



***Combat Proven
Training Efficient***

FA-50

The FA-50 in a Glance

FA-50, The Multi-Role-Platform, is the optimized solution for training and combat missions.

The FA-50 is an adaptable, high performance aircraft designed for 4th and 5th generation frontline trainer and combat fighter with up-to-date technology to keep it positioned as a proven multi-role aircraft to meet various customers requirements.



Training

- Advanced Jet Training
- Lead-In Fighter Training
- JTAC Training (Joint Terminal Attack Controller)
- Red Air
- Surrogate Training of 5th Generation Fighter

Combat

- Air-to-Air Engagement
- Air-to-Ground Attack - Precision Weapon Employment
- Combat Air Patrol
- Battlefield Air Interdiction
- Close Air Support - JTAC Cooperation



MTOGW	26,929 lb	Max.Speed	Mach 1.5
Empty Weight	14,726 lb	Service Ceiling	45,000 ft
Internal Fuel	4,830 lb	Max Rate of Climb	37,000 fpm
Max. Power	17,700 lb	g-Limit	+8 / -3G



Benefits

Efficient Operation & Sustainment

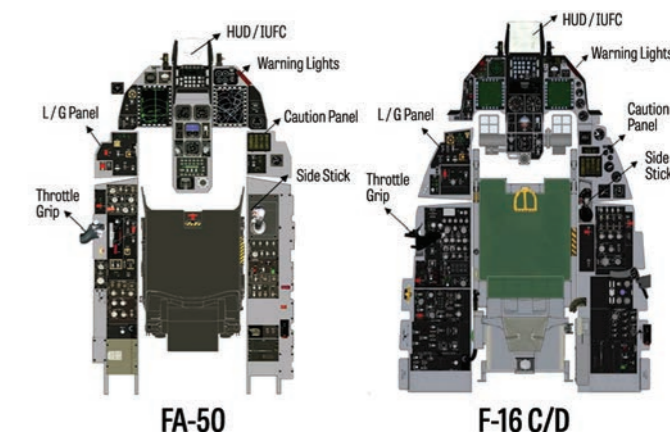
- Proven Multi-role platform as Fighter & Advanced Jet Trainer
- High rate of supportability with low operating cost while securing safety

Cost Efficiency & Affordability

- Inherent open architecture allowing capability upgrade at the most affordable cost and EU/NATO Compliance
- Outstanding availability ensuring all time operation readiness
- Optimized Integrated Logistics Support (ILS) package for long term sustainability with low life cycle cost

F-16 Design Incorporated, Proven Fighter Aircraft

- FA-50 bears engineering DNA and design heritage of F-16 and F-35
- Capabilities are similar and consistent with the latest fighters :
 - Single or Dual Seat Arrangement
 - Cockpit layout and Multi-Function Displays(MFD)
 - Fly-By-Wire control system
 - Afterburning single engine
 - Head Up Display(HUD) symbology / Hands On Throttle And Stick (HOTAS)/ Helmet-mounted display (HMD) design
 - Sustained supersonic flight regime
 - Tooling / Ground Support Equipment(GSE) / Integrated Logistics Support(ILS)



Key Features



Modern Fighter Cockpit

Advanced Digital Avionics
Night Vision Goggle(NVG),
HOTAS Compatible
Helmet-Mounted Display
(HMD)



Proven Engine

F404-GE-102 Engine* 17,700 lbs Thrust
Afterburner FADEC**
(Dual Channel)



* F/A-18, F-117A, JAS-39, A-4SU
** Full Authority Digital
Electronic Control

Digital Flight Control

Digital Fly-By-Wire
Triple Redundancy
Active Coupled Side Stick
Care free Handling
(Extremely Departure-resisting Capability)

Embedded Training System

W/Line virtual Constructive
Sensor Simulation
Threat Simulation
Weapon Simulation
Weapon Scoring
Ground Station



Net Centric Capability

Tactical Data Link (Link-16)



All Weather Multi-Mode RADAR

Maximize Mission Capability
Multi-Mode AESA RADAR



Wide Range Weapon Capability

Precision Weapons (GBU-38, GBU-12)
Air-to-Air Missile (AIM-9)
Air-to-Ground Missile (AGM-65)
General Bombs/Rockets
Internal Gun (20 mm)
Practice Bomb (BDU-33)

Extended Range

Air Refueling (Probe)
300-gallon External Fuel Tank

Self Defense System

Radar Warning Receiver
Counter-Measure Dispenser System



Targeting & Intelligence, Surveillance and Reconnaissance (ISR)

Sniper Advanced Targeting Pod

Link-16 Tactical Datalink

The Link-16 enhances target information sharing among air assets, ships, and ground forces.

The Link-16 provides a low risk and low cost growth/retro-fit capability for net-centric warfare and interoperability with front line fighters.

- NATO interoperability for combined operation
- Better situational awareness with less pilot workload

Digital Flight Control

State of the Art Digital Flight Control System

Digital Fly-By-Wire flight control system, which is the best full-authority electronic flight controls, demonstrated by numerous tests and flight records.

Automatic Recovery Function



Flight Control System

- Ease Of Maintenance
- High Reliability
- Increased Performance and Maneuverability with RSS (Relaxed Static Stability)

Safety

- Triplex Redundant System
- Continuous System Self Test

Training Modes

- Selectable Handling Qualities for Training

Care Free Handling

- AOA - G Limiter
- Anti - Spin Logic
- Stall / Departure Free

Easy to Fly

- Level 1 Low Speed Handling Quality



Combat Capability

- 7 store stations
- Certified to precision attack armaments
- Undergoing for various weapons integration



Air-to-Air Missiles



AIM-9L/M/P/S/X/120 Sidewinder

Air-to-Ground Missiles



AGM-65 A/B/D/G Maverick

General-Purpose Weapons



MK-82 500-lb LDGP

Targeting System

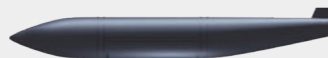


Sniper Advanced Targeting Pod

Fuel Tanks



150 Gallon External Fuel Tank



300 Gallon External Fuel Tank

Guided Weapons



GBU-38/B JDAM



GBU-12 Paveway II



KGGB (Korea GPS Guided Bomb)

Dispensers



BDU-33 D/B (Under Suu-20)

Gun / Rocket Pods



Internal Gun 20mm



LAU-3/A Rocket Pod

Offensive/Defensive Training System



ACMI Pod

Evolution as Demanded

FA-50 is continuously being optimized to the market requirements.

BLOCK 50

Air-to-Ground Weapon Capability

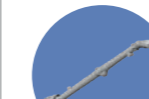
- Sniper Advanced Targeting Pod
- GBU-12 LGB



BLOCK 60

Tactical Range Extension

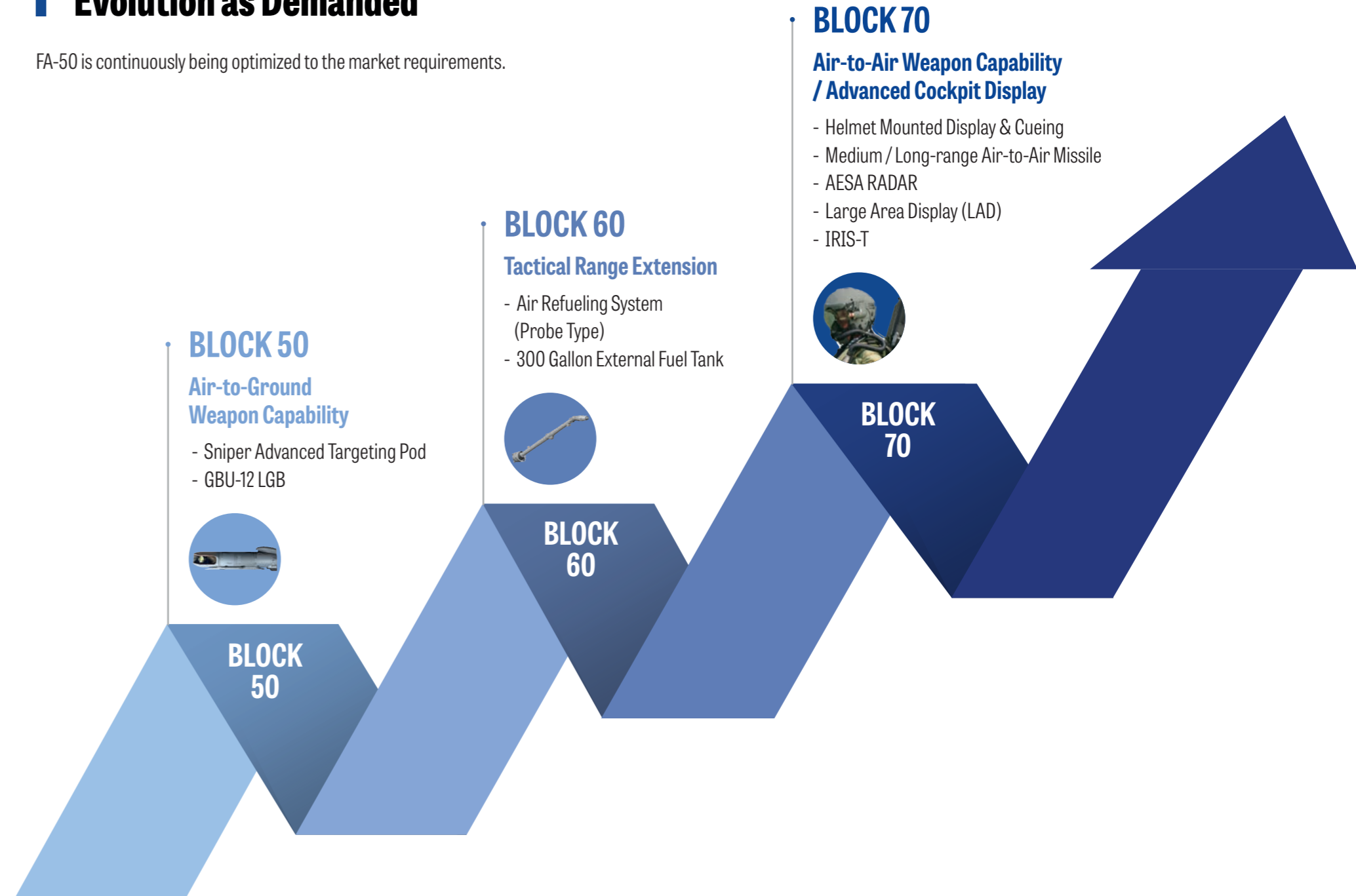
- Air Refueling System (Probe Type)
- 300 Gallon External Fuel Tank



BLOCK 70

Air-to-Air Weapon Capability / Advanced Cockpit Display

- Helmet Mounted Display & Cueing
- Medium / Long-range Air-to-Air Missile
- AESA RADAR
- Large Area Display (LAD)
- IRIS-T



Training Effectiveness

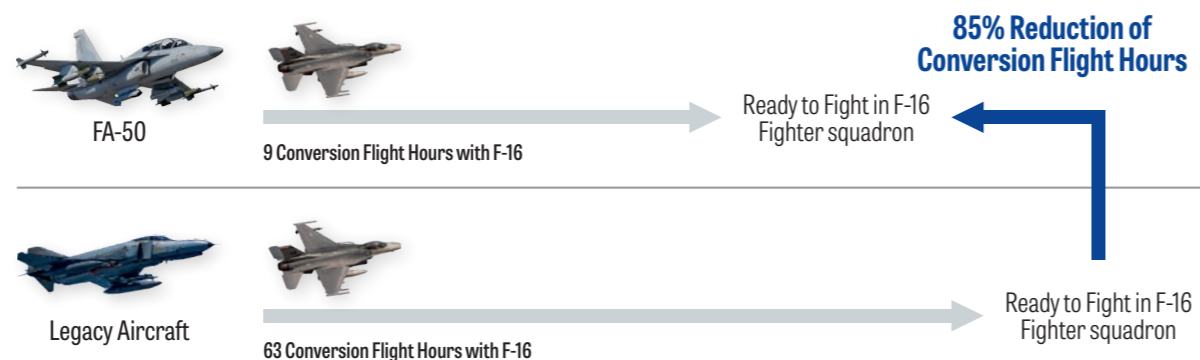
Efficient in Training

- Comprehensive training system is proven and low-risk as demonstrated by various customers' operational experiences
- High aerodynamic performance provides fighter jet training environment
- Live Virtual Constructive Embedded Training System provides high-fidelity, interactive, real-time, on-board, and simulated training environment

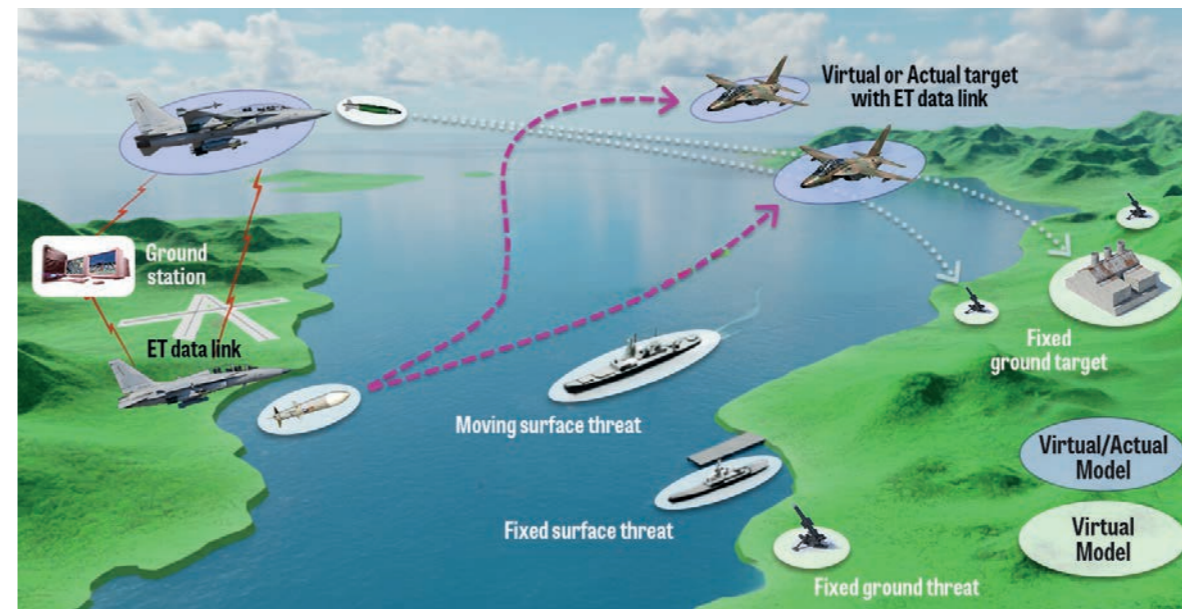


The Optimized Solution Proven for Reducing Flight Hours

- Increase combat readiness, reduce training & operation cost
 - 85% reduction of operation conversion unit training to F-16
 - Saving vast amount of budget for actual F-16 Training



Live Virtual Constructive (LVC)

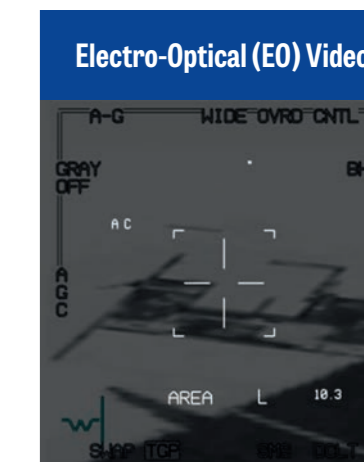
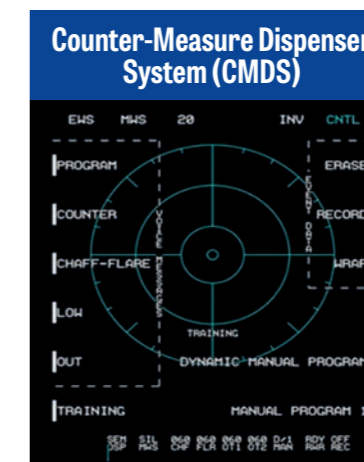
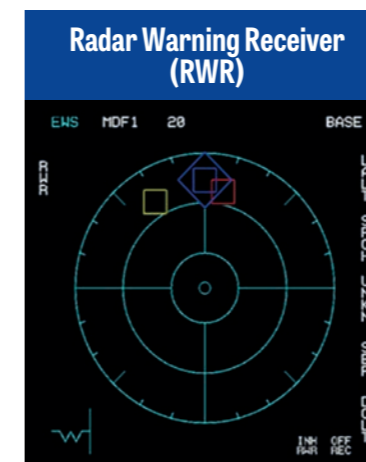
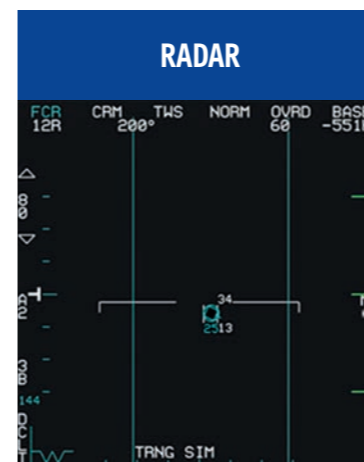


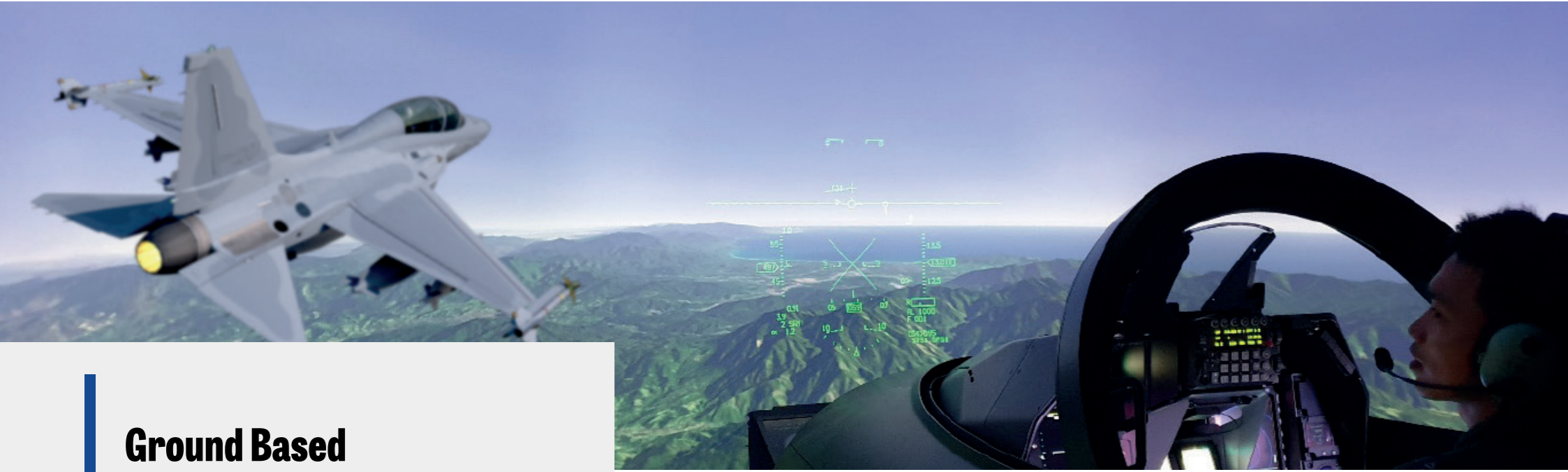
The FA-50 is equipped with ETS which supports a “Train-As-You-Fight” capability and environment that provides advanced training scenarios and realistic simulations for tactical situations.

The ETS permits simulated sensors and weapons for training, and also enables FA-50 to employ multiple training weapons and stores enhanced training capabilities with certified ordnance.

The system has ability to simulate multiple threats and host real participants, and the ETS datalink scenarios can be conducted one-to-one or as joint operations/Including ground based simulators located at ground monitoring/ control system.

Within these tactical scenarios, the pilot is able to respond using the ET virtual systems, sensors, and engage the threats, targets with simulated air-to-air or air-to-ground weapons.





Ground Based Training System (GBTS)

Maximized Training Effectiveness

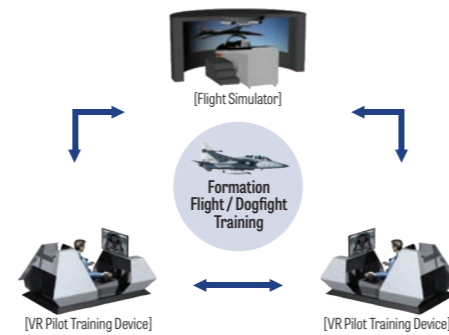
The elite pilot is trained with the advanced total training system. The FA-50 flight simulation system is designed to provide linked simulation between the FA-50 simulators, and also a total training solution including:

- Simulators
 - * Full Mission Simulator / Operational Flight Trainer
 - Cockpit Procedure Trainer / Part Task Trainer
- Maintenance Training Device
- Computer-based Training
- Mission Planning & Debriefing System
- LVC Training Using Real & Virtual Participants



Fly Beyond the Limits in the Metaverse

The FA-50 GBTS enhances training while ensuring an immersive training experience. The latest Virtual Reality (VR) and Augmented Reality (AR) technology enables pilots and technicians to practice without any restraint in the real world.



Integrated Logistics Support (ILS)

FA-50 operational capability has been fully verified across the globe. The reliability, availability and maintainability are analyzed during the development phase and validated with the real operational data by vast logistic support experiences.

Reliable Life Cycle Management Support

- Proven initial support package
- Stable customer support system supporting fleets over the world

Operationally Proven Reliability

- With more than hundred thousands flight hours - and counting - on the T-50 Series fleet

Built-in Maintainability and Accessibility

- Minimized maintenance
- Easy to access doors (No tools needed)

No Programmed Airframe/ Engine Depot Level Maintenance required through ASIP* and ENSIP**

*ASIP : Aircraft Structural Integrity Program **ENSIP : Engine Structural Integrity Program





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