Overview Brief
CCDC VISION AND MISSION

**VISION**
To be the scientific and technological foundation of the Future Force Modernization Enterprise through world-leading research, development, engineering and analysis.

**MISSION**
To provide the research, engineering, and analytical expertise to deliver capabilities that enable the Army to deter and, when necessary, decisively defeat any adversary now and in the future.
OUR LEADERSHIP

Director
Dr. Juanita Christensen (SES)

Chief of Staff
Mr. Steve Fisher

MILDEP
COL Eric Rannow

Scientific & Technical Positions (STs)

- **Group Leader / Flight Control Technology**
  - Dr. Mark Tischler

- **Optical Sciences**
  - Dr. Henry Everitt

- **Aviation Advanced Design**
  - Vacant

- **Radio Frequency Sensors**
  - Dr. Brian Smith

- **Protective Technologies**
  - Dr. Donna Joyce

Technology Development Directorate
Mr. Barry Pike (SES)

Systems Readiness Directorate
Mr. Keith D arrow (SES)

Software, Simulation, Systems Engineering and Integration Directorate
Dr. James Kirsch (SES)
OUR MISSION

Deliver collaborative and innovative aviation and missile capabilities for responsive and cost-effective research, development and life cycle engineering solutions.
BY THE NUMBERS

12,054
FY19 Strength

3,036
Civilian

23
Military

~8,995
Contractor

FY19 Funding
$3.8B

6%
Aviation S&T

7%
missile S&T

59%
Army

28%
Other

Core Competencies

Technical Domain:
• Active and Passive Air Defense Sensor Technology (S&T)
• Aerial Autonomy
• Aerospace and Aerodynamics
• Capabilities Engineering
• Materials and Structures
• Fuzing, Guidance, Controls and Seekers
• Propulsion, Explosives, Energetics, Warheads

Capabilities Engineering:
• Software Engineering
• Weapons Assurance
• Modeling and Sim Design, Dev, VV&A
• Configuration Management
• Engineering Prototype Design and Dev
• Maintenance, Life Cycle Cost Reduction, and Logistics Engineering
• Manufacturing Tech and Production Support
• Multidiscipline Acquisition and Project Engineering
• Quality Engineering and Management
• Reliability, Availability, and Maintainability
• Sustainment, Industrial Base, and Obsolescence
• Systems Engineering, Integration, and Interoperability
• Test and Evaluation
• Air Defense Radar (Reimbursable)
• Airworthiness
OUR PRIORITIES

#1: People
People are the Army’s greatest strength and its most important weapon system.

#2: Readiness
The Army must be ready to defeat any adversary, anywhere, whenever called upon, under any condition.

#3: Modernization
The Army must modernize to remain lethal and ready to fight tomorrow, against increasingly capable adversaries and near-peer competitors.

#4: Reform
The Army will improve the way we do business, including how we implement our top priorities, to make the Army more lethal, capable, and efficient.
FY19 TOTAL REVENUE ($3.8B)

- Vast majority: Aviation and Missile Work
- Army, $363M
- SOCOM, $13M
- Other PEO, $307M
- PEO M&S, $440M
- Army, $2.7B (72%)
- MDA, $395M
- Air Force, $257M
- Navy, $153M
- Marines, $16M
- Other DoD, $193M
- Other Fed Gov, $10M
- DARPA, $19M
- Non Govt, $3M
- Non-S&T RDTE, $45M
- Procurement Mission, $3M
- OMA Mission/OCO (CCDC), $45M
- AMCOM, $230M
- PEO AVN, $797M
S&T PRIORITIES ALIGNED WITH THE ARMY MODERNIZATION STRATEGY

ENGINEERING
Providing lifecycle engineering expertise to support fleet development and readiness across warfighting battlefield operating systems.

ANALYSIS
Conducting objective experimentation and systems analysis to support the equipping and sustaining of our Warfighters.

RESEARCH ISO FUTURE FORCE
Driving the discoveries and innovations which will be critical to realizing new capabilities for the Army of 2030 and beyond.

Supporting Army and Joint Readiness now and in the Future MDO Environment
TOP AVIATION S&T INITIATIVES

PLAT FORMS
- Structures
- Sustainment
- Concept Design & Assessment

MISSION SYSTEMS
- Survivability
- Avionics & Networks

VEHICLE MANAGEMENT & CONTROL AND ROTORS
- Rotors
- Vehicle Management & Control

MAJOR PROGRAM AREAS
- Joint Multi-Role Technology Demonstration
- Degraded Visual Environment – Mitigation
- Next Generation Tactical UAS Technology Demonstration

POWER
- Engines & Other Power Sources
- Drives

BASIC RESEARCH
- Computational Aeromechanics
- Experimental Aeromechanics

AUTONOMOUS AND UNMANNED SYSTEMS
Army Aviation is committed to maintaining vertical lift dominance with the development of critical combat systems enabling the joint force to operate dispersed over wide areas with the ability to *rapidly converge* in order to *penetrate* the multiple layers of *stand-off* employed by the threat, *dis-integrate* A2/AD systems, and *exploit* this advantage with enhanced Attack/Reconnaissance, Air Assault and MEDEVAC capabilities.

**FARA Capability Set 1**

**Future Attack Reconnaissance Aircraft:** Critical combat system needed to prevail in future wars by enabling Army Aviation to achieve a “leap-ahead” in lethality, survivability, and reach to find, fix, and finish our pacing threats.

**FUAS & AUAS**

**Future & Advanced Unmanned Aircraft Systems:** Advanced teaming FVL with next generation UAS delivering lethal and non-lethal air launched effects enables cross-domain fires to penetrate and dis-integrate enemy A2AD systems and exploit expanded maneuver to overmatch peer adversaries.

**FLRAA Capability Set 3**

**Future Long Range Assault Aircraft:** Essential to exploit the windows of opportunity created by FARA and advanced teaming with UAS/ALE with its increased speed and reach providing significantly more lethal and effective Air Assault and MEDEVAC capabilities on the future battlefield.

**MOSA**

**Modular Open Systems Architecture:** The government defined Modular Open System Approach will establish the digital backbone of FVL aircraft allowing for rapid and affordable integration of innovative avionics and mission equipment technologies into our platforms.
MISSILE S&T ALIGNMENT TO ARMY MODERNIZATION PRIORITIES

Long Range Precision Fires
Technologies for the development, integration and delivery of long range fires at the tactical, operational, and strategic echelons to restore overmatch, improve deterrence, and disrupt A2AD on a complex, contested and expanded battlefield.

Air & Missile Defense
Technologies for the development of mobile air defense systems that reduce the cost curve of missile defense, restore overmatch, survive volley-fire attacks, and operate within sophisticated A2AD and contested domains.

Next Generation Combat Vehicle
Technologies for active protection systems and enhanced lethal effects that will increase our ability to survive and win in the complex and densely urbanized terrain of an intensely lethal and distributed battlefield where all domains are continually contested.

Future Vertical Lift
Technologies for the development, integration, and delivery of aviation launched air-to-ground and air-to-air missile systems to restore overmatch within sophisticated A2AD and contested domains.

Engage First
Expand the Dome
On the Move
CCDC AVIATION & MISSILE CENTER
MISSILE S&T ALIGNED TO ARMY PRIORITIES
“Through teamwork, the U.S. Army will remain the most lethal, modern fighting force in the world.”

Ryan D. McCarthy, Secretary of the Army
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