STRATEGIC RATIONALE OF IRANIAN BALLISTIC MISSILE PROGRAM

Ali Abbas
Research Officer BTTN
aliabbas_changezi@hotmail.com

Muhammad Usama Khalid
Research Officer BTTN
usama.khalid@bttn.org.pk

Naseem Sabzal
Research Assistant BTTN
naseem.mastoi@bttn.org.pk

Abstract

Ballistic Missiles have played a decisive role in ensuring a credible deterrence posture for Iran. The Iran-Iraq War and subsequent U.S. military presence in the region have only intensified Iran's threat perceptions. Iran has established a formidable Ballistic Missile Program (BMP) which serves as a tool of force substitution for Iran in the absence of adequate conventional forces and its conventional disparity vis-à-vis the U.S. military strength. Iran's BMP will continue to disrupt strategic calculations among Iran's rivals, but it also feeds into the security dilemma where Iran's purported defensive BMP may intensify arms race dynamics. The dynamics may worsen as Iran has relentlessly demonstrated a lack of compromise on either the status or the use of its missiles. Iran will continue to rely on its BMP to maintain a robust show of force and project its offensive power through promising punitive retaliatory measures. The twelve days' war between Iran and Israel proved the formidability of Iran's BMP but it also highlighted key weaknesses in Iran's strategy especially the gaps it needs to fill in its air defense and air force.

Keywords: Iran, Ballistic Missiles, Regional Security, Proliferation, Regional Dominance

Introduction

Iran's BMP has been a serious concern for its adversaries both at the regional and the global level. The opponents of Iran's BMP consider it an extension of its nuclear weapons program by performing the role of a highly advanced delivery mechanism. The US Intelligence Community's Annual Assessment Report also associated top priority to Iran's BMP and has identified it as a major threat for the US allies, interests, and infrastructure in the Middle East (*Annual Threat Assessment of the U.S. Intelligence Community*, 2025). Amid geopolitical tensions in the Middle

East, an assertive Iran poses significant challenges to the US strategy in the Gulf region. Forty-five years after the Islamic revolution, the post-Second World War status quo established by the United States remains disturbed in the Middle East region. The US and its allies supported and consented to the Iraqi invasion of Iran in 1980 (Sterner, 1984) hoping that the newly established theocratic government would falter under internal and external pressures. Following the end of the Iran-Iraq war and the disintegration of the Soviet Union, (to maintain its presence and relevance in the region) the US shifted its focus to combat the so-called Islamic Fundamentalism (Yazdani, 2008). The United States manufactured a new rationale for engaging the Middle East and especially Iran after the 9/11 attacks. Two invasions occurred in 2001 and 2003 in Afghanistan and Iraq respectively. The US forces were stationed on Iran's Eastern and Western flanks paving the way for effective containment and possible invasion. It is important to add context to the US war on terror which has been portrayed as a war against groups such as Al-Qaeda and the Taliban, and state-sponsored terrorism. However, in an interview in the mid-2000s, retired US General Wesley Clark, mentioned a memoir in the Pentagon that planned to attack seven countries in five years namely Iraq, Syria, Lebanon, Libya, Somalia, Sudan, and Iran ("US Plans to Attack Seven Muslim States'," 2003). As a result, many have been skeptic of the US' intentions about its global and regional strategies post 9/11 which it purported to be tailored against insurgents and global terrorist organizations.

It may be perceived that the lessons of the Iran-Iraq war, especially the one termed as "the war of the cities", and later the American military engagements in the Middle East shaped the Iranian military thinking by prompting the leadership to adopt ballistic missiles as a means of defence primarily, and secondarily as a means of power projection and to a lesser extent prestige (Taremi, 2005). However, there is scholarly disagreement on the role of ballistic missiles in the Iran-Iraq War as a significant element in prompting an indigenous Iranian ballistic missile program. The use of short-range ballistics by Iraq tipped with chemical weapons might have had an amplifying psychological effect but considering them as the single most significant reason for the cessation of hostilities in 1988 is far-fetched (McNaugher, 1990).

Choosing ballistic missiles for the purposes mentioned above was due to several factors. First, Iran relied heavily on Western military technology before the revolution and Iran had been a crucial US ally during the time of the Shah, but that had ceased to remain a policy option after Ayatollah Khomeini took over (Bahgat, 2023). Second, Iran's indigenous military-industrial complex was far from developed. Power projection beyond one's borders required a strong air force and Iran could not afford to maintain one, "…among America's strategic objectives in imposing sanctions on Iran was the establishment of military and financial impediments aimed at curbing and constraining Iran's regional influence." (Nematpour & Shariati, 2024). Post-revolution Iran had been thrown into extreme isolation which impacted its economy. Consequently, the financial constraints forced Iranian decision-makers to seek the more economical ballistic missiles over maintaining a costly air force.

Additionally, Iran lacked both the human and material resources with which it could afford to form a strong military presence in the conventional sense of the army, navy, and air force.

International sanctions froze Iranian funds and restricted it financially. A greater challenge was the uncertain socio-political environment of the country which had forced thousands of Iranians to migrate, most of whom were highly educated individuals. This created a scarcity of talent in the country as many who were specialized in industrial, financial, and technological fields were either removed from key position due to their affiliation with the former Shah or had themselves fled the country amid downgrading social indicators and a lack of trust on the new theocratic government which was to still stand on its own (Jahangir, 2004).

Today, ballistic missiles form the core of Iran's offensive-defense posture (Olson, 2016) with an array of short and intermediate-range ballistic and cruise missiles. Iran is also reported to possess hypersonic missiles as well, (Motamedi, 2023) however it remains in the induction phase and is yet to be operationalized. Another factor that concerns the region and the world is Iran's space program ("Part 2: U.S. on Iran's Space Program," 2022) and the potential it may translate Space Launch Vehicles (SLVs) into Intercontinental Ballistic Missiles (ICBMs), resulting in a wider coverage area for Iranian missile attacks. This concerns the United States which apprehends a possible use of these weapons by Iran in the event of a direct conflict.

The findings in this paper suggest that current trends in the Iranian missile program linked with the space program may have an impact far beyond Iran's immediate neighborhood, potentially giving it reach to Europe and the US. Also, this substantiates its deterrence posture in the region. Developing a devastating offensive capability coupled with adopting an asymmetric warfare doctrine has for the past few decades provided Iran with the minimum required deterrence in the face of a possible US invasion. Iran's ballistic missile capability can target every American interest, commercial or military, in the Middle East region as showcased by Iran's precision missile strike on the Ain-al-Asad base in Iraq back in 2020, (Williams, 2020) as well as in April 2024 against Israel which also has been noticed as a turning point for Iranian strategic calculations related to its security (Grajewski, 2024). Iran also proved the lethality of its ballistic and hypersonic missiles by launching devastating attacks against Israeli mainland, military infrastructure, and urban centers in June 2025.

This paper provides a detailed account of the inception of Iran's BMP by stressing on the individual factors responsible. Second, it analyzes Iran's ballistic missile capabilities, including the range, efficacy, and deterrence value of each sub-set of the Iranian missile program. In the same section, the paper intends to rationalize whether Iran's space program possesses the potential to be translated into a robust ICBM program. Third, the paper evaluates the role of ballistic missiles in Iran's overall security calculus, power projection beyond its borders, and ensuring the survival of the state amidst hostile regional environment and global dynamics. Fourthly, the paper highlights major gaps in Iranian air defense and air force whose exploitation allowed Israel relative ease in launching its airstrikes that decapitated a number of key military and nuclear personnel as well as ballistic missile stockpiles and nuclear energy infrastructure

Analytical Framework

Theory of deterrence provides a strong analytical foundation to this study justifying Iran's heavy reliance on ballistic missiles as an asymmetric counterbalance against perceived threats. Michael S. Gerson recognizes conventional ballistic missiles' potential in maintaining a robust deterrence mechanism short of nuclear warfighting. They are more flexible than nuclear deterrents and may not readily cause unmanageable crisis escalation (Gerson, 2009). John Stone remarks, "Cold War discussions of conventional deterrence usually focused on the denial variant, but there is nothing in principle to prevent conventional force from being employed in a punitive role." Nonetheless, he highlights the contrast between nuclear and conventional deterrence and the latter's relatively limited threat infliction capacity – vis-à-vis nuclear deterrence. This limited threat also may cause a somewhat light reception of threats expressed through conventional forces such as non-nuclear ballistic missiles (Stone, 2012). It is for this reason, partly, that Israel continues to threaten Iran with direct attacks on its nuclear and missile facilities even after a solid show of force by the latter in October 2024.

In any case, Iran's BMP has been a cause for inaction on parts of its adversaries – in this particular case, the US, whose current president, Donald Trump, has on occasions threatened to attack Iran directly (Hafezi, 2025). Israel too has threatened to take direct military action against Iran's nuclear facilities and defense infrastructure. A recent US intelligence report has warned that Israel may plan to attack Iran in the first six months of 2025, however, the report notes that the attack may only induce a minor setback in Iran's nuclear program but on the other hand it will escalate tensions to unprecedented levels (Hudson, Birnbaum, & Nakashima, 2025). As the report suggests, the costs of attacking Iran apparently outweigh the gains – leading to unsatisfactory results. In this respect, Iran's BMP has played its part in ensuring deterrence.

Drawing on the theory of neo-realism and specifically structural realism, Iran's ballistic missile program falls in line with the theory's assumption that states, in an anarchic global system, strive to maximize their offensive and defensive capabilities to ensure state survival. However, the offense-defense theory and the theory of security dilemma suggest that even though Iran's BMP, as purported by it, is for defensive purposes – regional and global adversaries will feel threatened by Iran's BMP and may serve to intensify existing arms races and spark new ones.

Conventional asymmetry in the face of adversaries causes greater reliance on non-traditional means of warfighting. As demonstrated by Pakistan's reliance on short-range ballistic missiles to offset growing India's conventional upper hand (Crail, n.d.) – ballistic missiles, either nuclear tipped or conventional (but precise), may balance a conventionally superior adversary and thwart a major invasion. To this extent, the deterrence effects of Iran's ballistic missiles are like those of Pakistan's with two exceptions, that is, Pakistan's missiles carry nuclear warheads and secondly, they have not been used in the battle against its potential adversary. Whereas Iran has actively deployed its missile forces in the Middle East due to their relatively lower destructive power which Iran makes up for through deploying lower yield missiles in hundreds of thousands. Thus ensuring a degree of massive retaliation through quantitative superiority.

The adversarial relationship between Iran and major Gulf economies such as Saudi Arabia and the UAE have resulted in the build-up of mutual threat perceptions between them. On the one

hand, Saudi Arabia receives its major arms supplies from the US whereas Iran does not have any such reliable military partner that could match the scale of military cooperation between the US and Saudi Arabia. Thus, indigenously produced ballistic missiles become highly relevant as far as the question of Iran's security is concerned. In addition, Iran is reluctant to go nuclear as it apprehends major diplomatic backlash and even further isolation. It does not prefer entering a nuclear arms race with the regional powers who will also seek nuclear weapons if Iran acquires it. Therefore, with no nuclear warheads, Iran's missile force projection relies on sheer quantity and focus on increasing the precision of its ballistic missiles.

The Historical Determinism in the Iranian Ballistic Missile Program

The Iranian BMP was initiated before the Islamic revolution. The Shah of Iran, beginning in 1977, agreed to secret arrangements with the Israeli government for a project codenamed "Flower". Under the understanding of the agreement, Iran would have provided a guaranteed supply of fossil fuel to Israel in addition to funds in billions of dollars for the development of a new surface-to-surface ballistic missile. Israel would provide the technological expertise that it had received from the United States in the early 1970s, translating it into a modern missile tailored for Iran (Sciolino, 2006). The deal was quickly scrapped after the 1979 revolution ushering in a new era of Iranian foreign policy characterized by mistrust for the US, Israel and their Western allies. Less than a year after the revolution, tensions between Iraq and Iran reached a boiling point culminating in the eight-year-long war of attrition between the two nations from 1980 to 1988. In the latter half of the war, Iran found itself helpless in the face of Iraqi air raids and missile launches into urban areas inside Iranian territories in what has been termed the "War of the Cities". However, Thomas L. McNaugher argues that the role associated with ballistic missiles concerning their effectiveness in bringing Iran to the negotiation table is highly overinflated (McNaugher, 1990). He highlights the mistake committed by some scholars regarding the Iraqi ballistic missile attacks as the single most effective factor in bringing about a cessation of hostilities. McNaugher is correct in his assumption that ballistic missiles alone were not enough reason to force Iran to accept a ceasefire, but they did intensify the existing internal political problems that the revolutionary government faced. However, this notion relates back to the 1980s when ballistic missiles possessed by the Middle Eastern nations were neither long-ranged aka strategic nor were they precision weapons tipped with High Explosives or Nuclear warheads. During the Iran-Iraq War, the Iraqis' best ballistic weapon was the Soviet made SCUDs missiles which falls miserably short in today's missile standards. In other words, had the Iraqis possessed today's missile technology, the impacts of their missile launches might as well have been definitive.

The new Iranian leadership had denounced the strategy of its predecessor the Shah, whose defense policy relied heavily on importing advanced military technology from the West and quickly abandoned both the nuclear and ballistic missiles program. Nonetheless, Iraqi attacks on civilian centers inside Iran and the significant weakening of Iran's air force quickly changed Iranian policy makers' perceptions about the notion of defense (Taremi, 2005). Iran decided to procure short range SCUD-Bs missiles from Libya and Syria in 1984 and subsequently approached

North Korea through the black market. This provided Iran with a limited but much needed supply of ballistic missiles for use against Iraq. Later, Iran sought to procure ballistic missile technology from China, namely the type-83 artillery rockets but these too were limited in range and payload (Taremi, 2005). These shortcomings were an inevitable part of the isolation that Iran was cornered into but at the same time provided the much needed impetus for developing a robust indigenous ballistic missiles production capability (Larison, 2022). This resulted in the establishment of the "self-sufficiency unit" which was headed by Hasan Tehrani Moghaddam who was also recognized as "the founding father of Iran's BMP". The program later developed into the Shaheed Hemmat Industrial Group (SHIG) which was tasked with Research and Development of ballistic missiles.[1] By the early 2000s, Iran had managed to improve existing ballistic missiles which it acquired from abroad and also produced its own missiles indigenously that surpassed ranges of 1500 km and were more accurate as well as increasingly evasive due to their maneuverability. Among these are the Sejjil and Sejjil-2 solid fuel missiles which were also acknowledged by ex-chief of Israel's Ballistic Missile Defense Organization, Uzi Rubin, as potentially original Iranian designs with no major indicators of it being an imported and improved system (Rezaei, 2016).

Fast forward to the 3rd decade of the 21st Century, Iran's ballistic missile arsenal is acknowledged as the most diverse and the largest in the Middle East region (Network, 2022). The next section outlines Iran's existing ballistic missile capabilities to provide a better empirical understanding of Iran's ballistic missile capabilities.

Profile – Iran's Ballistic Missile Arsenal

Iran has a wide range of missile systems, including ballistic and cruise missiles which were developed during the Iran-Iraq war of 1980-1988. These capabilities are a major part of Iran's military arsenal and have been developed throughout time. Iran's ballistic missiles consist of multiple series; Fateh, Shahab, Qiam, Khorramshahr, and Sejjil (Primer, 2024). Each of these series has its specific targeting potential. Shahab-1, Shahab-2, Shahab-3, and Ghadr missiles are all part of the Shahab series. Among Iran's ballistic missile arsenal, Shahab-3 is a noteworthy addition due to its stated range of over 1,300 km. Whereas, Shahab 1 and 2 are the most commonly derived from Soviet-R17/R 285-330. The Sejjil was first tested in 2007 and the Sejjil series of medium-range ballistic missiles is thought to have a maximum range of 2,000 kilometers which is powered by solid fuel and is fully operational. Moreover, Qiam Series are ballistic missiles with a short range, intended to precisely target specific targets of 700-800 Km (Squassoni, 2006).

In 2012, Iran's defence minister announced the development of 14 different cruise missiles. Moreover, Iran's cruise missiles include Soumar: which is based on Russian Kh-55 technology, this subsonic land-attack cruise missile is estimated to have a range of about 2000-3000 km (Primer, 2024). "Meshkat" a cruise missile system for coastal defense which reportedly has a 200-300-kilometer range. The "Raad" and "Hoveyzah" cruise missiles substantiate Iran's prowess in cruise technology with the former being a short-range weapon and the latter possessing a range of 1350 kilometers (Primer, 2024). In addition, the "Khalij Fars" (Persian Gulf) is an anti-ship

ballistic missile designed to take down navy ships. As well as Qader which is an air-launched anti-ship cruise missile that can reach targets around 200 km away and is an upgrade of Iran's Noor missile ("Missile Threat - CSIS Defense Project," 2021). Iran's missile launches in 2016 and 2017 led to the imposition of more sanctions. Trump enforced the stringent economic sanctions on Iran but negotiations between the Rouhani and Biden administrations continued when President Joe Biden took office in January 2021.

In June 2023, Iran introduced the Fattah Hypersonic Missile which reportedly has a range of over 1,400 Kilometers and can reach up to 15 times the speed of sound or Mach 15, although the new class of weapon has yet to be operationalized and is still believed to be in testing phase. In November 2023, Iran unveiled an upgraded version of the same with a reportedly improved range of around 2,000 Kilometers which brings Israel in its range (Motamedi, 2023). However, western experts are skeptical about the authenticity of the claim as Iran has previously announced the success of incomplete projects such as the Qaher-313 stealth aircraft. In short, many consider that Iran's missile capabilities should not be ignored altogether but must be scrutinized and approached with caution (Czulda, 2023). Iran's advancing missile capabilities have created concerns for the United States of America, and the neighboring countries such as the Arab Gulf States and most importantly Israel against whom Iran fired some of its missiles in response to an Israeli attack on the Iranian embassy in Damascus, namely the Paveh land attack cruise missile, the Kheibar Shekar Medium Ranged Ballistic Missile (MRBM), and the Emad and Ghadr MRBMs ("Iran's Missile Attack Against Israel," 2024). Table 1 provides a comprehensive detail of Iran's missile prowess showcasing Iran's increasing capabilities in the domain of Ballistic and Cruise Missile manufacturing (Watch, 2025).

Table 1: Iran's Missile Inventory.

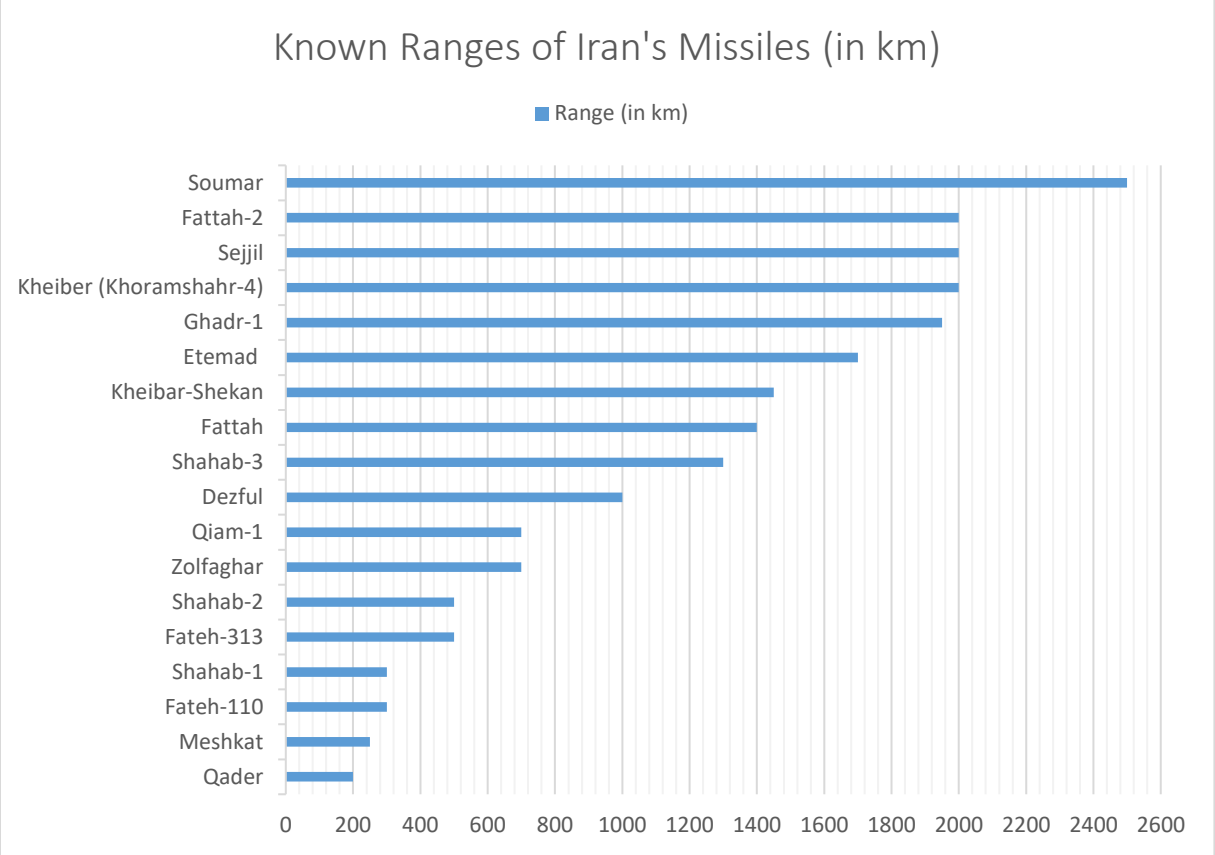
Missile Name	*Class*	*Range*	*Year Inducted*
Shahab-1 (Scud-B)	SRBM	285 - 330 km	1988
Shahab-2 (Scud-C)	SRBM	500 km	1990s
Shahab-3	MRBM	Over 1,300 km	1998
Fateh-110	SRBM	300 km	2002
Fateh 313	SRBM	500 km	2015
Ghadr-1	MRBM	1,950 km	2004

Sejjil	MRBM	2,000 km	First tested in 2007
Qiam	SRBM	700 - 800 km	2010
Soumar	Land-Attack Cruise Missile	2,000 - 3,000 km	2012
Meshkat	Cruise Missile	200 - 300 km	2012
Ra'ad	Cruise Missile	350 km	2007
Hoveyzah	Cruise Missile	1,350 km	2019
Khalij Fars	Anti-Ship Ballistic Missile	300 km	2011
Qader	Anti-Ship Cruise Missile	300 km	2011
Fattah	HGV/MaRV	Over 1,400 km	June 2023
Fattah-2	HGV/MaRV	About 2,000 km	November 2023
Paveh	Land-Attack Cruise Missile	1650 km	2023
Kheibar Shekan	MRBM	1450 km	2022
Emad	MRBM	1700 km	2015
Etemad	MRBM	1700 km	2024

Source: Adapted from Iran Watch, "Iran's Missile Milestones," Tracking Iran's Unconventional Weapons Capabilities, 2025

Iran's diverse and expansive arsenal of short to medium, and ballistic cruise missiles showcases Iran's determination to build a formidable deterrence force in face of foreign threats. It has utilized its ballistic missiles to good effect in the past few years targeting regional foes ranging from state to non-state actors (Davenport, 2017).

Figure 1: Ranges of Iran's Ballistic, Hypersonic, and Cruise Missiles



Source: Adapted from Defense News Army 2025

Figure 1 demonstrates the declared ranges of Iran's Ballistic and Cruise Missile inventory. It shows that the current trends in Iranian BMP is focused on regional targets. The diversity in Iran's ballistic missile arsenal allows it to tailor its strikes according to the mission parameters and substantiates Iran's ability to counter a wide-range of threats effectively.

Space Program and ICBM Ambitions

Connected to the discourse on Iran's BMP is Iran's space program which is one of the advanced space programs currently active in the Middle East region. Iran became the 9th country in the world to launch a satellite into orbit in 2009, and has launched a military reconnaissance satellite into orbit in 2020 – a feat achieved by only a few nations (Hanna, 2021). This is impressive, especially in face of stringent sanctions by the US and other European nations on Iran. More importantly, it is an act of defiance against those who seek to limit Iran's space capabilities. Although the United Nations has not been as vocal on Iran's space program as it has been on its nuclear weapons program – Western nations have adopted unilateral measures to limits Iran's

advancement in space technology (Office of the Spokesperson, 2019). The United States harbors deep suspicions about the peaceful purposes of Iran's space program, and continues to designate it as a pre-requisite to building longer-range ballistic missiles and ICBMs. In response, Iran has always maintained that its military programs are purely for defensive purposes ("Iran's Military Attainments Aimed at Defense: President," 2025).

Nonetheless, the components used in Space Launch Vehicles (SLVs) are in many ways similar to ICBM components, and mastering SLV technology can become another step closer to building an ICBM. Given Iran's sophisticated missile production capability, it is possible for Iran to design an ICBM re-entry vehicle. Even if foreign assistance is blocked, Iran's indigenous missile production has advanced to the extent where it can pursue a dedicated ICBM re-entry vehicle program with confidence. However, it must be noted that ICBM re-entry vehicles require a higher level of sophistication, material resilience (due to high speeds at the terminal stage), highly advanced guidance systems, and larger payload capacity in case of Multiple Independently Targetable Re-Entry Vehicles (MIRVs). Therefore, although all re-entry vehicles perform under the same principles, the long range of the ICBM along with its mission parameters are difficult to produce and procure without major leaps in technological advancement. It is not confirmed whether Iran currently has the capability to develop an ICBM in the short run but the trends in the Iranian BMP show signs that Iran has bridged the gap to a large extent. A report by the Iran Primer also suggests that Iran has considerable resources to pursue a credible ICBM program (Elleman, 2024).

Even if Iran has no plans for an ICBM, it will continue to bolster its space program. Part of the reason behind that is prestige. Much like other advanced technologies, developing a robust space program is a matter of pride for states or actors who have mastered it. This is especially true for SLVs and ICBMs which require a more advanced technological infrastructure than shorter range missiles.

Nonetheless, SLVs are dual-use platforms – meaning that their components can readily be diverted back and forth between civilian and military platforms. Iran's primary focus, as of now, is the Middle East region. An ICBM deployment can trigger a stronger international response against it, resulting in deeper isolation without providing any major strategic advantage. The current status of Iran's BMP has provided it with a substantial deterrence posture which has kept invasive forces at bay, especially the US. Iran's strategic calculations may not justify an ICBM right now, but those calculations can alter in times to come. Nevertheless, the advancement in SLV technology arguably brings it relatively closer to procuring an ICBM in the near future.

Strategic Rationale, Force Projection, and Security

Iran's focus on ballistic missiles as an instrument of deterrence is a classic example of force substitution. As mentioned earlier, Iran's air force was heavily reliant on western technologies which ceased to be available after the 1979 revolution. To maintain the ability to target enemy strategic locations and assets – which is one of the pivotal roles of a strong air force – Iran's BMP has gone a long way amid tightening sanctions.

The country has solidified both its defensive and offensive odds against regional and global rivals through the induction of a diverse arsenal. The data in the previous chapter clearly indicates Iran's ability to strike targets with precision both at close ranges as well as medium ranges up to 2000 to 3000 kilometers. Iran's rationale for its ever-expanding missiles program, as it purports, is purely defensive and a matter of deterring an invasion on its soil, which if judged in an historical lens, does justify it to a degree. The Iranian leadership has always maintained that Iran's military approach primarily seeks to ensure deterrence for the defence of the country in the presence of threats (Zamiri, 2024). Yet amidst all public expressions of responsive use-only and claims of defensive doctrines, Iran's rationale for its BMP has deep connections with its willingness to project power and orchestrate a show of force – as is evident from Iran revealing miles long tunnels that house thousands of TELs, delivery vehicles, and warheads. Essentially, power projection and deterrence create a self-sustaining feedback loop where both reinforce one another no matter which notion is prioritized.

The increasing strength of Iran's BMP is not without its pitfalls either. The security dilemma continues to persist in the region's geopolitical landscape as Iran's enemies and competitors in the region view it as an existential threat. The more Iran bolsters its BMP, the greater the threats that are perceived by its adversaries become. This can potentially spark a new arms race or intensify existing ones speeding up the process towards strategic instability. For example, one of the reasons behind Saudi Arabia, the UAE and some other Middle Eastern countries relying heavily on American weapons supply is to maintain parity and in optimal cases, assume superiority vis-à-vis Iranian conventional firepower. Absent confidence building measures and reconciling long-standing differences, Iran may have increasingly intense differences with its US-allied neighbors.

Even if there exist incentives for cooperation, the anarchic nature of politics merits caution by all state actors involved. As summarized by Robert Jervis in his article "Cooperation Under the Security Dilemma" (Jervis, 1978), he explains the concept in relation to Rousseau's famous "Stag Hunt" but on a state-level analysis. "… to the incentives not present given above must be added the potent fear that even if the other state now supports the status quo, it may become dissatisfied later. No matter how much decision makers are committed to the status quo, they cannot bind themselves and their successors to the same path. Minds can be changed, new leaders can come to power, values can shift, new opportunities and dangers can arise." (Jervis, 1978). Therefore, even cooperation has its temporal limits and may not be permanent.

Two, the security dilemma also encourages states to maximize their power even if they do not see an immediate justification for it. The most important part of Jervis's analysis, however, is the distinction made between international politics and the Stag Hunt. That on an individual level, maximization of security may not inherently threaten others – but at the state level, state efforts to bolster its defenses "… often inadvertently threatens others." (Jervis, 1978)

The increased pace and magnitude of Iranian armament has serious potential to shake existing military balances in the Middle East region. Iran possesses hundreds of thousands of missiles buried deep inside the ground which are increasingly becoming more sophisticated

("IRGC Navy Unveils Another Underground Missile Base in Southern Iran," 2025). The sheer number of some of these missiles can easily overwhelm missile defense systems and point defenses. Another factor to count in is Iran's BMP's relation with its political orientation and military doctrines. The Shia Islamic principles that the Iranian leadership adheres to, encourages active resistance; therefore, Iran's use of its missiles would be more unrestrained than what is conventionally expected. For instance, Iran launched missiles into Pakistani territory, a country that it has had good relations with overall, which caused a temporary setback in diplomatic and military relations, forcing Pakistan to retaliate. The principle of *qisas* (revenge) plays a crucial role in determining Iran's use of its ballistic missiles as was demonstrated in 2020 after it attacked the largest American military base in the region (Eslami, Vysotskaya, & Vieira, 2022). Iran`s missile arsenals allow it to extend threats to US allies in the Gulf Region, particularly those which can potentially support the US military operations against Iran.

The unprecedented attack on US bases in Iraq were the first attack on any American military setup in the Middle East showing the increasing Iranian confidence in its offensive capabilities. Iran signaled a willingness to hop-on the escalation ladder and sought escalation dominance by challenging the US to respond. However, the initial Pentagon report downplayed the damage done to the Ain-al-Assad military base and to the American personnel stationed within (Garamone, 2020). Resultantly, the US did not respond to the strikes. In any case, the US had already achieved a crucial objective by assassinating Qassem Solemani and further military engagement with Iran may not have had the desired strategic advantage.

Iran's power projection in the region was more clearly manifested after it struck Israel with ballistic missiles in October 2024 (Staff, 2024). This was a daring move by Iran which may also be considered a reckless measure, given Israel's possession of nuclear weapons and the associated risks of nuclear escalation. But for Iran, much was at risk as its diplomatic and military personnel and installations were being targeted by Israeli airstrikes. In addition to that, Hassan Nasrallah, the then leader of Hezbollah, who was considered to be the most important revolutionary figure outside Iran and perhaps second only to Ayatollah Khamenei, was killed in an Israeli airstrike, days before Iran's launch of its ballistic missiles. The high stakes attack made by Iran was in line with its bid to project its power in the region: especially when its forward defense strategy that mainly stood on the support of Iranian backed groups in the Middle East has suffered major setbacks in the midst of Israeli invasion of Gaza (Grajewski, 2024). Iran backed armed groups are a crucial component of its overall strategy in the Middle East. The series of assassinations which took off after 2020 was gradually eroding Iran's influence in the region and the ballistic missile launch was part of its attempt to re-instate the country's relevance and project its power potential. In effect, the missile launches were a deterrent factor through which Iran communicated to Israel and its allies that directly targeting Iranian allies and assets, some of whom were high profile, was not acceptable and would result in major escalation.

Iran's BMP is also significant for the nation as well as it serves to shape the national identity. Like the nuclear program, it is an area of technological achievement on which Iran's leadership seeks to promote its independence from outside control. It also represents a solid

manifestation of Iranian force. In recent years, Iran and Israel's rivalry has escalated to a new level of confrontation. Previously, the two states were largely relying on clandestine activities which were called the "Campaign between Wars." However, the massive events following October 7, 2023, shifted the regional dynamics with the two sides increasingly engaged in direct confrontation.

As a result of the tit-for-tat exchanges and Tehran's weakening of its Axis of Resistance coupled with Iran's bolstering of its nuclear program ramps up the risk of Iran's withdrawal from the Nuclear Non-Proliferation Treaty (NPT). This act — different but connected to the general question of an Iranian decision to build nuclear weapons would only deepen the conflict and probably mean the end of the diplomatic attempts to limit Iran's program, as showcased by Israel's so called pre-emptive strikes on Iranian nuclear facilities.

Iran may seriously deliberate pulling out of the NPT as abiding by the treaty has not helped it in building a peaceful nuclear energy program without hindrance. The pre-war US-Iran negotiations on the latter's nuclear program was marked with American insistence that Iran should stop enriching Uranium all together – even though this demand goes against the spirit of the NPT which allows for member states to legally pursue peaceful nuclear energy programs.

The Lessons of the Twelve Days Iran-Israel War

There are several lessons to be gained from the twelve days' war between Iran and Israel. The first note to make is Iran's intolerance towards any direct invasion of its soil. The way in which Iran responded disregarded any apprehensions of nuclear escalation – not to mention that Israel is a nuclear armed entity. Secondly, Iran's ballistic missiles can overwhelm even the most advanced air defense systems not because they are just highly sophisticated but due to the sheer numbers in which Iran tends to launch them. Data on missile interceptions show a bleak future of BMD systems (Abbas, 2024) which even in highly optimized set-ups may not showcase better interception rates than 45%. Thirdly, Iran faces a major gap in its air-force as well as its air-defense systems. Iranian air defense was immobilized prior to the Israeli air offensive and even after their activation, there hasn't been a confirmed case of Israeli jets being shot down. In addition to the air defense systems, Iran's air force was nowhere to give Israeli jets a tough fight for aerial superiority. The India-Pakistan conflict in May 2025 showed the importance of a strong air force in securing the sovereignty of the skies by not just preventing Indian jets from violating Pakistan's air space but also shooting six jets down within India's own air space using standoff and Beyond Visual Range (BVR) weapons (Clary, 2025). Had Iran also focused on building a robust air force, it would not have suffered so much at the hands of the Israeli Air Force in the beginning days of the war. Fourth, Israel miscalculated Iran's raw firepower by launching the strikes without doing much to secure the days that followed its airstrikes. Iran's missile facilities are hardened, dispersed, and are too large in numbers to be dismantled by air strikes only. Even with the achievement of early successes in the beginning days of the war, Israel still got hit really hard which was also acknowledged by US President Donald J. Trump on the sidelines of the NATO summit after the Israel-Iran War.

Conclusion

The historical factors, which are further exacerbated by the instability of the Middle Eastern region has compelled Iranian policy makers to rely on asymmetric yet equally effective measures to ensure its defense. The most important element in Iran's security strategy is the protection of its sovereignty which results in heavy reliance on retaliatory postures using ballistic missiles. Furthermore, in the face of a vast number of sanctions preventing Iran from obtaining new types of weaponry, missile industries act as a strong substitute. Iran's SLV program is also growing at a remarkable pace, with Iran inducting new rockets on a regular basis. This program can potentially be converted into an ICBM program should Iran's defense calculations allow for it and if substantial foreign assistance is provided. The missile program allows Iran to extend threats to US allies in the Gulf Region, particularly those which can potentially support the US military operations against Iran. As Iran aspires to become one of the leading powers in the region, its advanced BMP enables it to project power and remain relevant in global military and political discourses. Iran's assault on Israel clarified any doubts about Iran's missile capabilities and Iran's intentions regarding the utility of its BMP. The country's BMP has ensured the state's survival in a hostile regional environment and will remain to be its most effective offensive-defense tool for the foreseeable future ensuring its sustained relevance in the regions geopolitical discourse.

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