrastructure and trade.” Beijing does not intend to cede this position, and remains wary of New Delhi’s tilt toward the West as a means to contain China’s rise.

<https://www.nytimes.com/2023/09/12/world/asia/india-china-global-south.html>

## **China's aircraft carrier Shandong sails past Taiwan island for second far sea drill of the year, two days after US and Canadian warships' provocative Straits transit**

China Military Online, September 12, 2023

China's aircraft carrier Shandong reportedly sailed past the island of Taiwan and entered the West Pacific for its second far sea exercise of the year, two days after US and Canadian warships made a provocative transit in the Taiwan Straits. The Shandong aircraft carrier group of the Chinese People's Liberation Army (PLA) Navy sailed in waters 60 nautical miles southeast of Cape Eluanbi, the southernmost point of Taiwan island, east toward the West Pacific for an exercise, the defence authority on the island of Taiwan said in a press release.

[http://eng.chinamil.com.cn/CHINA\\_209163/TopStories\\_209189/16251587.html](http://eng.chinamil.com.cn/CHINA_209163/TopStories_209189/16251587.html)

## **China’s navy starts largest-ever exercises in Pacific Ocean**

Kathrin Hille

Financial Times, September 12, 2023

China’s navy has launched its largest-ever manoeuvres with an aircraft carrier in the western Pacific, according to foreign defence officials and analysts, as Beijing flexes its military muscle to push back against the US and its allies. The Shandong, the People’s Liberation Army Navy’s second aircraft carrier, was on course to converge with more than 20 other Chinese warships in waters between Taiwan, the Philippines and the US Pacific territory of Guam, said two Asian security officials.

<https://www.ft.com/content/88e2eeab-e464-4ec3-a17f-5417150c5350>

## **Russia and China are running in a nuclear arms race while the United States is jogging in place**

Robert Peters

The Heritage Foundation, September 13, 2023

The expansion of nuclear arsenals in Russia and China, coupled with the increasing number of threats against their neighbors, points to an uncertain security future. Indeed, given this expansion, and the slow pace of U.S. nuclear modernization, the incentives for Chinese or Russian nuclear deployment during times of crisis will increase. In a purely conventional conflict in which a U.S. adversary enjoys a superiority in theater nuclear systems (systems that can deliver nuclear warheads to targets several hundred to a few thousand miles away), that adversary may be willing to employ nuclear weapons to either force the United States out of the fight or to regain the initiative in a conventional conflict if it concludes that it is losing.

<https://www.heritage.org/defense/report/russia-and-china-are-running-nuclear-arms-race-while-the-united-states-jogging-place>

## **North Korea, Russia and China: the developing trilateral imperialist partnership**

Bruce W. Bennett

RAND Corporation, September 13, 2023

China and North Korea have not yet launched major wars to achieve their aims. But they both have active information campaigns, and China has taken aggressive economic measures to extend its influence worldwide. The Belt and Road Initiative showcases Beijing's efforts to secure economic leverage. The level of trade China has established with South Korea, Australia, and many other countries is another example of that drive. The nature of Chinese influence became clear as Beijing exercised economic coercion 123 times from 2010 to 2022, including its effort to strongarm Australia to end its pursuit of the origins of COVID-19, and its push against the ROK to stop its deployment of the Terminal High Altitude Area Defense system.

<https://www.rand.org/blog/2023/09/north-korea-russia-and-china-the-developing-trilateral.html>

## **Amid US tech sanctions, Chinese scientists say they made the world's most powerful radar chip**

Stephen Chen

South China Morning Post, September 13, 2023

A research team with a major Chinese defence company says it has built a radar chip with a record power output using semiconductor technology that is the subject of strict US sanctions. The finger-

sized chip can generate radar signals with peak power reaching 2.4 kilowatts. It is one or two orders of magnitude higher than the performance of similar power-amplifying chips in most existing radar systems. The new chips can be used to build an extremely powerful radar that operates in the X band – a high-frequency microwave range used mostly by the military to identify threats and guide missiles – and can be mass-produced at relatively low cost, according to the researchers.

<https://www.scmp.com/news/china/science/article/3234346/amid-us-tech-sanctions-chinese-scientists-say-they-made-worlds-most-powerful-radar-chip>

## **China's newest aircraft carrier prepares to take to the seas**

Kathrin Hille

Financial Times, September 13, 2023

The ship, China's third aircraft carrier and the first designed domestically, marks a leap in Beijing's pursuit of projecting armed force far beyond its shores — part of leader Xi Jinping's goal of making the People's Liberation Army a “world-class military” by the middle of the century. Foreign defence officials and analysts said the Fujian's test runs and entry into service would offer clues as to how quickly China can catch up with the US amid intensifying competition and Beijing's growing military pressure on Taiwan.

<https://www.ft.com/content/8df104a2-61ea-4942-92cb-44f134624adc>

## **China shares over 1.5 terabytes of remote sensing satellite data with BRICS countries: CNSA**

Global Times, September 13, 2023

China has shared over 1.5 terabytes of remote sensing satellite data with BRICS countries, and will continue to promote the application of remote sensing satellite data to all walks of life in BRICS members' societies, the China National Space Administration (CNSA) said recently. According to CNSA, the establishment of BRICS Global Remote Sensing Satellite Data and Application Cooperation Platform, a cooperation mechanism in joint observation and data sharing of the remote sensing satellites among the five major emerging economies -- Brazil, Russia, India, China and South Africa, will achieve rapid collection, efficient sharing and joint application of satellite data among BRICS countries, promote the remote sensing satellite services of BRICS to benefit the world, enable sustainable economic and social development in the region and help meet the common challenges facing the world.

<https://www.globaltimes.cn/page/202309/1298152.shtml>

## **What's going on with China's surprise military shake-up?**

James Char

Channel News Asia, September 14, 2023

There has been much speculation over the reshuffle of the People's Liberation Army's (PLA) Rocket Force service, which controls China's arsenal of nuclear and conventional missiles. While the exact circumstances behind these PLA elites may not be known until official information becomes available, there are a few plausible explanations behind their disappearance. Moreover, current evidence also suggests that the combat effectiveness of China's rocket force has never been greater.

<https://www.channelnewsasia.com/commentary/china-military-pla-rocket-force-nuclear-service-leadership-shakeup-3761851>

## **China's military sets up new base for space domain awareness**

Andrew Jones

Space News, September 14, 2023

The People's Liberation Army has established new facilities to improve its space domain awareness capabilities, according to a report. The People's Liberation Army (PLA) Strategic Support Force's (SSF) new Base 37 is charged with boosting missile early warning capabilities and identifying, tracking and analyzing foreign space objects, according to the report published by the China Aerospace Studies Institute. China created the PLASSF in 2015 as the 5th branch of the PLA and charged it with integrating and overseeing areas such as space, cyber, and electronic warfare. While still not fully understood, its overarching goal is assessed to be obtaining information dominance and providing strategic support to the PLA.

<https://spacenews.com/chinas-military-sets-up-new-base-for-space-domain-awareness/>

## **PLA's latest air and sea drills near Taiwan could signal surprise attack strategy, analysts say**

Minnie Chan

South China Morning Post, September 14, 2023

The People's Liberation Army has mobilised aircraft from different theatre commands to take part in an "island encirclement patrol" near Taiwan, which experts said could signal a new strategy to prepare for regional military conflicts. The aircraft drills coincided with joint sea and air training conducted by the PLA's Shandong aircraft carrier in the western Pacific Ocean since early this

week. According to earlier reports it involved a total of 42 naval ships from the Eastern and Southern Theatre Commands.

<https://www.scmp.com/news/china/military/article/3234581/plas-latest-air-and-sea-drills-near-taiwan-could-signal-surprise-attack-strategy-analysts-say>

## **China leads high-tech research in 80% of critical fields: report**

Kaoru Takatsuki

Nikkei Asia, September 15, 2023

China leads advanced technological research in 80% of critical fields including hypersonics and underwater drones, a report from an Australian think tank show, as the country pulls ahead of the U.S., Europe and Japan through state-led investment. Out of 23 technologies analyzed by the Australian Strategic Policy Institute (ASPI), China leads research in 19. The rankings are based on the 10% most cited academic papers among 2.2 million published between 2018 and 2022, with a focus on fields considered key to the trilateral security partnership among the U.S., the U.K. and Australia, or AUKUS.

<https://asia.nikkei.com/Business/China-tech/China-leads-high-tech-research-in-80-of-critical-fields-report>

## **China's defence minister under investigation for corruption**

Ellen Nakashima and Cate Cadell

The Washington Post, September 15, 2023

Chinese Defence Minister Li Shangfu is under investigation for corruption and likely will be removed, two U.S. officials said this week, in what would be the latest in a series of top-tier purges of Beijing's security ranks. The expected purge of Li, who has been noticeably absent from public view for the past two weeks, in the wake of other dismissals will heighten a sense of uncertainty over how China's day-to-day foreign policy is being managed. It will also further call into question Xi's leadership as he consolidates power, analysts say.

<https://www.washingtonpost.com/national-security/2023/09/15/china-defense-minister-missing-li-shangfu/>

## **Beijing strongly objects to US-Taiwan military contacts and arms sales**

China Military Online, September 15, 2023

The Ministry of National Defense has emphatically voiced its opposition to any official exchanges and military engagements between the United States and Taiwan, as well as the sale of arms by

the US to the island, stated Defense Ministry spokesman Tan Kefe. Tan's remarks came in response to media reports indicating that Taiwan's Democratic Progressive Party authorities intend to procure 14 sets of Volcano anti-tank munition-laying systems from the United States. Furthermore, there have been reports of Taiwan's recent involvement in military exercises led by the US National Guard.

[http://eng.chinamil.com.cn/CHINA\\_209163/TopStories\\_209189/16252348.html](http://eng.chinamil.com.cn/CHINA_209163/TopStories_209189/16252348.html)

## **Turkey close to deal with China on nuclear power plant**

Sinan Tavsan

Nikkei Asia, September 15, 2023

Turkey's energy and natural resources minister told reporters from foreign media that Turkey is in the final stages of completing its second nuclear energy deal with China. The country is preparing to generate its first nuclear-powered electricity next year through a plant being constructed by Russia. If an agreement is reached, it will symbolize NATO member Turkey's all-directional friendships, even during a period of intensified U.S.-China rivalry. Alparslan Bayraktar mentioned that a Chinese delegation, led by the deputy director of the National Energy Administration, recently visited the site in Turkey's northwestern city of Kirklareli. This location, near Turkey's borders with Greece and Bulgaria, is planned to host four nuclear reactors.

<https://asia.nikkei.com/Business/Energy/Turkey-close-to-deal-with-China-on-nuclear-power-plant>

## **China to initiate 3D solar exploration as solar probing satellite Xihe-2 enters demonstration stage**

Global Times, September 15, 2023

China plans to initiate the three-dimensional solar exploration project as the solar probing satellite Xihe-2 has entered the demonstration stage, which is significant to the research on the basic physics of the sun and the forecast on potentially disastrous space weather events. If the solar probing satellite Xihe-2 can be launched successfully, it will be the world's first satellite that can operate stably at the Sun-Earth Lagrange L5 point, an all-direction observation point for solar probe, Fang Cheng, academician from the Chinese Academy of Sciences (CAS), revealed.

<https://www.globaltimes.cn/page/202309/1298241.shtml>



## **Hypersonic missiles are game-changers, and America doesn't have them; China and Russia are far ahead**

Sharon Weinberger

The Wall Street Journal, September 15, 2023

The weapon Beijing launched over the South China Sea traveled at speeds of more than 15,000 miles an hour as it circled the globe. Flying at least 20 times the speed of sound, it could reach anywhere on earth in less than an hour. The summer 2021 test flight ended with the missile striking near a target in China, but it sent shock waves through Washington. National security officials concluded Beijing had launched a hypersonic weapon—a projectile capable of traveling at least five times the speed of sound. The weapons can attack with extreme speed, be launched from great distances and evade most air defenses. They can carry conventional explosives or nuclear warheads. China and Russia have them ready to use. The U.S. doesn't.

<https://www.wsj.com/politics/national-security/hypersonic-missiles-america-military-behind-936a3128>

## **China's military rocket force uncovers 'shortcomings,' PLA Daily reports**

Reuters, September 15, 2023

A unit of China's Rocket Force uncovered "shortcomings" during a field assessment of an exercise, the PLA Daily reported on Friday in a rare critique, suggesting gaps in combat readiness at the armed force overseeing conventional and nuclear missiles. Assessment of problems in the training and preparation of troops must be done "every day and every month" to clear up bottlenecks and difficulties, the official newspaper of the Chinese military reported, citing a Communist Party leader of a unit at the Rocket Force who went on a recent field survey.

<https://www.reuters.com/world/china/chinas-military-rocket-force-uncovers-shortcomings-pla-daily-2023-09-15/>

## **America prepares for a pacific war with China it doesn't want**

Zuri Linetsky

Foreign Policy, September 16, 2023

The Chinese missile force is currently capable of attacking and destroying U.S. air bases in Japan—including, among others, Kadena Air Base and Marine Corps Air Station Iwakuni—and is growing to include Andersen Air Force Base in Guam. According to Rand Corp. calculations, even if one-third of Chinese cruise missiles targeting aircraft hangers and open-air parking at Andersen missed or were shot down, a barrage of 53 missiles could incapacitate the base. And

stationary air defenses and aircraft can be targeted and destroyed by only a few precision-guided munitions.

<https://foreignpolicy.com/2023/09/16/us-china-marines-f-35-pacific-strategy-taiwan/>

## **China launches Yaogan 39 remote sensing satellite**

Zhao Lei

China Daily, September 17, 2023

China launched a Long March 2D carrier rocket on Sunday afternoon at the Xichang Satellite Launch Center in Sichuan province to place several remote-sensing satellites into orbit, according to China Aerospace Science and Technology Corp. Remote-sensing satellites refer to those tasked with observing, surveying and measuring objects on land and at sea, as well as monitoring the weather forecast. The Yaogan family is the largest fleet of remote-sensing spacecraft in China and their data has been widely used in governments, public service sectors and businesses.

<https://www.chinadaily.com.cn/a/202309/17/WS65069b5ba310d2dce4bb623d.html>

## **In risky hunt for secrets, U.S. and China Expand Global Spy Operations**

Julian E. Barnes and Edward Wong

The New York Times, September 17, 2023

As China's spy balloon drifted across the continental United States in February, American intelligence agencies learned that President Xi Jinping of China had become enraged with senior Chinese military generals. The spy agencies had been trying to understand what Mr. Xi knew and what actions he would take as the balloon, originally aimed at U.S. military bases in Guam and Hawaii, was blown off course. Mr. Xi was not opposed to risky spying operations against the United States, but American intelligence agencies concluded that the People's Liberation Army had kept Mr. Xi in the dark until the balloon was over the United States.

<https://www.nytimes.com/2023/09/17/us/politics/us-china-global-spy-operations.html>

## **China, ASEAN enhance cooperation on peaceful uses of nuclear technology**

Xinhua, September 17, 2023

China and the Association of Southeast Asian Nations (ASEAN) have deepened their cooperation in the field of nuclear energy and nuclear technology applications over the past 10 years, according to the China Atomic Energy Authority (CAEA). Liu Jing, vice chairman of the CAEA, made the remarks at the second China-ASEAN Forum on Peaceful Uses of Nuclear Technology held in Nanning, the capital of south China's Guangxi Zhuang Autonomous Region. "China has provided

ASEAN countries with reliable nuclear technology products, services, and solutions, promoted the training of professionals, and supported the development of peaceful uses of nuclear technology," Liu said.

<https://english.news.cn/20230917/7d1ffe5ba51347a8923f9d56a4b6929e/c.html>

## **China's 'artificial sun' aims to generate fusion power by 2049: media report**

Global Times, September 18, 2023

China's experimental advanced superconducting tokamak (EAST), widely known as the Chinese "artificial sun," has made another major breakthrough in its mission of creating nuclear fusion and aims to generate fusion power by 2049, according to a media report. Citing scientists from the Institute of Plasma Physics under the Chinese Academy of Sciences (ASIPP) in Hefei, East China's Anhui Province, the report on financial news site sina.com said that by simulating solar nuclear fusion reactions, scientists achieved new breakthroughs in generating fusion that can benefit the whole of mankind.

<https://www.globaltimes.cn/page/202309/1298386.shtml>

## **Taiwan urges China to stop 'destructive' military sorties as tensions mount**

Lily Kuo and Vic Chiang

The Washington Post, September 18, 2023

China sent more than 100 fighter jets and nine navy ships into the Taiwan Strait, marking the largest single-day incursion in three years as Beijing escalates its threats against the island democracy. Taiwan's Defence Ministry said 103 Chinese military aircraft and nine navy vessels were detected near Taiwan as of 6 a.m. local time on September 18. Forty of the aircraft had entered Taiwan's air defence identification zone (ADIZ) by crossing the median line, an unofficial sea border between Taiwan and China that helped maintain stability for years in the 110-mile-wide strait.

<https://www.washingtonpost.com/world/2023/09/18/china-taiwan-military-planes-median-line/>

## **China General Nuclear enters agreement to develop renewable energy base in Laos**

Andrew Hayley

Reuters, September 18, 2023

China General Nuclear Power Group (CGN) has signed a project development agreement with the government of Laos to develop a renewable energy base in the north of the country, according to

a statement released by CGN. The base will incorporate wind, solar, hydro and energy storage capabilities, and will feed into an existing power line that transfers power generated in Laos to China's Yunnan province, and a second planned 500kV power line between the two.

<https://www.reuters.com/business/energy/china-general-nuclear-enters-agreement-develop-renewable-energy-base-laos-2023-09-18/>

## **Chinese embassy says not invited to be part of nuke water testing**

The Asahi Shimbun, September 18, 2023

China has not been invited to participate in the analysis and comparative testing of treated nuclear-contaminated water being released into the ocean from the Fukushima No. 1 nuclear power plant, the Chinese Embassy in Japan said on September 18. "If the Japanese side really has confidence in the treatment of nuclear-contaminated water, it should respond to it in a serious and responsible manner," the embassy said in a statement.

<https://www.asahi.com/ajw/articles/15008167>

## **China launches ‘Kuafu’ nuclear fusion research facility, named after mythical giant, in quest to build ‘artificial sun’**

Victoria Bela

South China Morning Post, September 19, 2023

China has launched its largest nuclear fusion research facility – nicknamed after a mythical giant – as it continues its quest to build an “artificial sun”. In a report, state news agency Xinhua revealed for the first time the interior of the completed main building of the facility in east China’s Anhui province. It is formally known as the Comprehensive Research Facility for Fusion Technology (CRAFT) but has been nicknamed “Kuafu” after a mythical figure who tried to capture the sun.

<https://www.scmp.com/news/china/science/article/3234968/china-launches-kuafu-nuclear-fusion-research-facility-named-after-mythical-giant-quest-build>

## **Myanmar Junta Seeks Chinese Help Acquiring Nuclear Technology**

The Irrawaddy, September 19, 2023

The Myanmar junta’s nuclear ambitions are once again in the spotlight after it begged China to help train its experts in the use of nuclear technology at a China-ASEAN (Association of Southeast Asian Nations) nuclear forum last week. The request makes China the second country to be approached by the junta regarding the technology. Currently, the regime is collaborating with

Russia's state-owned nuclear corporation Rosatom after opening the country's first nuclear information centre in Yangon early this year.

<https://www.irrawaddy.com/specials/myanmar-china-watch/myanmar-junta-seeks-chinese-help-acquiring-nuclear-technology.html>

## **Could China's standard EV plants build super batteries for weapons?**

Stephen Chen

South China Morning Post, September 19, 2023

China has developed the world's most powerful battery for high energy weapons, and it can be mass-produced in the nation's many lithium battery plants, according to a study published in September by the Journal of Naval University of Engineering. The researchers said the breakthrough was achieved with the direct involvement of China's booming car industry and would advance development of next-generation weapons and improve the capabilities of the Chinese military.

<https://www.scmp.com/news/china/science/article/3235073/could-chinas-standard-ev-plants-build-super-batteries-weapons>

## **Nuclear exchange with China is 'much closer' than Americans think, expert warns: 'Preparing to go to war'**

Taylor Penley

Fox News, September 19, 2023

Gatestone Institute senior fellow and China expert Gordon Chang issued a dire warning about the possibility of nuclear exchange with China as tensions remain inflated on the world stage. "We're much closer to a nuclear exchange than Americans think," Chang said on "Mornings with Maria" Monday. "China is preparing to go to war... China is surveying the United States for nuclear weapons strikes, so we've got to realize the gravity of this. The problems inside the Chinese regime right now indicate that Xi Jinping in the rocket force, which controls almost all of China's nuclear weapons, he's now installing officers who will obey his orders to push the button when he gives it." Along with the message, Chang urged U.S. businesses to pull out of China, blasting the Biden administration for urging companies to stay there.

<https://www.foxbusiness.com/politics/nuclear-exchange-china-closer-americans-think-expert-warns-preparing-war>

## **Fukushima: China's seafood imports from Japan down 67% in August**

Mariko Oi

BBC, September 20, 2023

China's imports of seafood from Japan slumped last month as Tokyo started to release treated waste water from the damaged Fukushima nuclear power plant. Imports of Japanese seafood fell 67.6% in August from the same month last year, China's customs authority said. Japan's ministry of agriculture and fisheries says China was the world's top importer of the country's seafood. The sharp fall came as Japan prepared to start releasing the waste water and in the aftermath of the release.

<https://www.bbc.com/news/business-66862576>

## **Chinese satellite ground stations installed on disputed South China Sea reefs**

Liu Zhen

South China Morning Post, September 20, 2023

China has built two ground stations for its BeiDou satellite system on disputed South China Sea reefs, according to state television. The stations, connected to China's land-based ship automatic identification system (AIS), are installed at lighthouses located on North Reef and Bombay Reef in the Paracel Islands, which are also claimed by Vietnam and Taipei. They use the BeiDou satellite network – completed in 2020 as a rival to the US global positioning system (GPS) – to locate the vessels and transmit signals, state broadcaster CCTV reported.

<https://www.scmp.com/news/china/diplomacy/article/3235147/chinese-satellite-ground-stations-installed-disputed-south-china-sea-reefs>

*Sylloge on China is compiled by Mr. Niranjan C. Oak  
with inputs from Mr. Kushal Agrawal*

**Nuclear and Arms Control Centre, MP-IDSA  
And  
Indian Pugwash Society**