

DEMO TO DEPLOYMENT IN 30 DAYS

The ARMS Case Study

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- ▶ **The Problem:** Sending Subject Matter Experts (SMEs) to deployed Navy ships for On-Board Technical Assistance (OBTA) is extremely slow and expensive
- ▶ **The Goal:** Develop a robust Remote Technical Assistance (RTA) capability to provide expert support faster and more efficiently than traditional phone or email
- ▶ **The Solution:** The Augmented Reality Maintenance System (ARMS)

BACKGROUND

In February 2025, a video of a successful ARMS shipboard demonstration reached critical Navy leadership.

- ▶ **The Directive:** Deploy a fully operational version of ARMS across an entire Carrier Strike Group (CSG)
- ▶ **The Timeline:** Within 30 days, before the CSG's deployment
- ▶ **The Reality:** The "operational version" did not yet exist; the team had to build, accredit, and deploy a new system configuration from scratch under extreme time pressure

THE CHALLENGE: A 30-DAY MANDATE



Augmented Reality Maintenance System (2025) Source: DVIDS



RADM Seiko Okano (2025)
Source: DVIDS

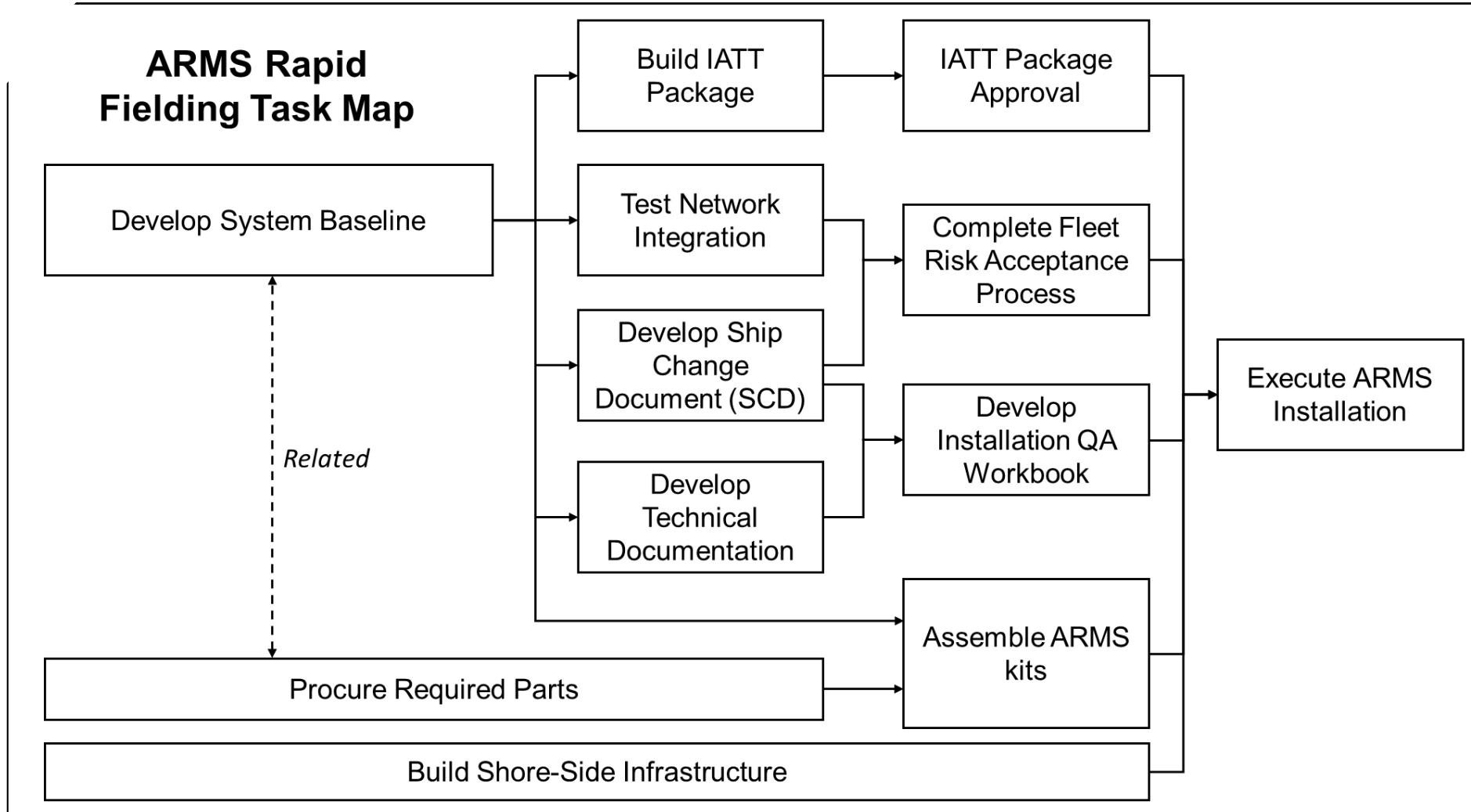
Barrier	Solution
1. Urgent Funding	Re-prioritized flexible Naval Innovative Science and Engineering (NISE) funds.
2. Procurement	Used a rapid prototyping contract for short-lead parts; borrowed long-lead laptops from a partner program (PMA 260).
3. Technology Adaptation	Switched from an insecure AR headset to a secure laptop-based system with smart glasses, built on a hardened OS.
4. Cybersecurity Approval (ATO)	Leveraged the "Urgent Deployment Test (UDT)" Interim Authority to Test (IATT), which required Flag Officer endorsement.

OVERCOMING MAJOR BARRIERS (1)

Barrier	Solution
5. Shipboard Network Integration	Expedited testing in the CANES network lab, relying on prior integration work and established relationships.
6. Ship Alteration Authorization	Utilized the Emergent Change Process and designated ARMS as a Non-Permanent Change (NPC) to bypass the lengthy standard process.
7. Production Requirements	Leveraged in-house warfare center expertise to rapidly build the required Quality Assurance (QA) workbooks for installation.

OVERCOMING MAJOR BARRIERS (2)

ARMS Rapid Fielding Task Map



- ▶ **High-Level Advocacy:** Direct support and endorsement from Flag-level leadership was essential for overcoming bureaucratic hurdles
- ▶ **Flexible Funding & Procurement:** NISE funds and a pre-funded, flexible contract vehicle were critical for the hyper-rapid timeline
- ▶ **In-House Expertise:** Vertically integrated WFC capabilities—from engineering and cybersecurity to installation and logistics
- ▶ **Established Relationships:** Strong, existing relationships with Fleet staff and partner programs
- ▶ **Trading Risk for Speed:** Leadership accepted programmatic and technical risks to meet the urgent operational need

KEY ENABLERS

After successful installation on NIMITZ CSG, ARMS has rolled out across a wide swath of the Fleet, resulting in tangible savings

- ▶ **Readiness Improvement:** Over 85 days of system downtime averted
- ▶ **Cost Avoidance:** Over \$600,000 in labor costs avoided
- ▶ **SME Time-on-Target:** Over 3600 SME hours saved
- ▶ **Paradigm Shift:** Driving Fleet adoption of RTA

RESULTS AND IMPACT

- ▶ **Maintain Flexibility:** Don't over-plan flexible funding — retaining adaptability is key to supporting rapid innovation
- ▶ **Relationships are a Force Multiplier:** Top-down advocacy, partner programs, and established fleet relationships are powerful assets
- ▶ **"Hyper-Rapid" Procurement is an Illusion:** For timelines under 30 days, you cannot start from scratch
- ▶ **Warfare Centers as Transition Agents:** For mature technologies, WFCs are uniquely positioned to accelerate fielding due to their integrated expertise

- ▶ ARMS proves that rapid deployment within the Navy's existing framework is difficult, **but not impossible**
- ▶ Success hinges on a combination of high-level advocacy, flexible funding, mature relationships, and the responsible acceptance of risk
- ▶ ARMS provides a successful model for how acquisition programs can innovate by prioritizing speed to deliver capability to the warfighter

CONCLUSION