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MODERNIZATION OF CHINA'S ARMED FORCES – LAND FORCES DISPLAY OF EQUIPMENT DURING 2019 MILITARY PARADE

The National Day parade serves as a useful barometer for gauging the maturity of certain weapons systems that have been known to be in development, as traditionally, only systems in service with the PLA in some form are displayed at the National Day parade. Weapons, aircraft, missiles, artillery and tanks which are under development do not tend to appear at parades.

Usually, there are two or three high profile systems that make their debut, however on this occasion multiple systems or products made their debut across virtually every domain of warfare.

Land Power

One of the most anticipated pieces of equipment that was expected to be revealed in the parade was the new PLA service rifle. It has been known for a few years that a new conventional configuration service rifle with modular features has been in the works for the PLA. However the exact design of the new service rifle was kept under quite tight guard, with clear pictures released on social media only within 24 hours of the parade itself.

New Assault Rifle: Likely to be named QBZ-17/18/19

The first hint the PLA was considering replacing its standard QBZ-95s bull pup-style rifle emerged in 2016-2017 through two images shared in a Chinese blog. More recently, just days prior to the anniversary parade, a few images leaked out. These photos revealed a design very similar to the earlier 2016-2017 photos. Finally on October 1, 2019 thousands of the weapons were televised before the global public, signaling the PLA's intention to adopt it as a new service rifle.

The new weapon's designation remains unconfirmed. Chinese state television merely commented "This new assault rifle has a comfortable layout and the concept of modular design, which possesses the advantages of high power, high reliability and versatility." Its designation may be the QBZ-191, QBZ-17 or QBZ-19 — after the year of its entry in service.

The Earlier Bull pup Style Rifle and Its Lacunae

The new weapon will replace the QBZ-95 bull pup-style rifle that was introduced in 1997. Three million QBZ-95s were built, including carbine and light support variants with a 75-round drum magazine. China also exported a 5.56-millimeter variant called the QBZ-97 which is used to varying degrees by armed forces in Laos, Myanmar, Pakistan, the Philippines, Rwanda and Sudan. Around 2012, China also began issuing the improved QBZ-95-1 model using a heavier round and barrel, and boasting improved ergonomics and recoil absorption.

A bull pup rifle incorporates the action and magazine behind the trigger, giving bull pup rifles a distinctly futuristic and stubby appearance. By integrating these components into the stock, bull pup weapon can generate the same velocity as a longer conventional rifle in a more compact and potentially lighter package. Major bull pup designs include the Austrian Steyr Aug, the French FAMAS, the Israeli Tavor X95 and the British SA80 rifle.

But the bull pup layout has downsides. In addition to some users finding them ergonomically awkward, a bull pup user must place their face closer to the action for aimed fire, increasing the risk of mishaps with spent ammunition casings, misfired rounds and collision with protruding mechanisms. Recently, an increasing number of major bull pup operators are abandoning them in favor of the more conventional assault rifle layout—notably France which ditched the distinctive FAMAS for the HK-416 assault rifle.

China's New Modular Rifle

The assault rifle displayed in 2019 marks a major transition back to a more conventional gas-operated short-stroke piston assault rifle. A folding stock with four or five fixed settings is also visible. A thumb-operated fire mode selector allows switching between semi- and fully-automatic fire. Curiously, the gun does away with the three-round burst option, which at one point was favored by the U.S. Army at the expense of automatic fire in its later M16 rifle variants.

Commentators have noticed the new Chinese gun's similarities to the HK-416 (entering U.S. Marine Corps service as the M-27) and the FN SCAR, known for its adaptive components. Broadly, the new weapon seemingly reflects the increasingly popular concept that infantry rifles should feature modular components allowing customization for different roles and combat scenarios.

Three variants of the new rifle have been spotted so far: a short-barrel carbine, a standard rifle variant, and a Designated Marksmen Rifle variant (a sort of low-end sniper rifle integrated at the squad level) with a lengthened barrel, bipod, and enlarged scope.

Other significant debuts for soldiers and troops include:-

- A new 9mm submachine gun that appears to be a domestic variant of the CS/LS7, equipped with a likely red dot sight.

- A new camouflaged combat uniform for troops, that appears to come in five different patterns (woodland, universal, desert, tundra, and urban). A new vest appears to accompany this new uniform.

- A new helmet design has also been observed, with a monocular goggle that appears to be a new night vision device.

Artillery Guns & Rockets

- The PLC-181, a truck mounted 155mm self propelled howitzer. Grainy pictures of this system in service have been released online over the last year, however this is the first public debut of the new system.

- A new long range multi launch rocket system (MLRS) featuring eight 370mm rockets made its first appearance as well. This new long range MLRS appears to be a domestic derivative of the AR3 MLRS that has been offered on the export market for a number of years. The domestic in service weapon has been said to boast a 280km range, which would correspond with the FD280 rocket option for the AR3.

Armoured

- The new light tank, designated ZTZ-15 (or ZTQ-15), makes its long awaited high profile debut at the parade. Many respectable quality pictures of this light tank has found its way onto the internet over the years, therefore this system is more of an honorable mention than a true debut. The ZTZ-15 is a 30 ton class light tank with a 105mm main gun. Its main claim to fame is a bustle mounted autoloader it is thought to be equipped with, deviating from Russian

style carousel autoloaders used in previous Chinese tank designs.

Strategic Missiles

This parade probably debuted the highest number of strategic missile systems in recent memory, many of which the existence had been hinted at or even photographed in recent years but whose public existence had yet to be cleared by the PLA.

DF-41 (Dong Feng-41 / CSS-X-20)

The DF-41 (Dong Feng-41, CSS-X-20) is a new generation, road- and rail-mobile intercontinental ballistic missile (ICBM). It is estimated to have an operational range of 12,000 to 15,000 km, which would make it the longest-range missile in operation. It will likely have a top speed of Mach 25 and will be capable of delivering upto 10 MIRV (multiple independent reentry vehicle) warheads. It is projected to be able to strike the continental United States within 30 minutes

Despite decades of speculation, the existence of this program was only revealed in August 2014. It underwent its seventh flight test in April 2016 and is likely at the end of its testing phase and will be set for deployment in Xinyang, China with the PLA Rocket Forces. In November 2017, just two days before U.S. President Trump's visit to China, the DF-41 was tested in the Gobi desert.

On October 1, 2019, China on its 70th anniversary displayed the missiles in a large military parade.

The Dong Feng 41 is believed to be approximately 21.0 m in length, 2.25 m in diameter, and 80,000 kg in weight. Its payload probably carries either a single warhead or up to 10 MIRV with a total weight of 2,500 kg. Its warheads can be single 1 MT nuclear warhead or a selectable yield of 20, 90 or 150 kT on each MIRV. It uses inertial guidance, likely with

stellar updates and a Global Positioning Satellite (GPS) system, which gives it an accuracy of 100-500 m CEP. The DF-41 uses a three-stage solid propellant engine.

The number of active DF-41s at present is also unknown, however official PLA affiliated media stated that the DF-41 display at the parade was drawn from two brigades, suggesting at least two DF-41 brigades exist. Initial development is expected to produce 10 to 20 missiles with the possibility of greater numbers in the future. About half of those produced would likely be kept mobile via rail or road-based launchers while the other half likely deployed in silos. The DF-41 is set to replace the DF-5 (CSS-4), but both will probably be kept operational to bolster PRC nuclear force numbers.

DF-17 is another major missile system whose development has been oft-reported. DF-17 is equipped with a hypersonic glide vehicle, which was showcased (likely in mockup form) at the parade aboard its transporter launch vehicle. The weapon was described as a short to medium range weapon (corresponding to a range of 1,000 to 3,000km, though the exact range is not fully confirmed), and the weapons on display were similarly drawn from two brigades as well. As a hypersonic glide vehicle, DF-17 will boast greater maneuverability and a fly a more evasive profile than traditional ballistic missiles.

DF-100 was a slight surprise at the parade, and not much is fully known of this weapon. It has been spoken of as a supersonic long range, high altitude cruise missile. Each launch vehicle carries two DF-100 canisters, and each DF-100 is thought to have a range in excess of 1,000km. A promotional video released before the parade included a clip showing a DF-100 launch, however the exact geometry of the missile was not clearly identifiable.

Canisters of JL-2 submarine launched ballistic missiles (again, almost certainly mockups) were also carried aboard display trucks. This weapon has been known to be in development and possibly service for quite a number of years, however this is its first public appearance at a parade, sealing its status as an in service weapon and a display of confidence for the weapon itself.

MODERNISATION OF THE CHINESE ARMED FORCES - AIR DISPLAY OF MILITARY EQUIPMENT DURING 70th ANNIVERSARY OF THE PRC -MILITARY PARADE 2019

Air Cmde T Chand (Retd)

Air Power

The highlight of the celebrations of the anniversary was the grand civil military parade held on 1 October in the grounds of Tiananmen Square to mark this special anniversary of the foundation of the PRC. An estimated 15,000 troops, 600 vehicles and around 180 aircraft, alongside a more than 110,000 strong civil column participated in the celebrations. It was the biggest ever civil-military parade to be held in the history of the PRC[1].

The flypast column of the PLAAF consisted of various echelons. A mix of combat and special purpose aircraft and helicopters participated in the flypast. Aircraft from all possible roles including maritime, participated in the flypast. All participating aircraft were mainly indigenous. Many echelons also consisted of a mix of combat and special role aircraft. Further, formations in each echelon were also consisted of different types of aircraft.

The flypast was led by a command echelon which consisted of one KJ-2000 AEW&C aircraft and eight J-10 fighters from the August 1st Aerobatics Team. KJ 2000 is a mix of Chinese radar installed on a Russian Ilyushin Il-76 airframe and August 1st Aerobatics Team is the first

[1]70th anniversary of the People's Republic of China; https://en.wikipedia.org/wiki/70th_anniversary_of_the_People%27s_Republic_of_China

PLAAF aerobatics team which was formed in 1962 and has previously flown the JJ-5 and J-7 aircraft. There was an Early Warning & Control Echelon which was consisted of three formations including combat and special role transport aircraft namely: one KJ-500 AEW&C aircraft plus four J-16 strike fighters; one KJ-200 AEW&C aircraft plus four J-16 strike fighters and one Y-8 C&C aircraft plus four J-16 strike fighters. This was followed by Maritime Patrol Echelon in two formations configuring one KJ-500H AEW&C aircraft plus two Y-8G ASW patrol aircraft and one KJ-500H AEW&C aircraft plus, two Y-8G reconnaissance aircraft.

Exclusively, transport aircraft flew in the third echelon which was consisted of three Y-20 strategic airlifters and three Y-9 tactical airlifters. It was followed by a support Echelon in two formations: namely; one Y-9 electronic-warfare aircraft, one Y-9 psychological warfare aircraft plus one Y-9 aeromedical aircraft and one Y-8 long-range support jammer aircraft, one Y-8 electronic-warfare aircraft plus one Y-8 electronic reconnaissance aircraft. Russian made TU- 154 did not participate.

The fifth echelon flew H series bomber aircraft in three formations which included three H-6N long-range strategic bombers, and two formations of three H-6K bombers each. China's H-6N strategic bomber exhibited during the national day parade 2019 revealed two major modifications; aerial refueling capabilities and a possible DF 21D missile launching capability[2]. Aside of the H-6N, H-6K variant also took part. An echelon consisting of three H-6N and six H-6K bombers flew over Tian'anmen Squares. The H-6K entered service with the Chinese military in 2009. It is a significant redesign from the original Xian H-6 aircraft (the country's license-built version of Tupolev Tu-16 twin-engine jet bomber) optimized as a carrier for long-range anti-ship and land-attack cruise missiles. The H-6N is a further development of this earlier missile carrier version. The most notable change between the N and K variants is the complete

[2]China's H-6N Strategic Bomber With Aerial Refuelling Capability Debuts At National Day Parade; https://www.defenseworld.net/news/25595#.XcuS91czYdV

elimination of the bomb bay on the N and the addition of semi-recessed area with a hard point for a large missile. There are speculations that the launcher for aerial version of the DF 21 D has been fitted on this version of the aircraft. With already more than 3000 km range the reach of this aircraft is going to increase substantially, threatening the aircraft carriers much deeper into the Pacific Ocean. It may be also possible that the modification is to enable carriage of the WZ-8 high-speed, high-altitude reconnaissance unmanned aerial vehicle.

This bomber aircraft echelon was followed by a refueller aircraft echelon in which one HY-6 tanker aircraft and two J-10B air superiority fighters were flown. Carrier-Based Echelon consisting of five J-15 carrier-based fighters followed the tanker aircraft formation.

Fighter Echelon flew five J-20 stealth fighters, five J-16 strike fighters and five J-10C multirole fighters. Russian air superiority fighters SU-30 MKK of which China holds a sizeable number did not participate in the air show[3]. J-7, a licensed variant of the MiG-21 and J-11, a licensed variant of the Su-27 also did not take part. Ground Air Assault Echelon which followed was much bigger and was consisted of five formations namely Reconnaissance & Alert Module with five Z-9 armed reconnaissance helicopters; Fire Assault Module with nine WZ-10 attack helicopters; Troop Assault Module with three WZ-19 light attack helicopters plus six Z-20 general utility helicopters; Landing Assault Module with nine Z-8B transport helicopters and Escort Module with eight WZ-19 attack helicopters.

Last echelon which participated in the flypast was a Trainer Echelon. Five JL-10 trainers, five JL-9 trainers and twelve JL-8 trainers flew in this echelon.

[3]https://en.wikipedia.org/wiki/List_of_active_People%27s_Liberation_Army_aircraft

UAVs

Unmanned Warfare Operations Segment was consisted of three formations. First Drone Warfare Formation was consisted of WZ-8 high-altitude hypersonic stealth UAV. Second Drone Warfare Formation displayed “Attack-2” HALE UAV, “Sharp Sword” stealth UAV.

China chose to display only these UAVs to participate in the display whereas they have developed a large number of UAVs in different configurations and roles which include: Amphibious / seaplane UAVs, Artillery-Launched UAVs, Experimental UAVs, For aircraft carrier operation research, For research on deployment on board submarines, For stealth research, Forward-swept wing design, For research on inflatable UAVs, Fuel cell powered UAVs, Jet-powered UAVs, Jointed wing UAVs, Micro air vehicles, Parasol UAV, Twin boom UAVs, Twin engine UAVs, UAVs controlled by smartphones, Unmanned airships/blimps, Unmanned cyclogyros, Unmanned helicopters, Unmanned coaxial helicopters, Unmanned multirotors, Unmanned tricopters, Unmanned quadcopters, Unmanned hexacopters, Unmanned octocopters, Unmanned ornithopters, Unmanned powered paragliders, V/STOL UAVs, Lift augmented ducted fan V/STOL UAVs and Tiltrotor V/STOL UAVs[4].

Chinese Air Power Modernisation Progress

A recent report by the US Defense Intelligence Agency highlighted China’s continued development of air power capabilities and concluded that “The PLAAF is closing the gap with Western air forces across a broad spectrum of capabilities, such as aircraft performance, command and control, and electronic warfare[5]. A major focus in recent years has been the addition of AEW&C aircraft such as the Ilyushin IL-76-derived

[4]List of unmanned aerial vehicles of China;
https://en.wikipedia.org/wiki/List_of_unmanned_aerial_vehicles_of_China

KJ-2000, the Shaanxi KJ-200, and KJ-500. These aircraft were flown in the command echelon of the air display.

The PLAAF is reportedly developing new medium- and long-range stealth bombers to strike regional and global targets. Stealth technology continues to play a key role in the development of these new bombers, which probably will reach initial operational capability by 2025. These new bombers will have additional capabilities, with full-spectrum upgrades compared with current operational bomber fleets, and will employ many fifth-generation fighter technologies in their design[6]. On the fighter front, the PLAAF is rapidly advancing. It is adding new, fourth generation types such as the Chengdu J-10 and Shenyang J-11; it is also developing the J-20 and FC-31. These aircraft include capabilities found in advanced Western types, such as active electronically scanned (AESA) radars, sensor fusion, advanced datalinks, and the internal carriage of weapons. Designed with network-centric warfare technology, these aircraft will have potent air-to-air lethality and standoff attack capabilities in sensor-to-shooter operations[7].

The role of aircraft operated by the People's Liberation Army Navy (PLAN) has broadened in the last decade. This has been enabled by China's improved surface combatants, which are more proficient at their own air defence. This has allowed the PLAN to concentrate on an expanded array of aerial missions, particularly maritime strike, as well as maritime patrol, ASW, airborne early warning (AEW), and logistics. Equipped with modern radars and glass cockpits and armed with PL-8 and PL-12 air-to-air missiles, PLAN J-10As and J-11Bs are among the most modern aircraft in China's inventory and are capable of extended fighter patrols

[5]https://www.flightglobal.com/news/articles/analysis-us-intelligence-highlights-chinese-airpow-455083/

[6]ibid

[7]ibid

beyond China's coastal areas[8]. By interpreting recent photographs, the DIA suggests that an anti-submarine warfare (ASW) version of the Shaanxi Y-9 has entered service. This is an important development, because ASW has traditionally been a major capability gap for China. "The new aircraft is equipped with a magnetic anomaly detector boom, similar to that of the US Navy's Lockheed Martin P-3 aircraft. This Y-9 ASW variant is equipped with surface-search radar mounted under the nose as well as multiple-blade antennas on the fuselage, probably for electronic surveillance. A small electro-optical/infrared turret is located just behind the nose wheel, and this variant is equipped with an internal weapons bay in front of the main landing gear[9].

Indian Readiness

The then Indian Air Force Chief, Air Chief Marshal B S Dhanoa stated on 11 Nov 2018 that there is a cause for concern over the rapid pace of modernisation and induction of new equipment in the neighbourhood, however, the IAF is 'capable of countering them effectively. He further stated that the IAF is cautious and active towards the emerging threats in the Indo-Pacific region and asserted that India was prepared to deal with any challenge to safeguard its national security[10.] Without naming China or Pakistan for their continued push for modernisation, the ACM explained that the IAF is well equipped to take on challenges across the entire range of threats that could emanate across India's borders. With the IAF facing a shortage of fighter squadrons, the chief maintained that augmenting the fighter squadron is a top priority. To achieve this, the IAF is looking at new inductions and midlife upgrades. Towards this, MiG-29, Jaguar and Mirage-2000 aircraft are being upgraded in a phased

[8]ibid

[9]ibid

[10]Pace of modernisation in neighbourhood is a concern: IAF chief BS Dhanoa https://indianexpress.com/article/india/iaf-indian-air-force-bs-dhanoa-modernisation-rafale-5441286/

manner in order to equip them with contemporary capabilities. He also mentioned the planned induction of 83 Tejas light combat aircraft and 36 Rafale jets. Further, case for 114 fighter aircraft is being processed under the Strategic Partnership model of DPP (Defence Procurement Procedure)-16. Other options are also being explored to build up to authorised strength at the earliest[11].

[11]ibid

CHINESE SPACE SYSTEMS

Gp Capt GD Sharma, VSM (Retd)

To mark the 70th year of foundation of People Republic, Chinese government showed off its military strength in a grand military parade the largest of its kind in more than six decades. As expected, China unveiled plethora of new military equipment comprising new unmanned aerial vehicles (UAVs),advanced intercontinental and hypersonic missiles which are designed to attack the bases that are focal points of U.S. military strength in Asia. A total of 580 pieces of weaponry and military hardware from 32 units was on display which showcased the Chinese prowess in land, sea, air, missile defence, information operations, unmanned tasks, logistic support.[1] Among the weapons were the "carrier killer" Dongfeng-21D (DF-21D), unveiled at military parade in 2015, designed to hit warships at sea at a range of up to 1,500 kilometers, and the DF-26 intermediate range missile, dubbed as "Guam killer". People's Liberation Army (PLA) also displayed a hypersonic missile, known as the DF-17, which theoretically can manoeuvre sharply at many times the speed of sound, making it extremely difficult to counter besides, stealth aircrafts and drones and naval war fighting vehicles. These weapons enable war fighting in different domains which obviously need to be integrated to give a unified effect. Space besides being the integrator of these capabilities is an independent domain along with nuclear, conventional, and information warfare domains. All these are the elements of newly found concept of "integrated strategic deterrence. "which rely on space domain for their application?[2]

1 www.chinadaily.com.cn/cndy/2019-10/01/content_37513462

2 https://www.rand.org/blog/2015/09/chinas-military-parade-highlights-its-new-strategic.html

Chinese Space Policy. China officially advocates for peaceful use of space, and it is pursuing agreements at the United Nations on the non-weaponization of space. Nonetheless, China continues to improve its counter space weapons capabilities and has enacted military reforms to better integrate cyberspace, space, and EW into joint military operations.[3]

Chinese military doctrines indicate that it views space as important to modern warfare and counter space capabilities as a mean to reduce U.S. and allied military effectiveness.[4] But these could be equally used against any other adversary. Towards this end, Chinese space surveillance networks are capable of searching, tracking, and characterizing satellites in all earth orbits. This capability supports both space operations and counter space systems. This outlook is probably due to the fact that space from the beginning has been the domain of the PLA.

Chinese Space Journey

Though China has made great strides in space there is very little information in PLA thinking about the space. During the early years, the security thinking was dominated by Mao Zedong belief of people war which invariably be protracted. When Deng Xiaoping succeeded Mao in 1978, being far more pragmatic than Mao, Deng fundamentally altered the Chinese thinking from 'war and revolution' to 'Peace and development' in that space systems had to be justified based on their contribution in nations development. He wanted Chinese space programme to focus less on gaining prestige and headlines and instead concentrate on urgently needed and practical solutions. He informed Central Military Commission (CMC) that instead of protracted wars, conflicts are likely to be localized yet intense. Thus, Chinese overall support for the space programme did not improve until 1986. At the same time, Chinese recognized the impact of modern technology subsequent

3 ibid

4 https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Space_Threat_V14_020119_sm.pdf

to Yam Kippur war, Falkland war, and Op desert storm. The last war was a wake-up call for the Chinese. Chinese understood the role of Joint operations, importance of C3I and the role that space will play in concept of operations. A shift in Chinese thinking was seen after Hu Jintao assumed chairmanship of CMC. He advocated the space and local wars under informationzed conditions. He clearly gave PLA a direction to undertake military space missions. China is second only to the United States in the number of operational satellites and space is part of President Xi Jinping's "China Dream" to establish a powerful and prosperous China.

After Xi took over the reins of China, he has undertaken significant steps to build China's space capability. Under him, China tested several key technologies for the first time in space: in 2013, a Chinese satellite, Shiyan 7 (SY-7), with a prototype robotic arm demonstrated that it could capture another satellite in orbit with dual implications of even grabbing adversary satellites if needed. In 2017, China demonstrated the launch and docking of its indigenous cargo spacecraft, the Tianzhou 1, with its space lab, the Tiangong 2. In May 2018, China launched its relay satellite, the Queqiao, to enable communications between its upcoming Chang'e-4 lunar mission to the far side of the Moon. In January 2019, Chang'e-4 successfully landed on the far side of the moon.

In July 2019, for the very first time, Chinese private space company, 'I space' launched success fully in to orbit. Earlier such attempts by 'One space' had failed. Under President Xi's civil-military integration strategy, the PLA opened up its Jiuquan Satellite Launch Center for private launches.[5] At the same time, China also established its first overseas satellite ground station in Kiruna, Sweden in year 2019 I.[6]

5 http://www.thespacereview.com/article/3773/1
6 ibid

Now, in space domain China ranks among the most advanced countries in the world in many technological fields, such as satellite recovery, multi-satellite launch with a single rocket, rockets with cryogenic fuel, strap-on rockets, launch of geo-stationary satellites. Significant achievements have been gained in the development and application of remote-sensing satellites and telecommunications satellites, and in manned spacecraft testing and space micro-gravity experiments".[7]

Milestones in space

China has come a long way since the founding of its space programme in 1956. The key milestones in space odyssey are given below: -

(a) **1970s.** Rockets. The country introduced its Long March series of rockets in 1970. The program's success rate of about 95 percent showcases China's successful space endeavors.

(b) **2003.** Crewed Missions. China is the third country, after Russia and the U.S., to conduct a crewed mission. The country has sent 11 astronauts, including two women, on six missions in all.

(c) **2011**. Space Laboratory. China was excluded from the International Space Station largely due to concerns over its space programme's connections to the military. That didn't stop China from launching in 2011 its own space laboratory, named Tiangong ("Heavenly Palace"), which orbited Earth until April 2018. The station hosted two crewed missions and served as a test platform for docking procedures and other operations.

(d) **2013.** The Moon missions. Successive lunar missions include a Chang'e3 moon landing in 2013. Change4 has launched

7 https://journals.openedition.org/chinaperspectives/577#ftn24

last year landed rover on far side of the moon. There are plans for a Chang'e 5 probe to reach the moon next year and return to Earth with samples.

(e) **2020**. Mars Mission. China has plans to send its first probe to Mars and complete a homegrown global navigation network with more than 30 satellites providing real-time geospatial information worldwide.

(f) **2022.** China hopes to complete a space station, fit for long-term habitation, with standards matching those of the International Space Station, though smaller in size. The National Space Administration declared in a video last April 2019, that "China's dream of residing in a lunar palace will soon become a reality.[8]

Chinese Current status in space Vis-à-vis other space powers.

Of six major space powers in world, which have full launch capabilities three (China, India and Japan) are from Asia. In this group, China indeed has achieved phenomenal success but, secrecy surrounds many aspects of the Chinese space programme, as such its exact capabilities are not known. However, these are expected to be at par if not better compared to the U.S. a leading space power.

PLA in Space

The PLA historically has managed China's space programme, and it continues to invest in improving China's capabilities in space-based ISR, satellite communication, and satellite navigation, as well as human spaceflight and robotic space exploration.

The PLA believes in attaining the space superiority and in the ability to

8 https://phys.org/news/2019-01-china-space-journey-moon-side.html

control the information sphere while denying adversaries the same. In terms of military applications, China has also demonstrated significant skills. In 2007, it undertook an anti-satellite test, launching a ground-based missile to destroy a failed weather satellite. While successful, the test created a cloud of orbital debris that continues to threaten other satellites even now.

As part of the military reforms announced in 2015, China established the Strategic Support Force (SSF) to integrate cyberspace, space, and EW capabilities into joint military operations. The SSF is likely to be responsible for research and development of certain space and counter space capabilities.

China emphasizes civil-military integration to leverage of dual-use technologies, policies, and organizations for military benefit. It has developed a “quick response” SLV to launch small commercial satellites in LEO. This capability has great application in the military space.

ISR, Navigation, and Communications Capabilities. China’s space-based ISR capability provides it worldwide situational awareness. China’s ISR satellites are capable of providing electro-optical and synthetic aperture radar (SAR) imagery, as well as electronic intelligence and signals intelligence data. As of May 2018, the Chinese ISR and remote sensing satellite fleet contains more than 120 systems a quantity second only to the United States. China became the first country in the world to send a quantum satellite, a new type of encrypted communications technology which is considered to be most reliable and incorruptible.

Flexible Launch capabilities. On 5th June 2019, China successfully launched a Long March 11 solid rocket from the yellow sea launch platform acquiring flexible launch capabilities. Apart from functional advantages, the flexible launch capability, the mobility factor enables quick and somewhat stealthy launches, which is of special interest to

governments' strategic interests and to the defense sector.[9]

Assessed Counter Space Capabilities.[10]

China has a robust network of space surveillance sensors capable of searching, tracking, and characterizing satellites in all Earth orbits. This network includes a variety of telescopes, radars, and other sensors that allow China to support missions including intelligence collection, counterspace targeting, ballistic missile early warning,

(a) **Electronic Warfare**. The PLA strongly believes in using EW weapons against adversary's offensive capability. It routinely incorporates jamming and anti-jamming techniques against multiple communication, radar systems, and GPS satellite systems.

(b) **Directed Energy Weapons.** China likely is pursuing laser weapons to disrupt, degrade, or damage satellites and their sensors and possibly already has a limited capability to employ laser systems against satellite sensors. China is likely to field a ground-based laser weapon that can counter low-orbit space-based sensors by 2020, and by the mid-to-late 2020s, it may field higher power systems that extend the threat to the structures of non-optical satellites.

(c) **Cyberspace Threats.** China emphasizes offensive cyberspace capabilities key for integrated warfare and could use its cyber warfare capabilities to support military operations against space-based assets. In that, it will target adversary's

9 https://spacenews.com/china-gains-new-flexible-launch-capabilities-with-first-sea-launch/

10 ttps://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Space_Threat_V14_020119_sm.pdf

network-based command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR), and logistics.

(d) **Orbital Threats.** China is developing sophisticated on-orbit capabilities, such as satellite inspection and repair, at least some of which could also function as a weapon.

(e) **Kinetic Energy Threats.** The PLA has an operational ground-based ASAT missile intended to target satellites in Low Earth Orbit (LEO). China has also formed military units that have begun training with ASAT missiles. In 2013, China launched an object into space on a ballistic trajectory with a peak altitude above 30,000 km. It may be to target satellites at High earth orbit (HEO).

(f) **Space Launch Capabilities**. China is improving its space launch capabilities to ensure it has an independent, reliable means to access space. These improvements range from developing small satellite launch vehicles (SLVs) to super heavy satellite launch vehicles of US Saturn V class. Quick response possible with small SLVs has great military application apart from its use in commercial market where there is an emerging demand for launch of small payloads.

Future Space Projects

In future, china is undertaking most exciting projects which include manned trips to the Moon, an orbital space station, Mars rover landings in 2020 [11], and even orbital solar panel fields that would beam renewable energy back to earth. All these programmes could have military spin offs.

11 https://room.eu.com/news/china-unveils-future-space-plans

Conclusion

Chinese military doctrine views space as an important facilitator in modern warfare. Keeping its focus against US, it has worked towards developing new capabilities to reduce U.S. and allied military effectiveness. Space acts as a prime integrator among various domains since it embarked on “informatized” warfare since 2015.

It has developed robust and capable space services, in areas of space-based Intelligence, Surveillance and Reconnaissance(ISR), satellite navigation and secured worldwide communication with relay satellites. These capabilities provide PLA with the ability to command and control their forces worldwide with enhanced situational awareness, enabling it to monitor, track, and target the threats. Chinese has a well established space surveillance networks which is capable of searching, tracking, and characterizing satellites in all earth orbits. This capability supports both space operations and counter space systems. Chinese recent foray in small satellites and successful launch of satellites from the floating platforms has given it a diverse capability to counter geographic limitations and stealthy launch of satellites.

As of May 2018, the Chinese ISR and remote sensing satellite fleet contains more than 120 systems—a quantity second only to the United States. The PLA owns and operates about half of these ISR systems, most of which could support monitoring, tracking, and targeting of U.S. and allied forces worldwide, especially throughout the Indo-Pacific region. These satellites also allow the PLA to maintain situational awareness of potential regional flashpoints, including the Korean Peninsula, Taiwan, and the South China Sea.

China is continuing to improve its indigenous satellite navigation constellation. the BeiDou constellation offers unique capabilities, including text messaging and user tracking through its short messaging service, to enable mass communications between BeiDou users and

provide additional C2 capabilities for the PLA. China also intends to use its BeiDou constellation to offer additional services and incentives to countries taking part in the “Belt and Road Initiative.”With BeiDou, China intends to take forward strong economic ties with other countries with an aim to shape its strategic interests and motivate them to align with China’. Space is expected to help Chinese leadership, President Xi Jinping’s in his “China Dream to establish a powerful and prosperous China.[12]

12 https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Space_Threat_V14_020119_sm.pdf

UNDERSTANDING CHINA

Col RS Sidhu, SM (Retd)

Measures undertaken by a nation to overcome its strategic weaknesses are themselves the most lucrative and natural target for an opponent.

- Ibid

The Myth of China as a Monolithic Colossus

This critique is aimed at peering deep inside the outer façade of China as a monolithic colossus, to understand the psyche and dilemmas underlying Chinese compulsions, impelling it onto the path it is currently travelling on.

China today is one of the major global power in terms of geopolitical influence. Certainly in its near vicinity it strides like a colossus. Or so it seems to the untrained eye. Looked at critically, **at this juncture,** the following emerges:-

- Existence of deep geographical, demographic and economic fault lines.

- Lack of reckonable allies. North Korea and Pakistan do not meet the criteria of being “reckonable”.

- Inadequate blue water navy to establish sea control over its extended maritime lifelines beyond South China Sea.

- Countries inimical to its desired global image block its maritime aspirations – formidable countries such as USA, Japan, and

India by virtue of their geographical locations/ geopolitical power.

- The much vaunted “string of pearls” enables it just peacetime visibility. Its efficacy to withstand the rigours of active operations, to say the least, is doubtful.

- China’s dilemma is evidenced by it being forced to undertake US Dollars 800 billion gamble in Belt and Road Initiative (BRI).

- China’s BRI and ongoing actions in South China Sea should be seen not as its strength but as its acceptance of its maritime vulnerability.

- The ongoing debilitating trade war with USA is further putting severe strain on its economy.

- Uncharacteristic inhibition of Chinese leadership in use of overwhelming force, a la Tiananmen Square, to overcome overt display of people’s opposition in Hong Kong, despite severe loss of face, is to be seen as an indicator of its current economic vulnerability.

However, the above also undeniably verifies China’s push for a China centric world, the basic thrust of its deep rooted national aspiration since centuries.

THE CHINESE WORLD VISION

The Collective Psyche of China

For centuries, China has regarded herself as the Central Flowery Kingdom, the only ‘Civilisation’ on Earth, and it’s ruler as T’ien-Tzu, the Son of Heaven. The Chinese continue to view their country as the fulcrum

around which geo-politics must rotate. A strong and confident China must hold sway over all the regions ever part of China or under Chinese suzerainty at any point of history. It is this historic urge, embedded deep into the collective Chinese psyche, which to a great extent explains their inability to peacefully adjust in the established international environment. **As in the historical past, the basic thrust of the Chinese policy is the compulsive urge to reassert China's imperial grandeur.**

Fusion of Traditional Chinese Aspirations and Communist Ideology

The occupation of China, initially by Western powers and subsequently Japan, led to an outgrowth of nationalist spirit amongst the Chinese people. By portraying the then KMT Government as stooge of foreign powers, it enabled the Chinese Communist Party to spread its tentacles amongst the peasantry and mobilise them to regain national honour. A centralised regime, armed with a conformist ideology, with a universal vision provided the ideal vehicle to achieve the traditional Chinese urge of once again being the centre of world civilisation.

The Chinese Communists thus largely couched their movement in nationalist terms aimed at China's regeneration. The subsequent break by Communist China from the Russian led Communist International movement, further emphasises this point. There is seamless fusion today between communism and nationalism within China. **The concomitant one party rule ensures not only ideological continuity, but also unhindered long term planning to realise their geostrategic aim of a China centric world order.**

FAULT LINES WITHIN CHINA

Geographical Composition of China

China is bordered to its South by the South East Asian countries of Vietnam and Laos followed by Myanmar. To its South West China is

bordered by India, Bhutan, Nepal, Pakistan Occupied Jammu & Kashmir and Afghanistan across the Himalayas and the Tibetan plateau. To its West lie the Central Asian countries of Tajikistan, Kazakhstan, and Kirgizstan. Mongolia and Russia border China on the North with North Korea lying to its North East.

China's more than 14500 kilometres long coastline on the East and South East overlooks the Yellow Sea, East China Sea and South China Sea. **South Korea and Japan lying across the Yellow Sea dominate Chinese access to the open seas from the North East. Japan and Taiwan dominate its access to open seas across East China Sea. China's access to open seas across the South China Sea is dominated by Taiwan, Philippines and other South East Asian countries.**

China is bounded by the sea to its East, thick tropical forests to its South East, very high mountains of the Tibetan plateau and Xinjiang to its South West and West, cold desert and arid grasslands of Inner Mongolia and Manchuria to its North. These regions are arid, having less than 40 centimetres of annual precipitation, and have very harsh terrain and climate. **They, however, provide an effective natural barrier or buffer for land access to the main land of China.** Encompassed by these formidable physical barriers lies the main land of China comprising fertile river plains and lowlands, with good precipitation, in its East and South Central regions. **This forms the core of China.**

The sea to the East provides the easiest access to mainland of China.

Northern, Western and South Western regions of China having very forbidding landscape, harsh climate and limited rainfall are inhospitable for human habitation and agriculture. Despite its vast geographical stretch, **only 15% of China's land surface is suitable for cultivation.**

The main land of China is well served by two great rivers, the **Yellow River** in the North, and the **Yangtze River** to the South. These rivers originate from the Tibetan plateau. The drainage-basins of these two rivers, though forming just 22% of its landmass, are home to 60% population of China. Pearl River in South China, the second largest river of China also originates in the Tibetan Plateau.

Hence, Tibetan plateau is critical to water security of China.

Demographics

China has overall population of 1.4 billion but its geographical spread is highly uneven. Its population is concentrated in the east because of geographical factors. Sixty percent of its population is concentrated in just twenty two percent of its land mass. Its Eastern and South Central regions, forming the core, have an approximate population of 77 Crores with average population density of approximately 430 per km square. **In this sense, China is actually a relatively narrow country, with an extremely dense population.**

Population is most sparse in the mountainous, desert, and grassland regions of the northwest and southwest. In Inner Mongolia Autonomous Region, portions are completely uninhabited.

South Western region, comprising Tibet has an approximate population of 19 Crores with average population density of 80 per km square. Though this region is now dominated by Han Chinese, **Tibet is potentially unstable and is vulnerable to outside influences.**

North Western region, comprising Xinjiang, has an approximate population of 10 Crores with average population density of 30 per km square. Though this region is now also dominated by Han Chinese, the **ethnic population of Xinjiang is predominantly Muslim, with a significant ongoing insurgency.**

Northern region, comprising Inner Mongolia, has an approximate population of 16 Crores with average population density of 105 per km square. The region is stable.

North Eastern region, comprising Manchuria, has an approximate population of 11 Crores with average population density of 140 per km square. **Manchuria is also stable and of all four buffers is the most integrated with the Chinese core.**

91% of China's population is of Han ethnic origin. The remainder 9% are ethnic minorities. The next largest ethnic groups in terms of population include the Zhuang - 17 million, Manchu - 10 million, Hui - 10 million, Miao - 9 million, Uighur - 9 million, Yi - 9million, Tujia - 8 million, Mongols - 6 million, Tibetans - 6 million, Buyei - 3 million, Yao - 3 million, and Koreans - 3 million. **These are sizable numbers having questionable affinity to the central government.**

Interestingly, whereas **the core of China is overwhelmingly Han, its outlying regions are predominantly of diverse ethnicity, with major security connotations.** To overcome its perceived security concerns the Chinese Government is implementing a policy of altering the long term demographic pattern of the outlying regions through coercive settlement of Han Chinese. The Han Chinese being relocated in these inhospitable terrain are unhappy and there is a high rate of withdrawal amongst them. **This is further alienating the people of its border regions.**

Due to geographical limitations of inhospitable terrain and climate, the Western regions of China have always been at a severe economic disadvantage vi-a-vis the Eastern regions. High elevations, sharp slopes, extreme cold climate, low precipitation, distance from the coast all combine together to make the Western regions relatively unviable for agrarian and industrial commerce. The shift from the traditional agrarian economy to an industrial economy has further sharpened the economic

and social divides within China. The demands of an exceptionally high industrial economic growth has fuelled new population concentrations in coastal metropolises on the one hand and increased income disparity between the rich and poor on the other.

The resultant increase in income disparity between the Eastern and Western regions, urban and rural areas, the rich and poor in metropolises is causing social unrest. This is one of the most dangerous fault lines within China.

Idea that is China

60% of China's population, concentrated in just 22% of its territory, in a roughly 1000 kms wide arc along the sea coast represents **the core of China and is overwhelmingly of Han ethnic origin.** This arc, containing almost a billion people, is one of the most densely populated region of the world.

The far flung autonomous regions of Tibet, Xinjiang, Inner Mongolia, Qinghai and Gansu comprise 55% of the country's land mass but contain only 7% of its population. These thinly populated regions, predominantly comprising ethnic minorities are deemed to be the buffer regions to the main land Han Chinese core. Many of these minorities have doubtful loyalty to China, strained relations with the central government, and active cross-border ties with neighbouring countries. **Thus we see that geographically a good part of what we think of as China is not ethnically Chinese.**

China has regional variations in religious affiliation of its population. The Tibetans are Buddhists, whereas the Uighurs in Xingjian follow Muslim faith. Roughly 60% Han population officially are atheists, while the balance believe in various forms of folk religion.

There are severe divides within the Han Chinese as well:-

- Urban – rural
- Rich –poor
- Northern plains – Southern plains

The diversity of these group interests within Han China has frequently led to fragmentation and civil war.

Historical Backdrop

The inland borders of China are mostly mountainous and cold, difficult to garrison, and populated by minorities of doubtful loyalty to the central government. Its **borders are easier to invade than to defend.** Traditionally China's maritime interests have remained mostly limited to coastal waters even though the **long coastline provides easiest access to the main land China.**

Historically, threats to China's Han core have originated in the highlands. To guard against overland invasion successive Chinese rulers have sought to push the Core's borders outward, integrating these highlands as strategic buffer zones forming a protective shield around the core.

To be secure, China must control the buffer regions. But maintaining control of these regions, in turn, requires a strong and united core. And that means overcoming immense internal divisions – not only between Northern and Southern region river plains of Yellow and Yangtze rivers, but also smaller regional units, each with their own geography, history, dialect and interests.

Chinese history is defined by cycles of unity and fragmentation, from periods when a strong Han core captures and holds the surrounding buffers to those when a weak core breaks into its

constituent parts, loses internal coherence and cedes control of the highlands.

It was around 200 BC that Chinese mainland was first unified under the Han dynasty. This was followed by a period of strife till Chinese empire first extended control over territories in Central Asia in the 8th and 9th centuries, under Tang dynasty. Thereafter in the 14th century China was under Mongol rule for almost 90 years. It was in 17th and 18th century that Tibet, Mongolia and Xinjiang were first annexed. A weakened Chinese empire was, thereafter, defeated by the Western powers in the two opium wars of the 19th century. This led to a century of foreign domination, first by the Western powers and subsequently by the Japanese. It was only after the close of the Second World War that China could again control its own destiny. Subsequently Tibet was again annexed in 1950.

Subsequent to establishment of Chinese Communist Party rule, a resurgent China has used force in its neighbourhood as under:-

- Forcible annexation of Tibet in 1950.
- Against USA led UN forces in Korea in 1950.
- Crushing of Tibetan independence movement in 1952.
- Border war against India in 1962.
- Punitive border action against India at Nathula in 1967.
- Ussuri River island conflict against USSR in 1968.
- Forcible occupation of island territory from Vietnam in Paracel Islands, in South China Sea in 1974.
- Punitive border action against Vietnam in 1979.

- Forcible occupation of island territory in Spratley Islands, in South China Sea from Vietnam in 1988.

- Forcible occupation of Mischief Reef, in South China Sea, from Philippines in 1995.

In addition to above use of force, China has resorted to threats of use of force internationally on numerous occasions. Currently it is engaged in use of force by setting up maritime defensive zone in South China Sea in disputed waters, wherein its actions have been ruled as violating international laws by the International Court of Justice.

Economic

There has been a very high growth rate of the Chinese economy during the past two decades. This very rapid growth rate has led to:-

- Setting up of manufacturing industries

- Reorientation of trade and commerce activities from traditional Silk land routes to maritime trade.

- Demand for external resources.

- Coming up of new highly dense population centres with floating population creating new demographic challenge for the Central authorities.

However, the increasing maritime trade and industrial centres are perforce concentrated along China's 14,500 kilometres long Eastern coastline. The interiors of the West with high elevations, extreme cold conditions and long distances from the coast make land transport infrastructure an economically prohibitive alternative making the industrial product uncompetitive in the international market. Apart from creating new demographic fissures, this has also resulted in extending

the core of mainland China right to the exposed Eastern coastline, making it extremely vulnerable to foreign maritime threat.

Geographically the easiest access to mainland China is through its eastern coastline. The demands of competitive industrial output and international trade have forced China to locate its most vital assets in its exposed maritime underbelly. Creating a maritime buffer along its exposed 14,500 kilometres Eastern coastline has introduced a paradigm shift to China's geostrategic challenge of managing its external security.

STRATEGIC DILEMMAS OF CHINA

Maritime Vulnerability

Geography has gifted to China its biggest geostrategic dilemma, a classic case of being hemmed in "Between the Devil and the Deep Sea". **Maritime trade is critical to China to survive as a major economic and geostrategic powerhouse.** On one hand, the massive geographical barriers to its North-South-West make land trade prohibitively uneconomical and also make it vulnerable as they pass through regions which are politically unstable and volatile. On other hand, while China's access to open seas is dominated by countries inimical to its interest, the **14,500 kilometres long coastline is vulnerable to maritime threat.** Its major rival, the USA, is the pre-eminent maritime power dominating China's maritime trade routes in the Pacific and Indian Oceans.

China's maritime actions in South China Sea are an attempt by it to create a maritime buffer zone to provide security to its extended coastline, the hub of its economic and demographic centre of gravity. But these actions have also brought it into direct conflict of interest with all its maritime neighbours, thereby opening the doors to USA interference and providing cause for India and Japan to realign themselves alongside USA to thwart Chinese bellicosity.

The ongoing debilitating trade war between China and USA and the maritime standoff between the two in South China Sea has the potential of blowing into a military confrontation. In such an eventuality, win or lose, Chinese maritime trade will be the first casualty. Which by itself is likely to lead to internal instability and give rise to fissiparous forces against central rule.

Chinese propensity to use force or threat to use force has created an antagonistic relationship with two other major Asian powers, India and Japan. With an aim to secure its Northern and South Western flanks, China has propped up North Korea and Pakistan as nuclear armed states with a view to neutralise Japan and India, respectively. It also gives it leverage against USA by diverting the latter's energy and attention towards nuclear proliferation.

This strategy is now unravelling. The Chinese threat has forced Japan to shed its 70 years old policy of pacifism and commence rearmament. In India a right-wing nationalist party government has hardened its stand against Chinese threats and shifted focus to its Northern borders against China, with strategic support from USA. An informal alliance between USA, India and Japan is maturing into the worst nightmare for China.

Effective Strategic Options

China is attempting to overcome this dilemma by exercising two options. First is to open land trade routes to energy producing regions in West Asia and Central Asia, the Belt and Road Initiative (BRI). Secondly, to establish permanent naval presence along its maritime routes, the "String of Pearls" strategy. The strategies are inherently flawed and should be seen as a measure of China's acceptance of its maritime vulnerability.

The China- Pakistan Economic Corridor (CPEC) passes through disputed Pakistan Occupied Jammu & Kashmir region, Sindh and Baluchistan provinces of Pakistan which are insurgency prone. CPEC is within

easy strategic reach of India, hence, prone to interdiction in times of hostilities. Similar is the case with the China Burma Economic Corridor. The economic corridor to Central Asian and West Asian regions shall pass through the volatile Xinjiang province and the highly volatile Central Asian republics. With strong USA presence in West Asia, it will again be vulnerable to interdiction during hostilities. The current projected costs of these enterprises is estimated at US Dollars 800 billion and given the survival viability, it reflects a measure of desperation of China to come out of its geostrategic dilemma.

The String of Pearls is equally unviable as its efficacy to withstand an open hostility environment is questionable as China does not have the maritime resources to control the maritime trade routes passing through the Pacific Ocean and Indian Ocean bottlenecks dominated by Japan, India and USA.

Orientation of Chinese Armed Forces

The biggest bulwark against internal threat to Chinese Communist Party rule and the biggest threat to their continuity in power are the Chinese armed forces. Supreme control over the Chinese armed forces lies with the Chinese Communist Party. This supremacy is ensured through political interface at all levels down to the unit. The command supremacy lies with the political commissars. A conformist attitude and political indoctrination in army hierarchy gets priority over professionalism.

The primary responsibility of the armed forces is therefore to safeguard the political hierarchy from its own people. Safeguarding the borders from external threat is secondary. This perforce inhibits the Chinese armed forces from developing its full combat potential against external adversaries. Joint warfare command and control structures, vital for success of overseas military operations, are inadequately organised owing to above reasons. Hence the combat potential of its armed forces beyond immediate vicinity of its borders is uncertain.

CURRENT GEOSTRATEGIC SITUATION OF CHINA

Global Aspiration. It is progressively developing its economic and military strength to enable exercise of pre-eminent geostrategic influence and power on the world stage. However, its propensity for belligerence in its immediate neighbourhood is propelling regional countries into forming strong alliances to thwart Chinese geostrategic designs.

Regional Objectives. The influence of China is truly established as the pre-eminent power in Asia. The Shanghai Security Cooperation Organisation (SSCO) is the instrument of projection of Chinese influence in the Central Asian region primarily to secure energy supplies for her ever expanding economy. ASEAN and other countries in the region, right up to Australia, are sensitive to Chinese interests. But the commencement of rearmament by Japan, India's strategic reorientation and pivot to the Pacific by USA are likely to adversely impact Chinese geopolitical influence.

Control over Maritime Trade Routes. Currently it has the third largest nuclear stockpile and an ocean going navy with two indigenously manufactured aircraft carriers scheduled to join service in near future. The naval strength is, however, inadequate to implement its String of Pearls strategy to safeguard its maritime trade routes, even with assured naval resource increments, in the coming decade.

Economic Power. The Chinese economy is already second largest in the world and is projected to cross US economy in GDP terms by 2040, as per current estimation. It has also developed huge trade surplus against majority of large economies of the world. However, the enormous economic resources deployed towards its Belt and Road Initiative (BRI) and the ongoing trade war initiated by USA is placing tremendous strain on its economic stability.

Establishing Hegemony. With the restructuring of its economy and modernisation of armed forces, China has already commenced

expansion of her sphere of influence eastwards into the South China Sea and the Sea of Japan with increased belligerence. This increase in belligerence is distinctly visible even along her Southern regions, especially in Tibet and borders with India.

Prevent the establishment of any rival centre of power in the region. Leaving aside South Korea, Japan, Vietnam and India all other neighbours of China have fallen under its sphere of influence, with varying degrees of subservience to Chinese interests. China continues to intimidate the countries inimical to her interests through increased show of force. This is necessitating the US to pivot to the Pacific region to countervail Chinese influence.

Sino-Russian Interests. Currently China sees a convergence of interest with Russia owing to energy supply dependency, mutual requirement of checking Islamic extremism from the Central Asian region and to countervail US power projection capabilities in Asia.

Sino-Japanese Rivalry. Japan is strategically placed to act as a bulwark against any Chinese push for dominance in the Pacific region and deny China access control along its regional maritime trade routes. China sees an increased convergence of US, Japanese and Indian interests in countervailing the former's rise. Japan's increased military activism is also perceived as a threat by China, necessitating attempts at neutralising Japan through show of force.

Sino-US Cold War. Despite the strong economic linkages between the Sino-US economies there is no denying the effective cold war undercurrents between the two countries. Heavy US presence in South Korea and Japan gives it the capability to choke Chinese maritime trade at a critical juncture. Similarly, establishment of US presence in Central Asian region gives it the capability to cut off China from its critical overland energy supply lines. An economically and strategically resurgent India has the capability to pose a serious threat from the South as also deny

access to the Indian Ocean maritime trade routes. This leaves China with the option to continue strengthening economic engagement on the one hand and wean away India, Japan and South Korea from US influence through a policy of carrot and stick.

Sino-India Relationship

Boundary dispute, Tibet, sharing of river waters, sourcing of energy supplies, trade and commerce are the key sources of dispute between the countries representing two diverse cultures. China also perceives India, in alliance with US and Japan, as a stumbling block to achieving undisputed great power status. Hence, China's engagement with India is guided by efforts to wean it away from an alliance with US through a "carrot and stick" approach.

The Stick

Continue to prop up a nuclear Pakistan to neutralise India.

Challenge India's geostrategic space in Indian Ocean by permanent establishment of military presence in adjoining countries, viz. Myanmar, Sri Lanka, Djibouti and Pakistan.

Coercive projection of force along border with India.

Undermine Indian economy by attempts at denying sources of energy and entry to critical trade blocks.

Internal sabotage through fifth columns.

The Carrot

Mutually favourable solution of the border dispute.

Collaborative engagement vis-a-vis US & EU blocks in international trade and economic fora.

Influencing World Opinion

China is subtly influencing the world opinion by exercising its soft economic power to project itself as a modern, economically vibrant, monolithic state with powerful armed forces to safeguard its national interests. Investments in adversarial countries foreign media, donations and paid news space is the route being adopted by it.

Nations inimical to its interests are having democratic form of government. It is subtly influencing electoral outcomes in interested countries through electoral donations and influencing media articles with a view to ensuring that the Government formed is sensitive to China's interests.

Intention is to project larger than life image of China, a country which cannot be defeated and is capable of retaliatory action which can adversely impact the economic and physical wellbeing of common citizens. It expects to thereby mould public opinion of targeted nations to influence their government's attempts, if any, to undertake coercive action against China. However, the mood of right wing nationalism in USA, India, Japan, and Australia has jeopardised the success of this campaign. Unpredictability of current adversarial leaders is unsettling to China, used to craftily designed well planned responses based on predictability of adversary actions.

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