Fixed Wing Targeting

Lockheed Martin Missiles and Fire Control
2015 Supplier Summit

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Fixed Wing Programs

Passive Attack and Survivability Programs

Infrared Search and Track (IRST)/IRST21™

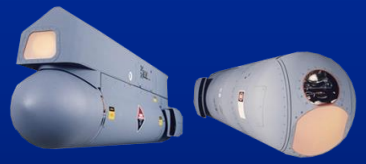
Missile Launch Detector (MLD)

Distributed Aperture System (DAS) Windows

Sniper® Advanced Targeting Pod (ATP) and ATP-Sensor Enhancement (SE) Programs

Sniper ATP/ATP-SE

LANTIRN Programs



LANTIRN Targeting and Navigation Pods

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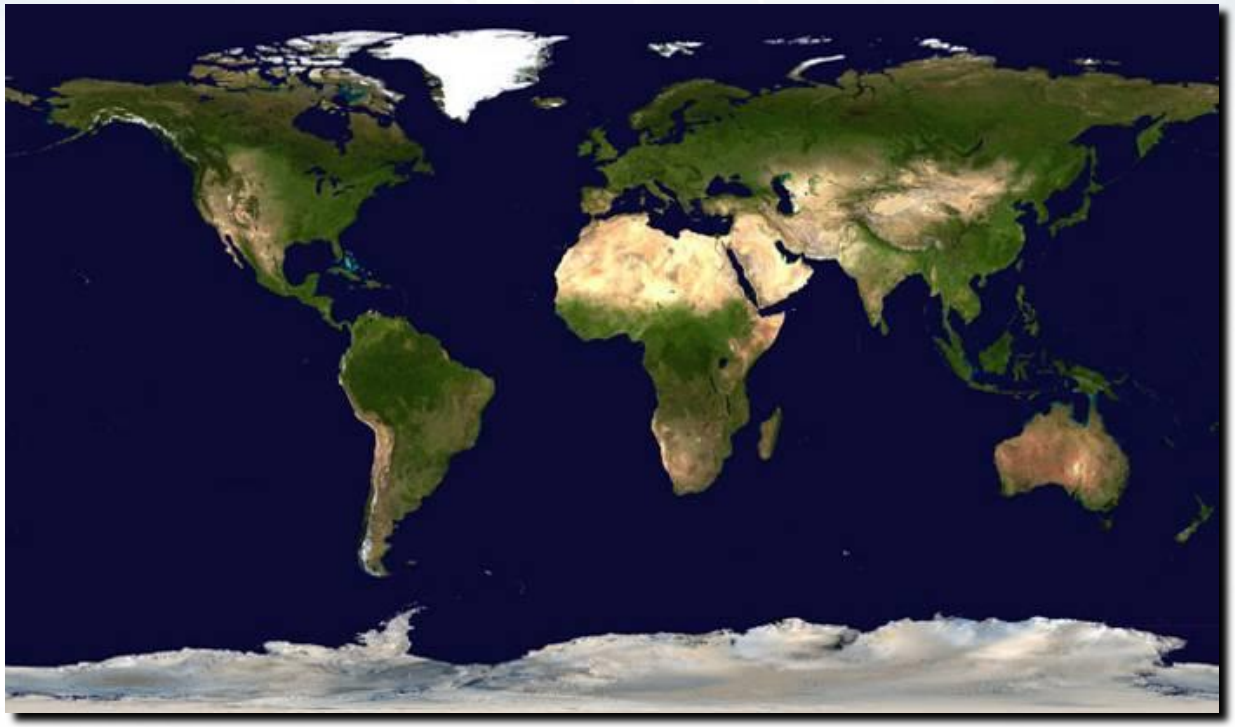
Fixed Wing Customers



Bahrain
Belgium
Canada
Denmark
Egypt
Greece
Israel
Morocco
Netherlands
Norway
Oman
Pakistan
Poland
United States
United Kingdom
Turkey
Taiwan
South Korea
Singapore
Saudi Arabia

Supporting >3,000 Fielded Systems

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Fixed Wing Products

1980 - 1990s

NITE Hawk

F/A-18

- *Thermal imaging sensor*
- *Laser target designator/ranger*
- *Multi-Function target tracker*

IRST

- *F-14D*
- *Infrared search and track*
- *Passive target detection*
- *Immune to electronic attack*

MLD

- *F-22*
- *Long-range detection and declaration of airborne and surface-launched threats*

LANTIRN

- *F-15, F-16, F-14*
- *Low altitude targeting infrared and navigation*
- *Scanning long wave infrared targeting system*
- *Nav forward-looking infrared and terrain following radar*

2000

Sniper ATP

- *F-15, F-16, A-10, B-1, B-52, CF-18, Harrier, Tornado, Typhoon…*
- *Advanced Targeting Pod*
- *Multi-sensor mid-wave forward-looking infrared*
- *Common aperture*
- *Datalink*

2010

Sniper ATP-SE

- *Expanded capability*
- *Significant market opportunity*

IRST/IRST21

- *F-15K/SG, F/A-18E/F, F-15C, F-16…*
- *Weapon-quality track*
- *Platform expansion*

2015 and Beyond

Sniper ATP-SE

IRST21

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Sniper ATP Operational Impact

Sniper ATP is a fully integrated targeting and reconnaissance sensor, enabling real-time decision-making, precision engagement and assessment.

- **Air-to-Air**
  - Target Detection
  - Target Tracking
  - Long Range Target Visual ID at Beyond Visual Ranges for Radar Detected Targets

- **Intelligence Surveillance and Reconnaissance (ISR) Capabilities**

- **Air-to-Ground**
  - Target Detection/ID
  - Close Air Support
  - Time Sensitive Targeting
  - Precision Coordinate Generation
  - Weapons Employment
    - Laser Guided
    - GPS Guided

- **Real-Time Streaming Two-Way Datalink**

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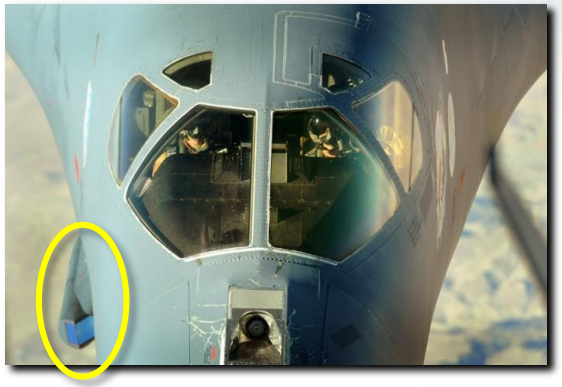
Video

Sniper Deployments

Most Widely Used Pod in Combat Operations

- **Deployed on U.S. Air Force / Air National Guard and NATO aircraft**
- **Key Attributes:**
  - Non-traditional-ISR capability exploited with datalink and recorder
  - High quality imagery finds armed insurgents
  - Defines target location for precision weapon delivery
  - Meet customers' expectations for availability



Our Products Make a Difference

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IRST/IRST21

Redefining the Air-to-Air Role

International F-15 Systems

U.S. Navy F/A-18E/F Systems

IRST for F-15 and F-16 Systems

- IRST/IRST21 provide first-look, first-shoot capability
- In rate production; depot established
- Successful U.S. Navy Milestone C for F/A-18E/F

Focused on Platform and Capability Expansion

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Legion Pod™

- **Passive sensor system with payload capacity: sensing and networking for targeting**
- **Production ready system: high technology readiness level components to minimize fielding time**
- **System satisfies multiple warfighter requirements in single, versatile pod**

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Fixed Wing Footprint

Santa Barbara Focal Plane

IR DDC / FPA

Microelectronics Center

LST PDA

Optical Components Center

Mirrors Lenses

Machining Operations Center

Aft Structure
Optical Bed
Shroud

Fire Control Factory

Electro-Optical Line Replaceable Unit and Pod Assembly & Test

Gimbal / BSM
LST/TV
IDCA
LRR
FLIR Optics
Laser Optics
Short Wave Optics
ECU & Aft

Ocala – CCA/ECAs

Harnesses
Opt Bed Assy

Owego – Processors

Lockheed Martin Fixed Wing Targeting Depot at Warner Robins Air Logistics Center

U.S. Government and Lockheed Martin Partnership

LANTIRN Targeting Pod 1st & 3rd Gen: USG and International
LANTIRN Nav Pod 1st & 3 rd Gen: USG and International
Sniper ATP: USG & FMS

Lockheed Martin Depot – Coordinated with Production Santa Barbara Focalplane, Orlando, Ocala, Owego and Vendors

LANTIRN Targeting Pod 1st & 3rd Gen: USG and International
LANTIRN Nav Pod 1st & 3 rd Gen: USG and International
Sniper ATP: USG and International
IRST: USG and International

You, Our Suppliers, Enable Us to Produce and Sustain Our Products

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Fixed Wing Strategy

- **IRST21**
  - U.S. Air Force F-15C: Leverage U.S. Navy IRST21, and invest to win
  - Collaborate with Lockheed Martin Aeronautics, harvest U.S. Navy and U.S. Air Force IRSTs
- **Sniper ATP**
  - Domestic: Expand to U.S. Navy Super Hornet
  - International: Expand to new platforms and customers
  - Upgrade 500 U.S. Air Force and International pods to latest configuration
- **MLD and DAS Windows**
  - F-35 Production: Meet affordability targets
  - F-22 Sustainment: Meet repair times and affordability targets

Investing to Grow the Market

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Fixed Wing Supplier Imperatives

- **Our wins driven by performance, cost, reliability and delivery**
- **You, our suppliers, are critical to our success**
- **Top Imperatives:**
  - Deliver product at an affordable price
  - Deliver product on schedule
  - Deliver a quality product – zero defects
  - Ensure product meets all requirements
  - Quick repairs to keep warfighter systems operational

Supplier Collaboration Key to Success and Meeting Warfighter Needs

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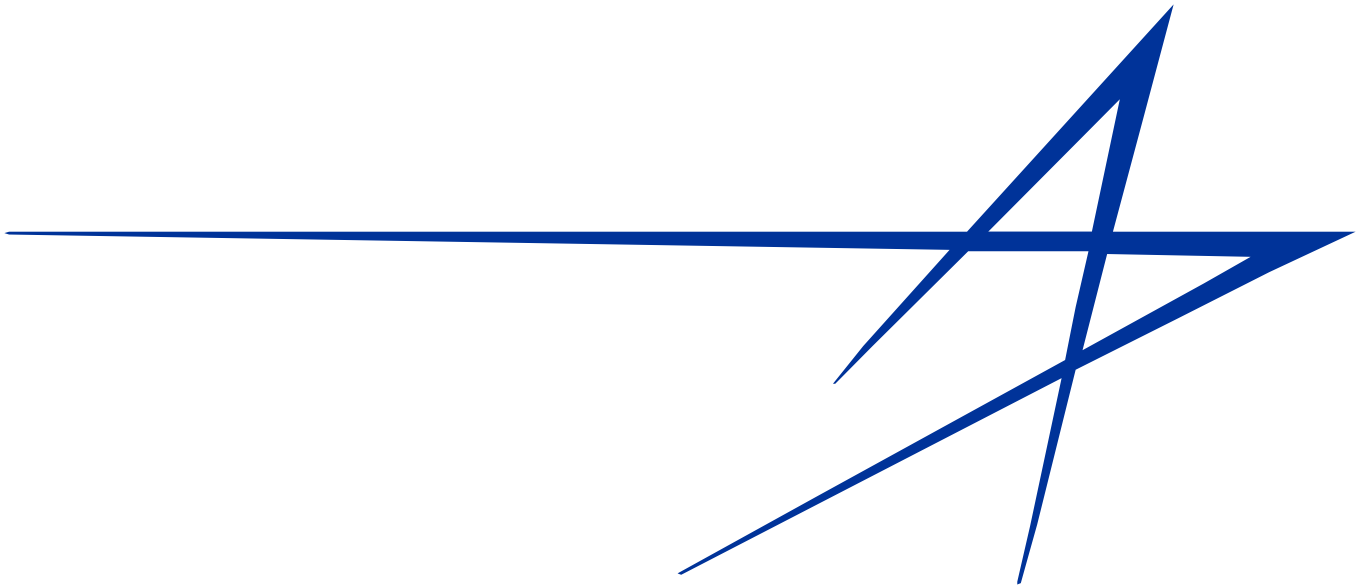

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