



AN/SPY-6(V)

Air & Missile Defense Radar



“Sea Power to the Hands of Our Sailors”

CAPT Okano
January 2017



AN/SPY-6(V) AMDR

■ Mission

□ Simultaneous:

- Ballistic Missile Defense
- Anti-Air Warfare
- Anti-Surface Warfare

□ With simultaneous weapons support functions:

- Electronic Protection
- Naval Surface Fires Support
- Environmental Awareness

■ Solution

□ AN/SPY-6(V)1 AMDR

- Next generation S-band AESA radar with digital beamforming architecture

□ X-Band radar (AN/SPQ-9B)

- Non-developmental radar providing horizon search to complement SPY-6 and periscope detection

□ Radar Suite Controller (RSC)

- Radar resource management, coordination and interface to the combat management system

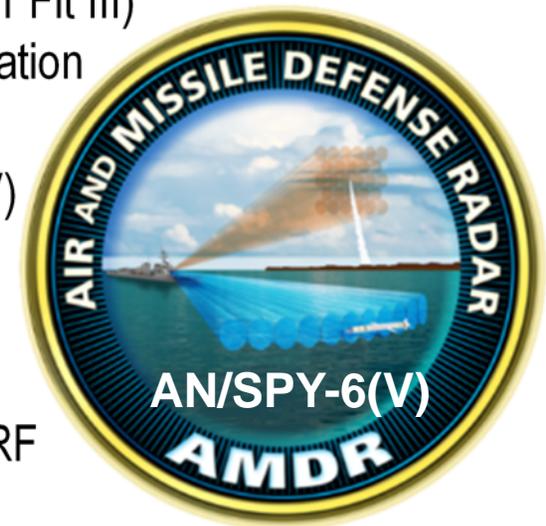


Highly capable. Efficient and reliable.



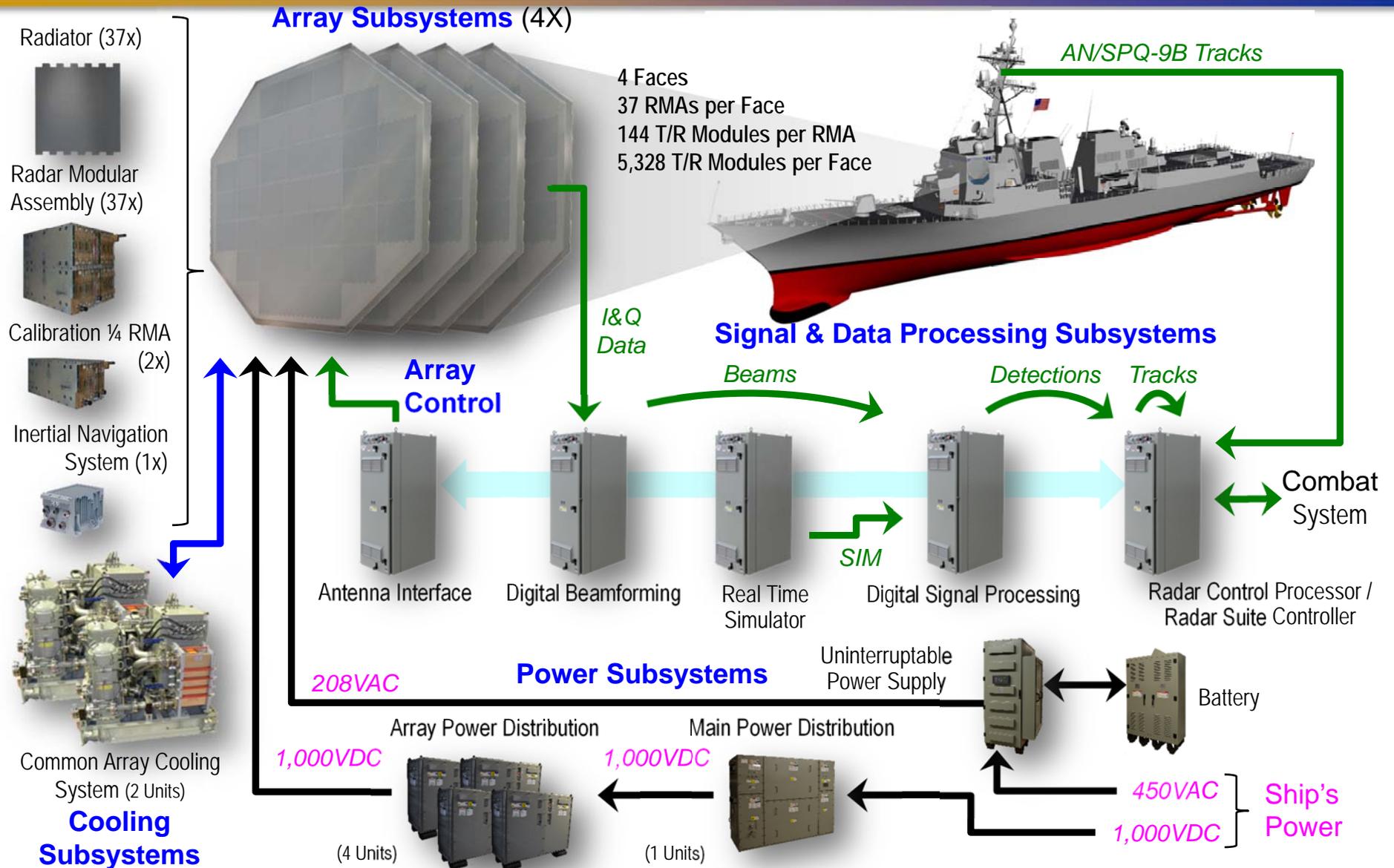
AN/SPY-6(V) AMDR At a Glance

- Highly capable
 - Greater detection range, advanced discrimination capability, larger raid handling
 - Maximizes the effectiveness of Aegis Combat System, Standard Missile, ESSM
 - Power, efficiency, size/weight, cost and reliability benefits of Gallium Nitride (GaN)
- Truly scalable
 - Radar Modular Assembly (RMA) - 2' x 2' x 2' radar - Scalable radar building blocks
 - Synchronized in time and phase – build-up to fit any ship, any mission
 - 9 RMA = AN/SPY-1; 37 RMA = AN/SPY-1 +15dB (DDG 51 Flt III)
 - Adaptable, programmable, open interfaces, ease of integration
- Affordable
 - Far more capability at a comparable cost to AN/SPY-1D(V)
 - Low operational and total ownership cost
- Progressing on schedule
 - EMD phase more than 86% complete as of Dec 2016
 - 1st production-representative array (MRL 7) testing at PMRF
- Advancing exportability
 - Defense Exportability Features Program = designed for exportability
 - Opportunity for international commonality, cooperation





AN/SPY-6(V) AMDR Overview





EDM Array in Far Field Range

PMRF Advanced Radar Detection Lab (Kauai, HI)



Summary / Way Forward

- ✓ System CDR - Apr 2015
- ✓ NFR testing completed - May 2016
- ✓ EDM Array installed at PMRF - Jun 2016
- ✓ Tracking satellite and air targets - Oct 2016
- ✓ LLMs on order for 1st DDG 51 FLT III - 13 Dec 2016
- Testing at PMRF in progress



“Sea Power to the Hands of Our Sailors”