

Aero



L-39 SkyFOX

THE WORLD'S MOST SUCCESSFUL SUBSONIC JET AIRCRAFT JUST GOT SMARTER



BRAND-NEW VERSATILE JET PLATFORM

- ▶ Successfully performs a wide range of aerial missions with minimal adjustments.
- ▶ Newly designed with modern materials while keeping all key features of its predecessor.

EFFICIENT, COST-EFFECTIVE AND RELIABLE

- ▶ Leading in its class to acquire, operate, maintain and continuously upgrade.
- ▶ Durable airframe, intuitive controls and stable flight behavior ensure success in every mission.



IN SERVICE WITH
THREE OPERATORS
WORLDWIDE

PROVEN FOR PILOTS
OF 4TH-5TH GENERATION
FIGHTER AIRCRAFT

COVERS BASIC,
ADVANCED
AND LIFT TRAINING

DESIGNED
FOR SENSORY
TRAINING

CUSTOMIZATION-READY
AND MULTIROLE
MISSION PLATFORM

SINCE 1968, THE AERO L-39 ALBATROS HAS BECOME A GLOBALLY SUCCESSFUL TRAINING AND MULTIROLE PLATFORM, WITH ALMOST 3,000 AIRCRAFT DELIVERED AND STILL IN USE BY MANY CUSTOMERS ALL OVER THE WORLD

TODAY, THE L-39 SKYFOX CONTINUES THIS LEGACY, FEATURING A SIGNIFICANTLY IMPROVED DESIGN, CUTTING-EDGE MATERIALS AND TECHNOLOGIES, WHILE RETAINING THE EXCEPTIONAL FLIGHT CHARACTERISTICS OF ITS PREDECESSOR



Albatros



L-39 SkyFOX

MODERN AVIONICS

- ▶ 2x2 multi-function large screen displays
- ▶ Synthetic vision PFD with Highway In The Sky (HITS)
- ▶ Performance based approach (compliant approach using RNP/LPV)
- ▶ HOTAS flight control concept
- ▶ Head-up display with repeater in the rear cockpit
- ▶ Segregated flight critical data and mission/tactical training data
- ▶ Optional Electronic Standby Instrument System (ESIS)

TECHNICAL FEATURES

- ▶ 5 hardpoints – 4 underwing and 1 under the center fuselage
- ▶ Eastern or Western type of symbology and cockpit layout
- ▶ Exceptional visibility from the cockpit
- ▶ Built-in test for ground support for fast turnaround time
- ▶ Display symbology adaptable for similarity with selected fighter
- ▶ Wet wings with integrated fuel tanks
- ▶ Martin Baker MK16 – CZ16H with 0-0 capability
- ▶ Highly maneuverable, extended playtime
- ▶ 4 underwing and 1 center pylons
- ▶ Service life up to 15,000 FH
- ▶ Payload up to 1,540 kg

EFFICIENT PROPULSION

- ▶ Williams FJ44-4M turbofan engine, ITAR free, with millions of flight hours in its lineage
- ▶ Battery-started
- ▶ Easy line-in maintenance and long major periodic Interval (800 hrs)
- ▶ Pre-paid maintenance program
- ▶ Low fuel consumption, low noise and heat signature
- ▶ High acceleration and reaction

TRAINING FEATURES

- ▶ Ground Based Training System (GBTS)
- ▶ Mission Planning and Debriefing System (MPDS)
- ▶ Integrated Training System (ITS)
- ▶ Embedded Virtual Training System (EVTS)
- ▶ Live, Virtual, Constructive (LVC) capability

MISSION FEATURES

- ▶ Weapons integration
- ▶ Encrypted communication
- ▶ EO/IR with laser designator
- ▶ NVG capable
- ▶ DACAS training pod
- ▶ Flexible for tactical pod integration

TRAINING CAPABILITIES:

- ▶ Covers full spectrum of training from basic training to lead-in fighter training
- ▶ Airmanship habits for 4th–5th generation fighters
- ▶ Seamless transition through system similarity
- ▶ Air-to-Air combat scenarios
- ▶ Air-to-Ground combat scenarios
- ▶ DACAS and ISR training scenarios
- ▶ Efficient training with VTS scenarios as:
 - Constructive air and ground threats
 - Dissimilar Air Combat Training (DACT)
 - Low level intercept training
 - 2v1 defensive/offensive maneuvers up to 2v2 WVR/BVR intercept

TACTICAL AND MULTIROLE CAPABILITIES

- ▶ Air-to-Air and Air-to-Ground mission capabilities with:
 - Unguided bombs, rockets and gun pods
 - Precise guided bombs and missiles
- ▶ Intelligence-Surveillance-Reconnaissance (ISR) missions with EO/IR sensors as
 - Border patrolling
 - Maritime surveillance
 - Anti-piracy, anti-smuggling
- ▶ Digitally-Aided Close Air Support (DACAS)
- ▶ Counter-insurgency operations

L-39 SkyFOX

BASIC & ADVANCED TRAINING AIRCRAFT



TACTICAL AND MULTIROLE AIRCRAFT



Aero



PERFORMANCE DATA

► Empty weight	3,280 kg
► Max. take-off weight	5,600 kg
► Max. payload	1,540 kg
► Internal fuel tank capacity	1,150 kg
► External fuel tank capacity	570 kg
► Number of hardpoints	5
► Max. airframe service life	15,000 FH
► Max. speed/ Mach	490 KIAS/ M .8
► Max. g-load	+ 8g/ -4g
► Max. range/clean/ext. tanks	1060/ 1350 NM
► Max. endurance /clean	3h 45m
► Max. endurance /with external fuel tanks	4h 50m



FULL GLASS COCKPIT

- HOTAS throttle grip & control stick
- Head-Up Display (HUD)
in the front cockpit with repeater
in the rear cockpit
- 2 multifunction displays (MFD/PFD)
- Universal management unit (UMU)
- Electronic Standby Instrument
System (ESIS) backup instrument
system

COMPLETE TRAINING SYSTEM



COMPREHENSIVE COMPUTER BASED TRAINING (CBT)



DESK-TOP TRAINER (DTT)



COCKPIT PROCEDURE TRAINER (CPT)

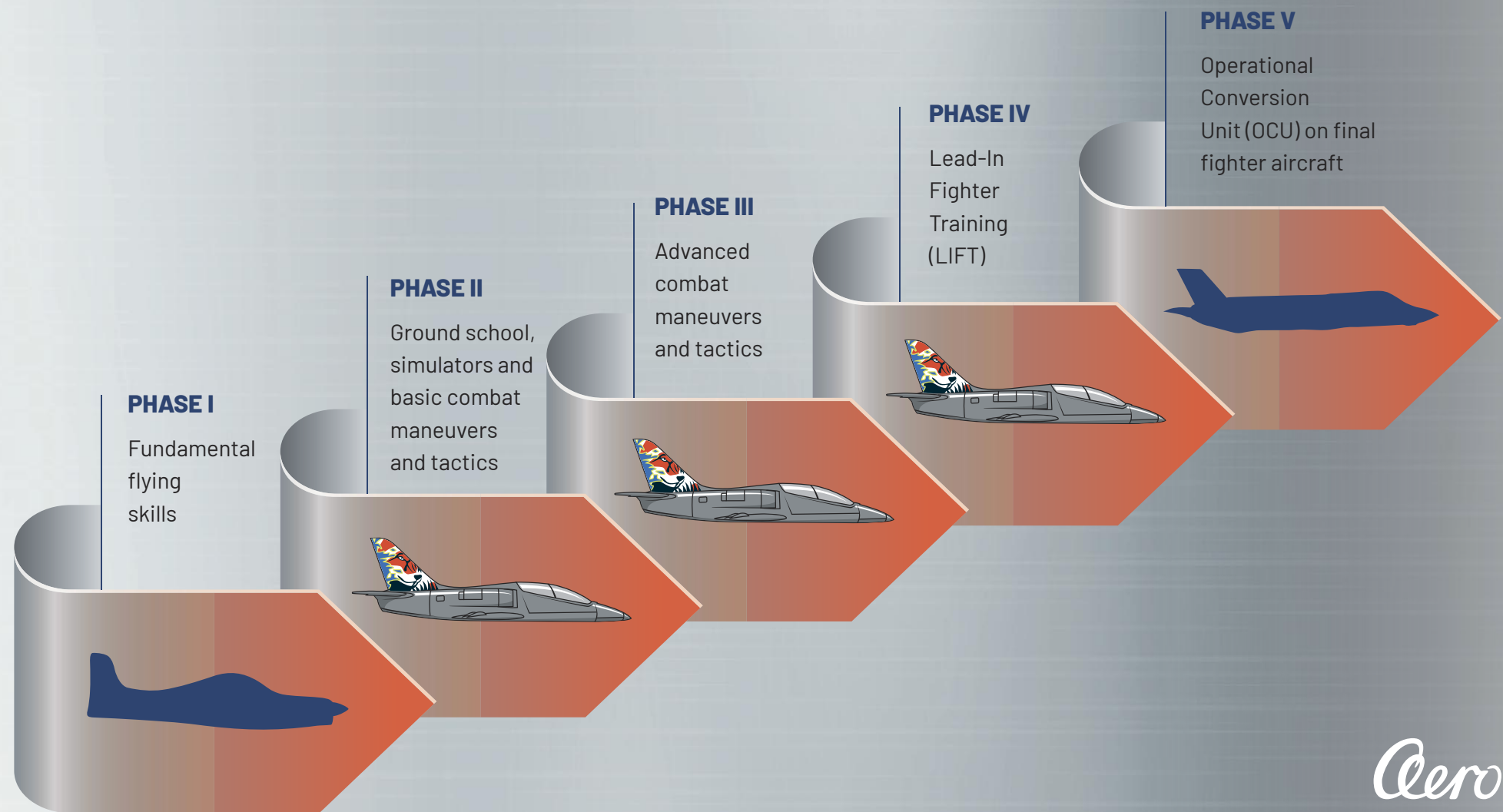


FULL MISSION SIMULATOR (FMS)

PILOT TRAINING PATH

L-39 SkyFOX

THE L-39 SKYFOX ENABLES AIR FORCES TO TRAIN CADET PILOTS EFFECTIVELY AND EXTREMELY COST-EFFICIENTLY, USING ONLY TWO TRAINING PLATFORMS BEFORE TRANSITIONING TO COMBAT TRAINING AT THE OPERATIONAL CONVERSION UNIT



Aero



INTEGRATED TRAINING SYSTEM

A comprehensive training solution designed to prepare pilots and aircrew for operating advanced aircraft which combines real aircraft training with ground based simulation to create a cost-effective and efficient training environment

- ▶ Configured for Live, Virtual, and Constructive (LVC) combat drill
- ▶ Embedded Training System:
 - Virtual Training System (VTS)
 - Synthetic radar
 - Tactical map
- ▶ Simulated Training System:
 - Air-to-Air gun
 - Air-to-Ground gun, bombs, rockets
- ▶ Ground Based Training System (GBTS):
 - Computer Based Training (CBT)
 - Desk-Top Trainer (DTT)
 - Cockpit Procedure Trainer (CPT)
 - Full Mission Simulator (FMS)
 - Mission Planning and Debriefing System (MPDS)
 - Learning Management System (LMS)



KEY ADVANTAGES:

- ▶ Extremely cost-effective training solution
- ▶ Simulated weapons delivery
- ▶ Enhanced safety
- ▶ Reduces training restrictions
- ▶ Adaptive training system
- ▶ Distributed simulation training
- ▶ Expanded training area

VTS CORE COMPONENTS:

- ▶ Tactical Situation Display (TSD)
- ▶ Virtual Radar Display (VRD)
- ▶ Data link

VTS OPTIONAL UPGRADES:

- ▶ Real time ground stations
- ▶ Virtual Stores Management System (SMS)
- ▶ Virtual Radar Warning Receiver (RWR)

EXAMPLES OF WESTERN PAYLOADS

EFT 350 I



GP bombs MK 81
(118 kg)



GP bombs MK 82
(231 kg)



Rocket launchers



Gun pod (12.7 mm)



BDU-33 with bomb dispenser



Pod integration
(EO/IR with laser designator)





EXAMPLES OF EASTERN PAYLOADS

EFT 350 I



GP bombs
OFAB-100-250-270



Practice bombs
P-50-75



Rocket launchers
UB-16-57UMP
(Rockets S-5)



Gun pod (12.7 mm)



PYLON NO.	5	4	3	2	1
Maximum weight of carried load [kg]	295	400	150	400	295
PERMISSIBLE EXTERNAL STORES FOR "WESTERN" LIGHT ATTACK CONFIGURATIONS:					
Rocket launchers (7 and 19 tubes) with 70 mm rockets	•	•	-	•	•
GP bombs MK 81	•	•	-	•	•
GP bombs MK 82	-	•	-	•	-
BDU-33 with bomb dispenser	•	•	-	•	•
Gun pod (12.7 mm) (max 3 pcs on aircraft)	•	•	•	•	•
External fuel tanks (EFT)	-	•	-	•	-

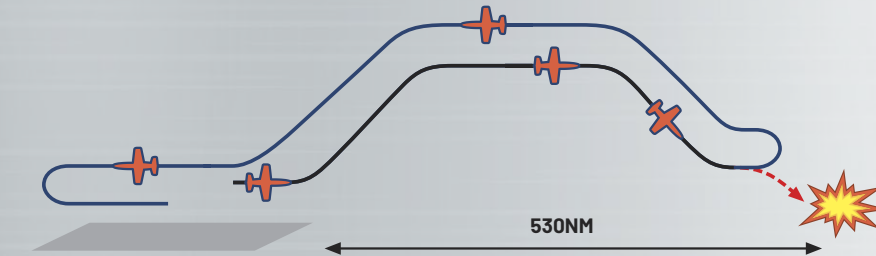
Note: • Possible stores combinations.
• Future capability growth options include **Infrared-guided Air-to-Air missiles, EO/IR sensors, IFF systems** and **encrypted radio communication** – all available **upon customer request** and developed in close cooperation.



HI-LO-HI

CONFIGURATION:

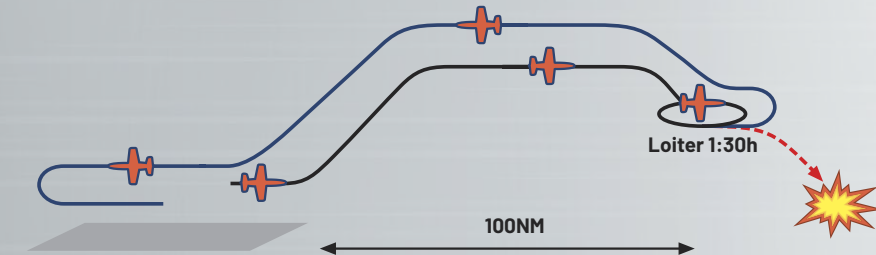
- 2 EFT 350 I
- 2 Rocket launcher 70 mm with 14 rockets



CLOSE AIR SUPPORT (CAS)

CONFIGURATION:

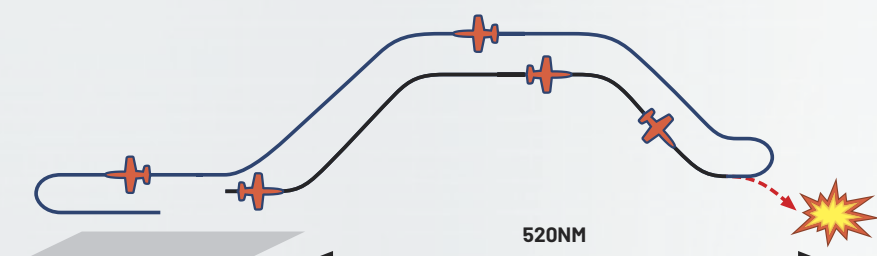
- 2 Rocket launcher 14x70 mm
- 2 MK82
- 1 gun pod 12.7 mm with 250 rounds



HI-LO-HI

CONFIGURATION:

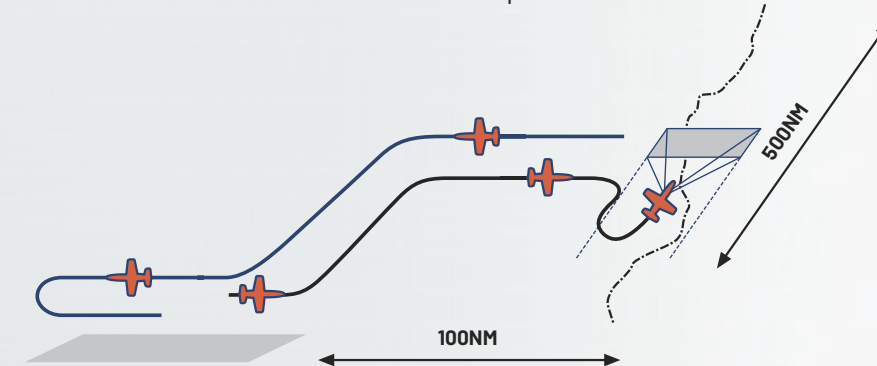
- 2 EFT 350 I
- 2 UB-16-57UMP with 32 S-5



BORDER PATROLLING

CONFIGURATION:

- 2 EFT 350 I
- 1 EO/IR pod



OPERATIONAL CAPABILITY FROM UNPAVED OR UNIMPROVED SURFACES



Photo: Alan Warnes

NEW SUPPORT MODEL DRIVING HIGHER AIRCRAFT AVAILABILITY AND LOWER OPERATING COST

Skycare is a next-generation customer support program designed to maximize fleet availability and to ensure that military operators can focus on what matters the most – mission performance. Through comprehensive integrated logistics support and maintenance services provided on a pay-by-the-hour basis. Skycare redefines sustainment and delivers complete predictability of operational costs for the L-39 Skyfox fleet. With Skycare, Aero can guarantee over 85% fleet availability for the next 40+ years.

SKYCARE PROGRAM PILLARS:

- ▶ Integrated logistics support covering scheduled and unscheduled maintenance of the L-39 Skyfox aircraft and all its subsystems
- ▶ Comprehensive engineering and field service support provided by Aero specialists
- ▶ Dedicated, digitally enabled customer care concept



Pilot and Ground
Personnel Training



Performance
Based Logistics



Tailored
Solutions



Maintenance Repair and
Overhaul Advantage Plan



Technical Publications
and Service Bulletins



Field Service
Engineers

HISTORICAL PRESENCE OF AERO 60+

L-39 MODERNIZATION & SUPPORT



and many more all over the world

CURRENT L-39 SKYFOX CUSTOMERS



Integrated management
system approvals



Special
approvals



Approvals for civil
& military aviation

AERO CERTIFICATIONS

- ▶ Flight training organization
- ▶ Approved training organization
- ▶ EMAR 147



www.aero.cz