

IRDE develops advanced 24x7 cams

Dehradun-based Instruments Research & Development Establishment, one of the labs of DRDO, has designed and developed Stabilised Electro-Optical Sight (SEOS) - a two axis panoramic sight to attain surveillance capability at static and mobile conditions. It is designed in such a way that it can be used in different platforms and operational requirements. It comprises laser range finder, CCD camera, thermal imager and automatic video tracker. The Dehradun-based lab has developed two such systems, which can cover a radius of 40 km without sending any signals - a stealth type vision camera. This can be mounted on a tank, fast moving boat or a fighter aircraft. VEM Tech, a Hyderabad-based firm, has been outsourced to manufacture the systems for supply to the Defence Ministry.

Big achievement

Terming it as a big achievement, IRDE Scientist Ram Saran told The Hindu on Monday that full-fledged production of the system would be useful for Akash new generation and Quick Reaction Surface to Air Missile System (QRSAM). He said while foreign vendors sell similar system for around Rs. 12 crore, under 'Make in India' programme, they could make it for about Rs.2 crore.



DRDO scientist Ram Saran explaining about stabilised electro-optical sight -- panoramic day and night surveillance --designed and developed by Dehradun-based Instruments Research & Development Establishment at Maritime Exhibition in Visakhapatnam on Monday. -Photo:

C.V.Subrahmanyam

Fresh push for Israeli missile system

By Rajat Pandit

India is close to concluding a clutch of bilateral military deals and projects with Israel, collectively worth around \$3 billion, ahead of PM Narendra Modi's first visit to the country later this year. At least three deals with Tel Aviv are headed to the Cabinet Committee on Security (CCS) for the final nod, which will consolidate Israel's position as one of the top three arms suppliers to India, defence ministry sources said on Monday. The main pact concerns the Rs 10,000-crore joint development of a medium-range surface-to-air missile system for Indian Army. The deal is undergoing financial vetting after conclusion of final contract negotiations. India is readying a slew of military deals with Israel worth \$3 billion before Prime Minister Narendra Modi visits Tel Aviv this year. The pacts include the acquisition of 164 laser-designation pods or 'Litening-4' for IAF fighters like Sukhoi30MKIs and Jaguars as well as 250 advanced 'Spice' precision stand-off bombs capable of taking out fortified enemy underground command centres. "It should be cleared by the CCS within a month or so," said an MoD source. Some headway has been made over the stalled negotiations for an initial Rs 3,200crore contract for 321 'Spike' anti-tank guided missile (ATGM) systems and 8,356 missiles. "There was a major difference (of opinion) in the ATGM project cost between the Israeli commercial bid and the much-lower price benchmarking done by the MoD. Over 20 contract negotiation committee meetings have been held till now... the effort now is to close the gap," said the source. The Army desperately needs third-generation ATGMs, with a strike range of over 2.5-km and fire-and-forget capabilities, to equip all its 382 infantry battalions and 44 mechanised infantry units. In October 2014, the Modi government had selected the Israeli Spike ATGM over the US Javelin missile system, but the actual contract has been hanging fire since then. The project involves an initial off-the-shelf induction, followed by large-scale indigenous manufacture by Bharat Dynamics Ltd (BDL) to equip the 1.18-million strong Army. The proposed MR-SAM project between DRDO and project between DRDO and Israeli Aerospace Industries (IAI), too, will be huge. The initial order is for one MRSAM regiment, with 16 firing units along with their multifunction surveillance and threat tracking radars as well as weapon control systems. But the SAM systems are also to be subsequently produced in bulk by BDL, in keeping with the similar ongoing DRDO-IAI projects worth around Rs 13,000 crore for Navy and IAF.

STRATEGIC TANGO

➤ India establishes **diplomatic ties with Israel in 1992**. Israel rushes **emergency weapon supplies** during **Kargil war** in 1999. Stage set for major bilateral defence ties

➤ Israel now among **top 3 arms suppliers to India** (next to Russia & the US), with annual sales worth \$1 billion

➤ Inductions range from Phalcon AWACS, Searcher & Heron UAVs to Barak



Phalcon AWACS

anti-missile defence systems, Aerostat & Green Pine radars. Combined value over \$10bn

➤ India has **de-hyphenated its relations with Israel & Palestine**. Ties with Israel out of closet, but support to Palestinian cause continues