

## Arun Jaitley, service chiefs review security scenario

*DRDO also gave an update on the various ongoing projects at the annual Unified Commanders' Conference.*

New Delhi: With the long delays in the completion of military projects increasingly becoming an issue of concern, especially in the backdrop of changing regional security and defence scenario, the Defence Research Development Organisation (DRDO) on Monday gave an update on the various ongoing projects at the annual Unified Commanders' Conference that began on Monday. Besides the ongoing military projects, certain crucial defence plans for the five-year period from 2017-2022 were also presented, government sources have told this newspaper.

The Unified Commanders' Conference is an annual forum to take stock of the country's security preparedness and is chaired by the defence minister. Navy Chief Admiral Sunil Lanba, Army Chief General Bipin Rawat and IAF Chief Air Chief Marshal B.S. Dhanoa also presented their views during the meet.

Security issues like the Kashmir situation and issues relating to maritime domain were also discussed. It is not known whether the standoff between Indian and Chinese troops in the border near Sikkim was discussed.

While resources crunch for military projects has usually been cited as a problem, the defence minister Arun Jaitley gave a strong assurance to the armed forces that "with resource availability increasing within the Indian economy, capital expenditure will be a priority area". In effect, the forces can look forward to substantial augmentation of their military hardware. The defence minister also stated that "there is a clear realisation in the government that issues relating to the Services cannot be kept pending for long and the government will be decisive in its approach". The source also said that "jointness and integration" in strategy, training, operation and setting up of joint institutions for the three military services and other branches was a focal area of the deliberations. Interestingly, Navy chief Admiral Lanba says in the foreword of the recently-released joint doctrine of the Indian Armed Forces 2017: "The rapidly changing character of conflict is constantly throwing up new challenges thereby behoving on the Indian armed forces to remain operationally current, agile, efficient and utilise scarce resources in an optimised manner".

The delay in setting up the National War Memorial and Museum also figured among the issues discussed.



## This Delhi based VR startup helps soldiers fight better in battlefield

*Delhi based VizExperts is developing solutions which can prevent infiltration and casualties of soldiers in the battlefield. It has clients such as Border Security Force (BSF) and Defense Research and Development Organizations (DRDO) in India.*

*By Shubham Raj*

It is not easy to miss the glitter in his eyes, as Delhi-based tech entrepreneur Praveen Bhaniramnika talks about augmented and virtual reality. The ever-shifting pitch of his voice, few thumps on the desk now and then, swift movement of the hands— his actions fail to hide his passion. "I am a technologist not a businessman. It is Chanchal, my wife, who looks after the finances of my company," says Praveen Bhaniramka, CEO of VizExperts, a visual computing solution providing firm headquartered in New Delhi.

The company provides augmented reality solutions to defence personnel for training before they can be deployed on the ground. Founded in 2004, VizExperts' clientele includes Border Security Force (BSF), Defense Research and Development Organizations (DRDO), Indian National Centre for Ocean Information Services (INCOIS) and international conglomerates such as Halliburton, AMD and SGI.

The company's solutions offer improved situational awareness to security forces in a 3D format.

"We create a 3D model of terrain and fields using the maps and data obtained from satellites. Currently used by Indian army and BSF, it helps our forces to know about the area before venturing into it," informs Praveen, who has a team of 120 people in Delhi and Bangalore developing these solutions.

His company also built a 24/7 operation capable control room for BSF. Using Virtual Reality (VR) technology, the company developed a decision support system with the complete 3D geospatial database of all the border assets of BSF along the western and eastern regions.

"We also created a virtual training exercise for soldiers of paramilitary forces which can be used with our GeorbIS 3D GIS platform," he adds. Collaborating with INCOIS (Indian National Centre For Ocean Information Services), his company has developed a system which would forewarn the authorities if there is a possibility of a tsunami. "Using data provided by sensors fit in the sea, we can predict the height and speed of the waves. It would make sure that a repeat of 2004 never happens," says the New Delhi-based entrepreneur.

Talking about his journey in the field of computer graphics, he says, "I have been passionate about graphics since my high school days," says Praveen, whose family hails from Bahraich in Uttar Pradesh.

After graduating from Banaras Hindu University, he went to Ohio State University to get a PG degree in Graphics. "My elder brother joined our family business. As I was good in studies, he encouraged me to realise my passion," says the former Silicon Graphics employee.

Talking about his former employer SGI he says that the company could not keep up with time.

SGI which was making revenue in tune of USD 4 billion in 1997, was later acquired by Rackable Systems for just USD 25 million in cash in 2009. VizExperts has a turnover of Rs 25 crore as of now. "We are planning to reach Rs 100 crore turnover by the end of this fiscal year," informs the founder of the bootstrapped company.

He also intends to expand the reach of the company by expanding its client base. The company is not seeking any investments. Apart from New Delhi, VizExperts has three offices—R&D offices in Gurgaon and Bengaluru, and one in Houston. Talking about the future of visual computing, he expects that Augmented Reality (AR) would be a field full of unlimited potential in coming years. "It could be anybody's guess how quickly it develops. Till now, the visual computing field is following the Moore's law", he concludes.