

# Robots could fight alongside soldiers in next-generation SAF

Adrian Lim

Singapore's soldiers could see robots fighting alongside them in the future, in the form of unmanned ground vehicles armed with machine guns.

In the skies, micro unmanned aerial drones may provide troops with greater situational awareness.

These are the scenarios for the next generation of the Singapore Armed Forces (SAF) which were revealed by the Ministry of Defence (Mindef) yesterday during the debate on its budget.

To design, build and test these robots, Defence Minister Ng Eng Hen announced that a robotics laboratory will be set up next month in the DSO National Laboratories.

Dr Ng said that currently, soldiers with the 6th Singapore Infantry Regiment are experimenting

with unmanned aerial and ground vehicles to perform missions.

The next-generation SAF will also tap data analytics to enhance counter-terrorism operations, said Mindef. To build capabilities in these areas, the Defence Science and Technology Agency will set up an analytics and artificial intelligence laboratory.

Dr Ng noted how the Singapore Maritime Crisis Centre, which monitors over 1,500 commercial shipping vessels daily, used artificial intelligence to detect a possible supporter of the Islamic State in Iraq and Syria who was on board a tanker in 2015.

"That person was barred from disembarking into Singapore. Finding this needle in a big haystack is possible only through modern means," said Dr Ng, who also announced an inaugural Singapore Defence Technology Summit to be held early next year, likely on a biennial basis.

For funding, both technology labs will be given a total grant of \$45 million annually for a start, he said.

Dr Ng said Mindef has projected that the defence budget can be maintained on the current trajectory of 3 per cent to 4 per cent annually, even with new demands to renew its assets. These include the replacement of two submarines and the upgrading of F-16 aircraft with new weapons and radars.

Where possible, costs will be cut, Dr Ng said. The army, for example, has a new "Smart" magazine, which can simulate the firing of blank rounds, and will save the force \$1.4 million a year, he said.

"But Mindef will not hesitate to push for higher spending if there are increasing new demands or if the security environment deteriorates," he added.

adrianl@sph.com.sg



Singapore Armed Forces soldiers deploying an unmanned aerial vehicle as part of the UAV Task Group in Afghanistan in 2010. A robotics laboratory will be set up next month in the DSO National Laboratories to hone such technology. PHOTO: MINISTRY OF DEFENCE