EXECUTIVE POLICY BRIEF

Missile Proliferation in the Indo-Pacific: Opportunities and Challenges for Philippine Deterrence

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INTRODUCTION

One of the notable trends in the Indo-Pacific is the intensifying rush in the procurement of various types of long-range missiles, that is, land-or-sea based surface-to-surface missiles with range greater than 100km[1], as part of the general increase in armaments in the region observed since the early 2010s[2]. Some scholars regarded such a trend as a manifestation of an arms race dynamics in the region, while others disputed such a claim, at least among the Southeast Asian states.

There is a noted tendency among observers to express alarm[3] over these developments and hypothesize their implications on the likelihood of conflict. This paper seeks to delve deeper into the underlying rationales, driving forces, and strategic implications of these weapons systems. If it is to be sound and effective, informed policy needs to be based on a grounded analysis of these rationales.

This Executive Policy Brief (EPB) aims to answer the following questions: 1) What are the relevant drivers of development and procurement of long-range missile systems? 2) What are the impacts of such weapons for the deterrence requirements of small states like the Philippines?

This paper is divided into the following sections: first, an overview of the state of missile procurement in the Indo-Pacific, both in Southeast Asia and relevant powers in the region; second, a brief discussion on the value of such weapons for and relevance to for deterrence in general; and third, some recommendations for the Philippines, specifically for the Department of National Defense (DND) and the broader defense sector including the Armed Forces of the Philippines (AFP).

MISSILE PROCUREMENT IN AN AGE OF GREAT POWER COMPETITION

Increased stockpiling of long-range missiles has been observed in several countries in the Indo-Pacific region over the past decades. The People's Republic of China leads the way in this regard, having been observed to have been steadily building up a sophisticated arsenal of ballistic and cruise missiles with ranges measuring in thousands of kilometers, as seen in Figure 1 (see page 7).

The United States and several states in the Indo-Pacific region have also been building up their missile capabilities. Japan[4] and Australia[5] have begun build-ups or developments of various high-technology anti-ship and land-attack missiles, with the former planning up to ten new types of land-attack/anti-ship missiles to be launched from a mix of land, sea, and even air platforms. India and the Republic of Korea already have a growing arsenal of indigenous and foreign-design anti-ship and land-attack missiles, with both countries are beginning to export their designs abroad. Taiwan as well has been developing its own long-range missile capabilities.[6]

In Southeast Asia, there is a more nuanced but nonetheless noteworthy increase in the number and sophistication of missile arsenals among certain states. Figure 2 (see page 7) shows a simplified chart that lists down the relevant missile capabilities in the region. Currently, eight of the ten ASEAN member states have, or will soon have, long-range surface-to-surface missiles; the majority are anti-ship missiles designed for combatting hostile ships, which is unsurprising as most ASEAN states except for Laos have significant coastlines and maritime spaces to defend, though some of these types are also "universal" weapons capable of engaging land as well as sea targets.

THE IMPORTANCE OF MISSILE TRENDS

Long-range missile capabilities are just one element of a comprehensive military modernization, but they attract attention and interest for several reasons.

The ability to allow strikes from hundreds of kilometers is desirable from a military perspective, as stand-off range provides relative safety to shooters compared to the prospect of having to close into gunfire or bombing range and incur greater risks of destruction. The farther one can hold enemies at risk, the more potential adversaries must tread carefully when attempting to invade or otherwise conduct incursions.

Increased precision is made possible with advances in seeker and communications technology, which in turn has led to greater effectiveness of conventional (i.e., non-nuclear or other Weapons of Mass Destruction, WMD) missiles in terms of their ability to hit distant targets accurately. This is coupled with advances in materials and propulsion technologies to create new types of long-range missiles, such as hypersonic cruise and boost-glide missile or "post-ballistic"[7] technologies that have a better probability of penetrating current missile defenses both at land and at sea. Such capabilities, however, mean that target states are now more vulnerable to attacks from such missiles.

As noted above, China is undergoing a large-scale modernization and expansion of its substantive long-range missile arsenal as part of its overall military modernization. Its expansive missile arsenal has been hypothesized to support several objectives, particularly establishing an "anti-access/area denial" (A2/AD) strategy to deter US intervention, which explains the development of "carrier-killers"[8] like the well-known DF-21D anti-ship ballistic missile, as well as intermediate-range and hypersonic weapons such as the DF-26 and DF-17 that can reach Guam. Their avowed purpose is "defensive," in the sense that China seeks to ward off US "intervention" against them via the US Navy's carrier battlegroups and amphibious forces. These ballistic missiles, along with other, more numerous weapons such as long-range anti-ship and land-attack cruise missiles, can also allow remote raids against other countries, particularly those allied with the US, that are geographically within reach of these missiles, giving China a powerful regional offensive tool with which to coerce its neighbors and other countries as far afield as Australia.

In turn, US allies and other states threatened by expanding Chinese military power have little recourse but to expand their own missile capabilities. The US itself has had to play catch-up in this regard – the kinds of intermediate-range conventional missiles suitable for an Indo-Pacific contingency were prohibited to both the US and Russia because of the Intermediate-Range Nuclear Forces (INF) Treaty. Said treaty has since been rendered defunct in 2019, reportedly due to Russian violations of the treaty, as well as increasing US concern over Chinese intermediate-range weapons. In the case of South Korea and Japan, the threat from nuclear-armed North Korea has provided an added incentive to develop long-range missile capabilities, with South Korea having articulated a retaliation and punishment strategy hinged on precision conventional weapons to deter North Korean nuclear attacks.[9] The development of sovereign missile capabilities also aims to serve as hedges against American withdrawal or abandonment, as the reliability of US security guarantees sometimes comes into question because of perceptions that the US may not come to their aid due to Chinese or North Korean nuclear threats.

The rationales for Southeast Asian procurement are partly affected by perceptions of the threat from China, particularly from those states most affected by Chinese actions and aggression in the

South China Sea such as Viet Nam, Indonesia, and the Philippines. As Figure 2 notes, these three countries have procured long-range supersonic cruise missiles, with the Philippines notably being India's first overseas customer for the well-known BrahMos missile. But at the same time, it has been observed that these procurements have not been accompanied by massive increases in defense spending. The Southeast Asian procurements may well be simply the states conducting prudent modernizations of their forces, both for prestige reasons as well as a recapitalization of old assets and shrinking forces.[10] In the case of the Philippines, spending in 2022 shrank compared to the last recorded high in 2018.[11] In fact, it is well known that the Philippines has traditionally underspent in defense relative to its neighbors and that the AFP Modernization Program continues to face challenges in its implementation.[12] Indeed, the increasing number of incursions from Chinese military and paramilitary forces, even despite the ongoing COVID-19 pandemic and repeated shows of good faith from the previous Duterte administration and the current Marcos Jr administration, show that the "cost of access" for China to enter the Philippine Exclusive Economic Zone (EEZ), and even possibly its territorial waters, is very cheap, which in turn increases the need for weapons like the BrahMos. Figure 3 (see page 8) shows a possible deployment pattern for BrahMos in the Philippines, which covers much of the West Philippine Sea EEZ. Such weapons give the Philippines decent reach to respond to threats in the EEZ, especially when cued-in with a robust working intelligence-surveillance-reconnaissance (ISR) and command and control (C2) network.

POLICY RECOMMENDATIONS

The trend of missile proliferation is unlikely to abate because of the abovementioned military-technical and geostrategic drivers. The missile threat from the PRC is a fact of life at this point, further brought to attention when China began stationing anti-ship missiles in the reclaimed features back in 2017.[13]

Build-up of missile arsenals is also attractive to countries that wish to economize their armed forces in the long-term. Some of the largest portions of annual military expenditure are in personnel expenses; the Philippines currently spends 57.7% of its 240.7 billion PhP FY2023 defense budget on personnel.[14] Such expenditure, while understandable due to the country's focus on domestic concerns and internal security, does not translate to deterrent power against external threats; wars such as the 1991 and 2003 Gulf Wars have shown the folly of low-technology, high manpower armed forces when faced against sophisticated adversaries. Other countries in the region, such as China and Japan, will rely on missiles to compensate for demographic concerns that further disincentivize reliance on masses of manpower and traditional platforms.[15]

Advocating for restraint and confidence building measures as part of foreign policy is an option to try and manage the proliferation of advanced land-attack missiles.[16] In an ideal world, ASEAN and its platforms would be a good starting point. Recent events such as the war in Ukraine and increasing geopolitical tensions, however, preclude an idealistic overreliance on such measures; small countries that choose not to arm themselves especially while still embroiled in various sovereignty and territorial disputes run risks of self-deterrence and ultimately defeat. Further, ASEAN's platforms have historically shied away from hard-power security concerns.

The DND and AFP must prepare for a regional security environment with a greater proliferation of strike weapons such as missiles and loitering drones. The following

considerations may help in ensuring defense and security under such conditions:

Building up AFP's own stock of long-range anti-ship and land-attack weapons. A potential adversary that can conduct offensive actions with zero risk to their forces and operating bases is an adversary that will be easily incentivized to use military coercion. An independent retaliatory capability should be considered, as such will improve the Philippines' ability to increase risk to aggressors. The BrahMos procurement should be expanded beyond the initial plans for the Philippine Marine Corps and Philippine Army batteries and supplemented with weapons of similar, if not greater range.

As the Philippines builds up its arsenal, it would be prudent as well for it to invest in strategic communications to assure allies, partners and other states that this build-up is indeed defensive. Such strategic communications would also be needed to assure domestic audiences that the build-up is consistent with the 1987 Constitution. It should be noted that Article II Section 2 of the Constitution does not prohibit the procurement of anti-ship or even land-attack missiles. Rather, it expressly "renounces war as an instrument of national policy", in essence rejecting the idea of first strike. A second-strike posture and the requisite capability to conduct such retaliation should be permissible under the Constitution.

Investing in air and missile defense. In addition to, or in lieu of, building an arsenal of long-range weapons of its own, the Philippines may consider investing in missile defense systems. They are less likely to immediately draw scrutiny and ire from aggressors and neighbors alike because of their inherent defensive nature. The Philippines has procured SPYDER-MR air defense systems from Israel, with the first two out of three batteries delivered in 2022 and the last battery to be delivered in 2023.

Relying on a purely defensive strategy of attempting to intercept enemy attack comes with certain pitfalls that defense planners should consider. During the Cold War, technology for missile defense was often considered ruinously expensive relative to the cost of simply purchasing more offensive missiles or warheads, in what is called the "cost-exchange ratio."[17] While technologies have advanced since then, the experience of Ukraine indicates that a modern defensive campaign can still cost more than the attack that it seeks to stop,[18] because of the cost of defensive munitions and sophisticated sensors and command and control, as well as the need to cast as wide a protective network as possible and regenerate forces in the face of losses.

Inviting US missile and/or missile defense forces. As any investment in Philippine missile and/or missile defense forces will inevitably prove expensive, an alternative would be to invite the Philippines' treaty ally, the United States, to rotate anti-ship missile and missile defense batteries in the Philippines. The US has a number of land-based land-attack and anti-ship missile systems, from the Guided Multiple Launch Rocket System (GMLRS) fired from the famous HIMARS artillery in Ukraine, to the Naval Strike Missile (NSM) and the Long-Range Hypersonic Weapon (LRHW), that, if based in the Philippines, could provide the necessary deterrence and combat capability against Chinese threats both from the reclaimed features and the Chinese mainland. Alternatively, high-performance missile defenses such as the famed Patriot Air Defense System, which has been brought to the Philippines for Balikatan 37-2022 exercises,[19] and the Theatre High Altitude Air Defense (THAAD) could be invited to provide critical air defense capabilities to supplement those of the AFP.

While this would provide an immediate solution for Philippine A2/AD and missile defense concerns at little fiscal cost to the Philippine Government, such options come

with significant political and strategic risks. First is the obvious lack of sovereign control over such capabilities, which does not bode well for an independent defense. The temporary and rotational nature of any US presence in the Philippines as mandated by the Visiting Forces Agreement (VFA) and the Enhanced Defense Cooperation Agreement (EDCA) means that there will be gaps when said forces are rotated out. The presence of such strategic US units also invites unintended entanglements, as China will inevitably see them as threats to its designs on Taiwan; this is a major reason why such deployments are politically contentious in not only the Philippines but also other American allies such as Japan, South Korea, and Australia.[20] Incidentally, these other countries have chosen to invest in sovereign missile strike capabilities in addition to strengthening their alliances; it could be taken that said investment is intended to provide deterrents without the political/strategic baggage of US intermediate-range weapons.

Even hosting defensive missiles may not be exempted from great power dynamics, as seen in the 2017 diplomatic row between China and South Korea over the latter country's hosting of US THAAD units to counter North Korean threats.[21]

Increase resilience of Philippine defense and critical infrastructure with passive defenses. The ability of Philippine military and civil installations to survive large-scale precision strikes launched via land-attack missiles, such as those seen in the ongoing war in Ukraine, is questionable. Such a lack of resilience weakens the credibility of Philippine defense, increases the burden on limited air defense assets, and tempts potential adversaries to strike a knockout blow in the event of a conflict, as well as inflict suffering upon the civilian population to exert unwanted political pressures on the Philippine Government to capitulate to aggressors' demands.

Reducing the chances of a knockout blow can be done through a variety of passive measures such as structure hardening, redundancy via additional bases and operating locations, camouflage and concealment, among other means. Apart from self-funding, the Philippines can harness cooperation with its allies and partners; the expansion of EDCA on 02 February 2022 with an additional four (4) Agreed Locations[22] provides an opportunity to improve these operating locations in terms of not only their basic infrastructure but also these locations' resiliency and usability in the aftermath of an enemy attack. This is an area where both countries will benefit; the US itself has similar concerns in increasing the resilience of its infrastructure and forces against large-scale missile attacks.[23]

CONCLUSION

Since the Cold War, long-range land-attack and anti-ship guided missiles are known commodities in modern warfare, with their effectiveness demonstrated in multiple conflicts from the Arab-Israeli wars of the 1960s, to the First Persian Gulf War of 1991, up to the present war in Ukraine. This latter war drew renewed attention to the importance of long-range precision weapons to mount campaigns of coercion or to counter aggressors' advances, as well as the difficulty of defending against them. As technology advances, the relevance of such weapons – and by extension, their desirability to militaries – will only increase.

As the Philippines pursues its military modernization, it must be fully cognizant of the challenges and opportunities that the spread of this technology poses. Indeed, to fully realize an independent foreign policy, the country must be capable of holding potential aggressors at arm's length, ideally at several hundred kilometers, before they can cause damage and loss of life.

Endnotes

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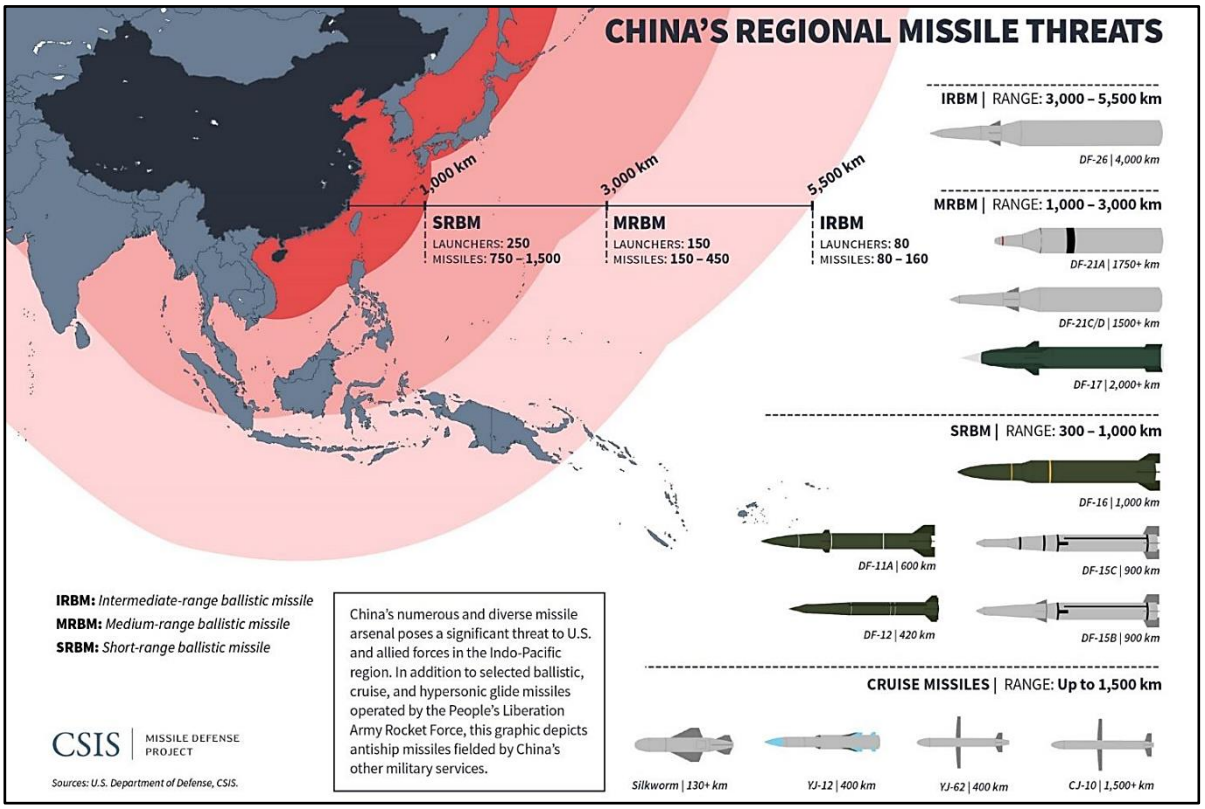

Figure 1

Center for Strategic and International Studies (CSIS) 2021 infographic illustrating the ranges of PRC missiles in the region.[24]

MAJOR SOUTH-EAST ASIA MISSILE SUPPLIERS AND OPERATORS

PRODUCER	OPERATOR	DESIGNATOR	TYPE
DPRK (NORTH KOREA)	Myanmar	Hwasong-6	SRBM
		KH-09 / KH-19	Subsonic AShM
CHINA	Indonesia	C-705	Subsonic AShM
	Myanmar	C-802/802A	Subsonic AShM
	Thailand	DTI-1 / WS-1B	MLRS/SRBM
		DTI-1G / WS-32	MLRS/SRBM
RUSSIA	Vietnam	Yakhont (Oniks)	Supersonic AShM
		Club 3M14E	Subsonic cruise missile
		Club 3M54E/E1	Subsonic AShM with supersonic battle stage / Subsonic AShM
		Uran 3M24E	Subsonic AShM
		Scud-B/-C	SRBM
	Malaysia	Kh-59M	Subsonic cruise missile
	Indonesia	Yakhont (Oniks)	Supersonic AShM
INDIA/RUSSIA	Philippines	BrahMos	Universal supersonic cruise missile
USA	Thailand	Harpoon (family)	Subsonic AShM
	Malaysia		
	Singapore		
FRANCE	Thailand	Exocet (family)	Subsonic AShM
	Malaysia		
	Singapore		
	Brunei		
SOUTH KOREA	Philippines	Hae Sung-1 / C-Star	Subsonic AShM
ISRAEL	Vietnam	EXTRA	MLRS/SRBM

Figure 2

Listing of Southeast Asian Missile Suppliers and Operators
Source: Stefanovich 2022[25]

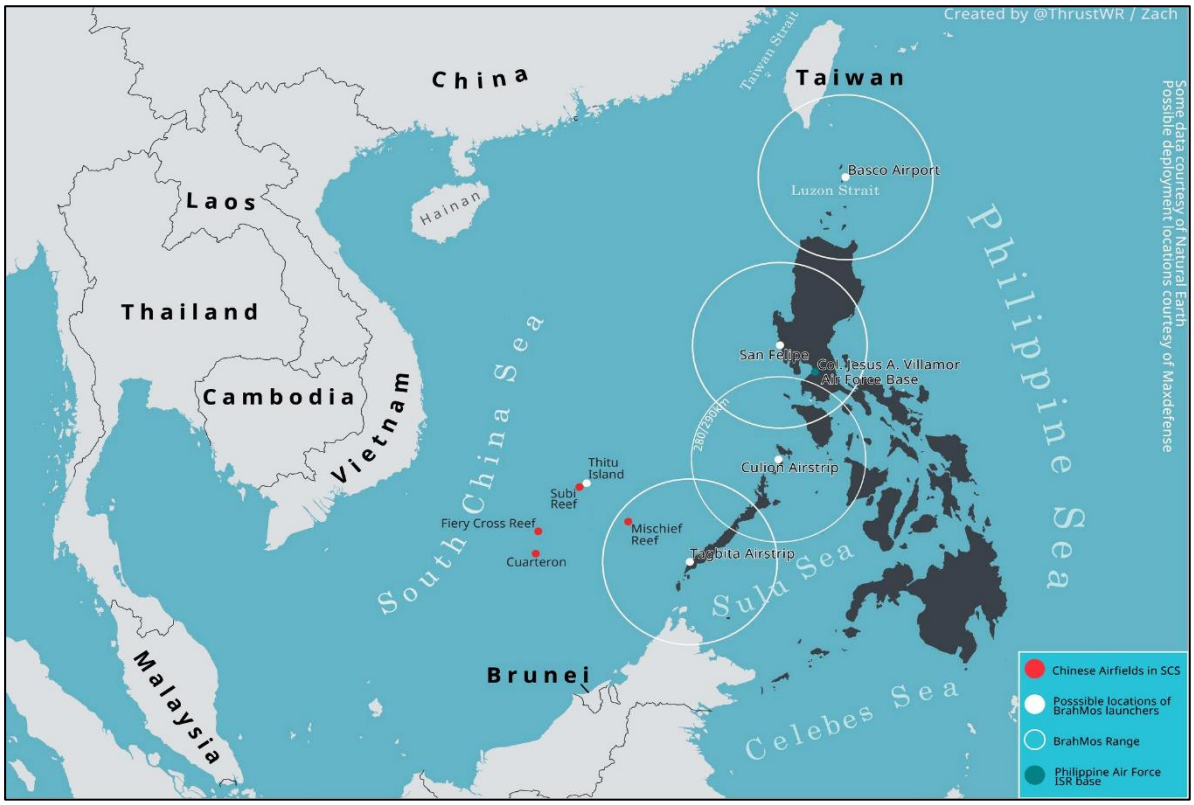

Figure 3
Map showing possible coverage from selected sites using BrahMos missiles
Source: Zach Abdi @ThrustWR 2022[26]

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