

C3I and Networks Directorate

Enterprise Integration Branch AFLCMC/HNIZ Overview



**Ardis B. Hearn, DAF, NH-04
Chief, Enterprise Integration Branch**

29 August 2016



Mission

MISSION STATEMENTS



United States Air Force
AF Secretary, Deborah Lee James
“Fly, fight and win ... in air, space and cyberspace”



Air Force Materiel Command
Commander, Gen. Ellen Pawlikowski
“Deliver and Support Agile War-Winning Capabilities”



Air Force Life Cycle Management Center
Commander, Lt. Gen. John F. Thompson
"Acquire and Support War-Winning Capabilities"



C3I&Networks Directorate
Air Force Program Executive Officer, Maj Gen Dwyer L. Dennis
“Connecting Warfighters With Affordable, Secure & War-Winning Cyber, C3I & Network Systems”



C3I Infrastructure Division
Chief, Col John Bedingfield
“Warfighters Connected Anywhere, Anytime with Anything”



Enterprise Integration Branch
Chief, NH-04 Ardis B. Hearn
“Integrate Warfighter Capabilities with Enterprise Cyber Infrastructure”






HNI Org Chart



MAJ GEN DWYER L. DENNIS
AFLCMC/HN




C3I Infrastructure Division SML
Col John Bedingfield



C3I Infrastructure Div Deputy
Lt Col Shane Louis

Director of Engineering (DoE)
Mr. Darin Leahy




Financial Mgmt Branch (HNIF)
Ms. Lissa Lalonde



Contracting Mgmt Branch (HNIK)
Mr. Peter Izzo



Director of Logistics (DoL)
Mr. Gary Durst




Base Infrastructure Branch (HNIB)
Lt Col Bradley Pantan

- BITI
- TDC
- Voice
- APC, IPN
- CSCS WS



Architecture and Engineering Branch (HNS)
Mr. Eric Butter

- SE/CM/DM/AM
- Architecture and IB
- Test / IA
- Risk and QA



C3I Infrastructure Product Support Branch (HNID)
Lt Col Matthew McQuinn

- Weapon System Mgmt
- Product Support Agreements
- TO/TCTO
- Service Support Contracts
- EITSM
- HCIC, CITS



Commoditized Infrastructure Branch (HNII)
Mr. Michael Clark

- Managed Services
- GCSS (CCE-AF)




C3I Infrastructure Branch (HNIM)
Mr. Michael Kaplan

- AFNet (GWs, ESUs, Boundaries)
- ECN
- HBSS
- ACD and AFINC Weapon Systems



C3I Infrastructure Operations Branch (HNIA)
Lt Col Randy Flores

- Program Integration
- Division Operations
- Weapon System Int




Enterprise Integration Branch (Gunter) (HNIZ)
Ms Ardis Hearn

- Dev & Test
- CyberSecurity
- SW Arch & Perf

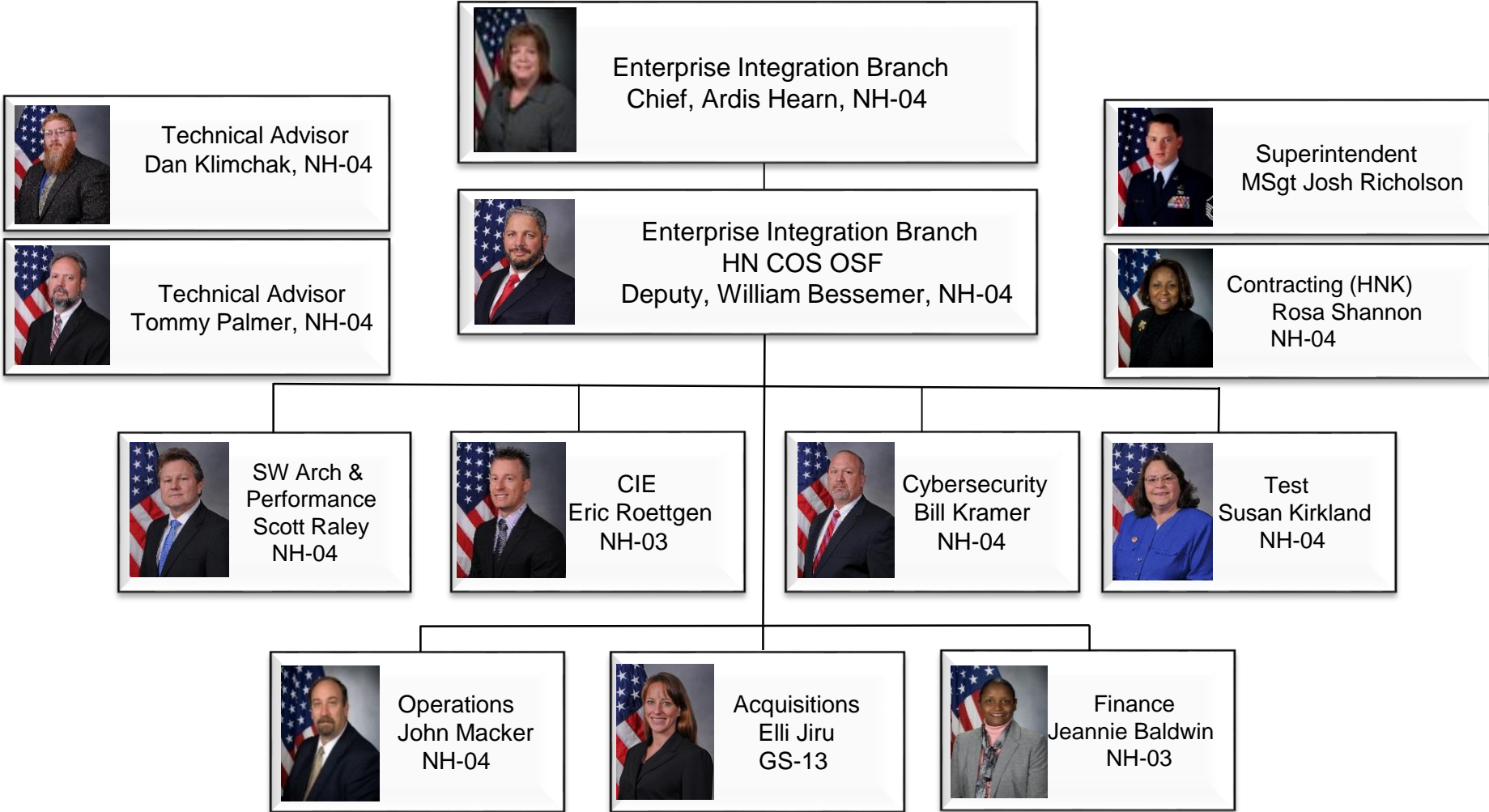


EIS Acq Reporting (Not on UMD) (HIBB)
Ms. Gail Sheridan
Mr. Lenny Getts





HNIZ Org Chart





Overview



CIE / A&P

- Vendor: AAC, Inc.
- Amount: \$22M
- Type: SB Labor Hour (GSA)
- POP: 1 Sept 12 – 31 Aug 17
- 45 Slots
 - 7 Open (5 CIE, 2 A&P)
 - 34 CIE FTEs, 4 A&P FTEs

Testing Support

- Vendor: Alliant SB CTA
- Amount: \$10M
- Type: SB Labor Hour (GSA)
- POP: 1 Apr 15 – 31 Mar 20
- 22 FTEs
 - 15 Gunter, 5 WPAFB, 2 Randolph

Cybersecurity Assurance

- Vendor: DSD Laboratories, Inc.
- Amount: \$3.6M
- Type: NETCENTS-2 SB FFP (HNK)
- POP: 12 Sep 14 – 11 Sep 17
 - Ext: 12 Sep 17 – 11 Mar 18
- 7 FTEs

PASS II

- Vendor: BTAS
- Amount: \$1.3M
- Type: A&AS SB CPFF (PZM)
- POP: 16 Jun 16 – 15 Jun 21
- 1 FM FTE, 1 Ops FTE

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Cybersecurity Assurance Section SCA for HAF/A4 & SAF/FM



**William Kramer, NH-04, DAF
AFLCMC/HNIZ**

29 August 2016



Customers



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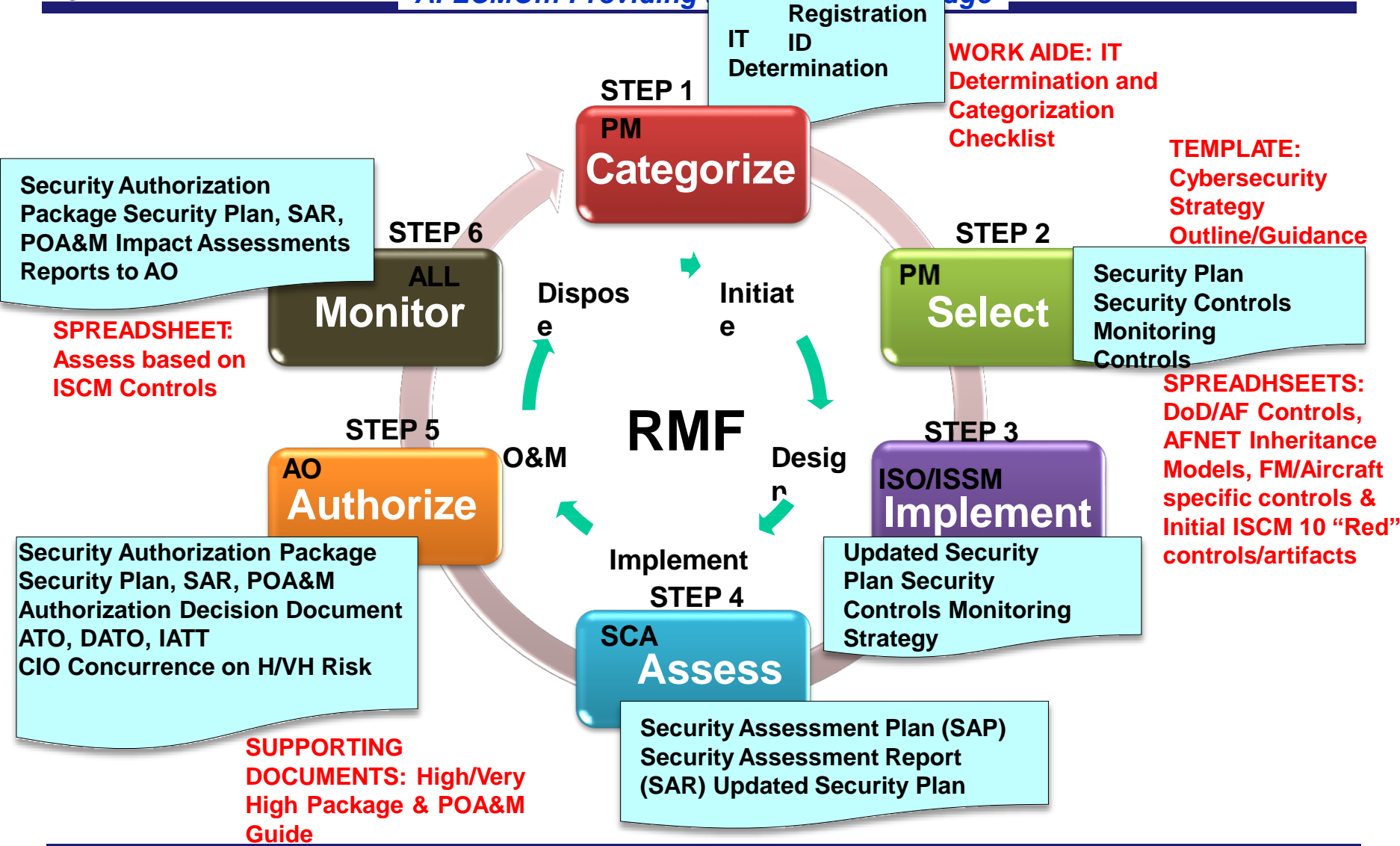
MISSION: Evaluate & assess AF information systems & software throughout the lifecycle

- **Functional Security Control Assessor (SCA) for:**
 - **HAF A4 Authorizing Official (AO) ~ 43 programs w/multiple releases**
 - **Brig Gen C. George A4 Chief Information Officer / Authorizing Official**
 - **SAF FM Authorizing Official (AO) ~ 20 programs w/multiple releases**
 - **Ms. Shirley L. Reed SAF/FM Chief Information Officer / Authorizing Official**
- **Security Engineering and Software Assurance**
 - **COTS Products testing and evaluation (E/APL)**
 - **Software/Security Engineering / Cyber Security Test Support**



RMF Role

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AF Security Control Assessors



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AETC RT&E
Mr. David Banton &
Mr. Paul Wiler

AF Enterprise
Mr. Kevin Kumsher &
Maj Michael McFeeters

AFMC DT&E
Mr. Aaron Peelle

AFOTEC
Ms. Celia Ojeda &
Mr. Toby Tibbits

Aircraft
Mr. Eric Butner &
Mr. Harrell Van Norman

CE (ICS)

CE (Non-ICS)

C2
Mr. Jeffrey Mayer &
Mr. Eric Chamberlin

Finance
Mr. William Kramer &
Mr. Calvin Lee

Industrial Depot
Mr. Kevin Smith

Rapid Cyber
Mr. Jeffrey Mayer

LVC
Mr. Karl Wiers &
Capt Evan Raulerson

Nuclear (Non-NC3)

Logistics
Mr. William Kramer &
Mr. Calvin Lee

Science & Tech
Ms. Roselyn Richardson &
Mr. Glenn Harshberger

Security Forces

USAFA
Mr. David Hluska

Weapons
Ms. Vickie Greenier

Intel
Ms. Mary Meyer &
Mr. Eric Chamberlin

Medical
Lt Col Alan Hardman &
Mr. Jeffery Eyink

AFSOC
Mr. Glen Kowalski

NC3 (Space)
Mr. Kevin Kumsher &
Maj Michael McFeeters

NC3 (AFGSC)
Mr. Trevor Smith &
MSgt Robert Harris

Blue: Air Force CIO Appointment
Green: Non-Air Force CIO Appointment
Yellow: Authorization Boundary in Coord

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Architecture & Performance



**Scott Raley, NH-04, DAF
AFLCMC/HNIZ**

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Architecture

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Software Architecture

- Common Architecture
- Build /Review Program Architecture & Design

Requirements Definition & Management

- Use Cases
- Supplementary Specification

Code Development

- Support Program Developers
- Coding Standards

Continuous Integration

- Automated Code Quality Analysis
- Automated Build/Provision/Test

Formal/Informal Program Assessment

- Red Team Assessments
- Independent Verification & Validation (IV&V)



Performance Engineering

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Bandwidth Analysis

- Identify How Much Data is Transmitted per Transaction

Load/Stress Test

- Apply Simulated User Load to the Application
- Validate if App Can Handle the Required User Load

Performance Analysis/Troubleshooting

- Monitor Application Transactions and Identify Bottlenecks
- Perform Root Cause Analysis by Discovering and Aggregating Transactions From User, Server, and Database Layers

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Capabilities Integration Environment (CIE)



**Eric Roettgen, NH-03, DAF
AFLCMC/HNIZ**

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CIE Mission



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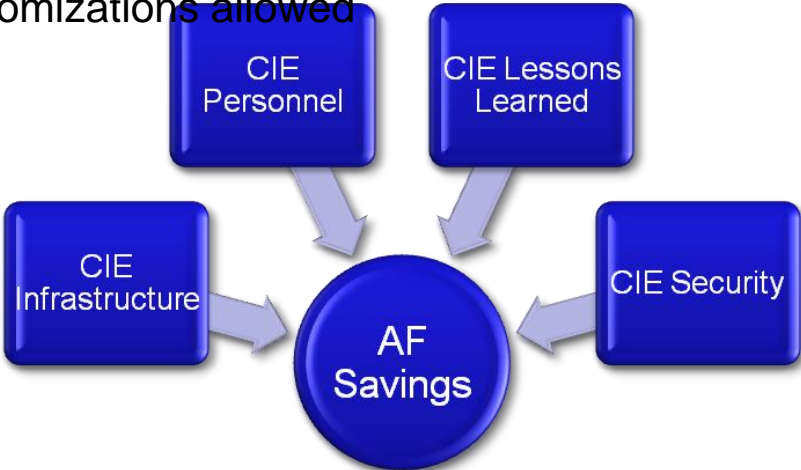
Provide a production-compliant capability of enterprise services in support of proofs-of-concept, development, integration and test activities in an accredited environment.



Capabilities



- DREN!
- Accessible from anywhere 24 x 7
- Single Point of Contact for each customer
- Shared Infrastructure reduces customer costs and risks – Customer focuses on the app and testing
- Relationships and teaming for smooth transitions – SBX > DEV > TEST > PROD
- FDCCI SPPN and ATO allows compliant, secure use of PII for any software system
- No customer ATO/IATT required
- Experienced CIE staff & lessons learned benefit all customers
- Troubleshooting, configuration changes, and customizations allowed
- Multiple Infrastructures emulated (for DT&E)
 - AF base level, AFNET, DISA, GCSS-AF, GCCS, MilCloud IaaS, CCE
- End-to-End Testing possible
- ITTR Node





Assets



- **Hardware**
 - 800+ Pieces of Physical Hardware
 - 1500+ Virtual Servers
 - 700+ TB Disk Storage
- **Personnel**
 - 50+ Cleared, Certified, Experienced Staff
- **Remote Access**
 - 600+ Developers Using VPN
 - 200+ VMWare View users
- **Enclave ATO Granted**
 - Allows PMOs to develop, integrate, and test without an ATO/IATT
 - Allows use of PII
- 45 customers
- Cleared for SECRET



CIE Zone Uses



- **Sandbox:** Prototypes, proofs-of-concept, early development, demonstrations, product evaluations (try before you buy)
- **Development:** Programming, deployments/installations, developer testing, build and test
- **Development PII:** All capabilities of the Development Zone, and allows the use of PII
- **Integration/Test:** Independent 3rd party installation, LDTO testing, system integration testing, functional testing; allows use of PII
- **Performance:** Bandwidth analysis, load/stress analysis, performance analysis
- **Patch Testing:** SDC, E2E, & DSCC (DoD Server Core Config)

C3I and Networks Directorate

Lead Developmental Test & Evaluation Organization (LDTO) Services



AFITC 2016
Mike Phillips, NH03, DAF
AFLCMC/HNIZ Test



T&E Statement



All Air Force Test & Evaluation (T&E) activities must be objective, unbiased, and free from outside influences to ensure the integrity of evaluation results. Air Force programs ensure objective Developmental Test & Evaluation (DT&E) by designating an LDMC that is separate from the program office. (AFI 99-103, Para 1.3.6)

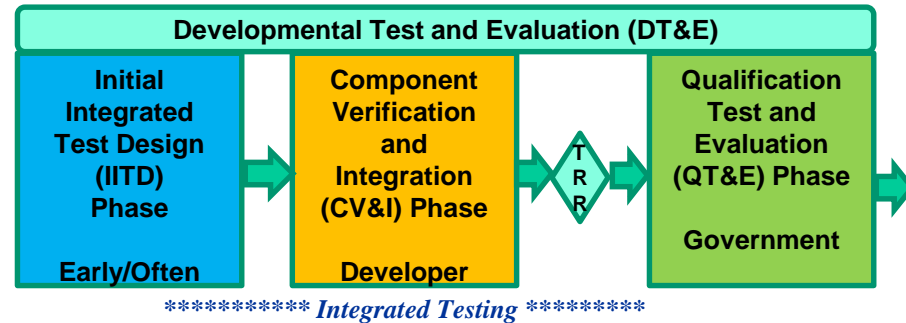


What We Do...

MISSION: Conduct and Integrate Functional, Technical, and Cyber Developmental Test and Evaluation activities throughout the lifecycle of Enterprise Information Technology Systems

VISION: Lead Integrator of Lifecycle Developmental Test and Evaluation activities accomplished by a cadre of innovative test professionals

PROCESS



KEY SERVICES

- DT&E consultant to Program Test Managers to ensure sound defensible integrated test strategies and processes
- Promote early testing and risk-based integrated testing techniques
- Increase synergies of integrated Developmental and Operational testing
- Accomplish innovative, realistic, cost-effective, credible, and net-centric test efforts
- Provide low risk, effective and suitable IT capabilities and products to the warfighter
- Problem identification, reporting and root cause analysis

PROVEN HISTORY

- IT Software Programs Supported:
 - 245+ Total Programs
 - 300+ Releases (Avg FY13-15)
 - 600+ Avg. QT&E PRs identified (FY13-15)
- Customers:
 - SAF/AQXI/FM/A1/A4/A7
 - AFMC/A4
 - AFLCMC – AFPEO BES, AFPEO C3I&N
 - Non-AF: DISA, NSA, DHA/SG6
- Supporting over 500,000 users DoD-wide



LDTO Transition AFLCMC/HNIZ to ATFC



- ◆ **AFMC IT Test Range (ITTR) Executive Council Approved Transition from AFLCMC/HNIZ to AFTC (24 Aug 2015)**
 - **Underlying Assumptions to avoid:**
 - No increased cost to current HNIZ-Test customers
 - No significant workload increases to HNIZ-Test business and test processes
 - Little cost increase to AFTC prior to FY18
 - No significant time delays in contractual actions
 - **Establish first 46TS Operating Location (46TS/OL-A)**
 - **Target IOC 1 Oct 2016; FOC 1 Oct 2017**
- **New Programs: AFTC LDTO / 46TS/OL-A ETO**
- **46TS/OL-A able to support all PEOs and non-PEO AIS/DBS**

46TS OL-A Stand-up (IOC) 1 Oct 2016

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Commoditized Infrastructure Branch Operations, Security & Outreach



**Randy Driskell, NH-03, DAF
AFLCMC/HNII**

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Operation and Outreach

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Platform Management

- DISA DECC hosting
- DISA vs AF Hardware
- Hardware Refresh

Certificate/Account Management

- PKI Server/application certificate management
- Portal and Privileged Account management

Release Management

- Preproduction Installation verification
- Security validation testing
- Functional validation testing

Helpdesk Management

- Level II - 24/7 support
- Level III – Reach back to vendors and developers

Incident Management

- Alerts from DISAs
- Alerts from Level I Helpdesk



Security



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Accreditation

- NIPR
- SIPR

Continuous Monitoring

- Changes reviewed for security impact
- Increased level of scanning and enhanced visibility

DIACAP to RMF

- Cloud team using implementing RMF
- GCSS-AF team initiating transition



COTS Technical Refresh Outlook



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Operating Systems

- Windows 2003
- RHEL with migration of supported capabilities
 - LDAPs
 - Applications Servers & Services
 - Databases
 - DB access tools
 - Management tools
 - Deployment tools
 - Message Mediation Metrics tool

Security Tier Products

- IBM Security Access Management
- IBM Security Identity Governance and Intelligence (IGI)



Questions