

SWIFT

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



Army Applications

SWIFT is a new-generation, low-cost aerial target drone system designed to replace the current low-cost aerial target system (LOCATS). The electric vertical take-off and landing unmanned aerial vehicle (UAV) is specifically designed to simulate a variety of enemy aircraft and UAVs for training purposes, enabling the Air Defence Artillery (ADA) personnel to practise detection, tracking and engagement against realistic modern threats. SWIFT features a novel blended-wing, variable-observability platform at a fraction of the cost of current systems.

Payloads and configurations

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

Concept of operations

Target engagement

The target UAV launches vertically in close proximity to the ADA gunline. The UAV control station operates the UAV from a container at the launch site. Full two-way UAV control and payload data links are available at the control station and can be shared with the mission client. The system supports radar detection, target tracking and engagement.

Target tracking

The target UAV launches and recovers at the launch site. It is designed for dedicated target tracking training patterns, enabling radar detection, tracking and engagement practice without the use of live ordnance.

Research and development

The target UAV launches from a remote site. The control station operates the UAV using different flight patterns and approaches to the gunline. This enables data collection for training exercises and operational research. A one-way payload data link is provided to the mission client.

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