

## Buy the Akash. It is ours

*By Ajai Shukla*

*This would help the defence industry, and also send out the message that the government is serious about indigenisation*

Amongst the holiest cows in our cow-loving land is the notion of defence indigenisation — which means designing, developing, and manufacturing our own weapons and defence systems, as major powers all do for strategic and economic reasons. Successive Indian governments, especially the present one, have paid lip service to indigenisation in public and in Parliament. But, to illustrate how much more needs to be done, there is the example of the Akash missile system, which already defends Indian airspace.

The Akash consists of a Rohini radar that detects incoming aircraft at ranges out to 120 km and relays the information to a command post. This categorises and priorities the threats and orders a well-positioned missile launcher to shoot down specified targets. Meanwhile, a “command guidance” radar locks onto the target and guides one or more missiles onto the aircraft. The Akash has already demonstrated it can shoot down enemy aircraft, flying at treetop height, at ranges out to 25 km.

The simple and robust Akash was designed and developed by the Defence Research and Development Organisation (DRDO) under the Integrated Guided Missile Development Programme (IGMDP). The IGMDP was initiated in 1983 under Dr A P J Abdul Kalam when it became apparent that international technology denial regimes left India with no choice but to build its own missile systems by developing sophisticated technologies such as rocket propulsion and inertial navigation. The highly successful project birthed the Prithvi and Agni ballistic missiles that underpin India’s land-based nuclear deterrent; the Nag anti-tank guided missile and the Akash missile. While ballistic missiles are privileged children whose acquisition is guided by strategic considerations, and the Nag is only now coming to fruition, the defence ministry is sorely mistreating the Akash.

Consider the missile production eco-system that the Akash has created. After the DRDO developed the Akash’s foundational technologies, two defence public sector undertakings – Bharat Electronics Ltd (BEL) and Bharat Dynamics Ltd (BDL) – have functioned as “systems integrators” that put the entire system together. Numerous private sector companies, notably Tata Power (Strategic Engineering Division) and Larsen & Toubro, have developed crucial sub-systems like the missile launchers; while 330 smaller private firms feed into the Akash’s production as Tier-2 and Tier-3 vendors. Besides building the Akash systems that are already operationally deployed on the borders, these companies constitute a technology eco-system that continuously upgrade the existing system and will develop the next generation of missiles. This is the first time such a production eco-system has been built for an indigenous missile and nurturing such an eco-system is an obvious national interest.

But production eco-systems are nurtured with production orders. Today, the Akash production chain stands empty as the defence ministry haggles with BEL over the cost of its next order. Consequently, the induction of another eight Akash squadrons is held up by the ministry’s insistence that the Akash must match international prices. There is neither understanding nor acknowledgement of the difficulties that indigenous manufacturers face, nor of the benefits of an indigenous system.

From the start, the air force pooh-poohed the Akash, pressing instead for foreign-built missile systems whose complex electronics could easily be sabotaged with a kill switch that renders it ineffective against certain aircraft. In repeated trials up to 2004, the air force rejected the Akash for specious reasons, even as the missile repeatedly struck its targets. Eventually, in an incident in 2004 that has gone into DRDO folklore, the Akash project director, Dr Prahlada, readied the missile for a final door-die attempt to demonstrate its accuracy. A Nishant drone was flown, trailing a target sleeve that the Akash was to engage. But then, just as the missile was readying to fire, the sleeve detached itself from the Nishant and floated to the ground. With the air force evaluation team ready to declare the trial a failure and doom the Akash to oblivion, Dr Prahlada boldly

designated the Nishant drone as the target. The Akash missile slammed into the tiny Nishant 20 kilometres away, utterly destroying the ~1.5-crore drone. Dr Prahlada had to field audit objections for years, but the Akash had proved its effectiveness against a target far smaller than a combat aircraft.

Why should the military buy more Akash, even if it costs more than equivalent foreign systems? There are at least five reasons. First, technology is generational and the current Akash will inevitably birth a more capable version. Already, the DRDO is developing a seeker head on a budget of just ~50 crore that will make the Akash more accurate and capable of longer ranges. Second, producing the Akash in India provides employment, a key aim of the Make in India programme. Third, buying Indian creates a multiplier effect at multiple levels of our economy, whereas buying a system from abroad puts the money into another economy altogether. Every company involved in defence production, every employee, is paying direct and indirect taxes into the economy. Fourth, facilitating the development of defence systems in India creates strategic intellectual property; the government needs to subsidise IP creation with orders, as is done by the countries from which India routinely buys. Fifth, Indian defence firms cannot be directly compared with foreign industry because the cost of doing business in India, especially working capital costs, are significantly higher — 14-15 per cent here, compared to 2 per cent abroad. Add to that the 33 per cent corporate tax levied on Indian defence firms and the cost of equivalent Indian products works out at least 30 per cent higher than an identical product built abroad.

That is why the General Financial Regulations mandate that, in government procurement, if a product with 50 per cent value addition in India is up to 20 per cent more costly than an equivalent foreign product, the Indian vendor must be given the contract at the lowest bid price. If the foreign vendor bids ~100 and the Indian vendor quotes between ~100 and ~120, the Indian vendor must get the option to supply at ~100. For defence products, with their strategic dimension, the Indian vendor must be given the option to supply at a rate that is up to 20 per cent higher.

Ordering more Akash systems is essential for the Indian defence industry. This is the first time an entirely Indian designed, developed, and manufactured product is being deployed in numbers. The Akash experience would teach us a great deal about the dynamics of mass production, maintenance and spares support and upgrading it to the next level. And it would constitute a clarion call that the government is serious about indigenisation.