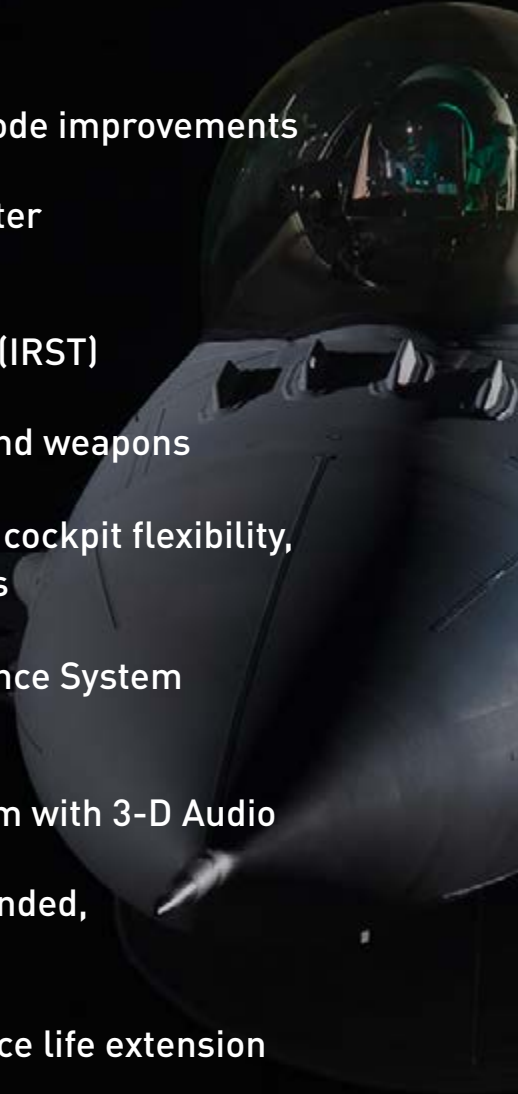


# Viper Capability Enhancements

- Advanced APG-83 AESA Radar
- Radar combat performance and mode improvements
- Upgraded Modular Mission Computer and avionics architecture
- Passive Infrared Search and Track (IRST)
- Advanced datalink, targeting pod and weapons
- Advanced displays, missionized aft cockpit flexibility, and improved safety enhancements
- Automatic Ground Collision Avoidance System (Auto GCAS)
- Digital Intercommunications System with 3-D Audio
- Precise combat, GPS aided and blended, spoof-resistant navigation
- Aircraft lifetime cost savings, service life extension
- Expansive weapons certifications
- Reliable, maintainable, and affordable upgrades



Lockheed Martin.  
Your Mission is Ours.®



## F-16 Viper Upgrade Program



Upgraded 21st Century  
Security Capabilities

# F-16 Viper Upgrade: Meeting 21<sup>st</sup> Century Security Challenges

## EVOLUTION OF A LEGEND

The F-16 Viper (or F-16V) modification offers a scalable, advanced avionics upgrade to the most operationally effective and combat-proven multirole 4<sup>th</sup> Generation fighter today. The F-16 Viper upgrade provides advanced warfighting capabilities that can be affordably tailored to meet national defense requirements.

### 'SEE ALL' SENSORS

APG-83 Active Electronically Scanned Array (AESA) Fire Control Radar (FCR)

- Adds 5<sup>th</sup> Generation radar capabilities and leverages 70% hardware and 95% software commonality with the F-35
- Greater detection range over legacy radars
- Improved combat modes increase lethality
- Interleaving for near simultaneous Air-to-Air and Air-to-Ground operations
- High-resolution Synthetic Aperture Radar for accurate identification and targeting
- Numerous simultaneous Air-to-Air radar tracks

### Sniper Advanced Targeting Pod

- High-resolution video imagery
- Precise laser ranging for accurate targeting
- Two-way data link supporting ground troops

## MORE THAN 3,000 F-16s CURRENTLY OPERATING IN 25 COUNTRIES



\* Operators past & current

### Infrared Search and Track (IRST) System

- Passive search and detection
- Enhanced situational awareness



APG-83 Active Electronically Scanned Array (AESA) Radar



1. Left Photo: New Advanced Viper Block 70/72 Cockpit  
2. Right Photo: Center Pedestal Display, Targeting and SAR Imagery



### 'KNOW ALL' PRESENTATION Missionized Cockpit Layout

- Updated cockpit layout
- New 6"x 8" high-resolution center pedestal display enables more precise lethality with digital sensor imagery
- Unprecedented battlespace awareness for pilots

### Advanced Helmet Mounted Devices (HMD)

- Multiple integrated HMD cueing systems
- Day/night flexible and color enhancement options
- Vastly improved situational awareness via HMD

### 3-Dimensional Audio Provisions

- Clearer audio presented in 3D stereo angles
- Increased spatial and threat awareness

### 'DEFEND ALL' INTEGRATION 21<sup>st</sup> Century Computing Power

- Upgraded Modular Mission Computer
- New Display Generator drives six displays
- Battlespace awareness to prosecute targets when, where and how the pilot chooses

### New Electronic Warfare (EW) Suite

- High-speed integration coordinates EW with AESA, sensors, HMD and displays
- Digital Radar Warning Receiver (DRWR)
- Coordinated counter-measures semi- and auto-modes for optimal self-protection

### Sophisticated Modern Tactical Data Link

- Advanced sharing of tactical picture and tracking
- Enhanced command and control integration

### Unparalleled Weapons Integration

- 3,300 certified carriage and release configurations
- Advanced weapons integration available
- 180+ weapon and store types addressing any threat

### 'SUSTAIN ALL'... SAFELY

Automatic Ground Collision Avoidance System

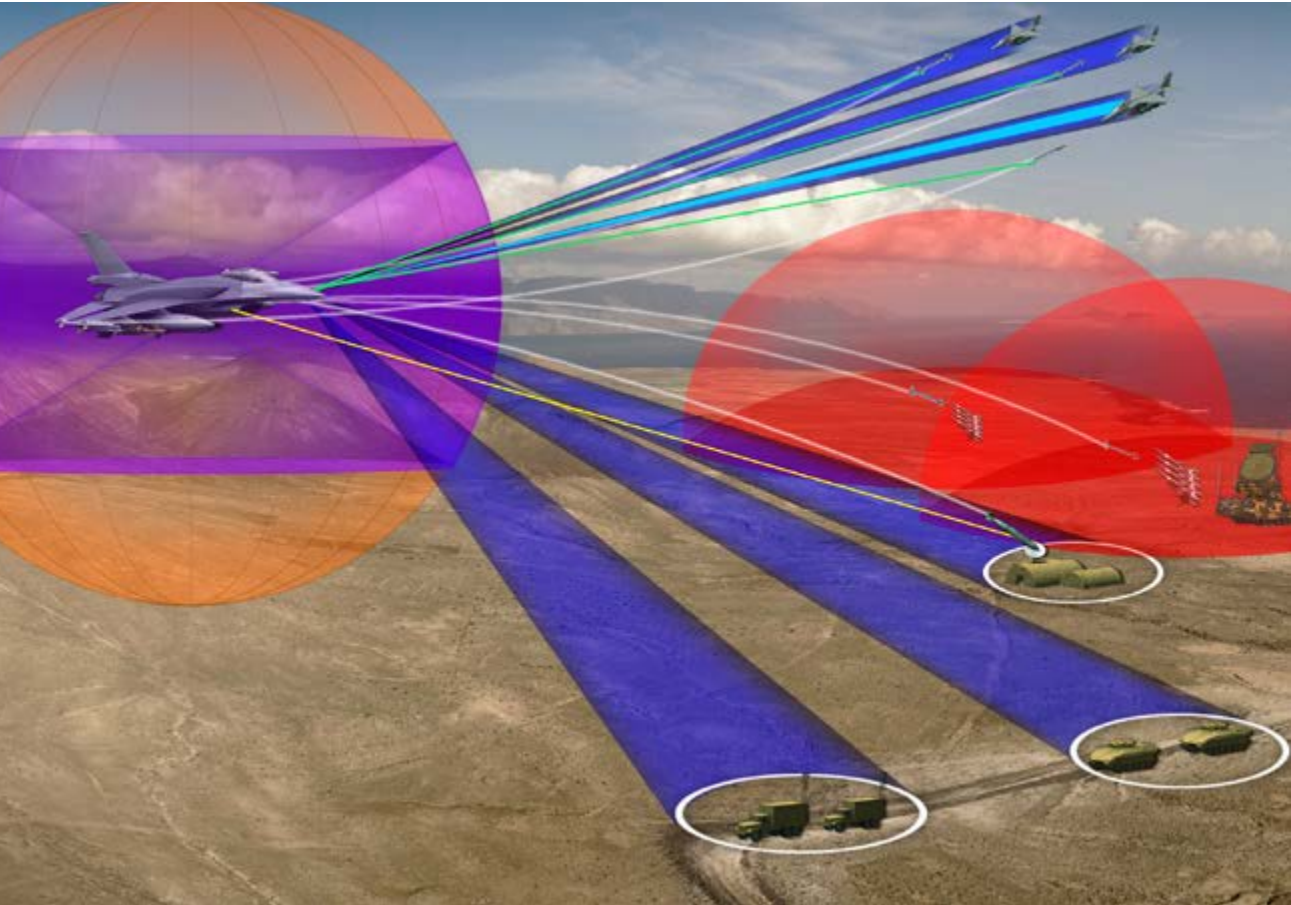
- Forecasts controlled flight into terrain risk
- Recovers if pilot saturated/disoriented
- 11 pilots and 10 F-16s saved as of June 2022

### Service Life Extension Program (SLEP) option

- Extends Block 40/50 service life up to 13,800 hours
- Phase inspection interval extended up to 400 hours
- Available in parallel with Viper upgrade

### Reliable, Maintainable and Affordable

- 3,000+ F-16s operating today
- Most components single tier and at ground level
- Improved avionics and sensors reliability



21st Century Battlespace Dominance; 20th Century Affordability