F-16s
1998: The first F-16C/Ds enter service.
2016: Upgrades to the fleet start.
Mid-2030s: The aircraft will be progressively retired as the model will face global obsolescence.

RSAF

The Slong-warfor it deve

The Singapore Armed Forces has made long-term investments in conventional war-fighting capabilities and hybrid capabilities for the modern digital battlefield. Here are some developments over the years.

### F-35s

**2019:** Singapore selects the F-35 as the next-generation fighter jet, and announces the acquisition of an initial four F-35B Joint Strike Fighters

**2023:** Eight more F-35Bs are to be purchased.

**2024:** Eight F-35As are to be acquired. **2026:** RSAF will receive the first four F-35Bs.

**2028:** The remaining eight F-35Bs will be

delivered to RSAF.

**Around 2030:** The eight F-35As are slated for delivery

F-35B F-35A

Singapore Army



## **Next-generation howitzer**

2000

**1995:** The Field Howitzer 2000 (FH2000), the world's first 52-calibre howitzer that can be self-propelled, is introduced.

**2003:** The Singapore Self-Propelled Howitzer (SSPH) Primus, which takes less than a minute to deploy from the move or change its zone of fire, is one of the most advanced howitzers of its class in South-east Asia at the time.

**2025:** The new howitzer will be brought into service. It is self-loading to shoot faster and requires 60 per cent less manpower than the FH2000. This will progressively replace the fleet of SSPH Primus and FH2000 guns.



## Hunter armoured fighting vehicle (AFV)

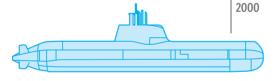
**2006:** The next-generation AFV is conceptualised.

**2017:** Mindef awards the Hunter AFV contract to ST Engineering.

**2019:** The Hunter AFV is commissioned into the Singapore Army.

**2022:** The Hunter AFV conducts its inaugural overseas live-firing in Oberlausitz. Germany.

RSN



### **Invincible-class submarines**

**Late 2000s:** Singapore embarks on its submarine modernisation programme.

**2013:** Singapore orders two Type 218SG submarines from Germany's thyssenKrupp Marine Systems.

**2017:** Two more submarines are ordered.

**2019:** Invincible, the first of the Type 218SG submarines, is launched in Kiel, Germany.

**2023:** The second and third of the four Invincible-class submarines – Impeccable and Illustrious – are launched in Kiel. **2024:** The fourth submarine, Inimitable, will be launched in April.

**Around 2028:** All four submarines will be operational.



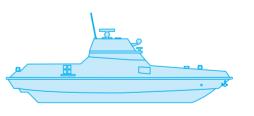
### **Unmanned surface vessels (USVs)**

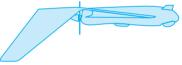
2020

**2017:** Singapore starts testing USVs for mine countermeasure roles.

**2021:** A USV successfully neutralises a simulated underwater threat off the Southern Islands.

**2024:** USVs are fully operational, alongside littoral mission vessels.





# Close-range unmanned aerial vehicles

**Second half of 2024:** Navy ships will have close-range unmanned aerial vehicles to extend surveillance range.

### **OTHER UPDATES**

# **Shoalwater Bay Training Area (SWBTA)** in Australia

**1990:** The first Exercise Wallaby in Queensland, Australia, is conducted by the SAF, involving more than 1,200 SAF personnel over three weeks. The training area is about four times the size of Singapore.

**2020:** Singapore and Australia sign a treaty to jointly develop military training areas and facilities in an expanded SWBTA and the new Greenvale Training Area (GVTA) in Queensland. Together, SWBTA and GVTA will provide a military training area 10 times the size of Singapore.

2023: The largest Exercise Wallaby takes place, with about 4,300 personnel and 450 platforms from the army, navy and air force.
2024: SWBTA expansion will be completed, increasing the scale of Exercise Wallaby by about 50 per cent and the training duration from six to nine weeks. It will also have improved administrative and medical facilities.

#### Expansion on track for 2024 completion



Total training area of expanded SWBTA is five times the size of Singapore





An urban operations live-firing facility.

# Digital and Intelligence Service

**2022:** The fourth service of the SAF is established to defend its digital domain.

**2023:** The Critical Infrastructure Defence Exercise is organised in November, with the participation of over 200 front-line cyber defenders from 25 other national agencies.

**2026:** A bigger SAF digital range, which builds upon and transforms the existing Cyber Test and Evaluation Centre, is slated for completion. It will be capable of simulating a wider set of sophisticated scenarios and environments to enable realistic training for a growing digital workforce.