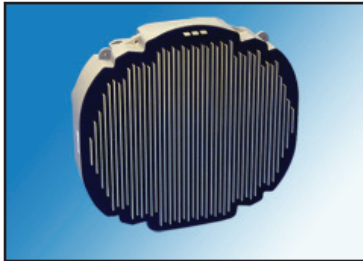


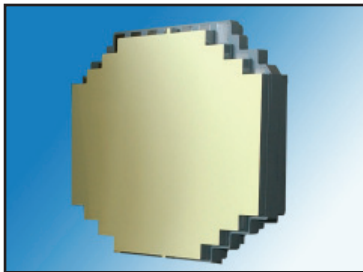
Active Electronically Scanned Array (AESA) Fire Control Radars



F-16 (AN/APG-80)



F-35 Lightning II (AN/APG-81)



SABR

Scalable Agile Beam Radar



Northrop Grumman AESA: A radar with history making history

Northrop Grumman Corporation is the world leader in airborne fire control radars and the sole supplier for both USAF fighter platforms of the future: the F-22 Raptor and the F-35 Lightning II. Northrop Grumman is unmatched as the largest producer of airborne fire control Electronically Scanned Arrays (ESAs).

- AN/APG-77: Operational on the F-22 since January 2006
- AN/APG-80: Exported and Operational on the F-16 since 2005
- AN/APG-81: In flight test & Low Rate Initial Production (LRIP) for the F-35
- Scalable Agile Beam Radar (SABR): Development & Flight Demonstration
- AN/APQ-164: Operational on the B-1 since 1981

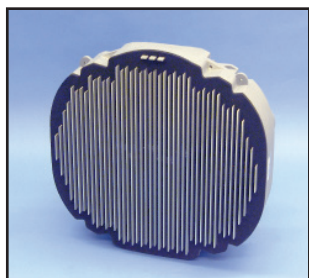
Northrop Grumman has a wealth of design experience with AESA fire control radars.

Our mature production environment reflects decades of AESA development spanning four radar generations. Over this period, Northrop Grumman has continuously improved strong designs and reduced the cost while expanding capabilities.

- First Generation: Ultra Reliable Radar - URR (1985)
- Second Generation: Advanced Tactical Fighter - ATF (1989)
- Third Generation: APG-77 (1996)
- Fourth Generation: APG-80 (F-16), APG-77(V)1 (F-22), APG-81 (F-35), and Scalable Agile Beam Radar (SABR)

Northrop Grumman AESA Capabilities

Northrop Grumman's AESA technology provides a modular, scalable, digital architecture for the future performance enhancements and ease of supportability.



AN/APG-80

AN/APG-77 Radar

This radar provides an unprecedented capability in air-to-air combat, allowing the pilot to track and shoot at multiple threat aircraft before the adversary's radar detects the F-22. Solid-state technology and elimination of mechanical moving parts enables the APG-77 to leap ahead of current standards for system reliability and field sustainability.

- Initial operational capability since January 2006
- High reliability and low sustainment costs for the best value
- More than 180 systems in full rate production



AN/APG-81

AN/APG-80 Agile Beam Radar

This revolutionary all-weather precision targeting AESA antenna for the F-16 offers improved situational awareness and detection, along with ultra-high resolution Synthetic Aperture Radar (SAR) mapping, fully interleaved with automatic terrain following and air-to-air tracking of multiple targets.

- High resolution SAR precision targeting
- Long range "first detect" for air-to-air survivability
- Fourth generation AESA commonality for long term support and performance growth



SABR,

Scalable Agile Beam Radar

AN/APG-81 Radar

Providing the world's air forces with air-to-air and air-to-ground superiority, the AESA radar for the F-35 builds on Northrop Grumman's F-16 and F-22 radar heritage. The Lightning II radar enables the pilot to conduct precision all-weather targeting, utilizing advanced air-to-ground capabilities.

- Winner of the world's largest competitive AESA contract
- Significant rehosting of proven, mature Northrop Grumman AESA modes
- Detect and target fixed and moving ground targets
- More than 2,500 systems to be delivered in full rate production

SABR: Scalable Agile Beam Radar

The Scalable Agile Beam Radar (SABR) will be a full performance fire control AESA. SABR will offer all the advantages of an active electronically scanned multi-function array, but at significant cost savings. Designed to support next generation weapons and tactics, the SABR ensures the needed combat advantage over the adversary. While designed initially to fit the F-16 with no structural, power or cooling modifications, the SABR is scalable to fit other aircraft platforms and mission areas.

- Affordable, full performance AESA capabilities
- Proven AESA technology to fulfill mission requirements
- Form/Fit for the F-16 interface

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Specifications and features subject to change without notice.



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