

SWIFT

CSIR's next-generation, low-cost aerial target drone system



Speed	Range	Endurance	Mass	Altitude (Operational)
250 km/h	(Beyond visual line of sight) > 20 km	1.5 hours	< 35 kg	Up to 13 000 ft (4 km)

Naval Applications

SWIFT is a new-generation, low-cost aerial target drone system designed to replace the current Low-Cost Aerial Target System (or LOCATS) used by the South African National Defence Force. The electric vertical take-off and landing Unmanned Aerial Vehicle (UAV) is designed to simulate a variety of enemy aircraft and UAVs for training purposes, allowing the South African Navy to practise detection, tracking and engagement with realistic modern threats. SWIFT presents a novel blended-wing, varied-observability platform at a fraction of current costs.

Payloads and Configurations

- Luneburg lens (radar cross-section augmentation)
- Miss distance indicator sensors
- Smoke generator, flares and strobe lights
- First-person view camera (for Exploratory Demonstration Model (XDM))



Concept of Operations



SHIP TO SHIP

The target UAV is launched from the Drone control vessel's deck, with the control station located in the container on deck. It provides full two-way control and payload datalink with the mission client in the Combat Information Centre. It supports radar detection, target tracking and engagement for the Engaging vessel.



SHORE TO SHIP

The target UAV is launched from a shore-side facility, while the control station operates in a ground-based container. This setup enables training exercises without requiring a dedicated launch vessel. It also features a one-way payload downlink to the mission client.



ONBOARD TRACKING

The target UAV is launched and recovered on deck of the Drone control vessel. It is designed for dedicated target-tracking training patterns, radar detection, tracking and engagement practice without live ordnance.

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