J8 Resources J80 Strategic Capabilities J804 Science, Technology & Innovation (ST&I)





2016 USAFRICOM Posture Statement Highlights



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A Complex and Challenging Environment

- Population estimate of 1 billion (2010) with predicted growth to 1.6 billion by 2030... already struggling with wide-spread unemployment and disenfranchisement
- Many Africans have an understandable fear and distrust of non-African governments and security forces
- Criminal and terrorist networks exploit marginalized masses and take advantage of ungoverned and under governed areas
- Requirements \uparrow Resources \downarrow (FY14 \rightarrow FY15)
 - ▶ 68 \rightarrow 75 Joint Operations
 - ▶ 11 \rightarrow 12 Joint Exercises
 - \succ 363 → 400 Security Cooperation Activities





ROLE

Lead Command's S&T activities.

MISSION

• Lead, plan, coordinate and manage Command's support for and participation in S&T activities aligned to Command-validated S&T requirements.

VISION

 A world-class professional team that supports and leverages the resources of the DoD S&T enterprise to minimize the Command's capability gaps.

SERVICES (S&T activities)

- Sponsorship
- Endorsement
- Program Management
- Project Management
- Staffing

DoD Account	FY14 Enacted	FY15 Enacted	FY16 Enacted	FY15 → 16
RDT&E	63.5	64.0	70.0	9.4%
S&T	12.0	12.3	13.3	8.2%
6.1 BR	2.2	2.3	2.3	1.4%
6.2 AR	4.6	4.6	5.0	7.7%
6.3 ATD	5.2	5.3	5.9	11.5%
TOTAL	75.5	76.3	83.3	9.0%

FY16 Appropriation: \$83.3B, 202 line items, 126 labs, 9.0% increase year previous. DoD employs the largest amount of scientists and engineers (150K) in the world.*

* National Science Foundation (NSF) Science and Engineering Indicators 2014 Arlington, VA (NSB 14-01) | February 2014

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What are AFRICOM S&T Activities?

Currently, PROCESSES and PRODUCTS related to:

- S&T Integrated Priority List (STIPL), Requirements, Focus Areas
- S&T Demonstrations, Experiments and Capability Transitions
- S&T supporting Engagements, Exercises or Operations
- Joint Concept Development & Experimentation (JCD&E)
- Joint Capabilities Technology Demonstrations (JCTD)
- Advanced Technology Demonstration (ATD)
- Technical Assessment Panels (TAP)
- Technical Interchange Meeting (TIM)
- Coalition Warfare Program (CWP)
- Rapid Innovation Fund (RIF)
- Quick Reaction Test (QRT)
- Enabling Technology (ET)
- Defense Information Technical Center (DTIC) Reading Room
- Long-Range Research and Development Planning Program (LRRDPP)
- USTRANSCOM Joint Deployment & Distribution Enterprise (JDDE) Research, Development, Testing & Engineering (RDT&E) Calls
- Industry, Government and University S&T DV Visits / Office Calls
- MOA-designated LNO responsibilities
- Quick Reaction Capability Task Force (QRC-TF) SVTC (monthly)
- ASD(R&E) Combatant Command (CCMD) S&T Committee SVTC (quarterly)
- Joint Concepts Working Group (JCWG) SVTC (bi-monthly)
- Defense, Diplomacy, Development (D3) Innovation Summit Challenge
- United Nations (UN) Peacekeeping Operations (PKO) Technology Sub-Working Group
- Joint Concepts (JC) General Officer Steering Committee (GOSC) SVTC (semi-annual)
- United States South Africa Acquisition & Technology Working Group (ATWG) (annual)
- Defense Security Enterprise CCMD Information Sharing All Threat Indicator and Warning Stakeholder Group











USAFRICOM ST&I Focus Areas



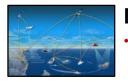
ISR

Long-Range / Long Endurance, Persistent Collection, Radio Frequency Direction Finding (RFDF), Fused Multi-Int Airborne / Full Motion Video (FMV), Light Detection and Ranging (LIDAR), Foliage Penetration (FOPEN), Coalition / Airborne / Autonomy-enabled Processing, Exploitation, Dissemination (PED), Machine Language Translation



IDENTITY ACTIVITIES:

Biometrics, Forensics, Documentation and Media Exploitation (DOMEX), Denial of Anonymity, Repository, Interoperability



MARITIME DOMAIN AWARENESS:

Beyond Line-of-Sight, Reporting, Sensor Interoperability, Automated Anomaly Detection, Common Maritime Picture (CMP)



PERSONNEL RECOVERY:

 Personnel Recovery / Combat Search and Rescue-enablers, Drone-assisted, Modeling & Simulation (M&S).



COMMUNICATIONS:

C4ISR for Multi-national / Coalition / Joint Operations, Expeditionary / Scalable "Blackberry to Joint Network Node"



COUNTER-IED:

Defeat the Device / Attack the Network / Train the Force-enablers



MEDICAL:

Disease Prevention, Immunization, Detection, Diagnosis, Treatment, Biosurveillance, Modeling, Informatics, Telemedicine, Remote / Austere Trauma Medicine



OPERATIONAL ENERGY:

Reduced Expeditionary Footprint, Alternative Energy, Waste-to-Energy Disposal, Water Purification, Energy Efficient Housing, Power Distribution, Force Protection



NON-LETHAL SYSTEMS:

Mobile Counter-Personnel (Sound, Light, Munition), Counter-Materiel (Vehicle, Vessel, Radio-Frequency), Active Denial



AFRICOM ST&I Process: from Requirements to Projects

Technology Requirements	Vignettes	Focus Areas	Projects	Projects Report
	Provide statement Provide statement <t< th=""><th></th><th></th><th>Functional and the second seco</th></t<>			Functional and the second seco
Characteristics of each Technology Requirement is captured on slide.	Multiple Technology Requirements may be illustrated within a Vignette to provide additional context.	Technology Requirements that share common attributes or application will bin within a Focus Area with a Directorate designated as OPR.	Cross-walk of Projects aligned to Tech Requirements, Focus Areas, IPL, Lines of Effort (LOE), Intermediate Military Objectives (IMOs) or other requirements.	Annually send a status report on projects by Focus Area to OPRs. Details who is doing what to reduce capability gaps.
Reduce our reliance on fossil fuels in the Base Operating Support (BOS) of Cooperative Security Locations (CSLs).	CSL X requires N diesel tanker truck deliveries a month; cost can be captured in \$, force protection, OPSEC, risk to mission, etc.	Operational Energy (J4)	List of Alternative Energy Projects related to solar, wind, geothermal, waste-to-energy, etc.	A status on alternative energy projects within DoD of interest to J4 allows for additional support or redirection.

Description

Example



Focus Areas, Key Take Away, POCs

- ISR, PR, C-IED, OE, IDRES, MDA, Comm, Medical, Non-Lethal.
- ST&I Office (ACJ804) manages USAFRICOM's <u>novel</u> <u>materiel</u> and <u>non-material</u> solution responsibilities.

• USAFRICOM S&T POCs:

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Questions?



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