



SPEECH

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Speech by Lieutenant-General Bey Soo Kiang, Chief of Defence Force, at the IFV Roll-Out Ceremony at Singapore Technologies Automotive Ltd

06 Sep 1997

Honourable Guests, Ladies and Gentlemen,

This evening commemorates a significant milestone for the Singapore Army - the roll-out of Singapore's first indigenous Infantry Fighting Vehicle. The development of the IFV is no mean feat. It is the result of years of hard work by STA, DMO, G5 Army and HQ Armour, all working together with one goal in mind - to build the best IFV for the SAF, worthy of a first-class Armed Forces. This tri-partite team was guided by a steering committee co-chaired by Chief of Army and Deputy Secretary (Technology). The engineers and technical staff from STA, and the program manager and engineers from DMO, had to work closely with one another and with the operations manager and users from Armour to transform operational requirements into technological solutions, to build an effective fighting machine. The result is the IFV you'll see before you today. This ceremony goes beyond just commemorating the first article. It once again demonstrates the close symbiotic relationship between the DTG, the Defence Industries and the SAF. It is this symbiotic relationship that keeps Singapore's defence capability at the cutting edge of technology.

Let me recap some of the history to this project. The Army started thinking about acquiring additional IFVs back in 1989 to top up the shortfall of M113s in our ORBAT. Instead of procuring more M113s, a decision was taken to look for more capable platforms to lead the Army into the 21st Century. A new set of more demanding parameters was hence drawn out. STA took the initiative of producing an IFV chassis to try to convince the Army of its potential to produce one that could meet the Army's requirements at a competitive price. In parallel, a market survey was conducted on all current and future IFVs. The IFVs evaluated included the American Bradley, the Warrior of UK, Marder and AV 90 of Germany and CV 90 of Sweden. All these platforms are advanced and incorporate state of the art technology. However, none could meet our specific requirements. Most of these IFVs were designed to operate in less restrictive terrain conditions such as that in Europe. They were generally too large and too heavy. On the other hand, the smaller platforms were too lightly armoured to provide sufficient protection in the modern battlefield. This motivated the decision to develop the IFV locally.

Designing the armoured vehicle was the least of the problem. Our key challenge was to build the IFV within apparently conflicting parameters. We wanted an IFV that was light and agile and yet have good protection. We wanted the vehicle to swim, and have high mobility. And we wanted it to carry equal if not more firepower than the M113. The engineers from both STA and DMO had to crack their heads to come out with novel solutions.

Work then began in earnest and the first experimental vehicle XV 1, was assembled by STA in Jan 1990. This was followed by the XV 2 in Dec that year and XV 3 in Mar 1991.

In Jan 1993, the first testbed rolled out, followed by Testbeds 2 and 3 in Jun 1993. It was only in Jan 1995, after extensive trials, that MINDEF awarded the contract to STA based on the success of the SM-1 and Ultra upgrade programs, and the confidence in STA in building the IFV. The final prototype and pre-production model rolled-out between July 1995 and June 1996.

Today, 7 years after the decision to produce the IFV locally, we are witnessing the roll-out of the first articles of the 40/50 variant and the 2-man turreted 25mm cannon variant a remarkable achievement by any standard.

The IFV has added range and increased speed over the M113 and improved manoeuvrability; a bigger punch with the 40/50 electric drive cupola and the 25mm stabilised 2 Man Turret, and a higher degree of armour protection. The IFV has also been built with future growth in mind. The vehicle will be able to incorporate new technology as it evolves.

It was a bold and far-sighted undertaking by MINDEF. When the idea was broached, we were not certain of the shape and form of the final product. However, one thing was for sure: the tripartite teamwork, confidence, and will to succeed was strong. This experience has given us a new level of confidence that will surely see us through future developments for future IFV variants.

I am pleased to announce that the Army has chosen to name this vehicle "BIONIX". The name describes the IFV's sophistication and potent lethality. It integrates the essence of human intellect with modern day technology. BIONIX, spelt with an "X" rather than "C", aptly describes the "X" factor that makes the IFV a vastly superior fighting machine.

In conclusion, let me congratulate all those involved in the IFV project for your achievement. You have given the SAF, and the people of Singapore " the ultimate fighting machine".

Thank You.

News Release:

- Locally Produced Indigenous IFV Rolls Out (MINDEF_19970903003.pdf)

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