

Headquarters U.S. Air Force

Integrity - Service - Excellence

Cyberspace Operations: HAF Cyber Matrix and Force Development



**Maj Gen Earl Matthews
HAF/A3C/A6C
27 June 2012**

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HAF Cyber Matrix Background

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- **Jul 2011: HAF Mgt Structure Review & SSG Subgroup analysis**
- **Oct 2011: A3/5 & CIO A6 asked SSG Subgroup to address:**
 - **Span of control**
 - **Clarity of C2**
 - **Treating cyber like air & space**
 - **“Operationalizing” cyber**
 - **Cyber leader development**
 - **Prevent CIO A6/cyber gaps**
 - **Alignment w/external partners**
- **1 Mar 2012: SSG endorsed CIO A6 and A3/5 Cyber “Matrix”**
- **5 Jun 2012: CIO A6 and A3/5 signed Program Guidance Letter**



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Why the Matrix?

- **Leverages synergy between CIO and Cyber/NetOps**
- **Enhances operational focus of CIO A6 via matrix to A3/5**
- **Reinforces CIO A6 role in synthesizing all aspects of AF enterprise architecture with AQ, A3/5, and other key stakeholders**
- **Single integration point for all HAF cyber activities**
- **We were already operating this way informally:**
 - **Cyber Issues/PBR Team**
 - **DoD IT Effectiveness/Joint Information Environment**
 - **HAC-D/SAC-D Cyber Investment Brief / Prep**



Cyberspace Operations Directorate

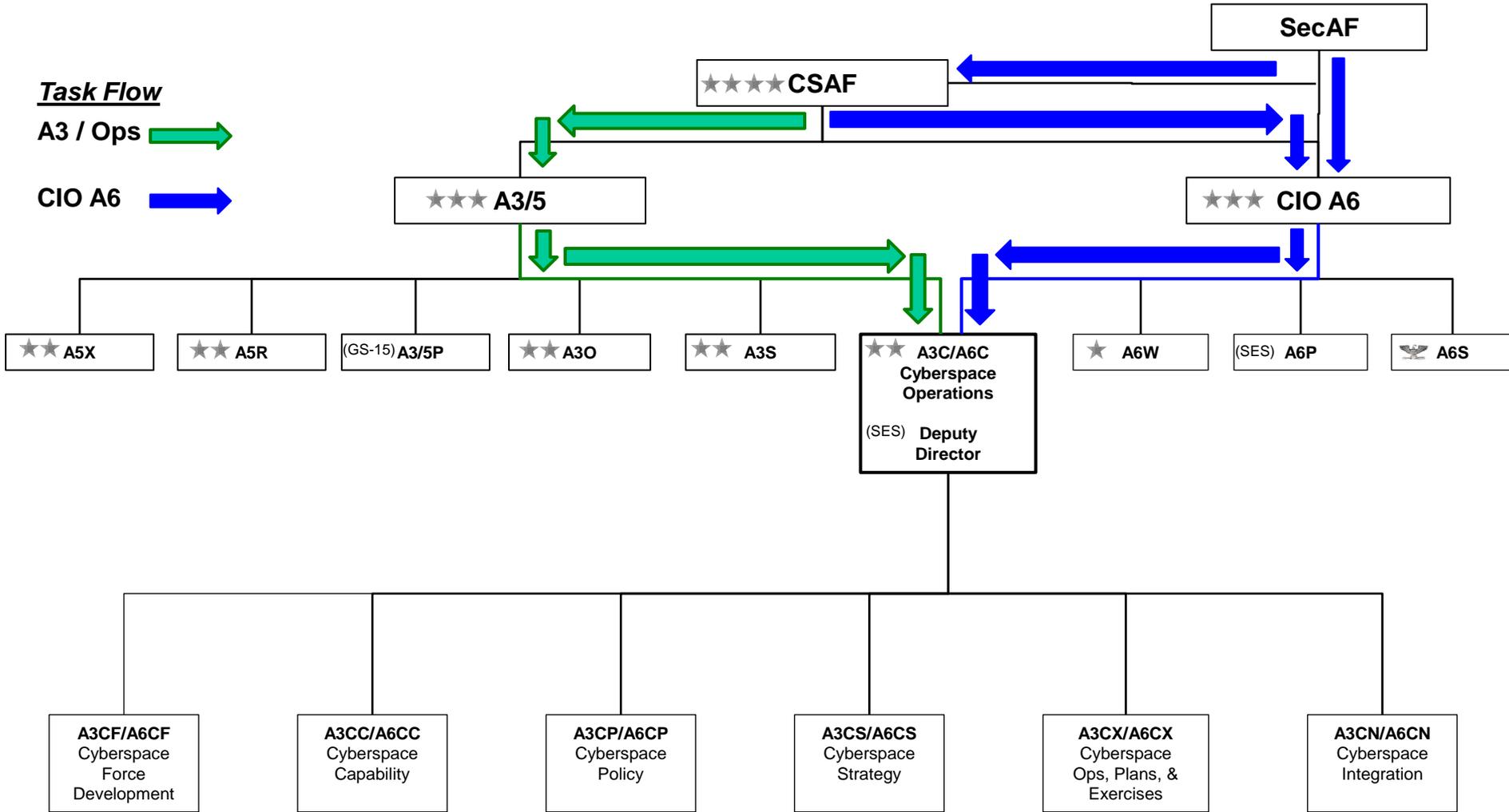
A3C/A6C

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Task Flow

A3 / Ops

CIO A6





Force Development Overview

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- **Cyberspace Workforce Transformation**
- **Civilian Force Development**
- **Enlisted Force Development**
- **Officer Force Development**



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Cyberspace Domain & Career Field Management

AF OPERATIONS (AF/A3)

Space, Missile & C2

- 13B Functional Mgr
- 13S Functional Mgr

Intelligence

- 14NX Functional Mgr
- 1NX Functional Mgr

Cyberspace Domain (AFSPC)

Cyberspace Ops & Spt

- 17DX Functional Manager
(DT – Chaired by AFSPC/A3)
- 3DX/1B4 Functional Manager
- Civilian C&I Occ Grps

Acquisition

- 61S Functional Mgr
- 62EX Functional Mgr

Other Functional Communities

- AF/A3: AF Operational Lead
- SAF/A6: 17D/3D/1B4 Functional Authority
- A3C/A6C: AF Office of Cyberspace Operations
- AFSPC: Core Function Lead Integrator (CFLI) for Cyberspace Superiority/Cyberspace Professional Functional Authority (CPFA)

* Drawing is NOT to scale.



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Operational Training Methodology

AFSC Awarding

Technical Knowledge & Skills

IQT

Tactical / Mission Knowledge & Skills

MQT

Mission System Knowledge & Skills

Unit Mission Certification

Assigned to Unit

JSUPT	F-15C FTU, AETC	Ops Unit	Ops Unit
SUNT/UCT (CSO)	EC-130H FTU, ACC	EC-130H FTU	Ops Unit
UST	Satellite Ops FTU, AETC	Ops Unit	Ops Unit
UCT (Cyber)	IO & Cyber FTU, AFSPC	Ops Unit or FTU	Ops Unit

AFSC Award

Basic Cyber Trained (BCT)

Basic Mission Capable (BMC)

Combat Mission Ready (CMR)

Institute a Systematic Approach to Cyber Training



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Cyberspace AFSCs for Total Force

Cyber Space Operations (17D)	
17DXA	Cyberspace Defense
17DXB	Cyberspace Control

Cyberspace Operations (3D0)	
3D0X1	Knowledge Operations Mgt
3D0X2	Cyber Systems Operations
3D0X3	Cyber Surety
3D0X4	Computer Systems Programming

Cyberspace (1B)	
1B4X1	Cyberspace Defense Operations

Postal (8M)	
8M000	Postal (Special Duty Identifier)

Cyberspace Systems (3D1)	
3D1X1	Client Systems
3D1X2	Cyber Transport Systems
3D1X3	RF Transmission Systems
3D1X4	Spectrum Operations
3D1X5	Ground Radar Systems
3D1X6	Airfield Systems
3D1X7	Cable and Antenna Systems

Cyberspace Operations & Support				
	AD	ANG	AFR	TOTAL
Officer	2,865	819	411	4,095
Enlisted	25,822	11,115	3,800	40,737
Civilian	18,996			18,996
TOTAL	47,683	11,934	4,211	63,828

As of: May 2012



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Civilian Management



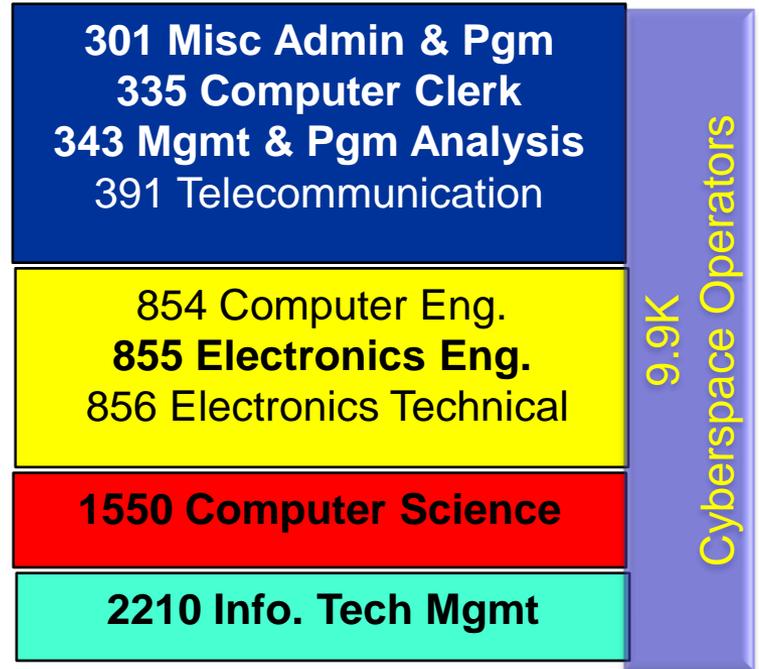
What Comprises Comm & Info?

“Core” Cyber Occupational Groups/Series

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Core Cyberspace Occ. Series

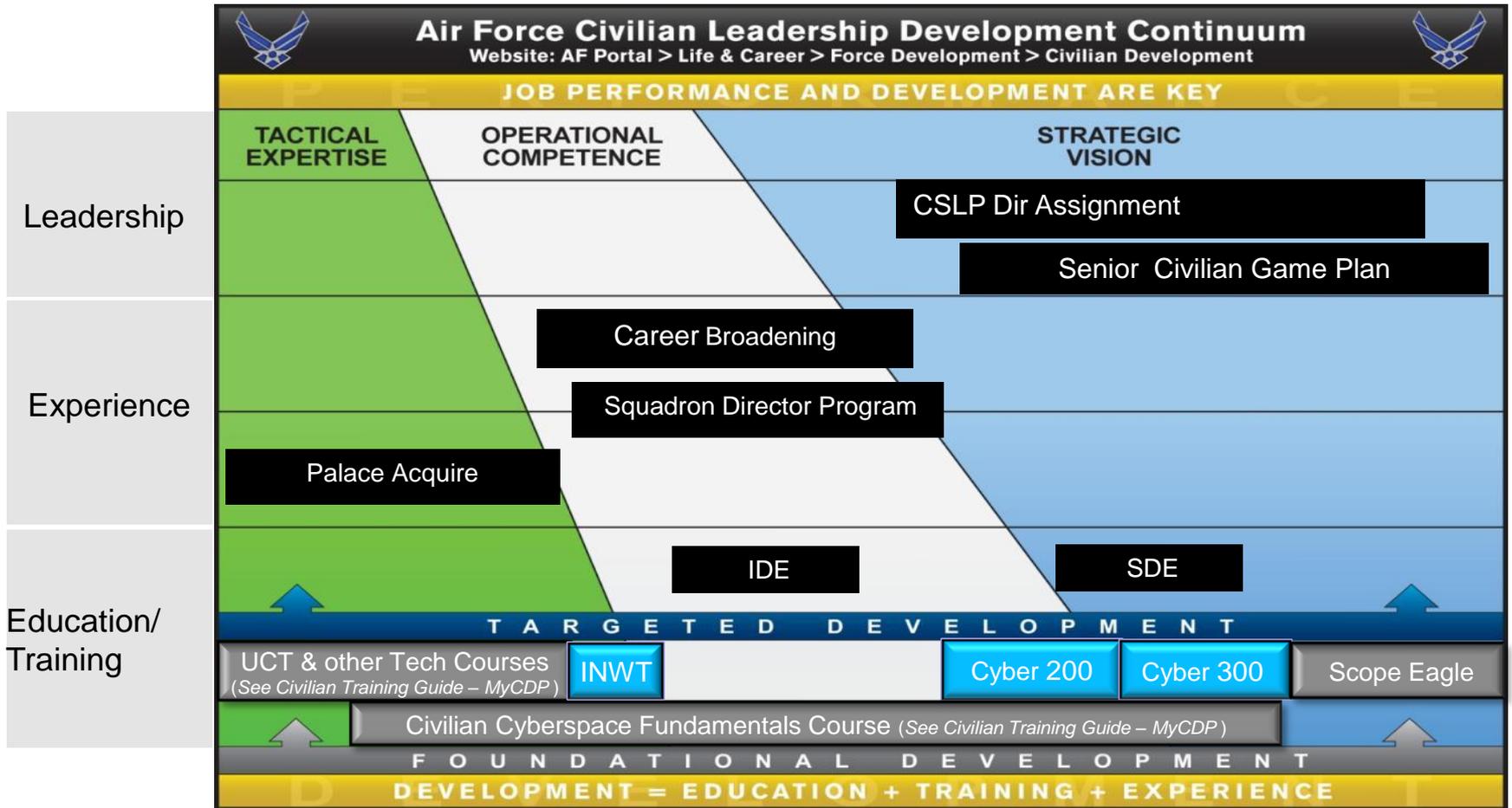


As of May 12



C&I Civilian Leadership Development Continuum

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MyCDP Link: <https://www.my.af.mil/afpc2w20/MYXDP/userpages/news.aspx>

List Server Mbrship: Send a blank e-mail to lyris@afplist.afpc.randolph.af.mil

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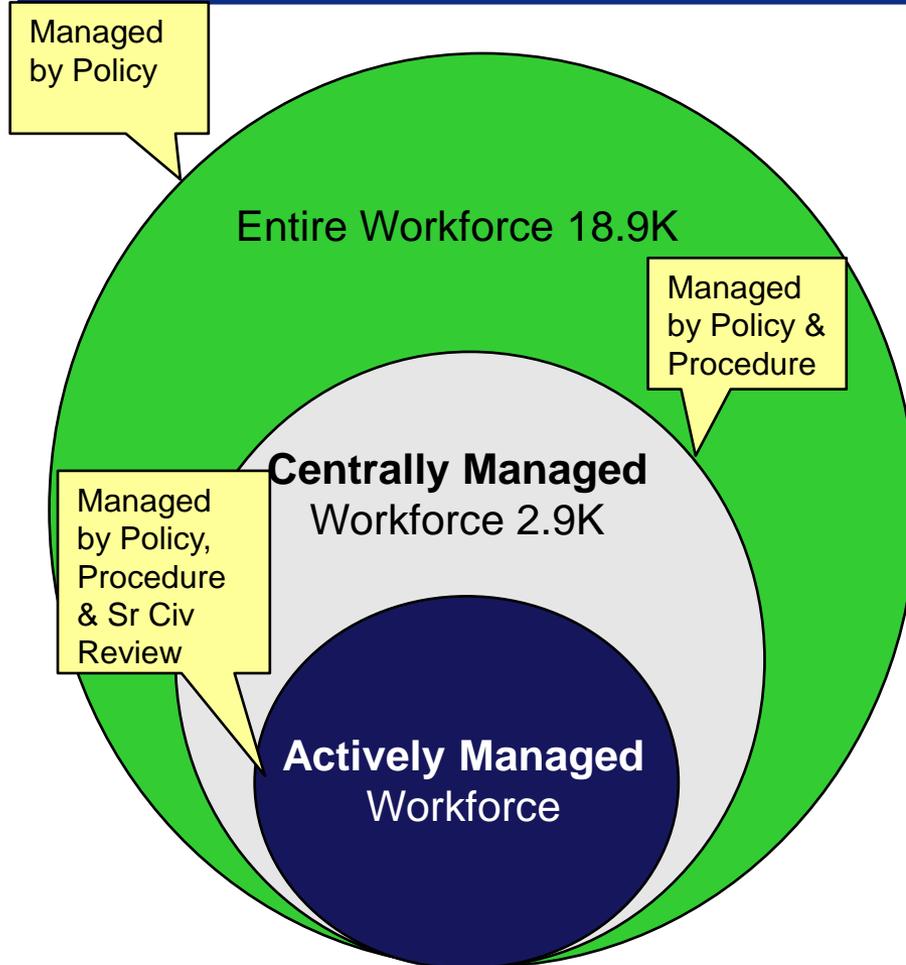
AFSPC Courses

AETC Courses



Career Diversity Through Assignments

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- **Entire Workforce** is managed by policy through Civilian Advisory Panel / Development Team strategic oversight
- **Centrally Managed** Workforce positions
 - Reviewed by Career Field Team
 - PCS costs centrally funded by AF
 - Eligible for tuition assistance
- **Actively Managed** Workforce positions are key C&I Cyber leader positions
 - Requires “3-plus 1” year rotation
 - Partnering with hiring officials to deliberately position HPCs
 - Facilitates key leader succession planning

Proactive Position Mgt + Defined Process = Enhanced Dev Opportunities



Talent Management Board Pilot

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- **3-Box Scoring:** Each candidate discussed by the Panel then individually scored
 - Score determines candidate placement in the “3-Box”
- **“Ready Factor”:** Ready to move based on time in position
- **Slating:** Candidates slated successively based on score, “ready” factor timing and development vector. Slated candidate names are provided to the hiring official for position fill.

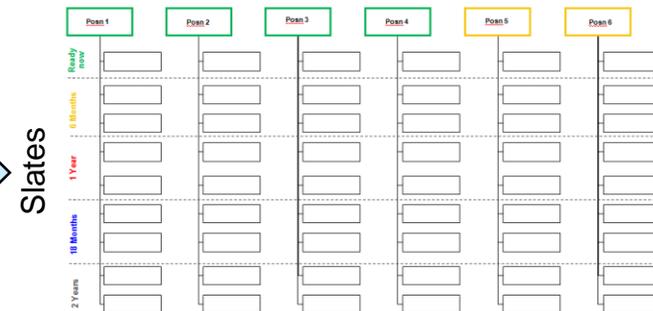
3-Box



“Ready” Factor



Key Leader Positions





Civilian CFM Focus Areas

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- **Year of Cyber Civilian: 4 Pillars starting July 2012**
 - **Education & Training**
 - **Mentorship**
 - **Force Renewal & Transformation**
 - **Strategic Communications**
- **Refine/Document Talent Management Process**
- **Standard Core Docs**
- **Outplacement**



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Enlisted Management



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Force Development: 1B4X1 AFSC Standup

- Cyberspace is rapidly growing as an operational domain
- Enlisted Cyber Ops/Defense specialty created in November 2010
 - Recruit, Train, Retain
 - Foster Ops culture
- Retrain-in only AFSC
 - 6- to 18-months training
 - Direct interaction with 17D officers
- Requirement will continue to grow
 - +30% in past 6 months

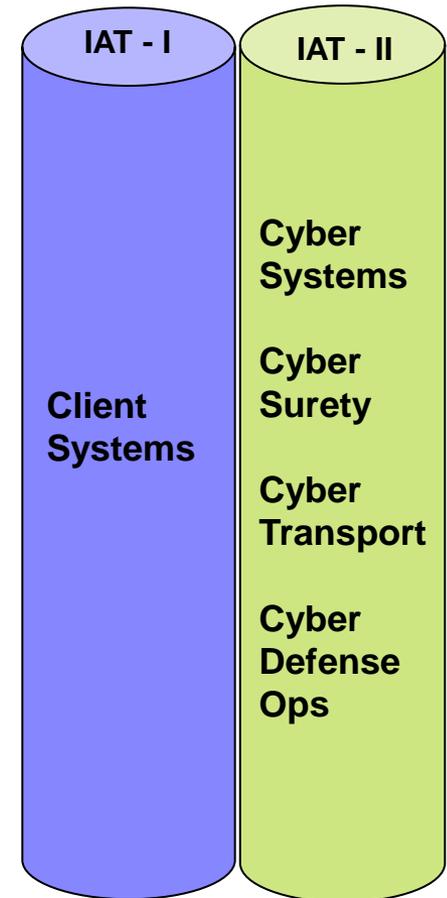




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Force Development: DoD 8570 Certification

- Trains/certifies key personnel in Info Assurance; requirement currently determined by position
- All Tech Training Grads leave with certification
 - Client Systems – A+
 - Cyber Systems – Security +
 - Cyber Surety – Security +
 - Cyber Transport – Security +
 - Cyber Defense Ops – Security +
- Moving toward certification as AFSC requirement
 - Instilling IA mindset across entire workforce
- Force development will continue to evolve with the coming DoD 8140 requirements





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Force Development: Theater Deployable Comm

- Provides Mobile Comm anywhere in the world with little or no notice
- Developed FTD at Robins AFB in 2010
 - Four courses meet operational needs:
 - Network Control Center – Deployed
 - Radio Frequency Transmissions
 - Cyber Transport Infrastructure
 - Cyber Transport Voice
 - Capstone Field Training Exercise
- Establishing FTD at Savannah CRTC
 - Tech training graduates to go there prior to arrival at first duty station
 - IOC - FTD stand-up 1 Jul 12
 - FOC – First classes Jan 13

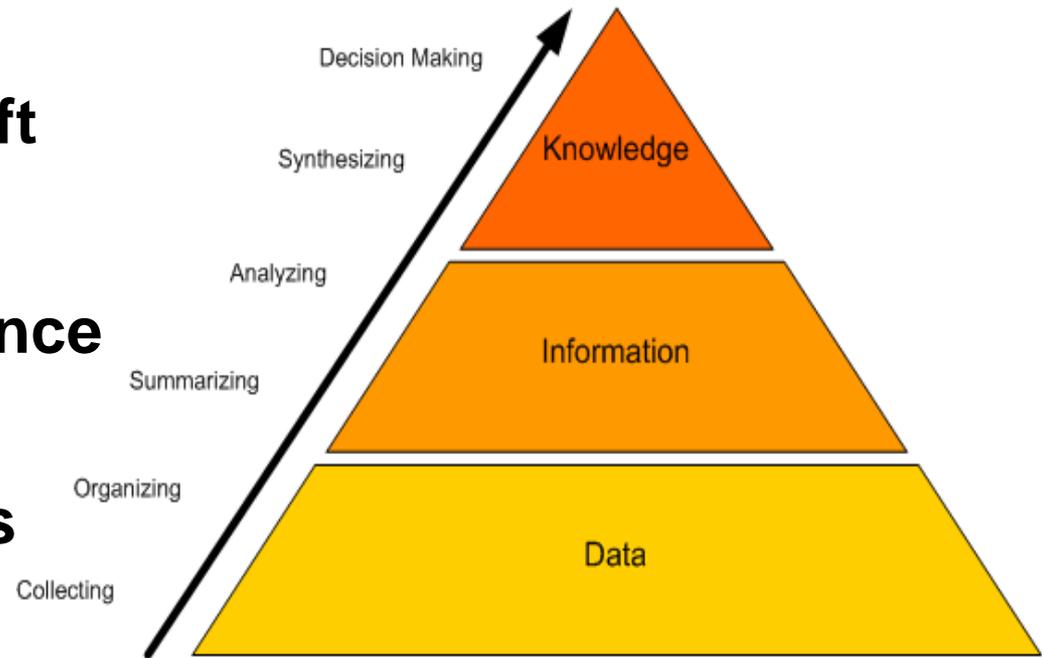




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Force Development: Knowledge Operations

- **Changing Information Managers from Admin to KO**
 - Leverage IT to meet mission data requirements
 - Fix 'digital landfills' for more efficient, secure data
- **Big Challenges**
 - Cultural Support Shift
 - Executive Support
- **Capitalizing on Experience**
 - Tacit Information
 - Deployment Lessons
 - Deliberate Use of IT





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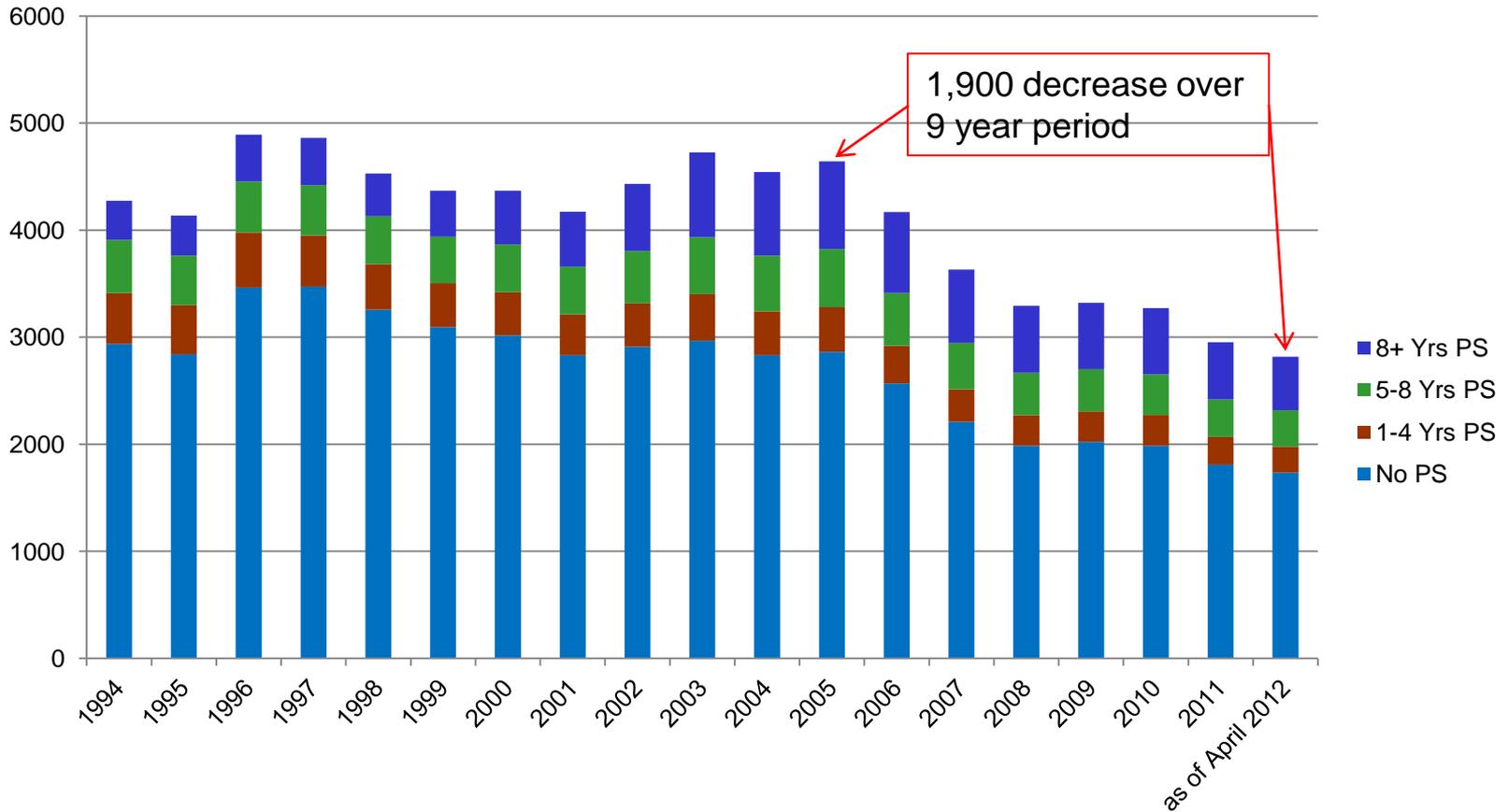
Officer Management



17D/33S Inventory History

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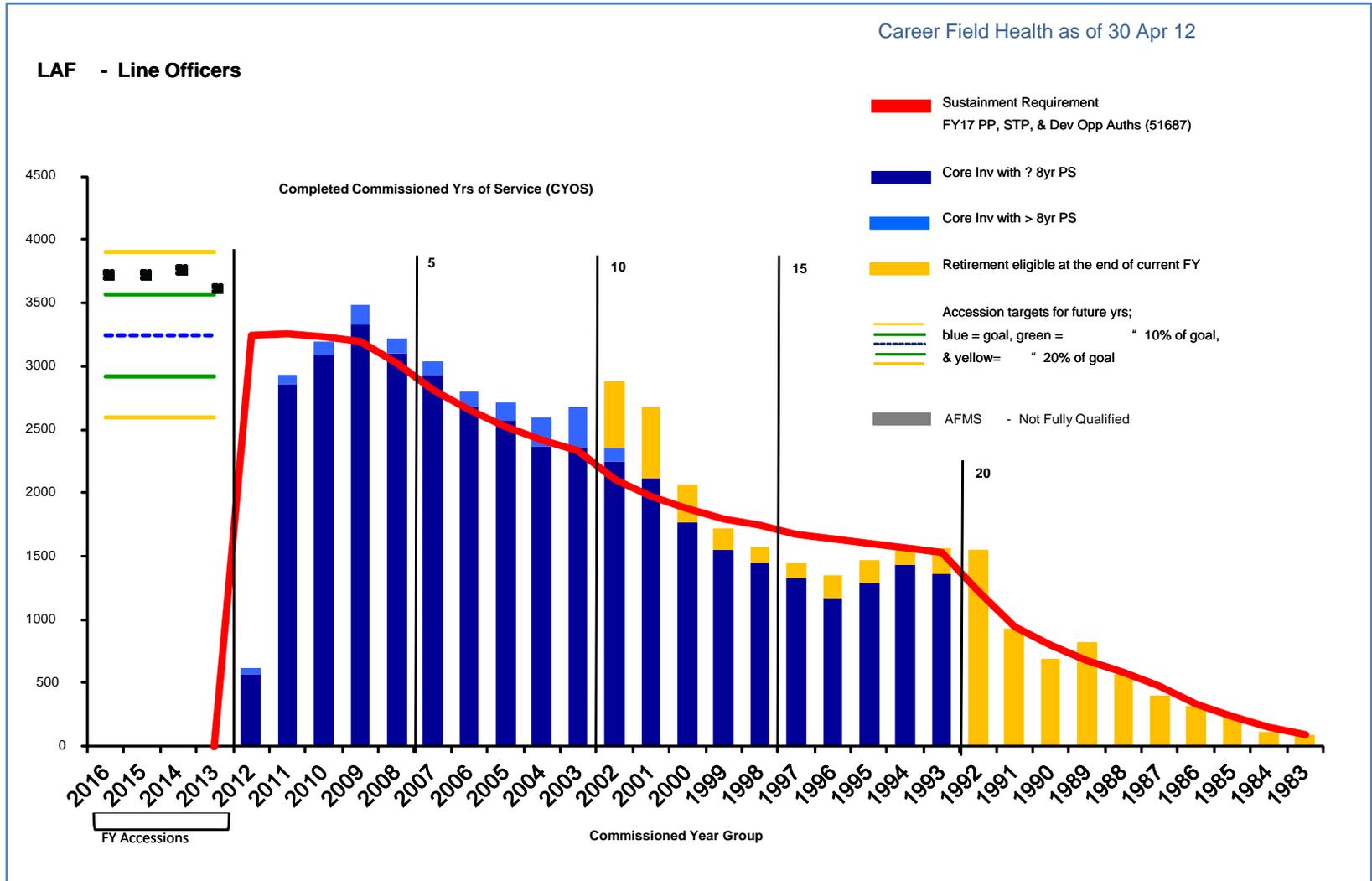
17D/33S manpower inventory over 18 years
Lieutenant Colonel to Second Lieutenant





LAF - Line Officers

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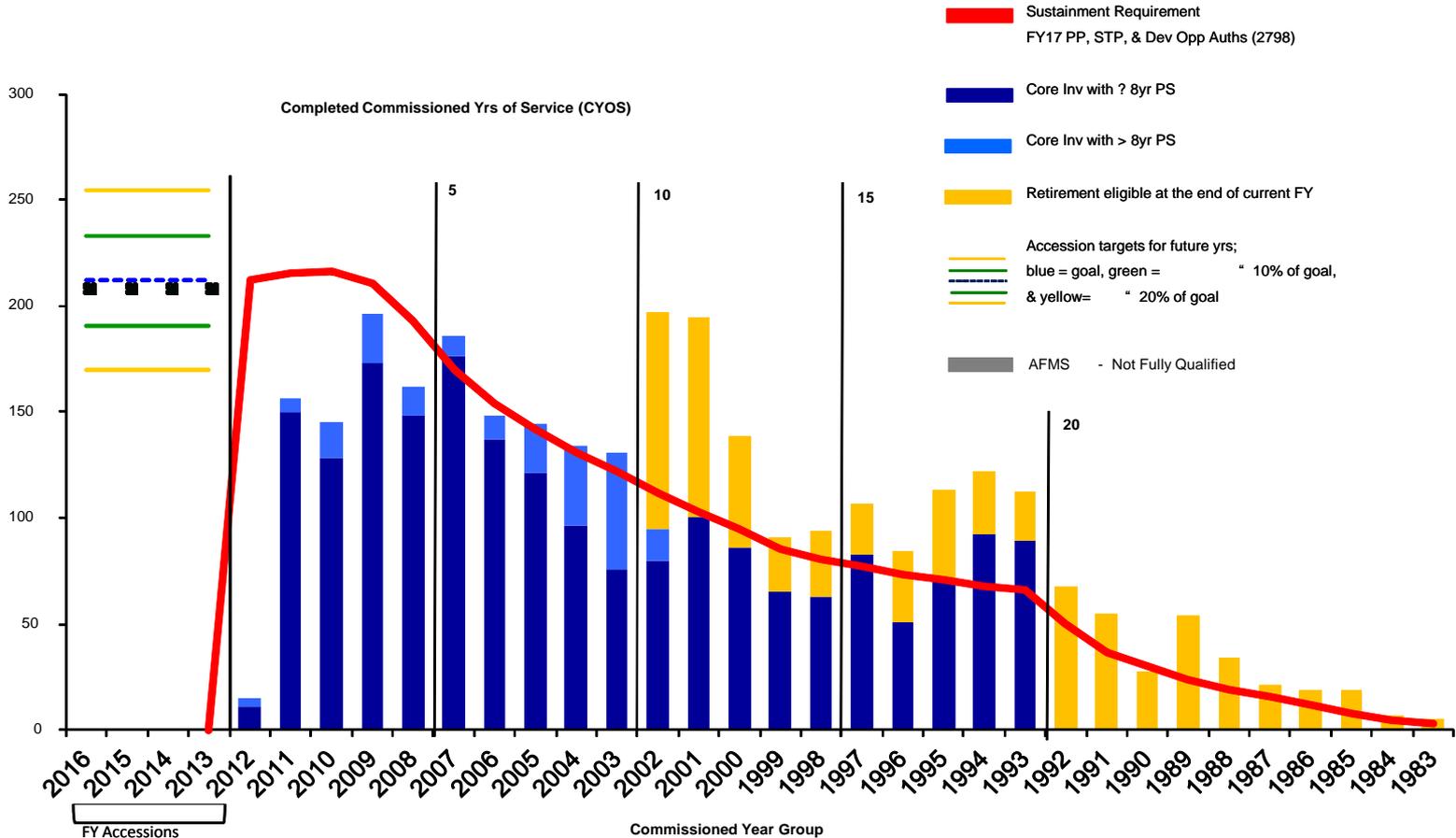


17D - Cyberspace Operations

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Career Field Health as of 30 Apr 12

17D - Cyberspace Operations





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17D CFM Focus Areas

- **Cyberspace Integration Group (CIG) Efforts**
- **Joint Undergraduate Cyberspace Training (UCT)**
- **Cyberspace Advisory Panel**
- **Career Field Entry Requirements**
- **Career Field Education and Training Plan (CFETP)
Development**



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Questions





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Backup Slides

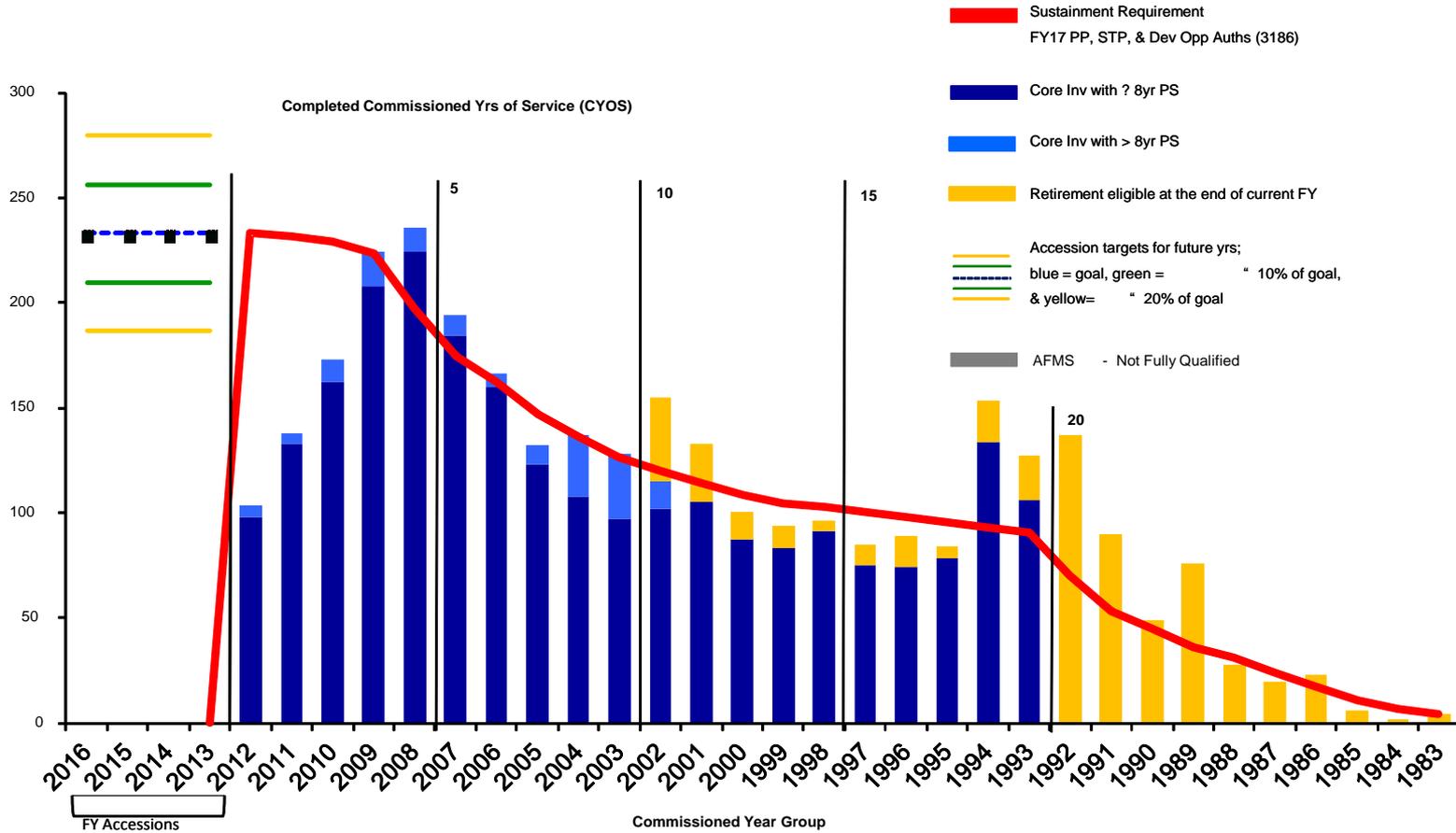


13S - Space and Missile

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Career Field Health as of 31 May 12

13S - Space and Missile



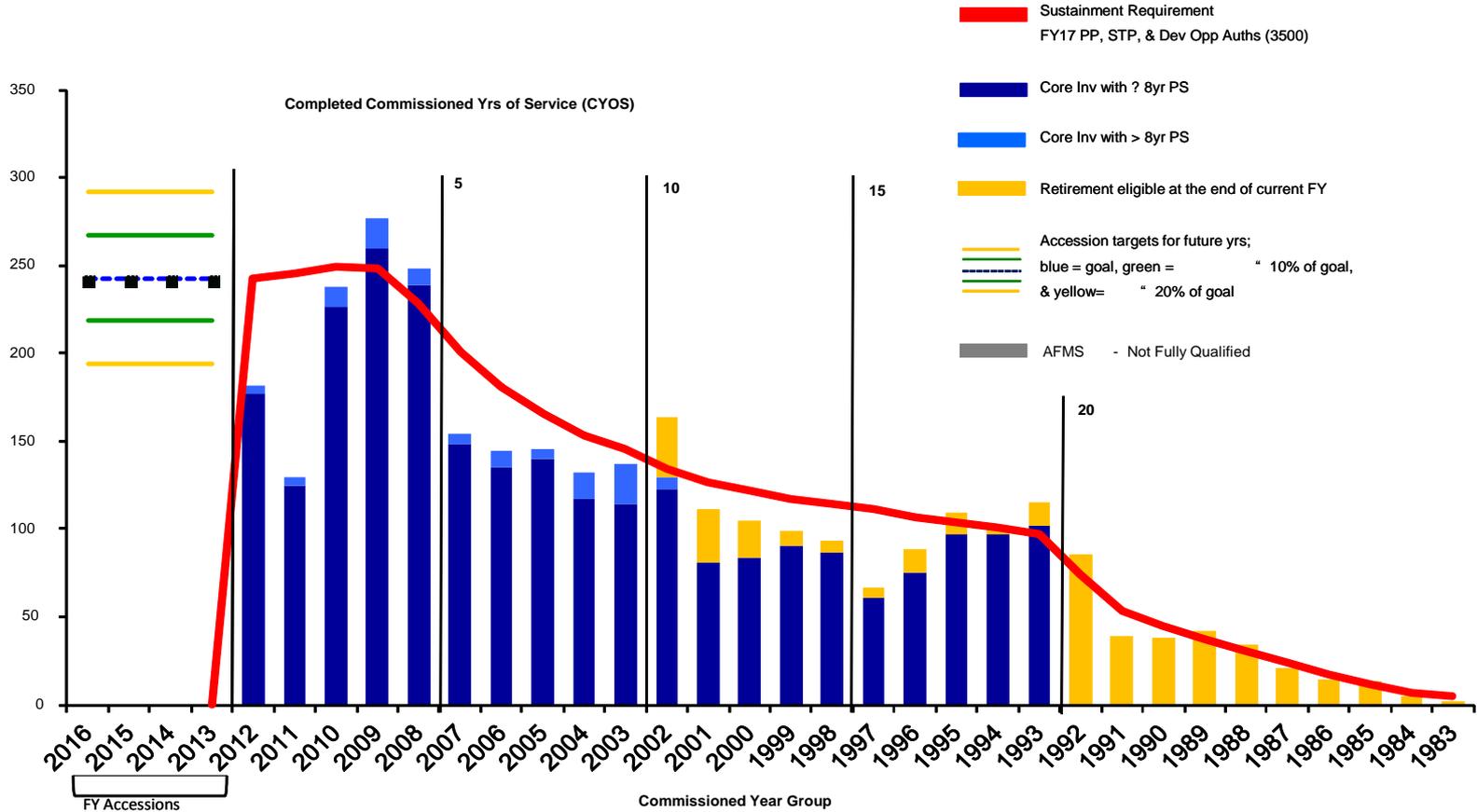


14N - Intelligence

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Career Field Health as of 31 May 12

14N - Intelligence





Air Force Civilian Leadership Development Continuum



Learn More: [Air Force Portal](#) > [Life & Career](#) > [My Development Plan \(MyDP\)](#)

JOB PERFORMANCE AND DEVELOPMENT ARE KEY

TACTICAL EXPERTISE

OPERATIONAL COMPETENCE

STRATEGIC VISION

DEVELOP LEVEL

Defense Civilian Emerging Leader Program (DCELP)

IDE (Residence)

SDE (Residence)

Civilian Strategic Leader Program (CSLP)

Strategic Leadership Education III
Education II
Education I

AF-LEVEL BOARD

Career Broadening (Other Functional, Joint, Other Agencies)

DEVELOP TEAM

OPM/AFPC Leadership Training

Civilian Acculturation Leadership Training (CALT)

CFM / CFT

SOS (Residence)

ACSC DL Masters

Degree Programs

MAJCOM / Base Seminars

LOCAL / MAJCOM

USAF Supervisor's Course
Civilian Personnel Management Course | Military Personnel Management Course

T A R G E T E D D E V E L O P M E N T

SOS (Non-Residence)

ACSC (Non-Residence)

AWC (Non-Residence)

INDIVIDUAL

Continuous Self-Development (e.g., Supervisors' Resource Center, Skillsoft)

New Employee Orientation (NEO)

F O U N D A T I O N A L D E V E L O P M E N T

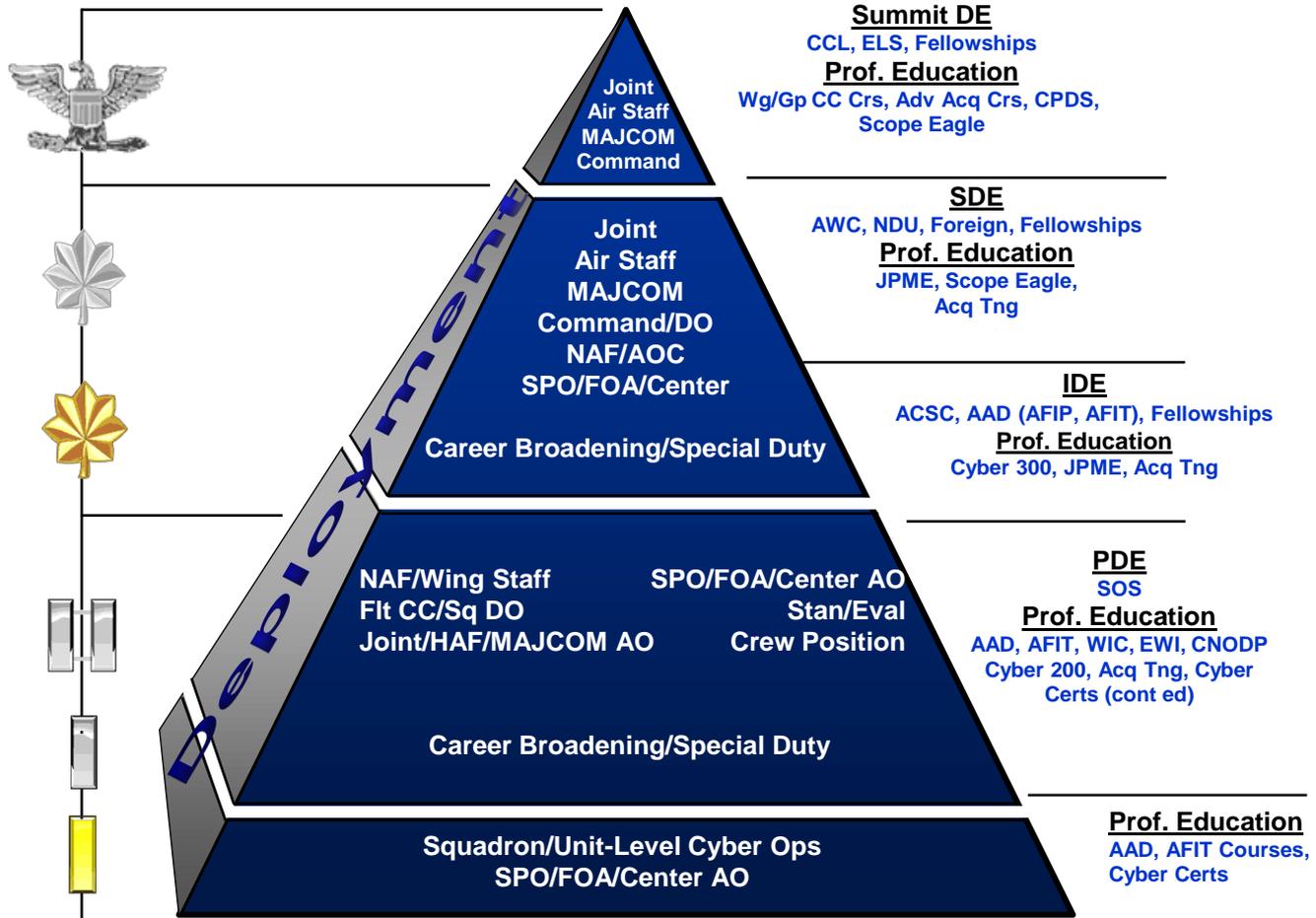
DEVELOPMENT = EDUCATION + TRAINING + EXPERIENCE

S E L E C T I O N A U T H O R I T Y



17D – Cyberspace Operations

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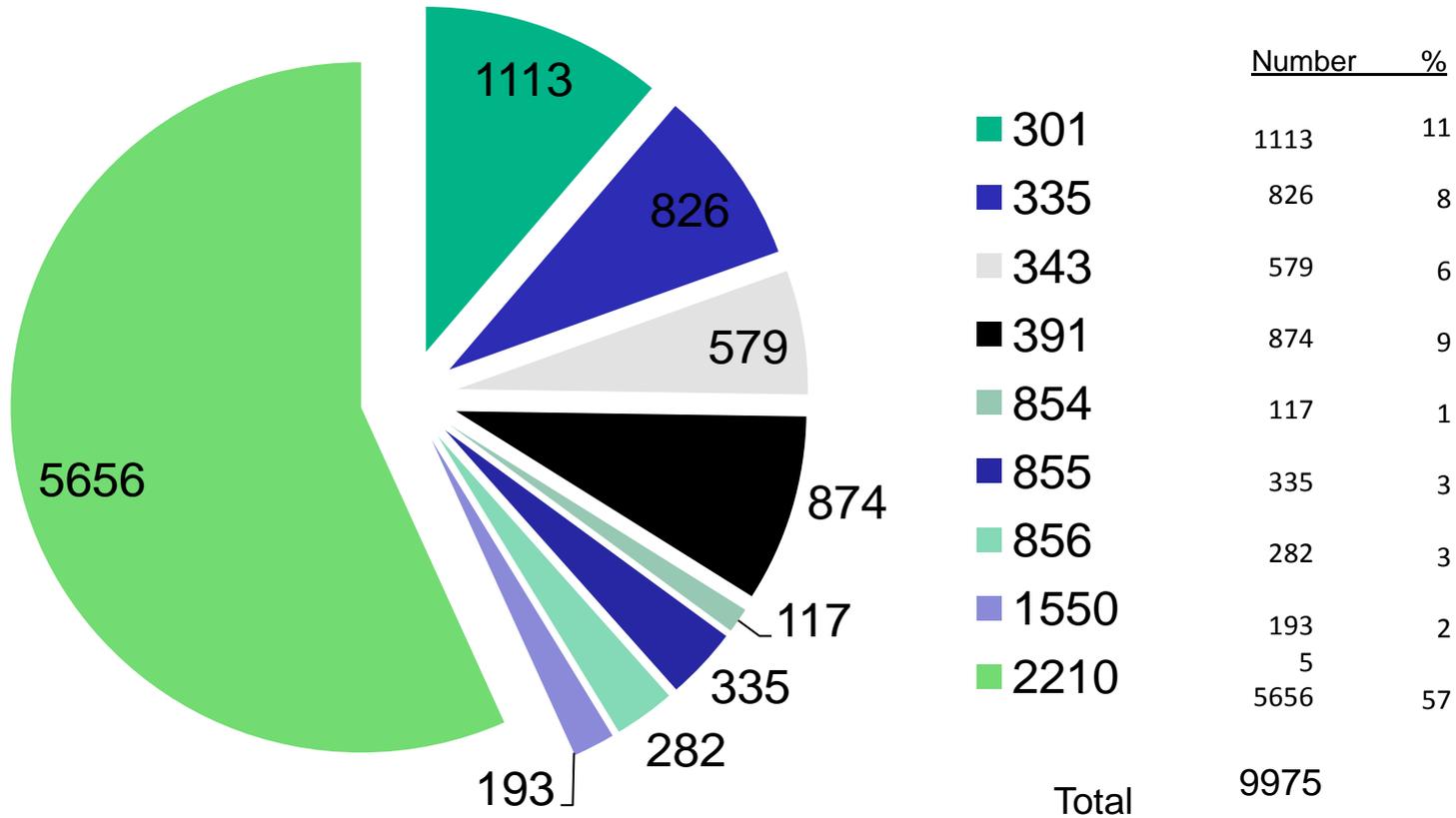




What Comprises Cyber?

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Core Cyberspace Occ. Series



As of May 12



Strategy Functional Division

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- **Develop AF strategy and implementation plans, ensure synchronization of, and provide oversight and guidance (or represent AF perspectives/requirements/equities) for major strategy initiatives for cyberspace mission area**
 - **Joint Information Enterprise / IT Effectiveness / ITESR**
 - **FDCCI / AF Data Center Consolidation**
 - **AF Cyberspace Roadmap**
 - **Cloud Strategy**
 - **Foreign Engagement**
 - **OCO Capability Development Roadmap / Plan**
 - **Cyber Vision 2025**
 - **Synchronize AF strategy with CFLI CFMP**



Policy Functional Division

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- **Develop, coordinate, and manage AF policy (e.g. AFPD, AFI, AFMAN, AFGMs) for the cyberspace operations mission area in fulfillment of AF cyberspace strategy(ies). Integrate and synchronize AF cyberspace operations/warfare policy with AF cyberspace support policy. Coordinate with LeMay Center and AFSPC in the development and promulgation of AF cyberspace doctrine. Represent AF perspectives and equities on joint cyberspace policy and doctrine.**
 - **Offensive Cyberspace Operations**
 - **Defensive Cyberspace Operations**
 - **Cyberspace Support (establish / extend / operate / maintain)**
 - **Includes DoD GIG Operations / NetOps**
 - **Synchronize with Force Development policy**



Capability Functional Division

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- **Provide oversight, and in coordination with AFSPC, SAF/AQ, and AFMC/ESC, advise, participate, and maintain SA on the planning, design, procurement, development, test, and implementation of cyberspace operations capabilities in fulfillment of AF cyberspace strategy(ies) and policy. Validate requirements for cyberspace operations capabilities. Represent AF perspectives and equities with joint/external bodies on cyberspace operation capabilities.**
 - **Developmental documentation coord/review (ICD, AoA, etc.)**
 - **SA on capability (from procurement to deployment)**
 - **Capability working group participation**
 - **SAP/STO capabilities**



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Force Development Functional Division

- **Provide oversight and guidance for personnel development, career field management, and training of AF cyberspace career fields (officers, enlisted, and civilians)**
 - **AF & DoD advisory boards, panels, & working groups**
 - **Development Team**
 - **Talent Management**
 - **Career Field Progression**
 - **Grade / billet structure**
 - **CFETP & Cyber courses**



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Ops, Plans, & Exercises Functional Division

- **Advise and maintain SA on the planning and integration of AF cyberspace operations capabilities (OCO, DCO, DGO, CNE) within all COCOM plans.**
 - **Presentation of AF cyberspace forces**
 - **Cyberspace C2 constructs**
 - **GFMIG / Forces For**
- **Advise and maintain SA on current AF and Joint cyberspace operations activities.**
 - **Collect / consolidate / provide ops reports (OCO & DCO)**
 - **Trend analysis**
 - **Metrics / Measures of Effectiveness**
 - **624 OC / SAP/STO touch point for CSAF/SECAF inquiries**
 - **SORTS / Cyber Unit Readiness**



Integration Division

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- **Infrastructure / Services Branch**
 - **Expertise:** Physical underpinnings of the network; AFNet architecture, Enterprise Services, etc.
 - **Background:** DISA, Comm Sqs, A6 Staffs, etc.
- **Operate / Defend Branch**
 - **Expertise:** How we logically operate/C2 the mission--NetOps TTPs, NetOps C2, Cyber Defensive architectures/systems/TTPs, etc.
 - **Background:** 33 NWS, 26 NOS, JTF-GNO, INOSC, etc.
- **Information Assurance Branch**
 - **Expertise:** Passive defensive measures—techniques, capabilities, processes, policies; C&A of networks/systems, DAA, PKI, DIACAP, FISMA, etc.
 - **Background:** DISA, NSA, MAJCOM/A6S Staff (cyber surety), Comm Sqs
- **Offensive Cyber Operations Branch**
 - **Expertise:** Offensive capabilities, warfighting application/TTPs, integration w/other kinetic capabilities, etc.
 - **Background:** 91 NWS, 315 NWS, CNE Orgs, OCO Planner



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A3C/A6C Divisions

