Today, I will share with you the findings of a just completed, year-long study undertaken to assess the reforms of China’s People’s Liberation Army (PLA) initiated in 2015-16 and the implications of those reforms for Australia. The study’s particular focus was the development of the PLA’s capabilities in conducting joint operations, and deterrent and coercive operations, across multiple domains (land, sea, air, missile, outer space and cyber space).

Background to the PLA Reforms

In late 2015, the PLA launched the most sweeping and potentially transformative reorganisation in its history as part of a multi-decade reform process commenced in the mid-1990s. According to Beijing’s own schedule, this military modernisation process will “comprehensively enhance the modernisation of military theory, organisation, personnel, and weapons and equipment” by 2035 and build the PLA into a “world-class military” by 2049, 30 years from now, the 100th anniversary of the founding of the People’s Republic of China.

The reforms were undertaken for two key reasons. The first reason centres on the role of the PLA. The PLA is meant to be, first and foremost, the army of the Chinese Communist Party (CCP). It should provide the power of the gun to ensure the CCP’s legitimacy and survival. However, when Xi Jinping came to power as China’s paramount leader in 2012, he considered the PLA had become too independent and corrupt under the former national leadership, so the reform programme was introduced to reassert and strengthen the CCP’s control over the Chinese armed forces.

The second, more operational, reason for reform was to transform the PLA from a bloated and corrupt force with little wartime experience into a force increasingly capable of deterring attack on the mainland, protecting Chinese claims of sovereignty (say in the South China Sea or towards Taiwan) and, if necessary, fighting intensive, technologically-sophisticated conflicts against advanced adversaries, such as the United States or Japan, and doing so farther from Chinese shores.

The Study’s Topline Findings

China is a continental power trying to become a maritime power. A large portion of the PLA, however, remains focused on deterrence, continental defence and defence of Chinese claims within the ‘first island chain’. We expect that, over the next 5 – 15 years, with a strengthened PLA Navy, Chinese military activity will expand beyond the first island chain to the second island chain and into the Pacific and Indian Oceans. This longer-term strategic requirement for the PLA to project power is key to China’s efforts to transform the PLA into a modern, world-class military with the capacity to safeguard China’s national interests and its claim to sovereignty when it is threatened by regional and international competitors.

Keywords: Asia-Pacific; China; People’s Liberation Army (PLA); PLA reforms; PLA Army; PLA Navy; PLA Air Force; PLA Rocket Force; PLA Strategic Support Force; United States; Australia.
power beyond the first and second island chains and into the Pacific and Indian Oceans raises serious questions and concerns about China’s defence posture and strategic objectives. It will certainly have implications for the Australian Defence Force (ADF) by 2035 and beyond.

The above notwithstanding, China’s military leaders recognise and speak openly about significant obstacles in the quest to build a “world-class military”, particularly in combat leadership, warfighting capability and Party loyalty. But we expect the reforms to proceed and more adjustments to be made to structure and doctrine as new technology transforms the PLA to a far more capable force between 2035 and 2049.

By 2035, we expect that the PLA will have:
• extended its anti-access/area-denial envelope further beyond the first island chain;
• enhanced its long-range strike capabilities, including having acquired hypersonic weapons capable of reaching Australia;
• advanced undersea and amphibious warfighting capacities, because both will be needed in warfighting within and beyond the first island chain; and
• significantly improved its capabilities in military operations in cyber-space – whether used for cyber espionage, cyber attack, cyber disruptive activities, even political and information warfare – and outer space operations.

So, given this 15-year timeframe to 2035, ADF planning for United States-led or other ally-led coalition operations or operations conducted independently by the ADF, must anticipate a much higher threat environment in contingencies involving the PLA, especially within the first island chain and ramping up the closer one gets to China’s close-in maritime areas and the Chinese mainland.

PLA Reform – Specific Findings

Obstacles: The PLA’s ambitions are high, but so are the obstacles to their attainment. Indeed, China’s top leadership repeatedly calls on the PLA to overcome problems, often phrased in pithy slogans (like ‘bumper stickers”) directed to commanders and units to show them where they need to improve – slogans such as: “two incompatibles”; “two inabilities”; “two big gaps”; “three whethers”; “five incapables [cannots]”; and “peace disease”, “peace habits” or “peacetime practices [or problems]”.

Warfighting expertise and leadership: The pithy slogans criticise PLA warfighting capabilities and operational leadership and at times cast some doubt on whether the armed forces have sufficient ideological zeal and fealty toward the CCP. They suggest that, in the near term, the Chinese political and military leadership may lack confidence as to PLA capabilities against advanced militaries such as the United States, remembering that the PLA has not fought in combat since the mid-1980s when it was involved in border skirmishes with Vietnam (following its disastrous, short-lived invasion of Vietnam in 1979). This lack of warfighting experience is one the PLA leadership surely recognises. They realise they have to overcome it with more realistic training as they prepare the PLA for the conflicts that they anticipate will occur in the decades ahead.

Manpower proficiency: The study also found that the PLA has much “hardware” coming on line, but new “software” is lagging. PLA modernisation increasingly is more dependent on human factors than equipment and technology. Accordingly, there has been a recent focus on recruitment and training to develop initial crew and small unit proficiency; and, separately, on refining operational concepts, doctrine and procedures so as to establish the ability for the new systems to function effectively with others within task forces, strike groups and other joint formations.

Headquarters and staffs: To this end, since 2015, the PLA also has established new joint theatre and operational headquarters. Joint operations are an entirely new concept for the PLA, so, obviously, the PLA will experience growing pains and missteps in bringing them into effect. The new headquarters are now focused on training staffs to plan and control complex operations using new equipment and procedures that have never been tested in combat.

High-level joint exercises: So, the PLA has been working from both the bottom up to develop proficient small units which can use the new equipment, and from
the top down to develop headquarters and staffs able to plan and control the application of this combat power in a joint setting. In integrating these two approaches, some larger-scale combined-arms joint exercises have been conducted since 2016 with a view to evaluating how well the headquarters and units function together, but the number of large exercises has decreased significantly from pre-reform levels. We were expecting, that, from 2020 forward, an increasing number of major exercises would be conducted to further refine structure and doctrine. The impact, however, of the current COVID-19 disease pandemic on PLA recruitment and training, may put these plans back a year or more.

**Redistribution of personnel within the Chinese armed forces:** The new strategic focus on operations up to and beyond the second island chain has necessitated a reduction in personnel across all the Chinese armed forces, not just the PLA, and a redistribution of the retained personnel among the various forces and, within the PLA, its services (Table 1). We estimate that the post-reform PLA currently comprises some 2 million Active Duty personnel (including uniformed civilian cadres), of which the Army comprises >50 per cent; the Navy (including 40,000 marines) 12.5 per cent; the Air Force (including airborne) 20 per cent; the Rocket Force 6 per cent; the Strategic Support Force 8 per cent; the Joint Logistics Support Force 4 per cent; and the Reserves 10 per cent.

<table>
<thead>
<tr>
<th>Service</th>
<th>Estimated number of personnel</th>
<th>% of Active Force</th>
<th>Comments</th>
</tr>
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<tbody>
<tr>
<td>Active Duty PLA</td>
<td>2 000 000</td>
<td>95%</td>
<td>Includes uniformed civilians</td>
</tr>
<tr>
<td>Army</td>
<td>975 000</td>
<td>&gt;50</td>
<td></td>
</tr>
<tr>
<td>Navy</td>
<td>250 000</td>
<td>12.5</td>
<td>Includes 40 000 Marines (3% of Active Force)</td>
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<tr>
<td>Air Force</td>
<td>395 000</td>
<td>19.75</td>
<td>Includes Airborne</td>
</tr>
<tr>
<td>Rocket Force</td>
<td>150 000</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>Strategic Support Force</td>
<td>155 000</td>
<td>7.5</td>
<td></td>
</tr>
<tr>
<td>Joint Logistics Support Force</td>
<td>83 000</td>
<td>4.25</td>
<td></td>
</tr>
<tr>
<td>Reserves</td>
<td>519 000</td>
<td>25%</td>
<td>Old number; no recent reporting</td>
</tr>
<tr>
<td>Contract Civilian</td>
<td>49 000</td>
<td>2.5</td>
<td>Not Active Duty, previously 20 000, but undergoing expansion</td>
</tr>
<tr>
<td>People’s Armed Police (PAP)</td>
<td>8 000 000</td>
<td>40%</td>
<td>Includes Coast Guard; total number of PAP not released after 2018 reform</td>
</tr>
<tr>
<td>Total PLA: Active, Reserves, Civilians and PAP</td>
<td>3 050 000</td>
<td>14.5</td>
<td>Approximately 2 530 000 without the PAP</td>
</tr>
<tr>
<td>Militia</td>
<td>8 000 000</td>
<td>36%</td>
<td>2018 number – no recent reporting</td>
</tr>
</tbody>
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Note
The post-reduction PLA-wide estimated distribution of officers and related personnel is:
- Officers and uniformed Civilian Cadre = 450 000 (23% of PLA);
- Non-commissioned Officers = 830 000 (42% of PLA); and
- Conscripts = 700 000 (35% of PLA).

The actual distribution varies by type of unit.

Specific Findings Related to Individual Services

**PLA Army** (PLAA): The Army is the service facing the biggest challenges. It is the least modern component of the PLA and felt the most “pain” in the recent reforms. It was significantly downsized during the reforms, but it remains the largest service (>50 per cent of the PLA – one reason why the PLA structure remains focused on continental defence). It has undergone manpower cuts and cuts to its traditionally dominant political role, while seeking to develop new capabilities to contribute to joint maritime and air operations. Many units still consist of large percentages of conscripts and legacy equipment. Border and coastal defence units comprise some 10-20 per cent of the Army.

**PLA Navy** (PLAN): Organisationally, the Navy is gaining in strength and resources and is speeding up its transition from near seas defence to “far seas protection missions” in line with China’s longer-term strategic objectives. To this end also, the Marine Corps, which is part of the Navy, has been significantly expanded. Nevertheless, about 30 per cent of Navy personnel remain shore-based e.g. coastal defence units. Operationally, the Navy is improving its deterrence and warfighting posture within the first island chain, but its far seas and expeditionary capability is not yet at “world-class military” standard. The Navy operates China’s only overseas base – in Djibouti, which became operational in 2017 to support the PLAN’s anti-piracy and escort missions in the Gulf of Aden.

**PLA Air Force** (PLAAF): The Air Force is improving, but is lagging in key areas. It has a large number of platforms, but 30-40 per cent of fighters, fighter-bombers and bombers are legacy aircraft, in some cases dating back to the 1960s and 1970s. It has been tasked to accelerate the transition from homeland air defence to offshore offensive and defensive missions, but this will take some time as, for such tasks, it has pronounced weaknesses in aerial refuelling and strategic airlift. The majority of the PLA airborne and long-range surface-to-air missile forces are assigned to the Air Force.

**PLA Rocket Force** (PLARF): Previously called the Second Artillery, the Rocket Force has gained status, resources and a new mandate under the reforms. It has been promoted to the status of a fully-fledged service arm co-equal to the PLAA, PLAN, and PLAAF, with increased manpower and, with its conventional and nuclear missile forces, an increasingly critical role for PLA deterrence and warfighting strategies.

- It is equipped with one of the world’s largest and most diverse arrays of conventional and cruise missiles. It also has a relatively small (by United States and Russian standards), but increasingly reliable, nuclear capability.
• Its nuclear and conventional forces have improved over the last 10-15 years as to firepower, mobility, survivability and accuracy; but, while their C4ISR\textsuperscript{1} for targeting and communications is improving, it remains unproven in warfare.

• The U.S. Department of Defense recently noted that China now has a second-strike nuclear capability (i.e. it would be able to survive a massive nuclear strike and deliver a nuclear response) which ensures its nuclear deterrent standing vis-à-vis the United States.

It is now the intention of the PLA to develop two other legs of a “nuclear triad” which would include the Navy and the Air Force and it is anticipated that the Rocket Force may have a role in developing nuclear capabilities for the PLAN and PLAAF.

**PLA Strategic Support Force (PLASSF):** The Strategic Support Force is newly-established and one of the most important elements of the PLA going forward. It consolidates the PLA’s cyber, electronic, space and information warfare capabilities which formerly resided in the Army (mainly), Navy and Air Force. It has two roles:

• The first role is to provide operational and tactical support in its areas of expertise to the Army, Navy, Air Force and Rocket Force; and to enable joint operations by providing strategic information support through space and network-based capabilities – communications, navigation, intelligence, surveillance, reconnaissance, and the protection of military information infrastructure.

• The second role is an independent mission of its own, viz. to conduct strategic information operations in the cyber and outer space domains – space and counter-space missions; cyber attack, cyber espionage, cyber disruption; electromagnetic warfare; psychological warfare; disinformation, and the like.

So, this is a very modern, arguably the most advanced, part of the PLA and is at the forefront of the development of joint operations – through the integration of deterrence and warfighting capabilities across multiple domains. It will be ‘the pointy end of the spear’ in any future operations that the PLA undertakes.

**People’s Armed Police (PAP):** The PAP is a domestic security force and frees up the PLA to focus on external rather than internal security. The PAP is now solely under the command of the Central Military Commission and has taken over control of the Coast Guard. It has 32 internal defence units throughout the country. It now has two, centrally-controlled, national mobile units, plus mobile units in every province. The PAP’s former border defence, firefighting, gold mining, forestry, hydropower, and security guard units have been transferred to civilian government agencies.

\[\text{C4ISR is a military acronym for command, control, communications and computers (C); information, surveillance and reconnaissance (ISR).}\]

**Study Methods**

The study made extensive use of publicly available, authoritative, Chinese-language sources. This was important because it enabled us to see what the Chinese leadership was saying to the PLA and what the PLA was saying internally, including its priorities, where progress is being made to date and what the continuing problems will be going forward.

The material examined included up-to-date details on the current state of the PLA reorganisation, including border and coastal defence forces and the People’s Armed Police units. Numerous charts provide details of PLA structures, capabilities and activities; and extensive details on the PLA Navy’s Gulf of Aden escort missions since December 2008 are also provided. Finally, a survey was conducted of outside experts – mostly former United States defence intelligence officials/analysts – comparing the United States and Chinese militaries across a range of land and maritime operational capabilities. At 117 pages, the report presents one of the most comprehensive and up-to-date open-source studies on this subject, and, if there is interest, I would be happy to make it available to you.

**Conclusion**

The study findings outlined herein assess the most up-to-date information available on the current reorganisation of the PLA which is scheduled for completion by 2035 as the basis for transforming the PLA into a “world-class” military by 2049. The PLA is working to transform from a bloated, corrupt and outdated force with a continental, defensive mindset to a world-class, 21\textsuperscript{st} century, expeditionary force able to project power up to and beyond the second island chain into the Pacific and Indian Oceans. The Army is being slimmed down, the Navy (including the Marines) is being expanded, new Rocket and Strategic Support Forces are being formed, and internal security and border protection responsibilities are being transferred to the People’s Armed Police backed up by the Militia. It is a very ambitious undertaking with many obstacles to overcome, but, if achieved, will pose a complex set of challenges to the United States and its allies, especially within the Asia-Pacific region.

**The Speaker:** Dr Bates Gill is Professor of Asia-Pacific Security Studies in the Department of Security Studies and Criminology, Macquarie University, Sydney. A China specialist and a Senior Associate Fellow of the Royal United Services Institute (London), he has been an educator, scholar, and policy advisor for 30 years, having held academic and research positions at world-leading universities and public policy research institutions in the United States, Europe, and the Asia-Pacific. His research interests include Chinese foreign, strategic, defence, and security policy; United States-China relations; and the role of the United States in the Asia-Pacific. He has produced more than 200 publications. [Photo of Dr Gill: Macquarie University]