# ARGCS Update

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**DoD ATS Executive Agent Office**
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# US DoD ATS Goals

1. Reduce the total cost of ownership of DoD ATS

2. Provide greater flexibility to the warfighter through Joint Services interoperable ATS

3. Reduce logistics footprint

4. Improve quality of test – leverage embedded and other diagnostic data

# DoD ATS Strategy

1. Use DoD designated Standard ATS Families <u>or</u> use certified COTS systems

2. Define a Technical Framework for ATS

3. Share technology development and insertion

4. Share investment in next generation ATS demonstrations

5. Each Service modernize own systems

# Next Generation System-Level Demonstration

- Jointly demonstrate a system-level solution that:
  - Rolls up the set of NxTest technologies
  - Embraces the ATS Technical Framework
  - Could become DoD's Next Generation ATE

- Current system-level demonstration is named Agile Rapid Global Combat Support (ARGCS)

- ARGCS is a DoD "purple suit" program – Army, Navy, USAF, Marines working together
  - OSD Advance Concept Technology Demonstration (ACTD) project
  - Funding from OSD
  - Army, Navy, Air Force and USMC funding and other resources
  - Scheduled for an FY-04 start

# Six Objectives for ARGCS

## 1. System Interoperability

- Interoperability <u>among Services</u> (to include coalition partner services) support systems
- Interoperability of support <u>between weapon systems</u>
- Interoperability among all <u>different levels</u> of maintenance
- The ability to <u>reuse support data from all levels of maintenance</u> to facilitate integrated diagnostics

# Six Objectives for ARGCS

2.  **Acceleration of Test Support Equipment Availability in Support of Weapons System Deployment**

    – ARGCS shall <u>reuse tests from factory to field</u> levels of maintenance to demonstrate accelerated support equipment deployment, allowing near simultaneous support system current with new weapon systems.

3. **Rapid Enhancements and System Improvements**

   – ARGCS shall allow for <u>rapid upgrading</u> and <u>easy insertion</u> of future hardware and software. It will feature <u>easily upgradeable hardware and software</u> to accommodate new and improved functionalities or emerging weapons system requirements. This will allow multi-level support system to have technology parity.

# Six Objectives for ARGCS

4.  **Optimize Logistics and Support Costs**

    – ARGCS shall <u>optimize logistics and support costs</u> to reduce the number of different types of support equipment and total ownership costs required for each Service.  In addition, the flexibility to resolve issues of instrument <u>obsolescence</u>, legacy software investments, and weapon system enhancements will drive lower lifecycle costs

    – ARGCS shall facilitate Joint Service <u>regional maintenance concepts</u> to support all weapon systems, thereby consolidating support requirements

# Six Objectives for ARGCS

5.  **Reduction in Logistics Footprint**
    – ARGCS shall utilize an <u>open system architecture</u> to allow for <u>scalability</u> and for incorporation of downsized state-of-the-art technology resulting in the ability to significantly <u>reduce the logistical footprint</u>
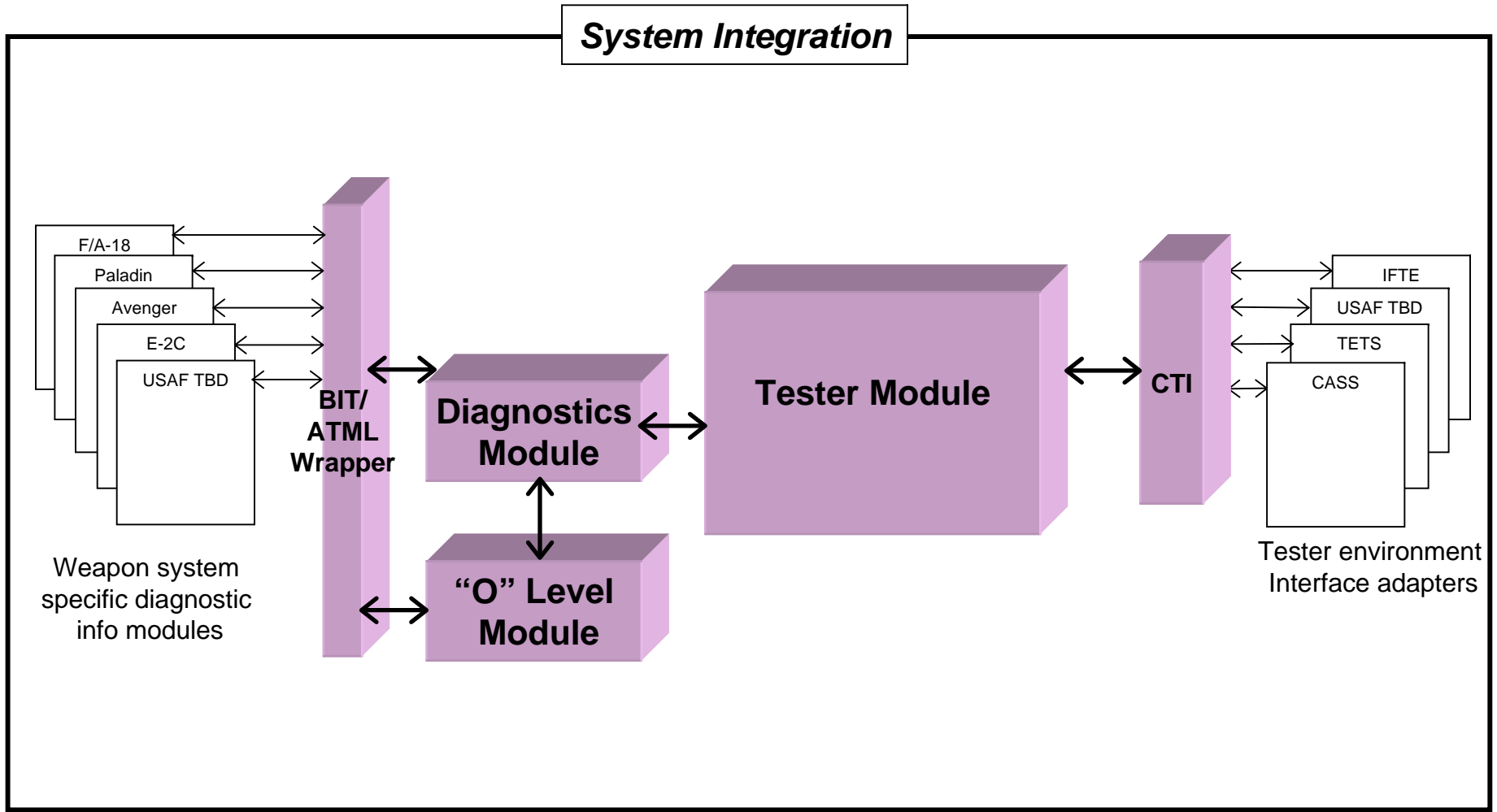
6.  **Reduction in Time to Repair, Level of Repair, and High Return Rates** (CND/A799/NFF/BCS/ RTOK/NEOF/CNV/NTF)
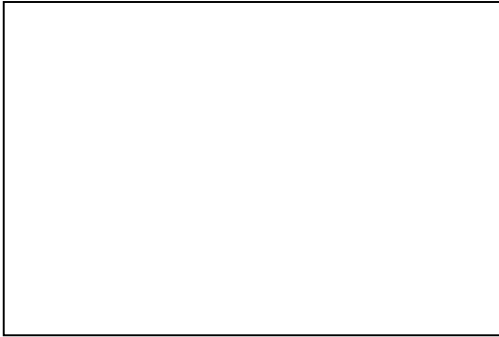    – ARGCS shall <u>avoid unnecessary failure repair actions</u>

# Functions to Demonstrate – A Summary

- **Closed Loop Diagnostics**

- **Use of Knowledge-Based Maintenance Database**

- **Interoperability**

- **System Parametric Performance**

- **Environmental Performance**

- **External Communications**

- **Web portal**

- **Ability to transmit video and large files**

- **Interactive support**

- **Data mining**

- **Information dissemination**

- **Rapid Deployment**

- **System Scalability**

# Major Elements of ARGCS



System Integration

F/A-18
Paladin
Avenger
E-2C
USAF TBD

Weapon system specific diagnostic info modules

BIT/ ATML Wrapper

Diagnostics Module

"O" Level Module

Tester Module

CTI

IFTE
USAF TBD
TETS
CASS

Tester environment Interface adapters

# ARGCS Demonstration Weapon Systems

USAF - TBD

F/A-18 Hornet

Avenger

E-2C Hawkeye

Paladin

# ARGCS Leadership

- Sue Payton, DUSD (AS&C) **Senior Oversight Panel**
- Bill Ross, NAVAIR PMA260 **Management Team Lead**
  - Steve Lingar Army Management Team
  - Bill Mitchell USAF Management Team
  - Mike Heilman USMC Management Team
  - Manuel Garcia SP MOD Management Team
  - Malcolm Brown UK MOD Management Team
- Bill Birurakis, NAVAIR 4.8 **Technical Team Lead**
  - Jay Romania Army Technical Team
  - James Reasor USAF Technical Team
  - Gene Morin USMC Technical Team
  - Tony Geneva Navy Technical Team
- Elijah Brown, CINCLANTFLT **Operational Manager**
- Multiple **Transition Manager**
- Chuck Adler, NAVAIR LKE **Contracts Officer**

# ARGCS Schedule

| FY03 | FY04 | FY05 | FY06 | FY07 | FY08 |
|------|------|------|------|------|------|

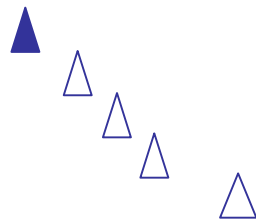**NxTest Technologies**

**ARGCS Requirements Definition**

**Contract Actions**
  **+ BAA released (9/11)**
  **+ Industry Day (10/7)**
  **+ PH I White Papers due (11/15)**
  **+ PH II RFP Released (12/15)**
  **+ System Integrator Award (4/15)**

**Design, Development and Integration (build 4 Demo Units)**

**Demonstration/Validation**

**Joint Military Use Assessment**

**End User Evaluation**

**Fielding**

# High Level Acquisition Strategy

- Broad Area Announcement to solicit ideas

- Select the best ideas and request a full proposal

- System Integrator to integrate the technologies and produce 4 demonstration units

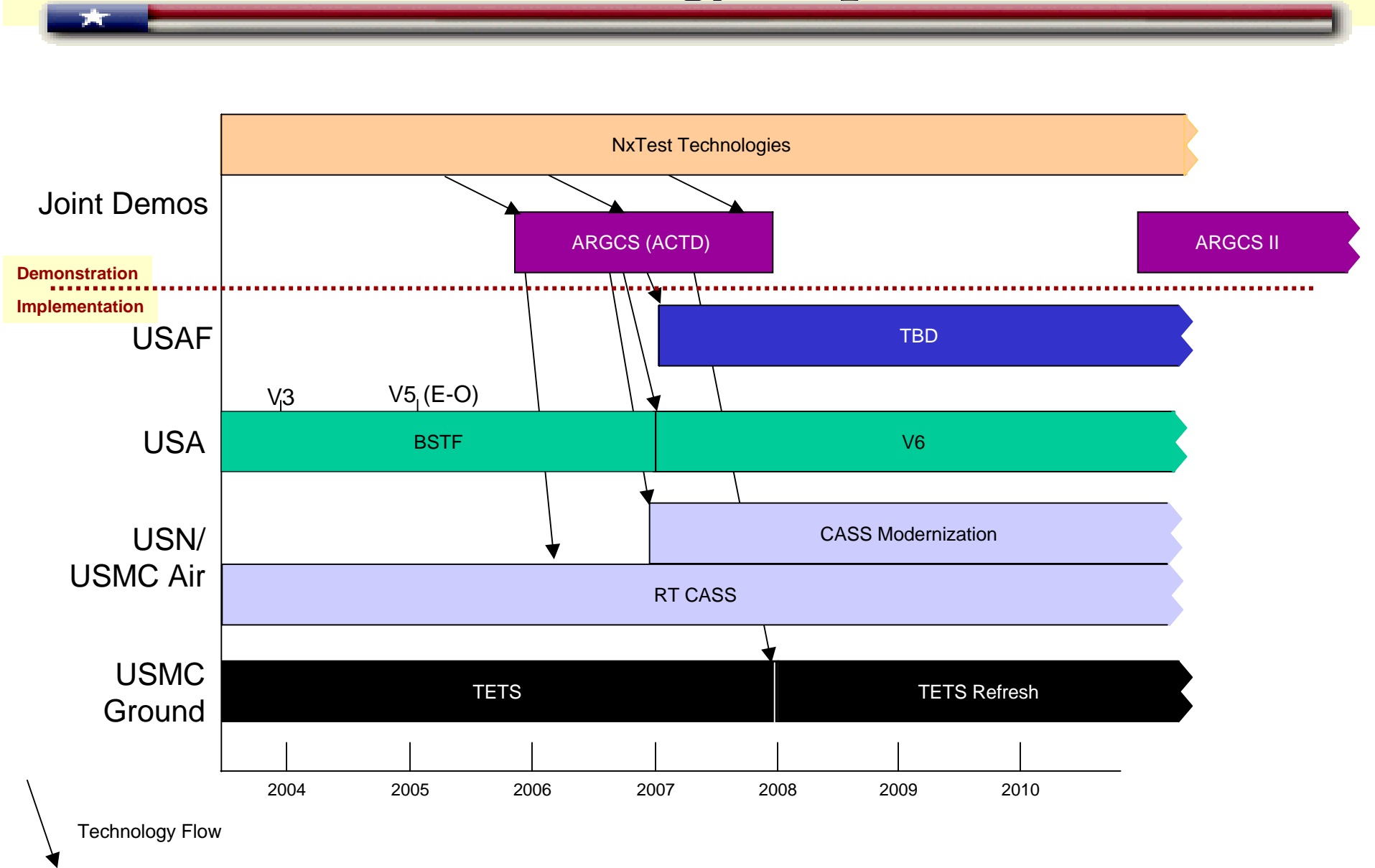- Each Service manage own transition and acquisition of production units

# Near-Term Activities

- Broad Agency Announcement #N68335-03-R-0140 released 11 September
  - Copies available at NAVAIR booth
  - Available at FEDBIZOPS
    http://www1.eps.gov/spg/DON/NAVAIR/N68335/N68335%2D03%2DR%2D0140/SynopsisP.html
  - Includes Statement of Objectives and Key Performance Parameters
  - Phase I – White Papers (20 pages max) due 15 November
    - Explain the overall scientific and technical approach to achieving the objectives described in the Statement of Objectives.
    - Provide a detailed proposed solution/approach
    - Describe the work to be performed
    - Describe the offeror's expertise to achieve the proposed solution
    - Present a Rough Order of Magnitude (ROM) for cost and schedule
  - Phase II – By 15 December, a full proposal (50 pages max) will be requested of companies with most promising solutions based on
    1. Overall technical quality and capability
    2. Economically feasibility of the solution
    .

# Near-Term Activities (con't)

- A System Integrator will be selected by 15 May 04 from those companies submitting Phase II proposals based on
    1. Overall scientific and technical capability as related to ARGCS (to include relevant corporate experience, understanding of the work objectives, past performance, small business commitment, and personnel resources), and
    2. Estimated cost and fixed fee including cost realism
- All awards will be on a "best value merit competition" basis
- Additionally, all companies invited to submit a proposal for System Integrator must be committed to being a cooperative teammate under ARGCS. All teammates must be willing to sign Associate Contractor Agreements. The agreements will be designed to show that contractors are willing to work in a cooperative environment and are willing to share information and knowledge with the system integration team

- Teaming is strongly encouraged

- Industry Day scheduled 7 October at Dulles Airport Marriott
    - Names must be submitted NLT 30 September

# ARGCS Technology Implementation

# Summary

- Services are working technology insertions together – evolving our different test system families to look more alike

- Services are working together to demonstrate the next generation system – each implementing as needed

- ARGCS is on track for selecting the System Integrator next Spring.

- NxTest/ARGCS Session A7 - Thursday 10AM