



## Radar Powerhouse: Generations of AESA Experience

### Description

USA: As a pioneer in Active Electronically Scanned Array (AESA) radars, Northrop Grumman has been at the forefront of AESA innovations for more than 60 years. Northrop Grumman's wealth of design experience with AESA fire control radars helps provide air-to-air, air-to-ground, land, and sea superiority for the world's armed forces. Our mature production environment reflects decades of AESA development spanning five radar generations. Over this period, Northrop Grumman has continuously improved advanced designs while reducing costs and increasing mission capability.

### AIR

Gaining the high ground starts in the air. Our AESA fire control radars help provide air-to-air, air-to-ground and ground superiority for the world's armed forces. Northrop Grumman's airborne radars provide through-the-weather strategic and tactical surveillance. Operating in SAR, Ground Moving Target Indicator, Maritime Moving Target Indicator and Dismount Moving Target Indicator modes, Northrop Grumman's advanced AESA radars give commanders the intel they need in today's multi-domain operations. Systems currently deployed include:

[SABR](#) [STARLITE](#) [APG-81](#) [VADER](#)

Northrop Grumman Corporation is the world leader in airborne fire control radars and the sole supplier for both USAF 5th generation fighter platforms: 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).



## **Advanced Wideband Airborne AESA**

Successful demos verified our open architecture capabilities for our advanced AESA sensors.



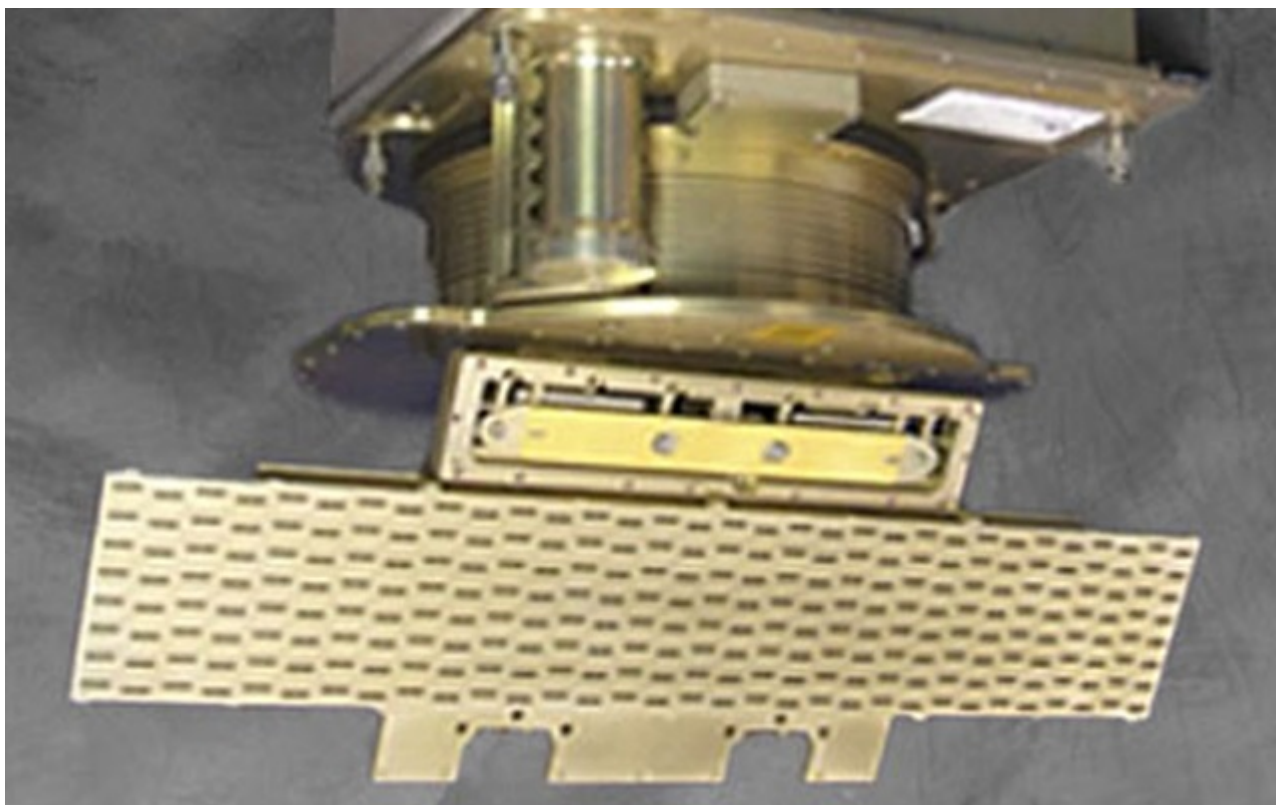
## **AN/APG-83 Scalable Agile Beam Radar**

5th Generation Fighter Radar Capability for the 4th Gen Aircraft



## **AN/ASQ-236 Dragon's Eye Radar Pod**

Providing aircrew with all-weather multi-target detection, track and engagement



## **AN/ZPY-1 STARLite**

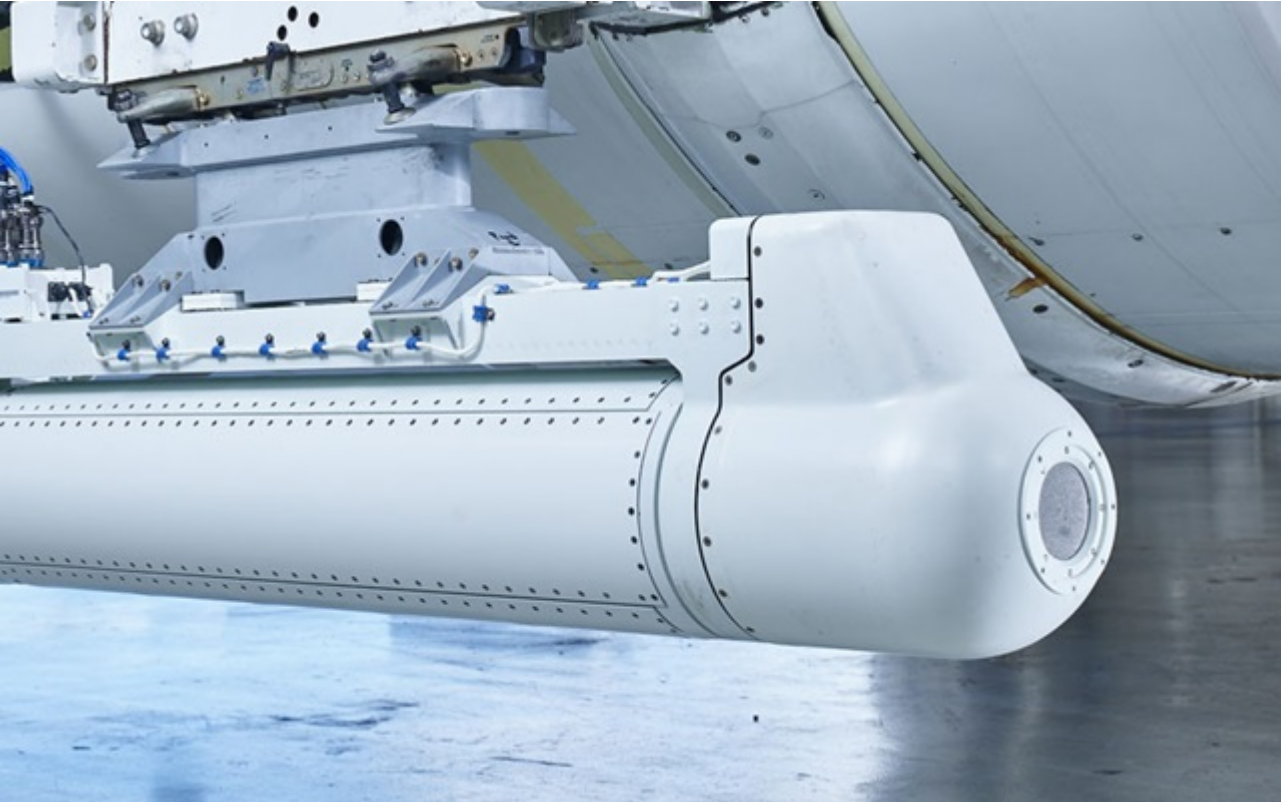
Provides precise battlefield intelligence in all types of weather and in battlefield obscurants, day and night





## **AN/ZPY-3 Multi-Function Active Sensor**

Is a 360-degree field-of-regard active electronically scanned array radar designed for maritime surveillance



### **AN/ZPY-5 VADER (Vehicle And Dismount Exploitation Radar)**

Provides accurate Ground Moving Target Indicator (GMTI) data and Synthetic Aperture Radar (SAR) imagery to ground commanders in real time.



## **F-22 AN/APG 77**

Providing the F-22 Raptor with air-to-air and air-to-ground superiority





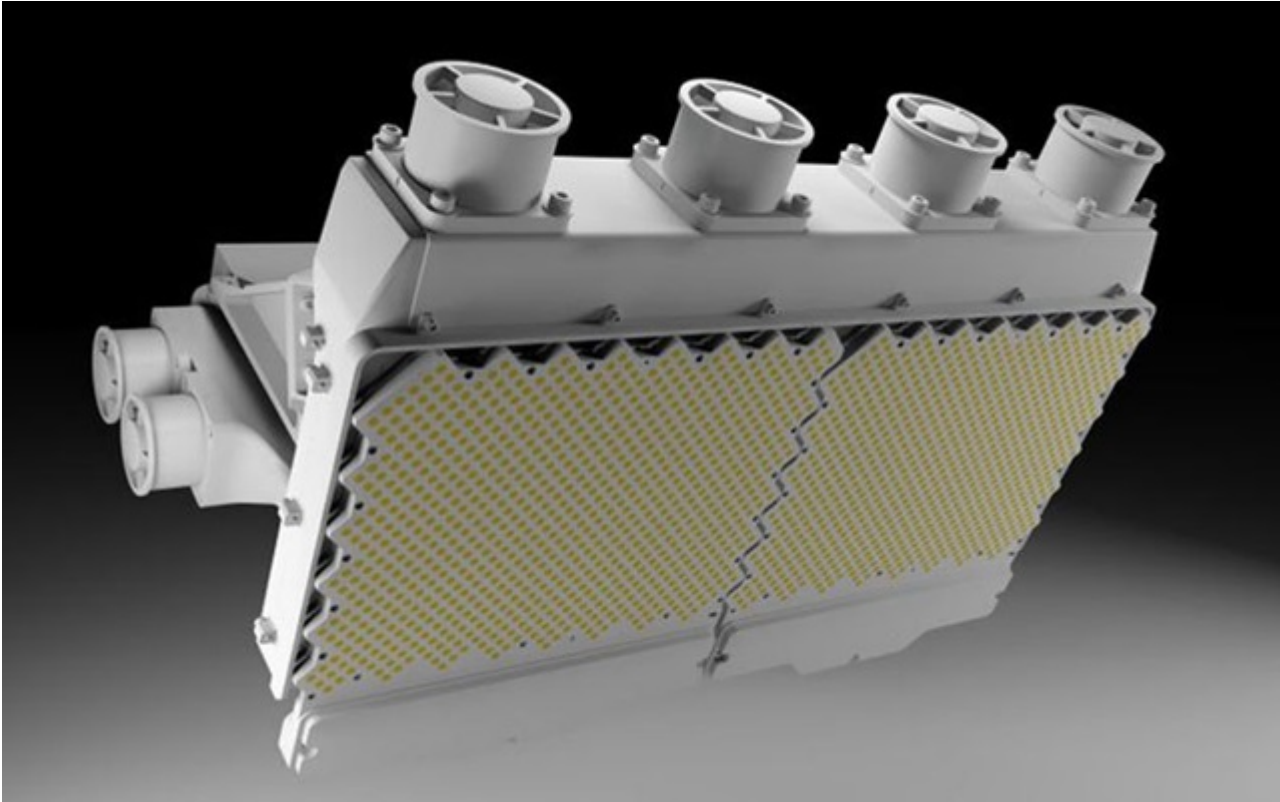
## **F-35 AN/APG-81**

Provides unparalleled battlespace situational awareness that translates into lethality, aircrew effectiveness and survivability



## **Multi-Role Electronically Scanned Array (MESA) Surveillance Radar**

Brings military airborne surveillance capabilities to the Boeing 737 Airborne Early Warning and Control (AEW&C) system



## Re-scalable Aperture for Precision Targeting Radar (RAPTR)

Northrop Grumman's Re-scalable Aperture for Precision Targeting Radar (RAPTR), composed of small radar building blocks, will provide advanced surveillance and...

## LAND

To stay one-step ahead of the enemy, the modern battlefield requires the most advanced technologies that offer industry-leading performance in clutter-rich, contested environments.

Northrop Grumman's all-seeing radars – AN/TPS-80 G/ATOR, HAMMR, and the AN/TPS-80 Long Range Radar provide a complete, operational picture and unambiguous view of the battlespace to help warfighters make better decisions when it matters most. We offer highly mobile solutions with robust, field-proven electronic protection, enhancing survivability while delivering true multi-mission capability to the warfighter.

[AN/TPS-80 G/ATOR](#) [HAMMR](#) [AN/TPS-78 ADCAP](#)

The ability to network seamlessly on land and in the field provides increased survivability to counter

evolving threats and be ready for whatever the future holds.



### **AN/TPS-80 Ground/Air Task-Oriented Radar (G/ATOR)**

AN/TPS-80 multi-mission air surveillance system can detect, identify and track airborne threats common to combat environments.





## **HAMMR – Highly Adaptable Multi-Mission Radar**

Provides 360-degree coverage while mounted and moving on a vehicle and is easily deployable from a variety of expeditionary platforms

## **SEA**

Threats don't stop at the shoreline. Northrop Grumman continues to develop radar systems that support complex missions at sea and counter increasingly sophisticated anti-ship threats. As the premier maritime X-Band radar provider for the U.S. Navy, we are ready and able to bring a new set of advanced capabilities to the warfighter.

As the design agent for the AN/SPQ-9B surface search and fire control radar, we continue to provide fire-control quality track data in stressing, high-clutter environments to protect high-value surface combatants.



## **AN/SPQ-9B Anti-Ship Missile Defense**

The AN/SPQ-9B is a multimode X-band pulse Doppler radar that detects all known and projected sea skimming missiles. The multimission radar is designed to detect small, fast-moving targets in the presence of clutter from ocean waves, rain and land returns, as well as chaff and jamming.

### **Date Created**

November 2021