

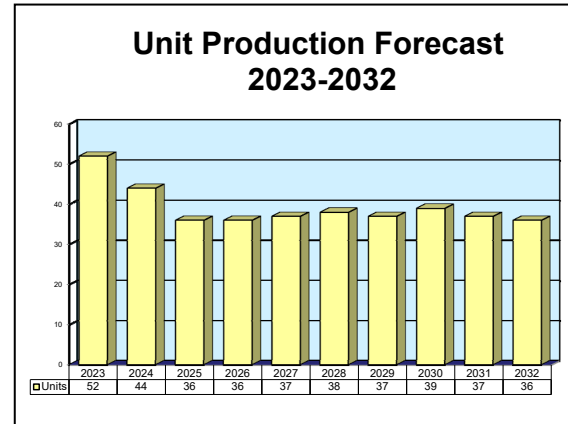
ARCHIVED REPORT

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ATCOP Thermal Gunner's Sight

Outlook

- The thermal gunner's sight is a key surveillance component of one of the most prominent battle tanks in the world: the Al-Khalid
- Pakistan expected to maintain a procurement objective of 1,000 Al-Khalid units



Orientation

Description. Thermal gunner's sight for main battle tanks (MBTs), allowing target acquisition both day and night.

Status. In production and service.

Application. Thermal gunner's sight developed for Russian-designed T-54/T-55 MBTs, Pakistan Army MBTs, and other combat vehicles.

Price Range. Based on somewhat comparable systems, such as the U.S. VSG-2/GPTTS, the cost of the ATCOP thermal gunner's sight is estimated to be \$200,000.

Contractors

Prime

Al-Technique Corp of Pakistan Ltd

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Technical Data

	<u>Uncooled</u>	<u>Cooled</u>
Characteristics		
Detector	256 x 128 pixel	
Spectral band	8 to 14 μ	7.5 to 11.5 μ
Optics		
Narrow FOV	4 x 2°	4 x 2.69°
Wide FOV	12 x 6°	4 x 8.96°
Environment		
Operational	-30 to +55°	-40 to +60°
Storage	-40 to +70°C	-45 to +90°C

The thermal gunner's sight developed by Al-Technique Corp of Pakistan (ATCOP) was conceived with an eye on the Russian T-54/T-55 MBTs. The system allows a tank gunner and commander to perform surveillance and target acquisition and engagement tasks in adverse weather and in the dark.

The system comes in two versions: cooled and uncooled. The uncooled model features a 256 x 128 pixel uncooled detector operating in the 8- to 14-micron band. Two fields of view (FOV) are provided to the gunner. The cooled version also provides two FOVs and features an eight-element SPRITE detector operating in the 7.5- to 11.5-micron band.



Al-Khalid Main Battle Tank

Source: Pakistan Government

Program Review

With the mid-1990s development of the thermal gunner's sight, ATCOP reached something of a milestone in its effort to stake a claim in the defense electro-optics market and establish a more self-reliant Pakistani military. The company successfully produced the TR-2 and TR-3 laser rangefinders and the GNS 1

image intensification (II) gunner's night sight, which are in use by the Pakistan Army.

The thermal weapon sight reportedly passed development and field tests with flying colors. The appearance of the system coincided with ATCOP's

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production of various other improvements for tracked, wheeled, and armored fighting vehicles, such as the LTS laser-threat warning system.

ATCOP's thermal gunner's sight was geared toward inclusion in a variety of widely distributed MBTs, but the Russian T-54/T-55 and the Chinese Type 59 and Type 69 tanks soon emerged as the most likely platforms for the system. Pakistan has approximately 700 of the Type 59 alone.

Pakistan Army Provides Major Platform Base

Around 1999, Pakistan began upgrading its MBTs, providing fertile ground for production of the thermal gunner's sight.

It was reported in May 2001 that ATCOP had been hired to improve the capabilities of 200 Type 85 MBTs in use by the Pakistan Army.

Production of an important new platform for the thermal gunner's sight, the Al-Khalid MBT, began in 2003.

Saudi Arabian Order Could Boost Sales of System

In November 2004, the Saudi Ministry of Defense reportedly placed orders worth an estimated \$1.2 billion to equip a Pakistan Army armored brigade for deployment to Saudi Arabia through 2009. Analysts believed the contracts include the procurement of 65 Al-

Khalid tanks and up to 400 M113 Al-Hamza armored infantry fighting vehicles. Two years later, Saudi Arabia reportedly began desert trials of the Al-Khalid for possible Saudi procurement.

A September 2011 report in *Military Procurement International* stated the following: "The Pakistan Army is concentrating on enhancing the effectiveness of its mechanised units. Thus, new main battle tanks and armored fighting vehicles are being introduced, while their mobility and firepower are being improved. Moreover, the artillery forces are being refurbished and new battlefield surveillance assets are being acquired."

This activity should provide steady opportunity for the thermal weapon sight.

China Joins Forces with Pakistan to Push Al-Khalid

Pakistan's Heavy Industries Taxila and China's NORINCO announced a plan in November 2012 to jointly market the Al-Khalid tank to international customers.

In January 2014, Pakistan and Saudi Arabia discussed a potential sale of military hardware under an agreement that would involve the export to Riyadh of an unspecified number of Sino-Pakistani JF-17 Thunder fighter aircraft and Al-Khalid tanks. Reports of a potential Saudi Al-Khalid contract have appeared intermittently over subsequent years.

Funding

The Pakistani government presumably funds the ATCOP thermal gunner's sight.

Worldwide Distribution/Inventories

At present, the ATCOP thermal gunner's sight is being installed on a wide number of MBTs for the **Pakistan Army**.

Forecast Rationale

The Pakistan-produced thermal gunner's sight should be manufactured in steady numbers over the next several years for installation on a number of Pakistan Army main battle tanks (MBTs) and combat vehicles.

Pakistan's Al-Khalid tank program, one of the system's largest platform bases, is in the midst of a busy production phase. According to Forecast International's

Weapons Group, procurement of Al-Khalid by the Pakistan Army should sustain the vehicle's 1,000-unit production line through at least 2030.

While export sales of the Al-Khalid could boost production of the gunner's sight through the decade, annual manufacturing rates are based on production of the Al-Khalid for its home nation.

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Ten-Year Outlook

ESTIMATED CALENDAR YEAR UNIT PRODUCTION												
Designation or Program		High Confidence				Good Confidence			Speculative			
	Thru 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
AI-Technique Corp of Pakistan Ltd												
Thermal Gunner's Sight <> Pakistan <> Army												
	2,222	52	44	36	36	37	38	37	39	37	36	392
Total	2,222	52	44	36	36	37	38	37	39	37	36	392