

# Turkey's Ballistic Program: Building Power in an Accelerating Conflict Environment





Since October 2023, the Middle East has witnessed a rapid wave of profound transformations that have reshaped most of the leverage and dominance equations in one of the world's most volatile and combustible regions. The frequency of direct confrontations and clashes has risen shifting from proxy wars to open confrontations amid Israel's escalating aggressive impulses and its growing expansionist ambitions.

The recent Iran–Israel war made clear the essential role of possessing potent armaments that can narrow the gap with adversaries. It simultaneously underscored the importance of developing indigenous defense alternatives to bolster the ability to wage hybrid wars now the prevailing character of modern conflict including remote-engagement techniques and the strategic significance of ballistic missile arsenals in power balances.

In this context, Turkey has not stood apart from the region's changing dynamics; rather, it has become both influencer and influenced especially in light of the stormy international shifts following the Russia–Ukraine war. This has prompted Ankara to adopt a strategy centered on what President Recep Tayyip Erdoğan calls its “defense industry,” aiming to build a qualitative arsenal able to meet growing threats and to send deterrent messages as part of what may be

described as “missile diplomacy.”

### Late Entry to the Ballistic Missile Club

Although Turkey occupies a prominent position among the world's strongest militaries and is not a country that subscribes to a policy of “zero enmities and zero tensions,” it seeks to uphold its historical legacy, maximize its strategic weight, and deepen its regional influence equations.

These factors require it to build power, develop qualitative weapon capabilities, and localize its defense industries with the aim of reducing dependency on the West, enhancing equality in its political relationships, and strengthening its international deterrence capabilities.

In this regard, offensive and defensive arsenals stand out as among the most important tools of power diplomacy and “strategic prestige,” granting nations a shield under the power-balance equations that govern international relations according to theories of political realism.

Ballistic missiles are among the most prominent tools in that arsenal: systems capable of carrying conventional, chemical, biological, or nuclear warheads, delivering them with precision, and difficult to detect or intercept making them a constant concern for defense systems.

While Turkey has achieved notable progress in developing cruise missiles (which follow trajectories roughly parallel to the earth's surface), thanks to its experience with anti-aircraft and anti-ship missiles, its ballistic missile program has remained relatively opaque and delayed for a long period compared to programs in countries with similar conditions such as India, Pakistan, Iran, and also Egypt.

Yet despite the program's youth, Ankara has managed to cover meaningful ground. It is believed to have focused on improving guidance precision through its technological ties with the West, though its range capabilities remain relatively limited.

Turkey's early efforts date back to the 1990s, when it turned to cooperation with Pakistan and China to develop ballistic missiles, after its negotiations to transfer the U.S. M270 MLRS (Multiple Launch Rocket System) technology to its factories failed.

Since then, Ankara has sought to acquire essential technologies and establish a self-sufficient national infrastructure for design and development. In 1997, it began licensed production of China's WS1A and WS1B missiles under the name “Kaırga,” and the following year, it signed a contract with the Chinese company CPMIEC to import and develop the short-range ballistic missile B611

## SRBM.

Later, Turkey introduced the Jİ600T Yıldırım, designed to strike high-value targets—such as air-defense installations, logistic hubs, and infrastructure—and to provide extended artillery support. Its design is based on China's B611 missile developed by the China Aerospace Science and Industry Corporation (CASIC), with a maximum range of around 250 km in its improved versions.

The Turkish company Roketsan was tasked with improving its performance and extending its range. Ankara aspires to develop a version with a range up to 2,500 km, and it is believed that currently operational variants of the missile cover ranges of about 150 and 300 km, guided via an inertial navigation system that sends correction commands to its four movable wings.

In 2017, Turkey unveiled the tactical ballistic missile Bora, developed by Roketsan, with a range of 280 km, a diameter of 610 mm, a length of 8 meters, and a weight of 2.5 tons. Its export version is known as “Khan.” It formally entered service in May 2017, and the last deliveries were completed in 2021.

Bora carries a warhead of about 470 kg and is distinguished by high-precision guidance using U.S.-made systems, according to Forbes. It was first used during “Operation Claw” in 2019 against targets of the Kurdistan Workers’ Party in the Kurdistan Region of Iraq.

The Bora missile is developed in accordance with the Missile Technology Control Regime (MTCR), which sets limits on exportable missiles’ range and payload. Turkey is a signatory. The regime aims to curb the proliferation of missiles capable of carrying payloads over 500 kg for ranges exceeding 300 km.

In November 2022, Roketsan signed a contract with Indonesia to supply “Khan” missiles and a multilayered air-defense system—marking the first time this Turkish ballistic system entered the arsenal of a foreign power.

## “Typhoon 4” Draws Attention

In its continuous pursuit to develop its ballistic missile arsenal, Turkey has made a qualitative step forward by developing the “Typhoon” missile (Tayfun), its first long-range ballistic missile produced domestically.

With this achievement, the Turkish Armed Forces which since the 1990s have been known to possess tactical ballistic missiles have, for the first time in their history, entered a higher class of ballistic capability.

The Typhoon is structurally similar to the Bora ballistic missile but surpasses it in range, making it the longest-range missile in Turkey’s rocket arsenal to date.

In an even more advanced leap, Roketsan developed a new hypersonic-type

ballistic version under the name “Typhoon Block 4,” the largest in size and range in the Typhoon family so far according to the official data from the manufacturing company.

Turkey officially tested this missile: a wide section of its Black Sea coast stretching 500 km was closed for an official launch test from Rize–Artvin Airport; the missile successfully struck its target off the coastal city of Sinop.

The public unveiling of Turkey’s first domestically produced hypersonic ballistic missile took place at the IDEF 2025 International Defense Fair in Istanbul, held in late July 2025.

The Typhoon Block 4 missile weighs about 7 tons, is 10 meters long, and has a range between 1,000 and 3,000 km. Its speed reaches Mach 5.5, placing Turkey among the nations capable of producing missiles that travel faster than the speed of sound (hypersonic).

This class of missiles is distinguished by high maneuverability and difficulty of detection and interception due to its tremendous speed, making them among the most prominent tools in changing the balances of modern warfare. The missile is equipped with a multi-purpose warhead that enables it to hit diverse targets in a short time.

Roketsan confirmed that Typhoon Block 4 has set a new record in Turkey’s defense industry with regards to range, even if it has not disclosed the exact figure, and stated that it can destroy highly fortified strategic targets, including air-defense systems, command centers, aircraft shelters, and vital military installations.

Though the company has been reserved in announcing precise details about the warhead payload and operational performance, experts expect significant enhancements in maneuverability and evasion of hostile air-defense systems.

The first model in the Typhoon missile family appeared in 2022. Since then, Roketsan has developed four variants ranging from short-range, to medium-range, to long-range.

This evolution coincided with Erdoğan’s statements of intent to purchase ballistic missiles with ranges up to 1,000 km, followed by disclosure of development of a medium-range missile “Genç,” alongside the president’s early-2024 call to accelerate the production of long-range hypersonic missiles.

This reflects Ankara’s eagerness to rapidly expand its missile capabilities, benefiting from a mature defense-industrial base that has enabled it to achieve a high degree of self-sufficiency in producing advanced combat systems, so that its missile program becomes a secure strategic reality, not merely a future

ambition.

## Rapid Changes in the Middle East

Turkey's intense investment in its military-manufacturing base and enhancement of its military arsenal cannot be separated from the region's accelerating transformations since October 2023. After years of relative stability in influence equations, the region entered a new phase of open conflict and direct confrontation prompting Ankara to take bold steps to internalize its defenses and increase its share in the new regional equations being formed.

In this context, President Recep Tayyip Erdoğan has announced that his country has taken important steps in defense-industry manufacturing, indicating that Turkey's missile inventory with ranges beyond 800 km will be reinforced, and work is underway to accelerate the development of missiles with ranges exceeding 2,000 km affirming the success of many ongoing defense projects.

Erdoğan clarified in this regard: "The wise words of our ancestors have guided us for 22 years: Be prepared for war if you want peace. Our investments in the defense industry are not to prepare for war, but to preserve peace and defend independence and the future." He emphasized that Turkey has become a source of trust for its allies, and that it is determined to protect its homeland by all available means.

The multiple confrontations that erupted in the region after "Operation Al-Aqsa Storm" marked a decisive turning point in Ankara's calculations starting with Israel's genocide in Gaza, continuing with Israeli strikes on Hezbollah in Lebanon, up to the direct Iran–Israel clash. All this has given Turkey an added incentive to demonstrate its ability to confront emerging challenges in a highly polarized and rapidly transforming environment, under an international system where tension and anxiety are the predominant features.

Meanwhile, the collapse of Bashar al-Assad's regime in Syria and the transfer of power to a new regime allied with Ankara presented Turkey with a historic opportunity to expand its regional presence. From the Turkish policymakers' point of view, consolidating these gains requires simultaneous political and military strategies to anchor these achievements and build sustainable capacity to meet challenges and exploit new opportunities.

By developing advanced ballistic missile systems like the Typhoon, Turkey seeks to create a strategic deterrence force that rivals Iran's missile capabilities giving it greater influence in regional military–balance equations.

This is especially relevant at a time when Iran faces mounting pressure from strikes that have weakened its allies in the region, and from the U.S.–Israeli blow

to its nuclear program opening a space for Turkey to enhance its geopolitical position and leverage the available openings.

Moreover, Turkish decision-makers hope that the country's ballistic missile progress will present Ankara as a strategic alternative for states that have depended on Iran to balance regional power.

This is especially so with Turkey's increasing reliance on its domestic defense industries and its growing capacity to export these systems to potential partners strengthening its position as a key actor in the regional arms race.

On the other hand, with tensions rising in Turkish-Israeli relations since the eruption of what is called the Gaza "genocide," and reaching unprecedented levels with intensified Israeli airstrikes in Syria aimed at undermining the new regime's ability to control all Syrian territory, Turkey's missile developments have become a clear concern in Israeli circles.

Israel's media devoted extensive coverage to the announcement of Typhoon Block 4, describing Turkey's advancing offensive and defensive capabilities as "arousing suspicion and concern."

In this context, Israeli Turkey-specialist researcher Eitan Cohen Yanurojak said, "If the new Turkish missile is launched from southernmost Turkey it can reach Beersheba." He added: "We must worry. Turkey knows how to deter, and it is showing strength." In a talk with Channel 14, he said: "Turkey no longer stands idly by.

They are showcasing a new ballistic missile, and publicly speaking about learning lessons from the recent Iran-Israel confrontation." He continued: "For them, this is the right time to have power and display it. Just yesterday there was a major military parade in Turkey unveiling the new missile (Typhoon Block 4), with a clear message: 'Turkey is ready for any scenario.'"

### Between Ambition of Influence and the Stakes of Potential Confrontation

Turkey's ballistic missile program and its broader efforts to localize arms production and bolster both defensive and offensive capacities demonstrate that it is not divorced from a larger project through which Ankara seeks to consolidate its position as a central power in the Middle East.

This project rests on a hybrid approach, combining military deterrence and a strong defense-industrial base on one hand, and expansion of geopolitical influence and imposition of new influence equations on the other.

But this approach—which outwardly may appear as an ambitious and legitimate project to close the gap with regional and international powers—is unfolding in a region already saturated with intense power struggles. The Middle East already

exhibits a fierce race to dominate power balances, in some cases registering direct confrontation.

The complexities deepen further amid U.S. support for Israel's efforts to cement its regional hegemony, which places Turkey's ambitions directly opposite competing influence projects—and makes its missile program and other national armament initiatives a core pillar in any attempt to keep pace with this challenge.

If regional transformations continue at this accelerating pace, Turkey may find itself facing real confrontation prospects whether in the Syrian arena, which constitutes the indispensable geopolitical extension of its southern border, or through efforts to leverage minority issues, particularly cross-border Kurdish alliances a matter of profound security and strategic sensitivity for Ankara.

From this perspective, Turkey's greatest challenge is not only to develop instruments of power, but to be seriously prepared to deal with the consequences of their use in a region prone to ignition; to reconcile ambitions of influence with the calculus of stability, so as to avoid sliding into draining conflicts that might undermine the gains it has built over the past two decades.