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

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F-16 Viper Upgrade: Meeting 21st 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 4th 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 5th 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

Infrared Search and Track (IRST) System

- Passive search and detection
- Enhanced situational awareness



APG-83 Active Electronically Scanned Array (AESA) Radar

3-Dimensional Audio Provisions • Clearer audio presented in 3D

'KNOW ALL' PRESENTATION 'DEFEND ALL' INTEGRATION Missionized Cockpit Layout 21st Century Computing Power

1. Left Photo: New Advanced Viper Block 70/72 Cockpit

New 6"x 8" high-resolution center pedestal

• Unprecedented battlespace awareness

display enables more precise lethality with

Advanced Helmet Mounted Devices (HMD)

Multiple integrated HMD cueing systems

Vastly improved situational awareness

• Increased spatial and threat awareness

Updated cockpit layout

digital sensor imagery

• Day/night flexible and color

enhancement options

for pilots

via HMD

stereo angles

2. Right Photo: Center Pedestal Display, Targeting and SAR Imagery

- 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 semiand 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

Reliable, Maintainable and Affordable

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

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

21st Century Battlespace Dominance; 20th Century Affordability

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









































