



AERIAL TARGET INTERCEPTION COMPLEX

A modern solution for sky protection from
LLC «INSTITUTE OF JET AVIATION»

Absolute Protection: Operational Capabilities of the Complex

Detection and Interception
Radius: **20 km**

Maximum Engagement
Altitude: **up to 3 km**

Target Speed:
up to 360 km/h



The interception system is designed for the detection, interception, and destruction of aerial targets. The system's mobility ensures its rapid deployment and readiness for effective threat destruction.

Phase 1: Rapid Deployment and Mobility

A minivan-based mobile base is used for transporting and storing the system and serves as a full-fledged control station for interceptors.



Command Post: 2 monitors, desktop computer, desk.



Autonomy: 2 charging stations and autonomous power supply for equipment.



Communication: Built-in **StarLink** terminal for uninterrupted external communication.



CREW OPTIMIZATION: Maximum Efficiency

4

Seats in total.

2 front (driver / technician) |
2 in cabin (pilots).

180x50 cm desk
2x 32" monitors

Ergonomic space for continuous
control.

270x165 cm

Total usable space
(without cladding).



Phase 2: Innovative Detection

SIMULTANEOUS TRACKING UP TO

500 TARGETS

Radar Type: Pulsed detection and tracking radar.

Critical Advantage: Proprietary jam-resistant software with reliable encryption methods.

Phase 3: Flexibility of Engagement

Three classes of interceptors for neutralizing any type of threat.



The interceptor destroys the target through kinetic impact. The choice of interceptor type depends on the speed and characteristics of the hostile target.

Interceptor Arsenal:

Speed Matrix



Copter Type

33%

For targets with speed up to:
150 km/h



Octopus Type

60%

For targets with speed up to:
250 km/h



Fixed-Wing Type

100%

For targets with speed up to:
450 km/h

Phase 4: Full Interception Autonomy



The diagram for the Launch phase shows a missile being launched from a cloud. A vertical scale on the right indicates altitudes of 0 ft, 3250, and 3500. A horizontal orange arrow points from the missile towards the right, indicating its initial trajectory.

LAUNCH

The interceptor automatically gains altitude and sets its course upon command.



The diagram for the Interception phase shows a radar screen with a target. A wavy orange line represents the missile's path as it begins to pursue the target. Labels include "DISTANCE" and "SOLAR NO. ASS".

INTERCEPTION

Independently, in cooperation with the radar, begins pursuing the selected target.



The diagram for the Attack phase shows the missile switching to a thermal camera view, indicated by a dashed box. A bright orange line shows the missile's corrected trajectory towards the target. Labels include "THERMAL CAMERA", "WINDSPEED", "WIND DIRECTION", and "WIND SPEED".

ATTACK

Upon approach, automatically switches to guidance mode using a thermal camera and corrects its trajectory.



The diagram for the Loss of Target phase shows the target aircraft on the radar screen. A horizontal orange arrow points from the missile towards the target, which is marked with a checkmark. A cloud is also visible on the right side of the radar.

LOSS OF TARGET (Fail-safe)

If the target is destroyed by other means or disappears, the interceptor receives no commands and performs self-destruction.

UNCONDITIONAL TECHNOLOGICAL ADVANTAGE



Fault Tolerance

State-of-the-art fault-tolerant data and video transmission channels.



Mobility

Minivan-based station — maximum deployment speed and combat readiness in any terrain.



Autonomy

Interceptor operation without constant communication with the base guarantees protection against loss of control under EW action.



Comprehensiveness

A single solution that covers all stages “turnkey” — from detection to confirmed destruction.

PROVEN IN REAL CONDITIONS

From the laboratory to the battlefield.
The complex is successfully deployed
and functions in the harshest winter
conditions.

**COMBAT READINESS
CONFIRMED**





LLC «INSTITUTE OF JET AVIATION»

RAPID DEPLOYMENT

Mobile base

INNOVATIVE DETECTION

Jam-resistant radar for 500 targets

AUTONOMOUS ENGAGEMENT

Independent terminal control

ARSENAL FLEXIBILITY

Interception of targets up to 450 km/h