Information on Aerospace Federally Funded Research and Development Center (FFRDC)

Founded
1960

Parent Organization/ Contractor
The Aerospace Corporation

Location
El Segundo, CA

Primary Sponsor
Assistant Secretary of the Air Force, Acquisition, Technology and Logistics

Executive Agent for the Primary Sponsor
Commander, Space Systems Command

Defense Work Sponsors Include:

- Department of the Air Force
- Department of the Army
- Department of the Navy
- National Reconnaissance Office
- Office of the Secretary of Defense

Current Contract Information

Contract, awarded sole-source

How Projects Are Placed on Contract: via an annual modification to the contract

Type: Cost-Plus-Fixed-Fee

Awarded: September 2018

Total Value: approximately $12 billion

Period of Performance: 1-year base, nine 1-year options (October 2018-September 2028)

Contracting Office: Space Systems Command, El Segundo, CA

Total Defense Projects by Fiscal Year (FY)	Staff Years of Technical Effort by FY	Defense Obligations by FY
FY2021: 201	**FY2021:** 1,520	**FY2021:** $604.9 million
FY2020: 207	**FY2020:** 1,532	**FY2020:** $566.9 million
FY2019: 209	**FY2019:** 1,518	**FY2019:** $562.6 million

Background

This is a systems engineering and integration center. Along with the performance of research and development in the fields of space vehicles, launch, ground systems, and other space systems, the Aerospace FFRDC provides the national security space community with scientific and engineering support to launch, space, and ground, and advisory services in general engineering, systems engineering, systems integration, and technical support.

Core Competencies

(i.e., areas of expertise or specialization)

- Launch readiness verification
- Systems of systems engineering
- Systems development and acquisition
- Process implementation
- Technology application

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278

Information on CMU SEI Federally Funded Research and Development Center (FFRDC)

Founded
1984

Parent Organization/ Contractor
Carnegie Mellon University

Location
Pittsburgh, PA

Primary Sponsor
Deputy Chief Technology Officer for Science and Technology

Executive Agent for the Primary Sponsor
Director for Science and Technology Foundations

Current Contract Information

Indefinite-Delivery / Indefinite-Quantity contract, awarded sole-source

How Projects Are Placed on Contract: via task orders issued annually

Type: Cost-Reimbursement, No Fee

Awarded: July 2015

Total Value: approximately $1.7 billion

Period of Performance: 5-year base, 5-year option (July 2015-June 2025)

Contracting Office: Air Force Life Cycle Management Center, Strategic Services Division, Hanscom Air Force Base, MA

Total Defense Projects by Fiscal Year (FY)

FY2021: 195
FY2020: 218
FY2019: 222

Staff Years of Technical Effort by FY

FY2021: 203
FY2020: 206
FY2019: 199

Defense Obligations by FY

FY2021: $83.7 million
FY2020: $83.7 million
FY2019: $76.3 million

Defense Work Sponsors Include:

- Defense Intelligence Agencies
- Department of the Air Force
- Department of the Army
- Department of the Navy
- Office of the Secretary of Defense

Background

This is a research and development laboratory. The mission of the CMU SEI FFRDC is to help DOD set the requirements for and design, analyze, develop, integrate, verify, validate, and sustain software systems.

Core Competencies

(i.e., areas of expertise or specialization)

- Software engineering
- Systems engineering for software systems
- Cybersecurity and software assurance
- Computer science
- Mathematics
- Measurement of software systems
- Acquisition and lifecycle management of software systems

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278

Information on CNA Federally Funded Research and Development Center (FFRDC)

Founded
1962

Parent Organization/ Contractor
The CNA Corporation

Location
Arlington, VA

Primary Sponsor
Assistant Secretary of the Navy, Research, Development, and Acquisition

Executive Agent for the Primary Sponsor
Deputy Assistant Secretary of the Navy (Acquisition Policy & Budget)

Defense Work Sponsors Include:

- Defense Information Systems Agency
- Defense Threat Reduction Agency
- Department of the Air Force
- Department of the Army
- Department of the Navy (including Marine Corps)
- Joint Staff
- National Geospatial-Intelligence Agency
- Office of the Secretary of Defense
- Operational Test and Evaluation

Current Contract Information

Indefinite-Delivery / Indefinite-Quantity contract, awarded sole-source

How Projects Are Placed on Contract: via task or delivery orders issued by project

Type: Cost-Plus-Fixed-Fee

Awarded: December 2021

Total Value: approximately $1.2 billion

Period of Performance: 5-year base, five 1-year options (January 2022-December 2031)

Contracting Office: Office of Naval Research, Arlington, VA

Total Defense Projects by Fiscal Year (FY)

FY2021: 221
FY2020: 280
FY2019: 303

Staff Years of Technical Effort by FY

FY2021: 255
FY2020: 255
FY2019: 257

Defense Obligations by FY

FY2021: $95.6 million
FY2020: $95.6 million
FY2019: $95.3 million

Background

This is a study and analysis center. The primary function of the CNA FFRDC is to serve as a strategic, long-term analytic resource to the Department of the Navy. In 2020, the Navy established the FFRDC Program Management Office to centrally manage oversight responsibilities for the CNA FFRDC.

Core Competencies

(i.e., areas of expertise or specialization)

- Operations
- Policies, strategies, and doctrine
- System requirements and acquisition
- Resources
- Program planning

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278

Information on IDA Center for Communications and Computing Federally Funded Research and Development Center (FFRDC)

Founded
1958

Parent Organization/ Contractor
Institute for Defense Analyses

Location
Princeton, NJ; La Jolla, CA; and Bowie, MD

Primary Sponsor
National Security Agency (NSA), Research Directorate

Executive Agent for the Primary Sponsor
Director of Business Management and Acquisition

Defense Work Sponsors Include
(all within NSA):

- Computer Network Operations
- Cryptanalysis and Signals Analysis
- Cryptographic Algorithms and Assessments
- Mathematics Research Group
- Other Research Directorate Groups

Current Contract Information

Indefinite-Delivery / Indefinite-Quantity contract, awarded sole-source

How Projects Are Placed on Contract: N/A

Type: Cost-Plus-Fixed-Fee

Awarded: March 2016

Total Value: approximately $713 million

Period of Performance: 5-year base, 5-year option (March 2016– November 2025)

Contracting Office: Maryland Procurement Office, Ft. George G. Meade, MD

Total Projects by Fiscal Year (FY)

FY2021: N/A
FY2020: N/A
FY2019: N/A

Note: The work of this FFRDC is not organized around individual projects.

Staff Years of Technical Effort by FY

FY2021: 6
FY2020: 8
FY2019: 6

Defense Obligations by FY

FY2021: $1.8 million
FY2020: $2.4 million
FY2019: $1.8 million

Background

This is a research and development laboratory. The IDA Center for Communications and Computing FFRDC performs fundamental research in support of the NSA's mission in cryptology, which includes both foreign signals intelligence and protecting the communications of the U.S. government. Most of the FFRDC's work is directed toward intelligence-related efforts, with only a small portion for defense-related efforts.

Core Competencies

(i.e., areas of expertise or specialization)

- Fundamental research and development in cryptologic mathematics
- Computing sciences
- Computer network operations
- Cryptograph/cryptanalysis
- Advanced cryptanalytic computing, speech and signal analysis, cybersecurity
- Network security and exploitation

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278

Information on IDA Systems and Analyses Center Federally Funded Research and Development Center (FFRDC)

Founded
1956

Parent Organization/ Contractor
Institute for Defense Analyses

Location
Alexandria, VA

Primary Sponsor
Under Secretary of Defense for Acquisition and Sustainment

Executive Agent for the Primary Sponsor
Director, Acquisition Resources and Analysis

Defense Work Sponsors Include:

- Combatant Commands
- Defense Agencies
- Joint Program Offices
- Joint Staff
- National Guard Bureau
- Office of the Secretary of Defense

Current Contract Information

Indefinite-Delivery / Indefinite-Quantity contract, awarded sole-source

How Projects Are Placed on Contract: via task orders or modification to the orders and each project has its own contract line item number

Type: Cost-Plus-Fixed-Fee

Awarded: March 2019

Total Value: approximately $951 million

Period of Performance: 5-year base, 6-month option (March 2019–September 2024)

Contracting Office: Washington Headquarters Services – Acquisition Directorate, Alexandria, VA

Total Defense Projects by Fiscal Year (FY)

FY2021: 303
FY2020: 293
FY2019: 292

Staff Years of Technical Effort by FY

FY2021: 498
FY2020: 480
FY2019: 480

Defense Obligations by FY

FY2021: $174.7 million
FY2020: $160.8 million
FY2019: $149.9 million

Background

This is a study and analysis center. The IDA Systems and Analyses Center FFRDC assists the Office of the Secretary of Defense, the Joint Staff, the Combatant Commands, Defense Agencies, and others in addressing national security issues, particularly those requiring scientific and technical expertise. Its work includes providing modeling and simulation research related support, developing and demonstrating technologies focused on improving the quality and timeliness of data for decisions on managing of acquisition programs, completing tactical warfare systems studies, completing force and strategy assessments, and support in testing cyber operations in a hostile environment, among others.

Core Competencies

(i.e., areas of expertise or specialization)

- Systems and capabilities evaluations
- Technology assessments
- Force and strategy assessments
- Resource and support analyses

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278

Information on MIT LL Federally Funded Research and Development Center (FFRDC)

Founded
1951

Parent Organization/ Contractor
Massachusetts Institute of Technology

Location
Hanscom Air Force Base, MA

Primary Sponsor
Deputy Chief Technology Officer for Science and Technology

Executive Agent for the Primary Sponsor
Director for Science and Technology Foundations

Defense Work Sponsors Include:

- Defense Intelligence Agencies
- Department of the Air Force
- Department of the Army
- Department of the Navy
- Joint Staff
- Offices within the Secretary of Defense

Current Contract Information

Indefinite-Delivery / Indefinite-Quantity contract, awarded sole-source

How Projects Are Placed on Contract: via task orders issued annually

Type: Cost-Reimbursement, No Fee

Awarded: April 2015

Total Value: approximately $8.3 billion

Period of Performance: 5-year base, 5-year option (April 2015-March 2025)

Contracting Office: Air Force Life Cycle Management Center, Strategic Services Division, Hanscom Air Force Base, MA

Total Defense Projects by Fiscal Year (FY)

FY2021: 636
FY2020: 550
FY2019: 535

Staff Years of Technical Effort by FY

FY2021: 1,134
FY2020: 1,139
FY2019: 1,134

Defense Obligations by FY

FY2021: $726.5 million
FY2020: $630.2 million
FY2019: $563.6 million

Background

This is a research and development laboratory. The MIT LL FFRDC researches and develops advanced technologies to meet critical national security needs. Its core work is research and development across the range of electronic technologies, with particular emphasis on the application of the technologies to national defense problems.

Core Competencies

(i.e., areas of expertise or specialization)

- Solid-state electronics
- Radar
- Biological-chemical and optical sensors
- Signal processing
- Surveillance
- Communications
- Spacecraft
- Analog and digital integrated circuit technology
- Air traffic control
- Signal intercept technology
- High-energy laser-beam control
- Laser devices
- Optics
- Antennas
- Electromagnetic propagation
- Strategic and tactical systems countermeasures

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278

Information on MITRE NSEC Federally Funded Research and Development Center (FFRDC)

Founded
1958

Parent Organization/ Contractor
MITRE Corporation

Location
Bedford, MA and McLean, VA

Primary Sponsor
Deputy Chief Technology Officer for Science and Technology

Executive Agent for the Primary Sponsor
Director for Science and Technology Foundations

Current Contract Information

ARMY

Indefinite-Delivery / Indefinite-Quantity contract, awarded sole-source

How Projects Are Placed on Contract: via 15-month task or delivery orders

Type: Cost-Reimbursement

Awarded: September 2018

Total Value: approximately $6.6 billion

Period of Performance: 5-year base, 5-year option (October 2018-September 2028)

Contracting Office: Army Contracting Command, Aberdeen Proving Ground, MD

AIR FORCE

Contract, awarded sole-source

How Projects Are Placed on Contract: via 1-year options exercised at the beginning of each fiscal year

Type: Cost-Reimbursement

Awarded: August 2018

Total Value: approximately $5 billion

Period of Performance: 1-year base, nine 1-year options (October 2018-September 2028)

Contracting Office: Air Force Life Cycle Management Center, Strategic Services Division, Hanscom Air Force Base, MA

Defense Work Sponsors Include:

- Combatant Commands
- Defense Intelligence Agencies
- Department of the Air Force
- Department of the Army
- Department of the Navy
- Joint Staff
- Offices within the Secretary of Defense
- U.S. Space Force

Total Defense Projects by Fiscal Year (FY)

FY2021: 70 (Air Force), 247 (Army and others)
FY2020: 54 (Air Force), 248 (Army and others)
FY2019: 60 (Air Force), 258 (Army and others)

Note: Includes projects split into multiple efforts.

Staff Years of Technical Effort by FY

FY2021: 2,042
FY2020: 2,056
FY2019: 2,046

Defense Obligations by FY

FY2021: $777.4 million
FY2020: $751.7 million
FY2019: $715.5 million

Background

This is a systems engineering and integration center. The MITRE NSEC FFRDC's mission is to advance national security objectives by providing systems engineering support. It focuses on innovative strategies, concepts, technology applications, and their transfer into operational improvements. Since 1990, the MITRE NSEC FFRDC has been managed under two contracts. All Air Force projects are executed under the Air Force contract (approximately 40 percent of the FFRDC's efforts), while all other projects are executed under the Army contract (approximately 60 percent of the FFRDC's efforts).

Core Competencies

(i.e., areas of expertise or specialization)

- Knowledge management and enterprise systems engineering related to business systems, and command and control, surveillance, reconnaissance, weapon, cyber, and other national security capabilities
- Engineering processes, integration, cost-effective acquisition, and advanced manufacturing
- Range of technologies that underpin realization of objectives for rapid integration, interoperability, and information sharing

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278

Information on RAND Arroyo Center Federally Funded Research and Development Center (FFRDC)

Founded
1982

Parent Organization/ Contractor
RAND Corporation

Location
Santa Monica, CA

Primary Sponsor
Director, Center for Army Analysis, Modeling, and Simulation

Executive Agent for the Primary Sponsor
Deputy Director, Center for Army Analysis, Modeling, and Simulation

Defense Work Sponsors Include
(all within Army):

- Army Cyber Command
- Army Futures Command
- Army Materiel Command
- Assistant Secretary of the Army for Installation, Energy and Environment
- Assistant Secretary of the Army for Manpower and Reserve Affairs
- Deputy Chief of Staff for Programs

Current Contract Information

Indefinite-Delivery / Indefinite-Quantity contract, awarded sole-source

How Projects Are Placed on Contract: via task or delivery orders issued on a monthly basis

Type: Cost-Plus-Fixed-Fee

Awarded: September 2021

Total Value: approximately $453 million

Period of Performance: 4-year base, 5-year option (September 2021-September 2030)

Contracting Office: Army Contracting Command, Aberdeen Proving Ground, MD

Total Defense Projects by Fiscal Year (FY)

FY2021: 138
FY2020: 137
FY2019: 136

Note: Depending on start dates, projects may only be active for part of a particular FY.

Staff Years of Technical Effort by FY

FY2021: 99
FY2020: 96
FY2019: 103

Defense Obligations by FY

FY2021: $39.9 million
FY2020: $37.9 million
FY2019: $37.9 million

Background

This is a study and analysis center. The RAND Arroyo Center FFRDC's primary function is to broadly support the analytic requirements of the Army to help senior leadership make informed policy choices. It serves as the Army's primary FFRDC for studies and analyses.

Core Competencies

(i.e., areas of expertise or specialization)

- Forces and logistics
- Strategy, doctrine, and resources
- Personnel, training and health

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278

Information on RAND NDRI Federally Funded Research and Development Center (FFRDC)

Founded
1984

Parent Organization/ Contractor
RAND Corporation

Location
Santa Monica, CA

Primary Sponsor
Under Secretary of Defense for Acquisition and Sustainment

Executive Agent for the Primary Sponsor
Director, Acquisition Resources and Analysis

Defense Work Sponsors Include:

- Combatant Commands
- Defense Advanced Research Projects Agency
- Joint Staff
- Office of the Chief Information Officer
- U.S. Special Operations Command
- Under Secretary of Defense for Policy
- Under Secretary of Defense for Research and Engineering

Current Contract Information

Indefinite-Delivery / Indefinite-Quantity contract, awarded sole-source

How Projects Are Placed on Contract: via task orders or modification to the orders and each project has its own contract line item number

Type: Cost-Plus-Fixed-Fee

Awarded: December 2020

Total Value: approximately $417 million

Period of Performance: 5-year base, 6-month option (January 2021- June 2026)

Contracting Office: Washington Headquarters Services – Acquisition Directorate, Alexandria, VA

Total Defense Projects by Fiscal Year (FY)

FY2021: 289
FY2020: 290
FY2019: 295

Staff Years of Technical Effort by FY

FY2021: 169
FY2020: 158
FY2019: 158

Defense Obligations by FY

FY2021: $63.3 million
FY2020: $59.3 million
FY2019: $59.3 million

Background

This is a study and analysis center. The RAND NDRI FFRDC was established to support research efforts to serve the long-range analytic needs of various offices and components within the Department of Defense.

Core Competencies

(i.e., areas of expertise or specialization)

- Global security
- Security cooperation
- Homeland defense and national security
- Strategy and operations
- Emerging technologies

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278

Information on RAND PAF Federally Funded Research and Development Center (FFRDC)

Founded
1948

Parent Organization/ Contractor
RAND Corporation

Location
Santa Monica, CA

Primary Sponsor
Assistant Secretary of the Air Force, Acquisition, Technology and Logistics

Executive Agent for the Primary Sponsor
Headquarters Air Force Studies, Analyses, and Assessments

Defense Work Sponsors Include
(all within Air Force):

- Air Force Materiel Command
- Air Force Special Operations Command
- Offices within the Secretary of the Air Force
- Offices within the Vice Chief of Staff for the Air Force
- U.S. Space Force

Current Contract Information

Indefinite-Delivery / Indefinite-Quantity contract, awarded sole-source

How Projects Are Placed on Contract: via task or delivery orders issued by project

Type: Cost-Reimbursement

Awarded: October 2021

Total Value: approximately $347 million

Period of Performance: 5-year base, 6-month option (October 2021-March 2027)

Contracting Office: Air Force District of Washington, Joint Base Andrews, MD

Total Defense Projects by Fiscal Year (FY)

FY2021: 59
FY2020: 52
FY2019: 60

Note: Officials could not provide the quantity of multiyear projects.

Staff Years of Technical Effort by FY

FY2021: 127
FY2020: 123
FY2019: 127

Defense Obligations by FY

FY2021: $49.6 million
FY2020: $46.3 million
FY2019: $47.5 million

Background

This is a study and analysis center. The RAND PAF FFRDC's mission is to conduct a continuous integrated program of objective analysis on major crosscutting policy and management issues of enduring concern to the Department of the Air Force.

Core Competencies

(i.e., areas of expertise or specialization)

- Strategy and doctrine
- Force modernization and employment
- Resource management
- Workforce, development, and health
- Integrated research

Source: GAO analysis of Department of Defense documents and interviews. | GAO-22-105278