



NATIONAL RECONNAISSANCE OFFICE

14675 Lee Road
Chantilly, VA 20151-1715

23 May 2011

Mr. Steven Aftergood
Senior Research Analyst
Federation of American Scientists
1725 DeSales St NW, Suite 600
Washington, D.C. 20036

Dear Mr. Aftergood:

This is in response to your email letter, dated 16 March 2010, received in the Information Management Services Center of the National Reconnaissance Office (NRO) on 17 March 2010. Pursuant to the Freedom of Information Act (FOIA), you requested a copy of *"all unclassified portions of the NRO Congressional Budget Justification Book (CJB) for Fiscal Year 2011."*

Your request was processed in accordance with the Freedom of Information Act, 5 U.S.C. § 552, as amended. A thorough search of our files and databases located one record, consisting of 474 pages that is responsive to your request. This record is being released to you in part. Material withheld is denied pursuant to FOIA exemption (b)(3) which applies to information specifically exempt by statute, 50 U.S.C. § 403-1, which protects intelligence sources and methods from unauthorized disclosure.

As you are aware, the FOIA authorizes federal agencies to assess fees for record services. Based upon the information provided, you have been placed in the "other" category of requesters, which means that a requester is responsible for charges incurred for the cost of search time exceeding two hours and duplication in excess of the first 100 pages of document reproduction in the processing of this request. In your request, you expressed a willingness to pay fees up to the amount of \$50.00. The costs associated with processing your request include 374 pages at .15 per page which equals \$56.10. In this case, all fees are being waived. Additional information about fees can be found on our website at www.nro.gov.

You have the right to appeal this determination by addressing your appeal to the NRO Appeal Authority, 14675 Lee Road, Chantilly, VA 20151-1715 within 60 days of the above date. Should you decide to do this, please explain the basis of your appeal.

If you have any questions, please call the Requester Service Center at (703) 227-9326 and reference case number F10-0118.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Glenn', with a stylized flourish at the end.

Stephen R. Glenn
Chief, Information Access
And Release Team

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FY 2011 CONGRESSIONAL BUDGET JUSTIFICATION



VOLUME IV NATIONAL RECONNAISSANCE PROGRAM

FEBRUARY 2010

BOOK 1 OF 2

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NRO APPROVED FOR RELEASE 18 MAY 2011

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National Intelligence Program



FY 2011
Congressional Budget Justification

Volume IV



National Reconnaissance Program

February 2010

DRY FROM SCG 60, 21 May 2005
DECL ON: 25X1, 20090201
RRG dated July 05

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(U) PROGRAM OVERVIEW

(U) Description

(U) The NRO brings unique capabilities to bear in support of national security objectives by:

- (U) Acquiring and operating the most capable set of satellite intelligence collection platforms ever built.

• ~~(S//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//NF)~~ [REDACTED]

• ~~(S//REL TO USA, FVEY)~~ [REDACTED]

- (U) Providing a variety of special ground processing applications and tools to support the IC and DoD mission stakeholders.

~~(S//REL TO USA, FVEY)~~ [REDACTED]

(U) In times of heightened tension, crisis, or even humanitarian or natural disasters, the value of NRO systems is even greater. NRO systems are not only the first responders of choice for the DoD, IC, or policy decision makers, but also they are often the only source of information.

(U) Strategic Direction

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) The NRO has made significant progress in its major acquisitions, but more needs to be done. I have taken action to strengthen the previously implemented improvements. I am also taking action to make adjustments in areas that have lagged. My emphasis areas are:

- (U) Ensuring program managers are "visible" and know what they are responsible and accountable for.
- (U) Documenting program manager agreements for performance, cost, and schedule.

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- (U) Supporting program managers in developing risk management strategies for anticipating issues.
- (U) Identifying clear lines of authority within the NRO.
- (U) Simplifying the organization.
- (U) Gaining efficiency.
- (U) Improving workforce, skill, balance, and diversity in key positions.

(U) I also intend to focus on:

- (U) **Budget Flexibility.** The ability to immediately react to the dynamic environment of acquisition is critical. Although financial flexibility has been lost due to a steady proliferation of budget control lines, more restrictive reprogramming limits, and greater external involvement in resource decisions, I will seek to strike a better balance between transparency and flexibility that addresses requirement growth, cost containment, mission performance, program schedule, and risk management.
- (U) **Budget Practices.** With the acceptance of several NRO Agency Cost Positions in this budget, I'm encouraged that we are moving toward a more balanced approach to managing our portfolio

of acquisitions, but there are still actions we can take to better manage our programs—paramount is to deliver acquisitions on cost, on schedule and appropriately balance risk throughout the budget.

(U) Conclusion

(U) It is important that we work together to address the problems affecting acquisition performance. I am taking action to address the issues that are within my span of authorities, and I will solicit assistance in areas that are not. The NRO has a history of being able to deliver the right technical solutions at the right time to address the Nation's highest priority intelligence needs. I am committed to continuing this tradition.

(U) The NRP FY 2011 request, in concert with the FY 2009 Agency Financial Reports provided in November 2009, and ODNI's *FY 2009 NIP Summary of Performance and Financial Information* dated February 2010, meets the FY 2009 annual performance and accountability requirement for the IC. NRP is committed to demonstrating that resources produce measurable results. Relationships among resources, performance expectations, and performance results are addressed throughout the request.

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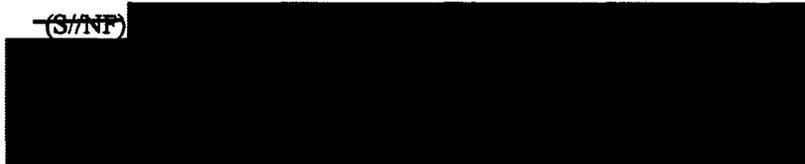


Totals may not add due to rounding.

*includes enacted OCO funding.

(U) Budget Request Highlights

~~(S//NF)~~



(U) New Initiatives:

- (U) The NRO is realigning the Ground Enterprise budget to be consistent with the developing major system acquisitions within Ground. The four new budget projects, along with the existing Ground Integration and Support project, parallel the functionally-based major acquisition activities within the Ground Enterprise. The NRO will baseline the new Ground Enterprise major acquisition acquisitions during FY 2010.
- (U) In response to Congressional direction, the NRO created a new COOP project and transfers COOP related activities from across the NRO to provide better insight into COOP activities and scope.

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(U) Changes from FY 2010 to FY 2011:

(U) The FY 2011 request reflects the following changes in the:

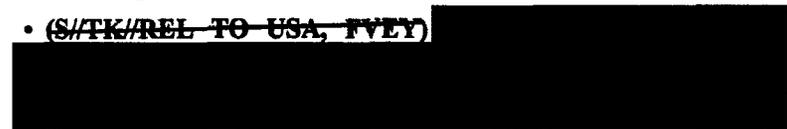
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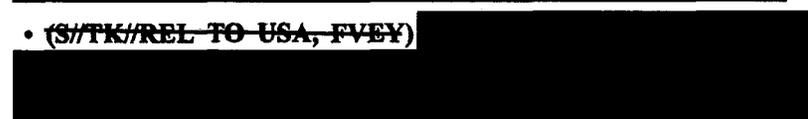
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• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(S//NF)

(U) Management Oversight

(U) Management oversight for the NRO is provided by:

- (U) The Office of Management and Budget.
- (U) The Director of National Intelligence.
- (U) The Secretary of Defense.

(U) Appropriations Use

(S) [REDACTED]

(S//NF) [REDACTED]

(U) Funding for *National Intelligence Strategy* Mission Objectives

(U) The chart below displays the NRP FY 2011 funding request as allocated to support the NIS mission objectives (MOs). Activities that support MO 6, Support Current Operations, are funded within the other mission objectives.

~~TOP SECRET//SI//TK//NOFORN~~**(U) FY 2010 Workforce Highlights**

(U) The NRO's central human capital initiative is to build on the analytical models developed for characterizing the NRO's current workforce and anticipating NRO future workforce requirements. NRO's Office of Strategic Human Capital (OSHC) will continue to seek management continuity, workforce stability, long-term perspective, and critical space-acquisition skills and experience (engineering, program management, contracting, budgeting) to execute the NRO mission. The NRO will address these critical areas through continued engagement with our parent elements.

(U) Summary of Planned Workforce Changes

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(U) NRO Civilian Employment Plan

(U) Innovative human resource programs are needed to support the NRO's "cradle-to-grave" approach to space systems management. It is imperative for the NRO to have a workforce that is both conversant with the satellite life-cycle and available for longer assignments. Initiatives are underway that will provide a comprehensive and mission-focused corporate strategy to ensure the NRO has the right workforce to meet its evolving mission. The following paragraphs address the initiatives in greater detail.

(U) Strategic Staffing: The NRO's fundamental objective is to identify the human capital needs and work with the parent elements to fill those needs. Key functions include workforce analysis and planning, recruitment and academic outreach, on-boarding, joint duty assignments

and the Wounded Warrior program. The NRO will build on FY 2010 workforce analysis pilot programs to develop and refine an enterprise-wide workforce analysis of core mission occupations. The workforce will be assessed along occupational lines, taking into account parent organization and individual employee developmental needs. Further, the NRO will focus on Managed Acquisition Positions in promoting a consistent approach toward developing an acquisition workforce that is highly trained, capable, and meets certification requirements established by each parent agency.

(U) Talent Management: The NRO will implement talent management programs aimed at developing and engaging the workforce at the individual and the enterprise levels. Programs will be targeted on leadership development; organizational development; coach, mentoring, and facilitation; and employee engagement. The NRO will continue the work on key leadership position succession management and extend this effort to additional leadership positions within the organization.

(U) NRO University: The NRO must ensure that its employees receive training, education, and development opportunities directly relevant to NRO's mission, and must consider the development of its transient workforce as future leaders and employees of the IC. The NRO will design, develop, and deliver leadership and professional-development programs to meet the needs of its workforce and the IC. NRO University will continue to focus on course design, delivery, and evaluation and integration.

(U) Personnel Resources: Due to its diverse workforce, effective workforce planning requires an integrated approach in the administrative and technical efforts of the NRO and its parent elements. NRO efforts in this area are focused on integrating and combining life-cycle personnel management services, enterprise position management, personnel policies and employee recognition across all parent elements. A key enabler is a human resource information system that provides authoritative employee and position data to inform decision makers. The NRO will continue its investment in improving data quality and integrity through system integration with the parent element human resource systems and will extend this investment to position management data.

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(U) NRO Employment Demographics

(U) **Grade Distribution by Age:** The NRO grade distribution is a reflection of the technical expertise required to achieve its space mission with a majority of the workforce residing in the senior grades: GS-13 thru senior executives. Furthermore, the NRO average age is consistent with the trend in the federal government with NRO employees in the late-40's to mid-50's bracket holding senior ranking positions with 15 plus years of service.

(U) **Retirement:** As is the case in many federal organizations, the number of new employees, in terms of occupation experience, and the number of experienced officers eligible or approaching eligibility for retirement are growing. Of the NRO current workforce, 55 percent are eligible or will become eligible to retire in the next 10 years; and 56 percent have five years or less experience with their parent agencies. Each mission area could be impacted if retirement-eligible government personnel retired en masse; however, this scenario is not likely under current economic conditions.

(U) **NRP Workforce Positions by Budget Category:** The NRO workforce distribution reflects the primary role that acquisition plays in the NRO mission. A majority of civilian employees work in mission support occupations and the remaining civilians work in core mission areas: research and development, engineering, IT, and operations. Forty-four percent of the NRO total positions are aligned under the Enterprise Management and Support budget category which includes acquisition professionals.

(U) Staffing and Demographic Trends:

(U//FOUO) [Redacted] Government civilians are strongly represented in the Enterprise Management and Support budget category providing a full range of services from administrative support to finance and contracting operations.

(U) [Redacted] (Note: the two percent drop is attributed to the overall growth of the government civilian personnel). Most notably, the military comprises 78 percent of the NRO IT cadre and is largely responsible for satellite communications. Additionally, the military constitutes 47 percent of the acquisition workforce primarily as systems engineers and program managers in two of the largest budget categories: Collection and Operations, and Processing and Exploitation.

(U//FOUO) [Redacted] The NRO relies on contractors' scientific and engineering expertise to augment government personnel managing highly complex systems. As resources across the IC and DoD have become stretched, recruiting people with the required occupational skills and experience has become increasingly difficult. Further, the resource constraints and parent agencies' evolving priorities have resulted in reduced fill rates and shortened tour lengths in NRO mission-critical occupations. As a result of these issues, contractors provide the technical skills that the federal workforce and military services have difficulty recruiting or retaining. Contractors provide a majority of the support at mission ground stations and bring unique skill sets to the remotely-located sites. The specialties required to perform the ground stations' mission are scarce and, therefore, are in high demand in the private sector. Yet, the NRO made a conscious decision to reduce its Contracted Advisory and Assistance Services, FFRDC, and System Engineering and Technical Analysis workforce by 10-15 percent during FY 2009 - FY 2015 due to budget constraints. This will affect the current demographics and put more pressure on the need to have and retain a skilled government workforce.

(U) NRO fill rates have increased over the period FY 2006 - FY 2009 from an annual average of 86 percent to 90 percent for civilian positions and decreased from 88 percent to 85 percent for military positions. Fill rates vary by parent agency and occupation and reflect parent agency workforce initiatives and capacity to maintain pace with NRO position growth. Even though the NRO budgets for position growth, the ability to fill new positions depends on whether the parent agencies can support increased personnel demand.

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(U) In the past, Air Force military assignments were four year tours exempt from deployment. Due to policy changes and organizational restructuring of Air Force personnel assigned to the NRO, military tours are no longer exempt from deployments and the historical 100 percent fill rate policy has been impacted by more stringent guidelines for Air Force assignments. Given that the Air Force military personnel account for significant portions of NRO mission critical occupations (i.e., 34 percent of acquisitions and engineers, 55 percent of operations, and 78 percent of information technology), any decrease in manning rates will impact NRO's mission capabilities.

(U) The NRO government civilian population consists primarily of technical occupations. As such, the NRO grade distribution is appropriate for the experience and education level required for technical occupations. The civilian population within GS-12 and above grades (77 percent) has an average of seven years of NRO service. The more senior positions (GS-14s and above) have a greater average length of service at the NRO. However, new arrivals to the NRO from FY 2003 - FY 2009 have less experience with their parent agencies in contrast to those who arrived between FY 1997 - FY 2002.

(S//NF)

[REDACTED]

(U) Workforce Infrastructure and Support

~~(S//TK//REL TO USA, FVEY)~~

[REDACTED]

• (S//NF)

[REDACTED]

• (S//NF)

[REDACTED]

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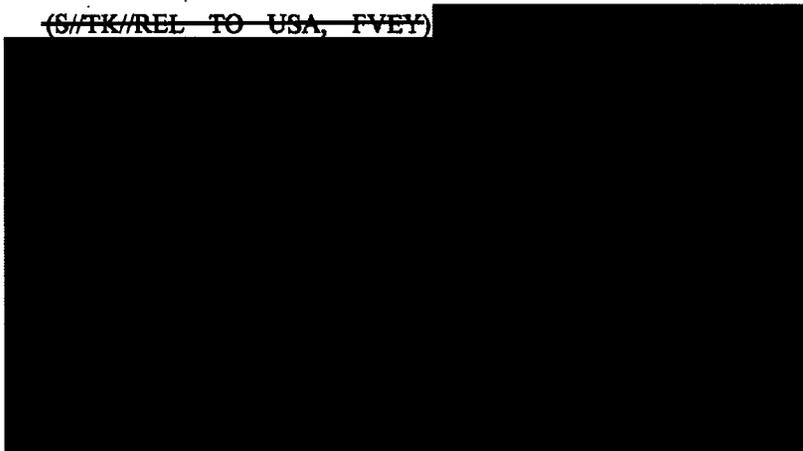
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**(U) GEOINT EO
(U) NEXT GENERATION EO**

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	FY 2010	FY 2011 Request	FY 2010 - FY 2011
Totals may not add due to rounding.			*Includes enacted OCO funding.

(U) Project Description

~~(S//TK//REL TO USA, FVEY)~~



• ~~(S//TK//REL TO USA, FVEY)~~



• (U) Ground systems design, development and integration.

• (U) Associated systems engineering activities; Contracted Advisory and Assistance Services/System Engineering and Technical Analysis (CAAS/SETA); FFRDC support; and trade studies and analyses.

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Continue risk reduction, long lead procurement, and development of the NGeo space segment design and ground requirements.
- (U) Prepare for and conduct a Space Segment Design Review and continue preliminary design and technology maturation activities.
- (U) Prepare for and conduct ground segment requirements reviews and ground segment concept designs.
- (U) Prepare for a Space Segment Preliminary Design Review.

(U) Changes from FY 2010 to FY 2011:

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**(U) GEOINT EO
(U) EO INTEGRATION & SUPPORT**

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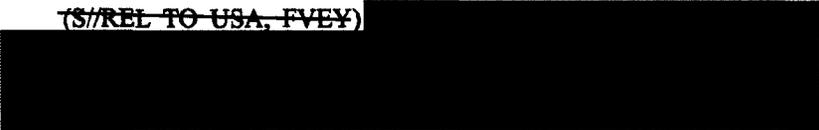


Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

~~(S//REL TO USA, FVEY)~~



- (U) System trade studies.
- (U) Requirements analysis.
- (U) Prime contractor design evaluation.
- (U) Modeling and simulation.
- (U) Program and business management support.
- (U) Integration, test and launch support.

- (U) Acquisition support activities such as engineering change proposals and acquisition planning.

(U) The NRO expects the project to accomplish the following in FY 2011:

- ~~(S//TK//REL TO USA, FVEY)~~

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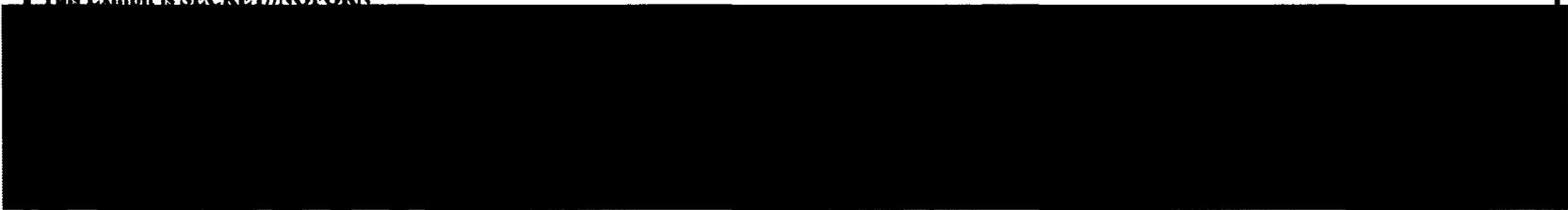
(U) Changes from FY 2010 to FY 2011:

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**(U) GEOINT RADAR
(U) RADAR INTEGRATION & SUPPORT**

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Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

~~(S//REL TO USA, FVEY)~~ [Redacted]

- (U) System trade studies.
- (U) Requirements analysis.
- (U) Modeling and simulation.
- (U) Transition planning/coordination.
- (U) Operations planning/coordination.
- (U) Program and business management support.
- (U) Acquisition support activities, such as engineering change proposals and acquisition planning.
- (U) Space segment factory (E2) maintenance.

(U) The NRO expects the project to accomplish the following in FY 2011:

• ~~(S//TK//REL TO USA, FVEY)~~ [Redacted]

(U) Changes from FY 2010 to FY 2011:

~~(S//TK//REL TO USA, FVEY)~~ [Redacted]

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**(U) SIGINT LOW
(U) LOW ALTITUDE INTEGRATION & SUPPORT**

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Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U) The Low Altitude Integration and Support project provides resources for engineering and technical assistance for SIGINT LEO, echelon 2 (E2) maintenance, travel, and training. Resources in this project are used for:

- (U) Contracted Advisory and Assistance Services (CAAS), non-CAAS, and FFRDC engineering, acquisition, and technical assistance resources to support the Low Altitude Integration and Support efforts which include:

— ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

— (U) Ensuring technical completeness of control interfaces within the space segment and supporting external interfaces.

— (U) Assisting in advanced studies, analysis, and support for future SIGINT LEO systems, payloads and replacement vehicles.

— ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

— (U) Performing technical reviews of contractor acquisition performance, and providing analyses and recommendations to the Program Manager.

— (U) Evaluating the command and control segment development, and special studies and analyses of system upgrade proposals.

— (U) Conducting acquisition planning and Reconfigurable Receiver Processor (RCRP) activities.

— ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

— (U) Assisting in the review and maintenance of key program documentation, including the segment specifications, contractual baselines, and internal segment interface control documents.

— (U) Travel and training in support of the mission.

- (U) Supporting adaptive and corrective E2 maintenance and anomaly activities, which include:

— (U) Integrating and delivering flight and data conditioning software baselines.

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~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

— (U) Maintaining and operating space vehicle simulators configured in support of operational spacecraft and prioritizing the use of engineering development units for payload software development, check out, rework, and anomaly resolution.

— (U) Performing both daily and long-term data trending to determine and predict spacecraft subsystem performance and ensuring the operational constraints of individual spacecraft are captured following subsystem degradations or failures.

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

— (U) Remaining postured to assume health and safety responsibilities of operational spacecraft in the case of disaster or communication failure at primary ground station.

— (U) Replacing software, equipment, parts and materials to prevent system failure caused by obsolescence.

(U) The NRO expects the project to accomplish the following in FY 2011:

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• (U) Assist in advanced studies, analysis, and support for future SIGINT LEO systems, payloads and replacement vehicles.

(U) Changes from FY 2010 to FY 2011:

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

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**(U) SIGINT HIGH
(U) HIGH ALTITUDE INTEGRATION & SUPPORT**

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Totals may not add due to rounding. *Includes enacted OCO funding.

(U) Project Description

~~(S//TK//REL TO USA, FVEY)~~



(U) Resources in this project are used for:

- ~~(S//TK//REL TO USA, FVEY)~~
- 

• (U) CAAS and FFRDC support to all of the SIGINT High EC spacecraft programs. CAAS and FFRDC support is jointly funded between NRO MIP and NRP.

• (U) Trade studies, analyses, and reviews of prime contractor and subcontractor acquisition performance.

- ~~(S//TK//REL TO USA, FVEY)~~



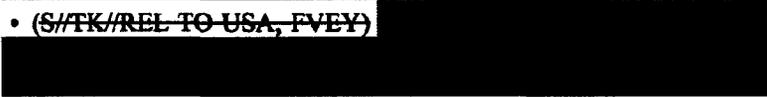
- ~~(S//TK//REL TO USA, FVEY)~~



- ~~(S//TK//REL TO USA, FVEY)~~



- ~~(S//TK//REL TO USA, FVEY)~~



• (U) Personnel PCS in support of the mission.

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(U) The NRO expects the project to accomplish the following in FY 2011:

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- (U) Conduct studies, analysis, and developments for non-traditional systems.

(U) Changes from FY 2010 to FY 2011:

(U) There are no significant changes in this project for FY 2011.

High Altitude Integration & Support Project Budget Chart FY 2011 Budget Request by Appropriation Account	[REDACTED]
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[REDACTED]	
<p>* (U) Appropriation detail lines may not add due to rounding. (U) All personnel dollars are incorporated in the Enterprise Management EC, Human Resources project. (U) MilPers funding is within the applicable military department budget. (U) CIAP personnel are detailed to the NRO but authorized and budgeted within the CIAP.</p>	

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(U) SPACE COMMUNICATIONS

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

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Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• (U//FOUO) Ensure obsolescence and performance issues are addressed.

- (U//FOUO) Provide the necessary spare components to mitigate cost and schedule risk.
- (U//FOUO) Ensure critical mission assurance standards and practices are implemented.
- (U) Provide the necessary program management support to include: systems engineering, access to technical experts, and associated trade studies.

(U) The NRO expects the projects to accomplish the following in FY 2011:

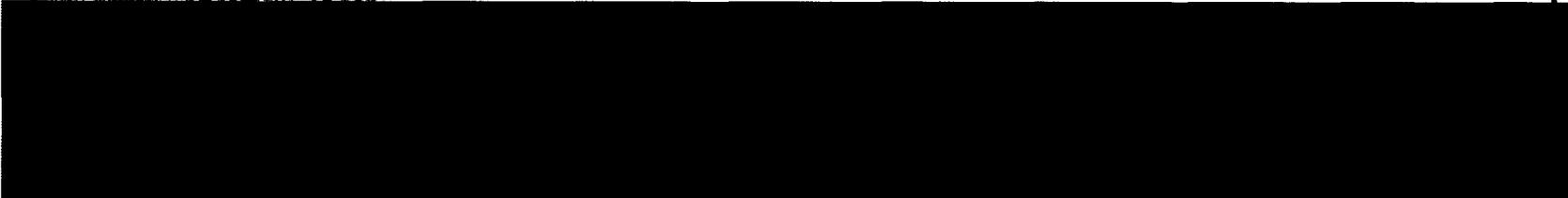
• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

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(U) SPACE COMMUNICATIONS
(S//TK//REL TO USA, FVEY) [REDACTED]

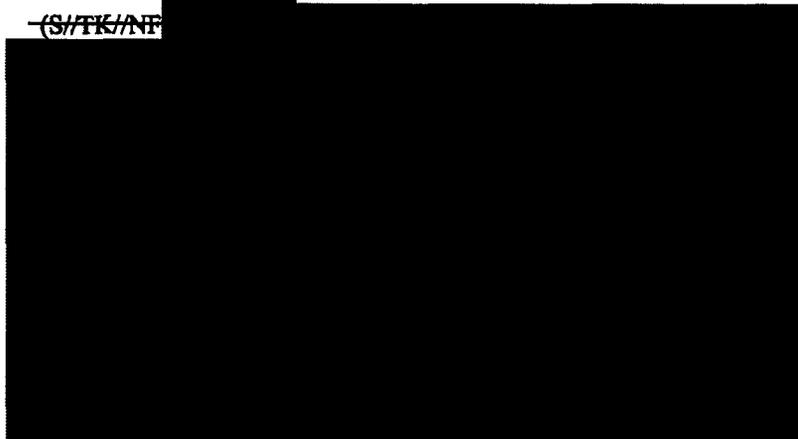
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Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description



(S//TK//NF)

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• (S//TK//REL TO USA, FVEY) [REDACTED]

• (U) Provide the necessary program management support to include systems engineering, access to technical experts, and associated trade studies.

(S//TK//REL TO USA, FVEY) [REDACTED]

• (S//TK//REL TO USA, FVEY) [REDACTED]

• (S//TK//REL TO USA, FVEY) [REDACTED]

- (U) Conduct initial technology insertion studies.
- (U) Continue to procure long-lead/high-reliability parts.

(U) Changes from FY 2010 to FY 2011:

(S//TK//NF) [REDACTED]

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**(U) SPACE COMMUNICATIONS
(U) SPACE OPERATIONS DEVELOPMENT SEGMENT**

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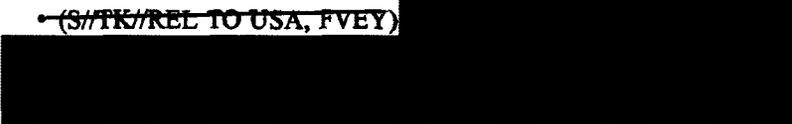
Totals may not add due to rounding.

*Includes enacted OCO funding.

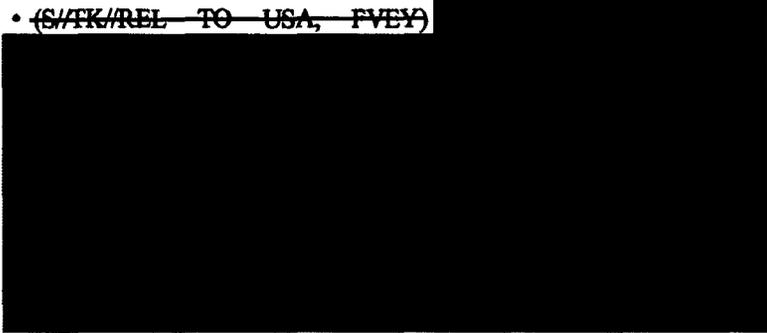
(U) Project Description

(U) The Space Operations Development Segment project provides funding for activities supporting command and control (C&C) and data dissemination for space-based communications systems. Resources in this project are used for:

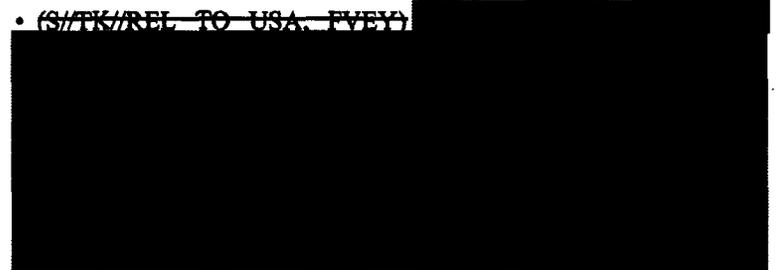
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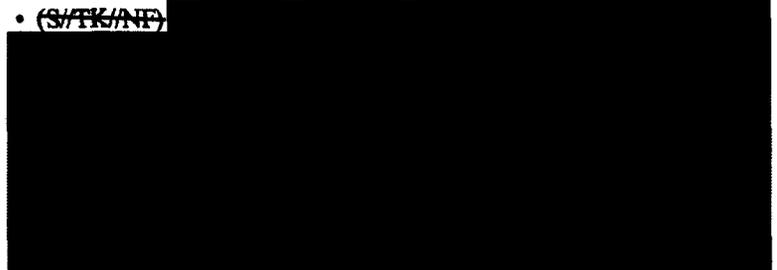
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• ~~(S//TK//NF)~~



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**(U) SPACE COMMUNICATIONS
(U) RELAY READINESS & LAUNCH**

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Totals may not add due to rounding. *Includes enacted OCO funding.

(U) Project Description

~~(S//TK//REL TO USA, FVEY)~~



- (U) Maintain and monitor vehicles for health and safety functions.
- (U) Maintain all required test and ground equipment at factory and launch sites.
- (U) Perform all planning for spacecraft integration for launch.
- (U) Perform all systems engineering required to support launch planning, rework, and anomalies.
- (U) Perform all required test activities for call-up or readiness activities.
- (U) Perform all required rework resulting from latent problems or defects from the development contract identified after vehicle sell-off.

- (U//~~FOUO~~) Upgrade aging subsystem test equipment and perform necessary rework.
- (U) Replenish component parts inventory to accommodate vehicle call-up.
- (U) Support satellite shipments to launch site, launch vehicle system integration, and final preparation through launch of the spacecraft, both in the factory and at the launch base.

(U) The NRO expects the project to accomplish the following in FY 2011:

• ~~(S//TK//REL TO USA, FVEY)~~

• ~~(S//TK//REL TO USA, FVEY)~~

• ~~(S//TK//REL TO USA, FVEY)~~

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**(U) SPACE COMMUNICATIONS
(U) SPACE COMMUNICATIONS INTEGRATION & SUPPORT**

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Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

~~(S//TK//REL TO USA, FVEY)~~

- (U) Requirements and CONOPS development.
- (U) Architecture development.
- (U) Independent verification and validation.
- (U) Transition to operations.
- (U) Lifecycle readiness.
- (U) Configuration, risk, and schedule management.
- (U) Technology planning and insertion.
- (U) Performance assessment.
- (U) Acquisition support activities.
- (U) Support to launch flow, readiness and initialization activities.
- (U) Factory support for C&C.

(U) The NRO expects the project to accomplish the following in FY 2011:

- ~~(S//TK//REL TO USA, FVEY)~~

- ~~(S//TK//REL TO USA, FVEY)~~

- (U) Provide analysis to optimize the constellation's global access.

- ~~(S//TK//REL TO USA, FVEY)~~

(U) Changes from FY 2010 to FY 2011:

- ~~(S//TK//NF)~~

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**(U) SPACE COMMUNICATIONS
(U) MISSION SYSTEM ENCRYPTION**

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Totals may not add due to rounding.

*includes enacted OCO funding.

(U) Project Description

~~(S//TK//NF)~~



(U) Resources in this project are used to:

- (U) Enable enterprise information assurance architectures, standards, and solutions through information systems security engineering services, information assurance research, and engineering for integration and implementation into the NRO communications capabilities to support NRO missions and programs.

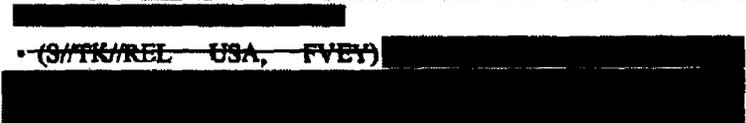
- (U) Conduct analysis of vulnerabilities and capabilities of future communications for both space and terrestrial applications to forecast future information assurance technologies to include cryptographic security requirements.

~~(S//TK//NF)~~



(U) The NRO expects the project to accomplish the following in FY 2011: ~~(S//REL TO USA, FVEY)~~

- (U) ~~(S//REL TO USA, FVEY)~~



(U) Changes from FY 2010 to FY 2011:



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(U) LAUNCH
(U) LAUNCH VEHICLES

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Totals may not add due to rounding. *Includes enacted OCO funding.

(U) Project Description

(U) The primary purpose of this project is to procure Evolved Expendable Launch Vehicles (EELV) and conduct integration activities for NRO satellites. The NRO procures standard EELV hardware on a fixed price basis, fully funded approximately two years prior to launch, and EELV Heavy Launch Vehicles approximately three years prior to launch. Well-defined mission unique hardware plus integration efforts are incrementally funded beginning up to five years in advance of the launch date. In addition, early investigation and analyses of advanced launch systems for potential NRO application is accomplished. The structure of the EELV contracts allows separate funding and accounting for NRO missions. The NRO has contracting officer's technical representative authority for all NRO delivery orders on the Air Force EELV launch service contracts.

(U) Schedules for launch vehicles are as follows:

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//REL TO USA, FVEY)~~ [REDACTED]

- ~~(S//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

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~~(S//REL TO USA, FVEY)~~ [REDACTED]

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) The NRO expects the project to accomplish the following in FY 2011:

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) Perform early integration of NRO systems on new launch vehicles.

(U) Perform launch vehicle performance and acquisition trades for new research and development programs.

(U) Analyze other innovative space lift concepts for potential launch of NRO payloads, including reusable launch vehicles.

(U) Changes from FY 2010 to FY 2011:

~~(S//NF)~~ [REDACTED]

~~(S//TK//NF)~~ [REDACTED]

~~(S//TK//NF)~~ [REDACTED]

(U) **Launch Vehicle Advanced Plans: +\$31.1 million, +7 military positions.** Increase due to transfer of Advanced Plans from Launch Operations and Engineering project and additional funding to implement IC Launch Study recommendations.

(U) **Heavy Lift Performance Upgrade: -\$23.9 million.** Decrease due to the decrease in upgrade activity. FY 2011 is the last year of this upgrade program.

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~~TOP SECRET//SI//TK//NOFORN~~**(U) LAUNCH
(U) LAUNCH CAPABILITY INFRASTRUCTURE**This Exhibit is ~~SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U) This project funds the EELV Launch Capability (ELC) contract to maintain the capability to launch government missions. It is separate from launch vehicle hardware, which is funded through the EELV Launch Services contracts. This contract arrangement is necessary because the robust commercial market envisioned in the original EELV construct in 1998 never materialized, and the government is now the primary EELV customer. The funds in this project support retention of critical skills at the EELV contractor facilities and at the launch sites, and maintain proficiency of the booster contractor workforce.

(U) The landscape of US launch infrastructure changed significantly in December 2006 when the United Launch Alliance (ULA) was officially established to merge the launch product lines of both Lockheed-Martin and Boeing into a single joint venture. ULA maintains both launch vehicle families, Atlas and Delta EELV, in order to strengthen assured access to space and to provide optimum flexibility for meeting required lift capabilities.

(U) The NRO and the Air Force are full partners in ensuring EELV launch capability for the nation. The funding request for this project represents the NRO's 30 percent share of the EELV ELC contract. It is imperative that this funding remain in the NRO budget in order to maintain its influence and control over essential launch processes required

for its missions. NRO's fiscal contribution to ELC fosters partnership with the USAF, enables insight into USAF launch investment and infrastructure planning, provides the NRO a voice in award fee boards, and affords NRO some control of the nation's launch capability.

(U) The NRO expects the project to accomplish the following in FY 2011:

~~(S//TK//REL TO USA, FVEY)~~

- (U) Perform EELV launch and range site proficiency training.
- (U) Maintain prime and supplier contractor critical skills.
- (U) Maintain critical booster engineering skills at the booster manufacturing facilities.
- (U) Perform systems engineering and launch activities including the resolution of any and all fleet-wide launch issues.
- (U) Maintain launch capability through maintenance and operations of the launch pads and facilities, as well as depreciation and amortization of capital equipment and tooling.
- (U) Maintain supplier readiness and subcontractor support for critical EELV launch systems (NRP_00715, 00716).

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**(U) LAUNCH
(U) LAUNCH OPERATIONS AND ENGINEERING**

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Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U) The Launch Operations and Engineering project provides launch-related support for all NRO satellite programs.

(U) Resources in this project are used to:

- (U) Operate and maintain the NRO Payload Transportation System which provides secure transportation from factory to launch base, Vandenberg Air Force Base or Cape Canaveral Air Force Station.
- (U) Provide forklifts, tractors, trailers, and other mechanical hardware for space vehicle (SV) electrical aerospace ground equipment and SV mechanical aerospace ground equipment.
- (U) Support SV and mission documentation requirements, including those required by the National Environmental Policy Act and occupational safety and health regulations.
- (U) Support the Eastern and Western Ranges.
- (U) Perform NRO Operations Squadron (NOPS) launch support, downrange/ascent telemetry capture, and processing operations for NRO launches.

- (U) Fund Contracted Advisory and Assistance Services, Systems Engineering and Technical Analysis, and System Integration support.
- (U) Perform independent validation and verification (IV&V) of launch contractor mission design parameters.
- (U) Operate and maintain NRO launch base administrative facilities.
- (U) Provide NRO mission unique (secure) communication at the launch sites (e.g., secure launch pad communications for NRO payloads).
- (U) Support engineering activities affecting multiple satellite missions on one or multiple launch systems.

(U) The NRO expects the project to accomplish the following in FY 2011:

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

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• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• (U) Perform over 48,000 satellite support contacts from NOPS.

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) Changes from FY 2010 to FY 2011:

• ~~(S//NF)~~ [REDACTED]

• ~~(S//NF)~~ [REDACTED]

• ~~(S//NF)~~ [REDACTED]

• ~~(S//NF)~~ [REDACTED]

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**(U) GEoint/SIGINT INTEGRATED GROUND DEVELOPMENT
(U) MISSION FRAMEWORK**



This Exhibit is ~~SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

**Funds and Government FTEs/positions requested in the UGA Enterprise Development project.

(U) Project Description



~~(S//TK//REL TO USA, FVEY)~~

(U) Resources in this project are used to:



• ~~(S//TK//REL TO USA, FVEY)~~



• ~~(S//TK//REL TO USA, FVEY)~~

- (U) Begin migrating new and legacy applications into this standardized IT environment.
- (U) Develop a single, enterprise-wide information sharing and routing service.
- (U) Develop, operationalize, and expand common LAN and WAN peering infrastructures in and across NRO and mission partner primary operations facilities. This enables the exposure of cross-site and cross-community data and services in support of the DNI's Single Information Environment.
- (U) Continue the evolution of enterprise data recording, storage, access, retrieval, and distribution capabilities.
- (U) Develop and acquire mission IT capabilities and services and migrate applications to evolve the ground in line with industry standards.
- (U) Develop, maintain, support, and replace hardware and software to sustain mission frameworks and services.

~~TOP SECRET//SI//TK//NOFORN~~

(U) The NRO expects the project to accomplish the following in FY 2011:

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- (U) Expand security services to make single sign-on capability available to mission applications and users across the enterprise.
- (U) Extend standard computing environment utilization by new and legacy NRO Ground Enterprise mission applications and enhance the maturity of enterprise management capabilities.
- (U) Demonstrate basic operational capabilities for data distribution services, including routing, messaging, and storage that provide timely, location independent access to NRO mission data and information.

(U) Changes from FY 2010 to FY 2011:

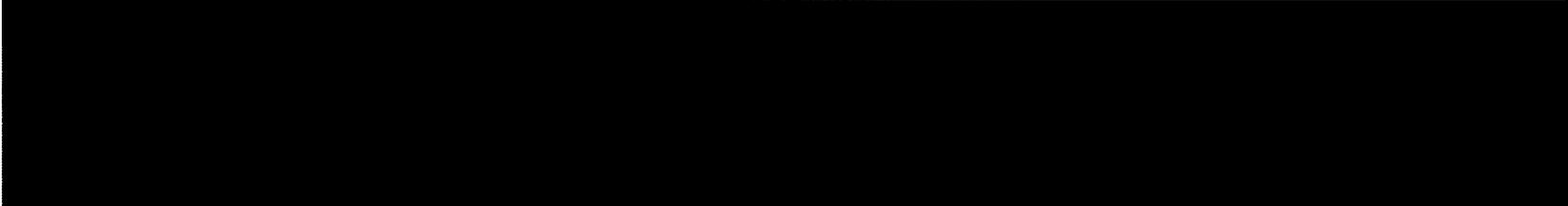
- ~~(S//NF)~~ [REDACTED]
- (U) Realignment of mission IT hardware and software procurements, development, and maintenance activities from the Mission Processing, Mission Management, and Command and Control projects.
- (U) Transfer of information sharing, routing, and legacy messaging activities from Enterprise IT Expenditure Center (EC), Connectivity project.
- (U) Increased IT infrastructure maintenance.
- (U) Increased information sharing development activities.
- (U) Expanded multifunctional computing environment activities.
- ~~(S//REL TO USA, FVEY)~~ [REDACTED]
- (U) Transfer of information sharing communications to the Enterprise IT EC, Connectivity project.
- (U) Transfer of requirements for leased communication circuits to Enterprise IT EC, Connectivity project.

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**(U) GEOINT/SIGINT INTEGRATED GROUND DEVELOPMENT
(U) MISSION MANAGEMENT**

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Totals may not add due to rounding.

*Includes enacted OCO funding.

**Funds and Government FTEs/positions requested in the UGA Ground Development project.

(U) Project Description

The Mission Management project develops and maintains capabilities that enable mission planning, scheduling, and resource control of GEOINT and SIGINT collection, processing, and information sharing systems. These systems provide a key interface with mission partners to receive their overhead collection requirements, build joint collection strategies, and assess mission performance.

(U) Resources in this project are used to:

• ~~(S//TK//REL TO USA, FVEY)~~ [Redacted]

(U) The NRO expects the project to accomplish the following in FY 2011:

• ~~(S//REL TO USA, FVEY)~~ [Redacted]

• ~~(S//REL TO USA, FVEY)~~ [Redacted]

• ~~(S//TK//REL TO USA, FVEY)~~ [Redacted]

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**(U) GEOINT/SIGINT INTEGRATED GROUND DEVELOPMENT
(U) GROUND INTEGRATION & SUPPORT**

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Totals may not add due to rounding.

*Includes estimated OCO funding.
**Funds and Government FTEs/positions requested in the Deployed Support and Ground Integration and Support projects.

(U) Project Description

(U) The Ground Integration & Support project funds: core contractor support for the NRO Ground Enterprise (NGE); deployed support to enhance national/tactical mission integration; and NRO processing support for GEOINT product quality assurance and innovative solutions. This project also provides resources for personnel to travel, receive training in support of the mission, and to recognize outstanding performance of government personnel.

(U) Core contractor support, including Contracted Advisory and Assistance Service (CAAS), non-CAAS and FFRDC support for the NGE, supplies expertise for all mission management, mission processing, C&C, and mission framework capabilities. These resources provide technical support associated with program planning, acquisition development, and integration of Ground capabilities. Additionally, these resources support and conduct planning and studies for future architectures, CONOPS development, capabilities definition, and requirements allocation.

(U) Resources in this project are used to:

- (U) Define and manage systems requirements, baseline configuration, and schedule processes for the NGE.

- (U) Define functional performance and verification requirements.
- (U//FOUO) Partner with collection management authorities to ensure ground systems provide the collection management features required to fully exploit evolving processing capabilities.
- (U) Conduct independent evaluations to identify and exploit opportunities that increase system performance, optimize data manipulation, and improve collection, processing, and O&M.
- (U) Adapt overhead enterprise architecture capabilities to keep pace with emerging needs and technologies and to achieve compatibility with the NRO enterprise standards.
- (U) Implement adaptive prototype architecture to migrate towards a unified ground architecture consisting of a common and standardized infrastructure, enabling ground station interoperability.
- (U) Develop financial plans, budget requirements, and monitor financial execution performance of NRO Integrated Ground projects.

• (S//REL TO USA, FVEY) [Redacted]

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• ~~(S//SI//REL TO USA, FVEY)~~ [REDACTED]

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• ~~(S//SI//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//SI//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//SI//TK//REL TO USA, FVEY)~~ [REDACTED]

• (U) Sustain and upgrade multi-INT visualization tools.

(U) The NRO expects the project to accomplish the following in FY 2011:

• ~~(S//SI//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL USA, FVEY)~~ [REDACTED]

• (U) Develop systems requirements and CONOPS documentation required for development of capabilities for use against new threats.

• ~~(S//TK//REL USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL USA, FVEY)~~ [REDACTED]

• (S) [REDACTED]

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(U) MISSION GROUND STATIONS

~~(S//REL TO USA)~~

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Totals may not add due to rounding.

*includes enacted OOD funding.
 Funds and Government FTEs/positions requested in the GEOINT Ground Operations, SEGINT Ground Operations, and GEOINT Section Integration & Support projects.

(U) Project Description

~~(S//REL TO USA, FVEY)~~

(U) Resources in this project are used to:

- ~~(S//TK//REL TO USA, FVEY)~~
- ~~(S//TK//REL TO USA, FVEY)~~
- ~~(S//TK//REL TO USA, FVEY)~~

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~~(S//REL TO USA, FVEY)~~ [REDACTED]

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

~~(S//REL TO USA, FVEY)~~ [REDACTED]

(SECRET)

• (U)

— (U) Site support services: logistics, facilities O&M, medical support, and security support.

— (U) Infrastructure support such as networks, facilities, configuration management, and asset recapitalization.

— (U) Site unique core contractor support.

• (U) Provide Headquarters support.

• (U) Provide O&M to the NROC which is responsible for:

~~(S//REL TO USA, FVEY)~~ [REDACTED]

— (U//FOUO) Defensive space control engineering and analysis, and support warfighter operations with laser and radio frequency deconfliction analysis.

~~(S//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

— (U) Tools, infrastructure, personnel and travel for NRO operations at OCMC.

(U) The NRO expects the project to accomplish the following in FY 2011:

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• (U) Enable on-going operations of NRO satellite systems and ground stations, and provide the projected operational availability levels shown in the Mission Ground Stations Expenditure Center (EC) performance table (NRP_00554, 00555, 00556, 00559, 00561, 00563, 00564, 00647, 00648, 00649, 00662, 00663, 00664, 00665, 00706, PE_00004).

(U) Changes from FY 2010 to FY 2011:

~~(S//NF)~~ [REDACTED]

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(U) MISSION GROUND STATIONS

(U)
(S//REL)

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Totals may not add due to rounding.

*includes enacted OCO funding.

Funds and Government FTEs/positions requested in the SIGINT Ground Operations projects.

(U) Project Description

~~(S//TK//REL TO USA, FVEY)~~

(U) Resources in this project are used to:

• ~~(S//US//REL TO USA, FVEY)~~

• ~~(S//TK//REL TO USA, FVEY)~~

• ~~(S//TK//REL TO USA, FVEY)~~

- (U) Provide site support services: logistics, facilities O&M, medical support, and security support.
- (U) Provide infrastructure support such as networks, configuration management, and asset recapitalization.
- (U) Provide site unique core contractor support.

(U) The NRO expects the project to accomplish the following in FY 2011:

• ~~(S//TK//REL TO USA, FVEY)~~

- (U) Enable on-going operations of NRO satellite systems and ground stations, and provide the projected operational availability levels shown in the Mission Ground Stations EC performance table (NRP_00557, 00645, 00646, 00704, 00705, PE_00004).

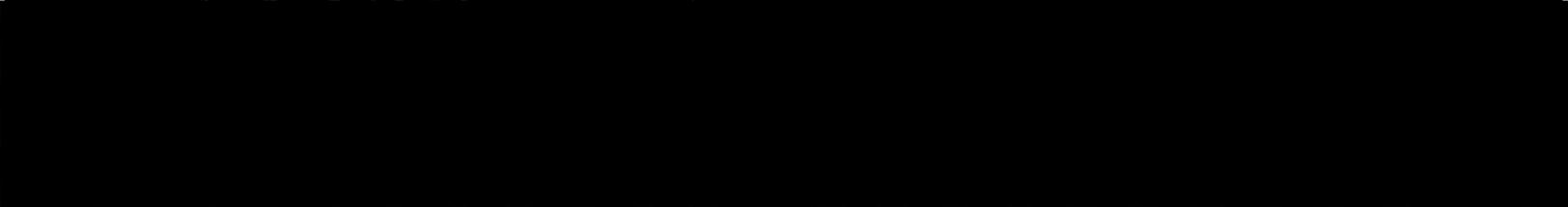
(U) Changes from FY 2010 to FY 2011:

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**(U) MISSION GROUND STATIONS
(U) STATION INTEGRATION & SUPPORT**

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Totals may not add due to rounding.

*Includes enacted OCO funding.

Funds and Government FTEs/positions requested in the GEOINT Station Integration & Support, GEOINT Ground Operations, and SIGINT Ground Operations projects.

(U) Project Description

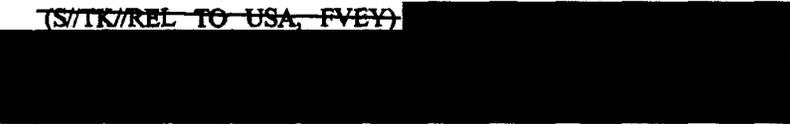
(U) The Station Integration & Support project includes resources for systems engineering efforts in support of the NRO Mission Operations Directorate. Government personnel in concert with Contracted Advisory and Assistance Service (CAAS), FFRDC, and non-CAAS contractors provide engineering support including:

- (U) Integration, readiness, and verification activities in support of ground developments and satellite launches.
- (U) Evaluation of IOSA constellation strategy options.
- (U) Operational need statement evaluations.
- (U) Future architecture requirements evaluations and study support.
- (U) Systems engineering configuration management boards.

- (U) Budget and contracts support.

(U) This project further provides funding to support Mission Operations Directorate personnel travel, permanent change of station moves to and from the NRO MGSs, mission training, and awards recognition.

~~(S//TK//REL TO USA, FVEY)~~



(U) Changes from FY 2010 to FY 2011:

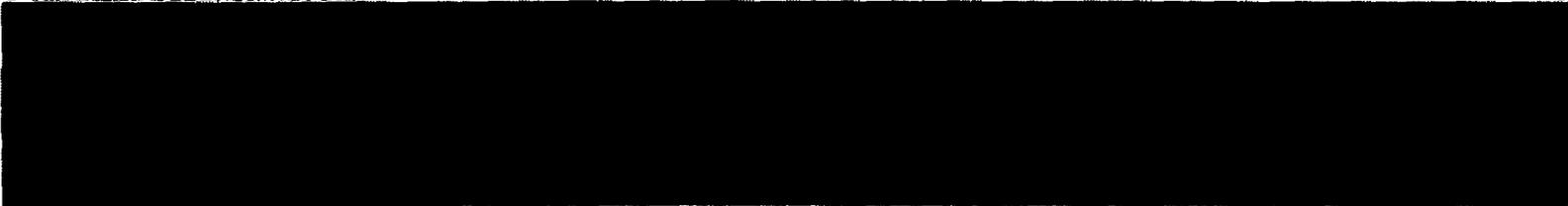
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**(U) ENTERPRISE IT
(U) CONNECTIVITY**

~~TOP SECRET//SI//TK//NOFORN~~



Totals may not add due to rounding.

*includes enacted OCO funding.

(U) Project Description

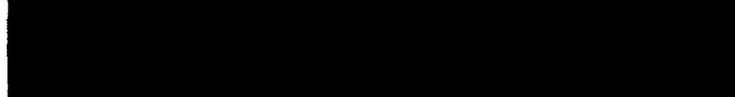
(U) The Connectivity project provides resources to develop, acquire, deliver, operate, maintain, and defend the NRO's enterprise information systems and terrestrial communication networks. These information systems and networks provide global communication services enabling the mission of the NRO and those of our IC mission partners and the DoD. Resources in this project are used to:

• (U//FOUO) [redacted]

• (S//TK//NF) [redacted]



• (S//TK//NF) [redacted]



• (U//FOUO) Provide the Core portion of the network and migration from an asynchronous transfer mode (ATM) backbone to an Internet Protocol [redacted] backbone to facilitate cross-agency, cross-department information sharing. Procure high-speed cryptographic devices.

• (U//FOUO) Provide the Edge portion of the network including voice and video to users through the Next Generation Edge/LAN, the Future Architecture for Command and Telemetry Services (FACTS), and the Unclassified Wide Area Network.

(U) The NRO expects the project to accomplish the following in FY 2011:

• (U//FOUO) Continue to support [redacted] technology insertion and system demonstrations while supporting mission operations.

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- (U//FOUO) Enhance and converge communication capabilities into a more interconnected, collaborative environment to meet user needs.
- (U//FOUO) Migrate to a unified management information system platform to support unclassified, secret/collateral, and Top Secret/Special Compartmented Information (TS/SCI) enterprise environments.

• ~~(S//TK//NF)~~ [REDACTED]

- (U//FOUO) Continue the acquisition effort to migrate from ATM backbone to an IP [REDACTED] backbone (NRP_00613).
- (U) Continue to consolidate and converge the network and provide higher throughput to the desktop to support user needs and enhanced services.
- (U//FOUO) Begin acquisition activities for the next generation IT and telecommunications operations and maintenance effort fundamental to the NRO's ability to motivate continuous improvement, provide cost-effective IT services, leverage the strengths of the market base, and adapt to future IT architectures and industry trends.

(U) Changes from FY 2010 to FY 2011:

• ~~(S//NF)~~ [REDACTED]

• ~~(S//TK//NF)~~ [REDACTED]

• ~~(S//NF)~~ [REDACTED]

- (U) Enterprise Systems: +\$2.4 million.

~~(S//TK//NF)~~ [REDACTED]

~~(S//TK//NF)~~ [REDACTED]

~~(S//TK//NF)~~ [REDACTED]

(U) Accommodation Procurement

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

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~~TOP SECRET//SI//TK//NOFORN~~**(U) ENTERPRISE IT
(U) ENTERPRISE ARCHITECTURE AND PLANNING**~~This Exhibit is SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U) The Enterprise Architecture and Planning project provides resources to support the secure and effective management of NRO IT resources and IT workforce. The Office of the CIO (OCIO) advises the Director, NRO and NRO senior managers on all IT related matters. The OCIO develops NRO IT strategy and policies that incorporate National, IC, Federal, and DoD guidance into the NRO Enterprise Architecture (EA), and the NRO IT Architecture. The OCIO develops and implements an IT portfolio management program to govern how the NRO evaluates, selects, acquires, controls, manages, operates and maintains IT. In addition, the OCIO enables NRO Enterprise information sharing through the adoption and integration of best practice Identity and Access Management Services (IAMS) standards, policies and controls to ensure secure access and sharing of information across the NRO and with the IC and its Commonwealth partners. Resources in this project are used for:

- (U) Facilitate the development of the NRO IT Strategy, which serves to inform activities throughout NRO on the vision and direction for IT.

- (U) Facilitate the development of the NRO IT Strategic Plan, which will provide a very high-level roadmap for the development of IT capabilities needed for NRO mission and business activities.
- (U) Facilitate the development of the NRO EA, which will assist in providing data and information useful for NRO seniors in making investment decisions and in meeting DNI and OMB EA requirements.
- (U) Facilitate the development of NRO IT Architecture, which will identify IT capabilities and functions needed for accomplishment of the NRO mission and business objectives.
- (U) Plan, coordinate, collaborate, formulate, and disseminate NRO IT policy, governance, and standards.
- (U) Implement IT investment portfolios across the NRO to support NRO senior management decisions concerning selection, control, and evaluation of IT investments.
- (U) Facilitate information sharing throughout the NRO and the IC, and identify possible technologies for the solution of tough information sharing challenges.
- (U) Provide IAMS that enable: public key infrastructure (PKI); remote access services (RAS); directory services; authentication and authorization services; and cross domain IC Federated

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Services in the form of architectures, policies, governance and management frameworks; and controls to support the NRO network infosharing infrastructure.

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Maintain and update the NRO IT Strategy.
- (U) Maintain and update the NRO IT Architecture.
- (U) Maintain and update the NRO IT Standards.
- (U) Continue to provide enterprise systems engineering support for agency-wide issues and to IC working groups and forums.
- (U) Continue expansion of the ability to accurately account for the depth and breadth of NRO IT resources across the enterprise by continuing the development and implementation of clear and concise IT policies, clear and accountable governance, and

improved insight, oversight, and management of NRO IT resources, as well as expand the OCIO span of influence in IT decisionmaking and corporate governance.

- (U//~~FOUO~~) Mature existing IAMS Directory Services and IC PKI services to include improved performance and expanded COOP capabilities across the NRO enterprise and mission services. Implement the NRO enterprise virtual directory to provide aggregated Directory Services for the NRO and enable IC common and peer to peer Identity and Access information access and sharing.
- (U//~~FOUO~~) Expand attribute based and role based access control capabilities for the NRO management networks and alignment with DNI IC services.

(U) Changes from FY 2010 to FY 2011:

- (U) There are no significant changes in this project for FY 2011.

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**(U) ENTERPRISE IT
(U) INFORMATION ASSURANCE**

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Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U) The Information Assurance (IA) project provides the resources to gain insight into and provide guidance to the NRO Directorates and Offices for the planning, designing, developing, implementing, and operating of IA activities and solutions.

(U) In order for the NRO to be successful in planning and implementing IA as an enterprise solution that enables the mission, a strong governance structure, defined IA architecture, enterprise vulnerability management program, and efficient certification and accreditation (C&A) program is required. Additionally, a comprehensive IA training function that reflects new approaches and C&A transformation will ensure IA skills and training standards are established for the IA workforce throughout the NRO.

(U) Resources in this project are used to:

- (U) Lead the IA architectural development in the NRO and drafting policies for proposed IA standards and guidelines.
- (U) Lead security accreditation for all NRO systems.
- (U) Track system vulnerabilities and recommended corrective and preventative actions (EIT_00005).

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Continue the development and implementation of the NRO IA program.
- (U) Provide a comprehensive approach to configuration management and control as an enterprise activity.
- (U) Continue the development and implementation of the enterprise-wide vulnerability management program.
- (U) Develop policies that address audit and audit data analysis.
- (U) Prepare the initial IA architectural views that describe the conceptual basis for the development, implementation, and management of the NRO IA program.

(U) Changes from FY 2010 to FY 2011:

~~(S//NF)~~

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**(U) RESEARCH & TECHNOLOGY
(U) RESEARCH & TECHNOLOGY DEVELOPMENT**



This Exhibit is ~~SECRET//NOFORN~~

Totals may not add due to rounding. *Includes enacted OCO funding.
Funds and Government FTEs/positions requested in the Basic Research, Applied Research, and Advanced Technology Development projects.

(U) Project Description

(U) The Research & Technology Development project, managed by the Advanced Systems and Technology (AS&T) Directorate funds the NRO's advanced research and development (AR&D) activities to deny adversaries sanctuary in time and space by focusing on technology for intelligence dominance. These AR&D activities enable evolutionary and revolutionary capability improvements to current and future GEOINT, SIGINT, multi-INT, communications, and ground systems. Our AR&D efforts are focused on basic/advanced R&D, Applied R&D transitions, and demonstrations and prototypes that improve our capabilities in the following six focus areas:

- (U) Access and Coverage: Means and methods to monitor targets and areas of interest whenever desired for as long as necessary to detect, track, and understand patterns of activity and behavior.
- (U) Timeliness: Ability to rapidly collect and disseminate relevant intelligence for all targets including those with fleeting signatures and observables.

- (U) New Sources and Methods: New sources and methods and new phenomenology for detecting non-traditional observables from targets of interest.
- (U) Target Discrimination: Ability to detect, identify, and discriminate targets against a cluttered background to determine patterns of life.
- (U) Geolocation and Ground Processing: Foundational, cross-cutting technologies to reduce cost, improve overall system performance, and decrease time-to-market.



(U) AR&D efforts are further aligned in six distinct activities: Basic Research, GEOINT Technology, SIGINT Technology, Communications Technology, Crosscutting Technology, and Phased Array Technology Maturity.

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(U) Basic Research

(U) Develop new and innovative sources and methods through the Director's Innovation Initiative (DII), the Innovative Solutions Initiative (ISI), and white papers proposed by industry, academia, other government organizations, and laboratories. The DII solicitation provides unclassified access to revolutionary R&D concepts and provides a risk-tolerant environment to invest in cutting edge technologies and high-payoff concepts relevant to the NRO's mission. The ISI is a classified solicitation that explores new and innovative ideas, concepts, technologies, and methods that will provide the nation and the IC with actionable intelligence to solve current and enduring problems.

(U) GEOINT Technology

(U) Develop technologies that include but are not limited to:

- (U) New collection sources and methods scalable to space.

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

- ~~(S//TK//NF)~~ [REDACTED]

(U) SIGINT Technology

(U) Develop technologies that include but are not limited to:

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) Communications Technology

(U) Develop technologies that include but are not limited to:

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

- ~~(S//TK//NF)~~ [REDACTED]

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) Crosscutting Technology

(U) Develop technologies that include but are not limited to:

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

- ~~(S//REL TO USA, FVEY)~~ [REDACTED]

- ~~(S//REL TO USA, FVEY)~~ [REDACTED]

- (U) Carbon nanotube (CNT) memory/logic, power cables, and structural applications.

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- (U) Third generation long duration CNT lithium ion batteries.
- (U) Radiation hardened analog, mixed signal, and digital microelectronics.
- (U) Next generation high efficiency solar cells.
- (U) Advances in thermal management for both payload and computer chips.
- (U) Advanced power electronics.
- (U) Multi-INT ground processing technologies.
- ~~(S//NF)~~ [REDACTED]
- (U) Advanced Futures Lab ground processing and data fusion technologies.
- ~~(S//TK)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//REL TO USA, FVEY)~~ [REDACTED]
- (U) Technology Forum/Technology Symposium coordination.
- (U) NRO advanced technology programs in partnership with the Air Force Research Laboratory and the Department of Energy's National Laboratories.
- (U//~~FOUO~~) Relocation of the Centralized Super Computing Facility (CSCF) to include construction identified in the FY 2011 Lands and Structures Resource Exhibit.
- (U) Emerging opportunities for technology investment.
- ~~(S//TK//NF)~~ [REDACTED]



(U) Phased Array Technology Maturity

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

- (U) Horizon to horizon coverage.
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- (U) Cross mission/precision geolocation.
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Continue to conduct the annual DII and ISI solicitations to identify high potential payoff technologies for the NRO.
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//NF)~~ [REDACTED]

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• ~~(S//TK//NF)~~ [REDACTED]

• ~~(S//TK//NF)~~ [REDACTED]

• (U) Complete Phased Array prototype (Electronically Steered Array) antenna testing activities demonstration at TRL 6 and exercise with breadboard processing capability.

• ~~(S//TK//NF)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//NF)~~ [REDACTED]

(U) Changes from FY 2010 to FY 2011:

~~(S//TK//NF)~~ [REDACTED]

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**(U) RESEARCH & TECHNOLOGY
(U) RESEARCH & TECHNOLOGY SUPPORT**

This Exhibit is ~~SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

~~(S//TK//NF)~~

- (U) State-of-the-art engineering and scientific analysis.
- (U) Technology analysis and forecasting.
- (U) Contracting, financial, and human resource management.
- (U) Information Technology.
- (U) Security.

- (U) Computer-aided design, simulation technology, and applications.
- (U) Graphics production, multimedia products, and administrative support.

(U) The NRO expects the project to accomplish the following in FY 2011—continue engineering and infrastructure support to the Advanced Systems & Technology Director and the Senior Southwest Technical Laboratory Liaison.

(U) Changes from FY 2010 to FY 2011:

- (U) There are no significant changes in this project for FY 2011.

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**(U) ENTERPRISE MANAGEMENT
(U) ACQUISITION MANAGEMENT**

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Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U//FOUO) The Acquisition Management project includes acquisition support resources for the Office of the Director of the NRO, as well as support for Directorate-level staffs within the IMINT, SIGINT, Ground Enterprise, Communications (COMM), System Engineering and Business Plans and Operations Directorates. Acquisition support activities in this project include travel, training, Advisory and Assistance Services, support for front office operations, financial management, security, and the IMINT Research and Technology Office, as well as other miscellaneous program support, to include program closeout activities.

(U) The NRO expects the project to accomplish the following in FY 2011—provide NRO- and Directorate-level acquisition support resources.

(U) Changes from FY 2010 to FY 2011:

• ~~(S//TK//NF)~~ [REDACTED]

• ~~(S//NF)~~ [REDACTED]

• ~~(S//NF)~~ [REDACTED]

• ~~(S//NF)~~ [REDACTED]

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**(U) ENTERPRISE MANAGEMENT
(U) CONTINUITY OF OPERATIONS (COOP)**

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[Redacted]
Totals may not add due to rounding. *includes enacted OCO funding.

(U) Project Description

~~(S//NF)~~ [Redacted]

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Manage and oversee the NRO's continuity capabilities (EMS_00034).

• ~~(S//NF)~~ [Redacted]

(U) Changes from FY 2010 to FY 2011:

~~(S//NF)~~ [Redacted]

• ~~(S//NF)~~ [Redacted]

• ~~(S//TK//NF)~~ [Redacted]

• ~~(S//NF)~~ [Redacted]

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**(U) ENTERPRISE MANAGEMENT
(U) EDUCATION AND TRAINING**

This Exhibit is ~~SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U) The Education and Training project provides resources for NRO and IC corporate initiatives that focus on improving workforce performance through training courses, career and professional development programs, retention initiatives, and exploitation of joint IC training opportunities.

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Improve and expand course offerings to advance acquisition professional certifications.
- (U) Integrate NRO University with DNI-affiliated intelligence and acquisition universities and expand course offerings across the IC.

- (U) Provide leadership development courseware to support DNI and NRO succession planning programs.
- (U) Provide an array of education and training services to include courses on supervisory skills and career planning, increased offerings of existing courses to match employee needs, and opportunities for employees to compete for and attend external training and education courses (EMS_00018).

(U) Changes from FY 2010 to FY 2011:

- (U) There are no significant changes in this project for FY 2011.

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**(U) ENTERPRISE MANAGEMENT
(U) FINANCE**

This Exhibit is SECRET//NOFORN	
Totals may not add due to rounding.	*Includes enacted OCO funding.

(U) Project Description

(U) The Finance project is responsible for NRO fund accounting in accordance with Generally Accepted Accounting Principles, timely and accurate processing of invoices, and preparation of external financial statements per OMB regulations. Finance provides financial policy guidance for NRO programs to ensure efficient and effective financial management. In addition, Finance provides support for NRO financial systems including the NRO Financial Information System.

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Sustain a clean audit opinion on the FY 2010 NRO financial statements.
- (U) Initiate consolidation of NRO systems and processes with CIA to a single core financial system.
- (U) Stand up and maintain a financial requirements tool for enterprise-wide planning, requirement gathering, and tracking.

(U) Changes from FY 2010 to FY 2011:

(U) There are no significant changes in this project for FY 2011.

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**(U) ENTERPRISE MANAGEMENT
(U) HEADQUARTERS MANAGEMENT**

This Exhibit is ~~SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U) The Headquarters Management project provides executive-level management and staff support for developing and issuing guidance; reviewing and evaluating program performance; allocating and distributing resources; and conducting intermediate- and long-range planning, programming, and budgeting. This project includes diverse management functions such as support to the Director's Office, General Counsel, Office of Equal Employment Opportunity, Inspector General, and Business Plans and Operations—Contracts, Acquisition Center of Excellence, Cost Analysis Improvement Group, Policy, Strategic Communications, Center for the Study of National Reconnaissance, and Resource Management.

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Complete the NRO Agency Financial Report, submit quarterly metrics updates to DNI, submit FY 2012 CBJB and FY 2013 Intelligence Program Budget Submission, and conduct quarterly execution reviews.

- (U) Integrate and expand earned value management support contracts and cost estimating support contracts, develop program life-cycle ICEs, provide independent earned value analysis on NRO major system acquisitions, and support ad-hoc cost estimating requests.
- (U) Support approximately 110 NRO and mission partner source selections and offer 100 formal and 60 informal Streamlined Timely Acquisition Topics, Just in Time, and graduate program training courses.
- (U) Expand ethics training to all NRO employees and monitor and review the overhauled corporate regulatory structure to satisfy OMB, DNI, DoD, and internal NRO requirements and standards.
- (U) Implement a comprehensive E-commerce strategy and establish guidance and procedures governing acquisition security with respect to industrial and corporate relationships in response to a dynamic and global industrial environment.
- (U) Complete two lessons learned studies for the DNI.

(U) Changes from FY 2010 to FY 2011:

- (U) There are no significant changes in this project for FY 2011.

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**(U) ENTERPRISE MANAGEMENT
(U) HUMAN RESOURCES**

This Exhibit is ~~SECRET//NOFORN~~



Totals may not add due to rounding. *Includes enacted OCO funding.

(U) Project Description

(U) The Human Resources project funds personal services for NRO civilian personnel and HR support and initiatives to improve recruitment, career development, recognition, retention, and management of the NRO's diverse scientific and acquisition workforce.

(U) The NRO is requesting an additional increase of 125 civilian positions to provide additional critical space acquisition skills and experience in engineering, program management, contracting, and budgeting to execute the NRO mission. Under the current staffing model, the NRO is reliant on external agencies and services to meet mission critical staffing requirements. The Air Force and CIA continue to be the primary providers of talent for the NRO across all occupations.

(U) Resources in this project are used to:

- (U) Reimburse the CIA for personnel support and travel costs for retirees and new employees, and other non-personal services costs.

- ~~(S//NF)~~ 

- (U) Conduct the NRO Employee Assistance Program (EAP). EAP provides centralized in-house, confidential mental health counseling and referral services; provides consultation services to managers and supervisors; and provides workshops and facilitates support groups on relevant mental health issues.

(U) With the exception of the 108 positions within the HR project, positions are distributed among the other ECs within the NRP.

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Continue to implement new/revised civilian pay systems.
- (U) Hire employees to fill the 125 new civilian positions.

(U) Changes from FY 2010 to FY 2011:

- ~~(S//NF)~~ 

- ~~(S//NF)~~ 

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**(U) ENTERPRISE MANAGEMENT
(U) NRO MISSION SUPPORT**

This Exhibit is SECRET//NOFORN

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U//~~FOUO~~) The NRO Mission Support (NMS) project directly supports the Director, NRO and the NRO Senior Leadership in making decisions on the development and delivery of quick reaction capabilities and the acquisition of new satellite and ground system capabilities in response to IC and DoD information needs. The NMS project places a top priority on building cross-INT collaboration and information sharing with users and ensuring responsiveness to the timelines of the most dynamic users. The NMS project is charged with ensuring effective NRO support to the IC, DoD, civil, and federal agencies to include managing relationships with customers; understanding their information needs; educating them on current capabilities; developing new capabilities; and leveraging and integrating NRO-wide enterprise solutions to quickly respond to their urgent operational and intelligence challenges. Additionally, the NMS project directly supports warfighters and operators in harm's way with capabilities and tools that enable real-time access to overhead collected data, tailored data processing, and information fusion tools to enable mission planning and execution. These capabilities are being used to prosecute high-value targets.

(U) Resources in this project are used to:

- (U//~~FOUO~~) Develop and integrate new user applications and prototypes that maximize the utility of national system capabilities and data in collaboration with NRO enterprise, mission partners, IC, DoD, industry, and academic communities.
- (U//~~FOUO~~) Rapidly respond to the urgent operational and intelligence needs of national users and military units by transitioning quick reaction application and prototype capabilities to the users.
- (U//~~FOUO~~) Provide national users and military units training on the various NRO technologies and collection capabilities and the potential applications of national systems data relevant to both strategic and tactical intelligence problems.
- (U//~~FOUO~~) Provide planning and coordination of experiments for technology development and field testing of capabilities in support of deployed forces.
- (U//~~FOUO~~) Provide on-site operational and technical expertise to key mission partners across the national and military communities to enable the development and direct integration of capabilities into their mission operations.

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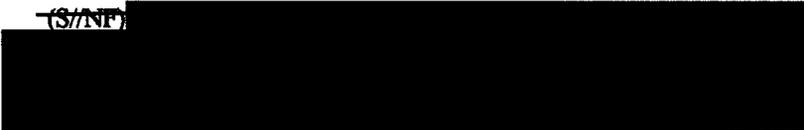
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(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Capture and correlate customer needs into a sharable NRO/IC database to drive the development of near-term capabilities and the acquisition of new system capabilities.
- (U) Identify capabilities with high potential for national and military dual-use and alternate approaches for tailoring and applying those capabilities to address a wider range of community needs.

(U) Changes from FY 2010 to FY 2011:

~~(S//NF)~~



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**(U) ENTERPRISE MANAGEMENT
(U) SECURITY**

This Exhibit is ~~SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U//~~FOUO~~) The Security project provides a wide array of security support and services in the area of physical security, personnel security, counterintelligence and information systems to the entire NRO government and industry population. The Office of Security and

(U) Resources in this project are used to:

- (U) Develop and distribute security policy guidance.
- (U) Identify, analyze, and disseminate information on terrorist and foreign intelligence service threats.
- (U) Plan long-range security initiatives.
- (U) Conduct security clearance investigations (EMS_00030, 00032).
- (U) Perform polygraph examinations.

- (U) Adjudicate and grant NRO accesses (EMS_00031).
- (U) Inspect and accredit secure facilities and information systems.
- (U) Provide security and CI training and awareness products to NRO employees.

(U) The NRO expects the project to accomplish the following in FY 2011:

- (U) Provide protection services to ensure zero breaches of the exterior perimeter of the NRO compound and outlying buildings.
- (U) Complete 15,000 initial and periodic clearance reviews to stay within the DNI directed timelines of 90 percent of initial reviews completed in 65 days and 90 percent of periodic reviews completed in 150 days.
- (U) Conduct daily CI activities to include auditing, monitoring, and analyses in support of the insider threat, information assurance, and technology protection programs.
- (U) Perform facility accreditations and site assessments on NRO and contractor facilities and sites.

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**(U) ENTERPRISE MANAGEMENT
(U//FOUO) ██████████ MANAGEMENT**

This Exhibit is SECRET//NOFORN	
Totals may not add due to rounding.	*Includes enacted OCO funding.

(U) Project Description

- ~~(S//TK//REL TO USA, TEYE)~~ ██████████
██████████
- (U//FOUO) Provide guidance to evolving NRO program offices on space and terrestrial ██████████ matters relating to future acquisitions, innovation, and experiments.

- (U//FOUO) Provide immediate, emergency support in response to real-world ██████████ issues in operational scenarios.
- ~~(S//TK//REL TO USA, TEYE)~~ ██████████
██████████
- (U//FOUO) Serve as the executive agent for the IC for matters relating to ██████████ management.
- ~~(S//TK//REL TO USA, TEYE)~~ ██████████
██████████

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**(U) ENTERPRISE MANAGEMENT
(U) SYSTEMS ENGINEERING**

~~This Exhibit is SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U//~~FOUO~~) The Systems Engineering project provides enterprise systems integration and architecture systems engineering activities in support of the NRO, across the acquisition directorates, Advanced Systems and Technology directorate, and the Office of Space Launch. The NRO Systems Engineering Directorate establishes systems engineering processes, maintains and manages the integrated NRO architecture and long-term investment planning baseline, and represents the NRO at all requirements-based interaction and interfaces with the IC and DoD. Systems Engineering Directorate ensures NRO system acquisitions achieve the required intelligence mission capabilities by conducting end-to-end cross-site/cross-system integration, validation, verification, and transition activities of satellite, ground, and infrastructure systems.

(U) Resources in this project are used to:

- (U) Provide oversight and management of NRO enterprise-level systems engineering processes.
- (U//~~FOUO~~) Develop and manage an integrated NRO architecture to produce new and innovative solutions that leverage mission partner efforts and build upon multi-INT information with enhanced data access, content, and delivery timelines.

- (U) Create enterprise-level strategic and investment plans, including development of technology roadmaps.
- (U) Implement effective NRO-level engineering and industrial base policies, processes, and initiatives.
- (U) Inform and provide the technical basis for enterprise-level programmatic decisions.
- (U) Perform enterprise-level trade studies supporting requirements and architecture development and interface definition.
- (U) Run system-level modeling and simulation.
- (U) Provide technical analyses—and represent the NRO—for overhead-related IC and DoD studies.
- (U) Raise the performance level of systems engineering and program management expertise across the NRO.
- (U) Coordinate with NRO mission partners on the set of cross-agency mission integration activities across the separate NRP, NGP, CCP, and GDIP programs in accordance with DNI priorities.
- (U) Perform end-to-end GEOINT, SIGINT, and Communications space and ground systems requirements management, architecture management, risk management/mitigation, schedule management, and configuration management.

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- (U) Support pre-acquisition architecture development for new programs and candidate concepts, including requirements definition and concept of operations studies.
 - (U) Plan and execute full system lifecycle readiness, to include definition of acquisition readiness schedules and milestones, data reporting requirements, and supporting engineering assessments.
 - (U) Assure end-to-end integration and test management, including readiness assessments for the transition and deployment of new capabilities to operations.
 - (U) Support preparation for and execution of acquisition milestone decisions.
 - (U//~~FOUO~~) Conduct studies and analyses addressing protection, survivability, and counter denial and deception.
 - (U//~~FOUO~~) Interact with other NRO activities and IC partners to ensure end-to-end continuity and security of essential functions in primary and reconstituted modes in order to ensure access to critical capabilities across IC agencies and customers.
 - (U//~~FOUO~~) Perform enterprise IT systems engineering activities. Advocate enterprise-level architecture, engineering, requirements, standards, and IT that enable secure NRO mission capabilities.
- (U) The NRO expects the project to accomplish the following in FY 2011—provide systems engineering to reduce risk and improve mission assurance for the following program events:

- ~~(S//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//NF)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]
- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) Changes from FY 2010 to FY 2011:

- (U) This project's FY 2011 structure reflects a new alignment to support the Systems Engineering Directorate reorganization, which occurred during 2009 and resulted from the NRO Transformation.
- ~~(S//NF)~~ [REDACTED]
- ~~(S//NF)~~ [REDACTED]

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**(U) FACILITIES AND LOGISTICS
(U) FACILITIES**

This Exhibit is ~~SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) Resources in this project are used to:

- (U) Operate and maintain NRO HQ facilities and grounds.

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

- (U//FOUO) Provide O&M for essential leased space in support of NRO HQ requirements within the National Capital Region. Leased [REDACTED]

- (U) Provide timely facility infrastructure standards support, enterprise management, policy, and guidance (to include power and cooling expertise) to the NRO.

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) The NRO expects the project to accomplish the following in FY 2011:

• ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

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- (U) Accomplish Hangar Little J renovations at Cape Canaveral Air Force Station, FL.
- (U) Continue establishment of additional CONUS freight transfer facilities.
- (U//~~FOUO~~) Implement extension of IC badge connectivity and remote monitoring from NRO Headquarters to ADF-East and ADF-Southwest.
- (U) Conduct design activities for facility recapitalization projects beginning in FY 2012, aimed at improving FCI and capacity shortfalls (NRP_00721, 00723).

(U) Changes from FY 2010 to FY 2011:

- (S//NF) [REDACTED]

• (S//NF) [REDACTED]

• (S//NF) [REDACTED]

• (S//NF) [REDACTED]

• (S//NF) [REDACTED]

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(U) FACILITIES AND LOGISTICS
(U) LOGISTICS

This Exhibit is ~~SECRET//NOFORN~~

Totals may not add due to rounding.

*Includes enacted OCO funding.

(U) Project Description

(U) The Logistics project provides resources for diverse enterprise level support services and transportation management services that enable the NRO to perform its worldwide mission.

(U) Resources in this project are used for:

- (U) Business systems development and integration, automation, upgrades, O&M, and configuration management of business services.
- (U) NRO environmental, safety, and system safety support; Comprehensive Emergency Management Program; Fire Protection Program; logistics/warehousing operations; medical and fitness support; life cycle records management; multimedia and production services; full-service government travel and accounting services; NRO cover and liaison services; library and technical research services; management control; knowledge management; and process reengineering.
- (U) Reception and Representational funds.

• ~~(S//TK//REL TO USA, FVEY)~~

• ~~(S//TK//NF)~~

- (U) Administration of the centralized NRO vehicle program to include vehicle leases, procurement, maintenance, inventory management, policy, and procedures.

(U) The NRO expects the project to accomplish the following in FY 2011:

• ~~(S//TK//REL TO USA, FVEY)~~

- (U) Research the supplier relationship management and customer relationship management functionality from within the existing enterprise resource planning (ERP) system.
- (U) Expand the electronic records management tool pilot program to a small subset of the NRO population.

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- (U) Complete the travel system functionality program including expanded or enhanced interface to the NRO's financial system.

- ~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

- (U) Continue O&M of Global Material Tracking System with business intelligence capabilities. Continue establishment of additional CONUS freight transfer capability.

(U) Changes from FY 2010 to FY 2011:

(U) There are no significant changes in this project for FY 2011.

Logistics Project Budget Chart
FY 2011 Budget Request by Appropriation Account
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[REDACTED]
Military/Civilian Positions

* (U) Appropriation detail lines may not add due to rounding.
(U) All personnel dollars are incorporated in the Enterprise Management EC, Human Resources project.
(U) MilPers funding is within the applicable military department budget.

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FY 2011 CONGRESSIONAL BUDGET JUSTIFICATION



VOLUME IV NATIONAL RECONNAISSANCE PROGRAM

FEBRUARY 2010

BOOK 2 OF 2

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NRO APPROVED FOR RELEASE 18 MAY 2011

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National Intelligence Program



FY 2011 Congressional Budget Justification

Volume IV



National Reconnaissance Program

February 2010

DRV FROM NCG 6.0, 21 May 2005
DECL ON: 25X1, 20060201
RRG dated July 05

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~~(S//REL TO USA, FVEY)~~ [REDACTED]

(U) LIFE CYCLE COST SUMMARY

(U) Acquisition Summary

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) The DNI CAIG ICE was completed in July 2007. To be consistent, the budget shown in the Life Cycle Cost (LCC) table includes space acquisition, ground acquisition system integration, launch, and other government costs.

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

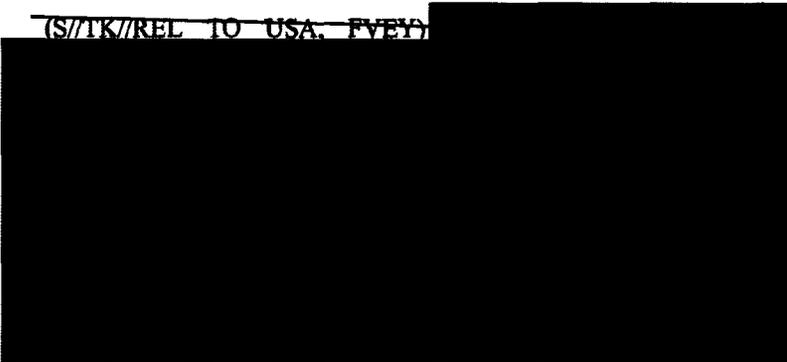
(U) Major Performers

Performer Name/Location	Function
[REDACTED]	
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**(U) NEXT GENERATION EO
(U) LIFE CYCLE COST SUMMARY**

(U) Acquisition Summary

~~(S//TK//REL TO USA, FVEY)~~


(U) NGEN Phase A was approved by a Joint Intelligence Acquisition Board in June 2009 and directed to proceed by a July 2009 Acquisition Decision Memorandum. Phase A activities include

concept refinement and preliminary design. Additional space segment-specific activities include procurement of long-lead components and maturation of critical technologies.

(U) The DNI CAIG's initial life cycle cost estimate was developed in September FY 2008. A formal ICE will be accomplished in FY 2010 to support a Milestone B decision scheduled for 2QFY12.

(U) Major Performers

Performer Name/Location	Function
Lockheed Martin/Sunnyvale, CA	Phase A prime contractor.
Lockheed Martin/Valley Forge, PA	Systems engineering.
Aerospace Corporation/El Segundo, CA	FFRDC.
Scitor Corporation/Herndon, VA	Systems engineering and technical assistance.

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~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) LIFE CYCLE COST SUMMARY

(U) Acquisition Summary

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

[REDACTED]

~~(S//TK//NF)~~ [REDACTED]

~~(S//TK//NF)~~ [REDACTED]

(U) Major Performers

Performer Name/Location	Function
Boeing/El Segundo, CA	Spacecraft payload and bus.
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~~(S)~~ [Redacted]

~~(S//TK//NF)~~

(U) Acquisition Summary

~~(S//TK//NF)~~ [Redacted]
~~(S//TK//NF)~~ [Redacted]

(U) Major Performers

Performer Name/Location	Function
Raytheon/Roston, VA	Mission integrator and developer.
Lockheed Martin/San Jose, CA and Valley Forge, PA	Systems integrator.
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(U) NRO MISSIONS AND FUNCTIONAL AVAILABILITY

(U) NRO MISSIONS

(U) The NRO acquires and operates satellites that provide constant global access to critical information otherwise unavailable to the President, his cabinet, other national leaders and numerous customers in the Defense and Intelligence communities. These satellites provide services in three broad categories: GEOINT, SIGINT, and Communications (COMM).

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~~(S//TK//REL TO USA, FVEY)~~

(U) Functional Availability

(U) Functional Availability (FA) employs probability theory, manufacturer's wear-out data, on-orbit experience, and constellation mission satisfaction (functional success criteria/FSC) to determine

constellation replenishment requirements. FA is the probability *constellation of satellites will meet specific mission requirements at a future point in time*. Different measures of FA aligned to different missions of the same constellation may be defined.

(U) **Risk Management.** FA is primarily a risk management tool for senior NRO leaders. FA charts indicate constellation mission satisfaction over time and illustrate the mission impact of launch failures, schedule changes, and on-orbit failures. The **budgeted constellation replenishment plan should ensure that FA levels remain above minimum thresholds.**

(U) **Reliability.** A satellite's reliability is the probability that it will remain operable and mission worthy at some future point in time, given everything known about its current status and future operation. Reliability functions provide this probability as a function of time and usually decline continuously.

(U) **Mean Life Estimate (MLE).** The satellite's MLE represents the expected average life and is derived from its reliability function. Typically, a satellite has about a 50 percent chance of operating beyond its current MLE. Decisionmakers should be cautious about drawing conclusions based on MLE. MLE measures satellite "life" without considering all the key aspects of satellite functionality: payload(s) performance, requirement satisfaction, communication throughput, ground capability.

(U) The following sections contain FA data on the GEOINT, SIGINT, and COMM constellations. Each section contains an FA summary, defines the functional success criteria, explains changes from last year's CBJB, and provides vehicle highlights. The accompanying graphics page displays the constellation FA curve and a horizontal "stoplight" bar to show overall constellation status over time. The bottom portion of the graphics page shows reliability data for each satellite and its MLE.

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(U) GLOSSARY

(U) ACP—agency cost position. ODNI nomenclature for IC Agency Cost Assessment Improvement Group generated ICEs.

(U) ADF-C—Aerospace Data Facility-Colorado.

(U) ADF-E—Aerospace Data Facility-East.

(U) ADF-SW—Aerospace Data Facility-Southwest.

(U) AGI—Advanced GEOINT derived from imagery.

(U) AGP—Advanced GEOINT Processing. Processing of advanced geospatial intelligence derived from imagery.

~~(S//TK//NOFORN)~~

[REDACTED]

~~(S//TK//REL TO USA, FVEY)~~

[REDACTED]

~~(S)~~

[REDACTED]

(U) AR&D—advanced research and development.

(WTFOWQ)

(U) Ardent Gunslinger—Three tiered replacement next generation CORE backbone replacing existing ATM network utilizing IP technology to replace the aging ATM Core infrastructure and to align with industry standards.

(U) ATM—asynchronous transfer mode. A high-bandwidth method of transporting information designed to integrate the transport of all services on a single network.

~~(S//TK//REL TO USA, FVEY)~~

[REDACTED]

(U) BOL—beginning-of-life.

~~(S//REL TO USA, FVEY)~~

(U) C&A—certification and accreditation.

(U) C&C—command and control.

(U) CAAS—contracted advisory and assistance services. Services under contract by non-governmental sources to provide management and professional support; studies, analyses, and evaluations; or engineering and technical support.

~~(S)~~ ~~(S//REL TO USA, FVEY)~~

(U) CCAFS—Cape Canaveral Air Force Station.

(U) CCS—constellation calibration services.

(U) CDR—critical design review.

(U) CNT—carbon nanotube. A one-atom thick sheet of graphite rolled up into a seamless cylinder with diameter on the order of a nanometer.

~~(S)~~

[REDACTED]

~~(S//TK//REL TO USA, FVEY)~~

[REDACTED]

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[REDACTED]

(U) COMEX—COMINT Exploitation. Technical and intelligence information derived from the monitoring of foreign communications signals.

(U) COMM—NRO Communications Directorate.

(U) COMSAT—communications satellite.

(U) CPAF/IF—cost plus award and incentive fee contract.

~~(S//REL TO USA, FVEY)~~ [REDACTED]

(U) CSL-G—Common Services Layer-Global. Project to upgrade network infrastructure utilizing emerging telecommunications standards and next-generation network processors, CSL-G will provide the capability to rapidly establish secure connectivity between new systems and services at varying classification levels, across a centrally managed, flexible, shared infrastructure.

(U) DAR Recap—data acquisition and routing recapitalization.

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) DCGS—Distributed Common Ground System.

(U) DII—Director's Innovation Initiative. An AS&T program that transitions almost 50 percent of its unclassified advanced technology investigations to funded follow-on research efforts inside the NRO, the Intelligence Community, and the DoD, providing those communities with advanced technology concepts for future systems.

(U) DLA—Defense Logistics Agency.

(U) E2—echelon 2. Factory maintenance in support of ongoing operational systems.

(U) EA—Enterprise Architecture. Primary purpose of EA is to ensure that business strategy and IT investments are aligned. As such, EA allows traceability from the business strategy down to the underlying technology.

(U) EAAF—enterprise architecture assessment framework.

(U) EC—expenditure center.

~~(S//REL TO USA, FVEY)~~ [REDACTED]

(U) EELV—Evolved Expendable Launch Vehicle. The name for the family of launch vehicle, which replaced the Titan and Atlas (II and III) launch vehicles. The EELV vehicle family is comprised of multiple configurations of the Lockheed-Martin Atlas V and the Boeing Delta IV.

~~(S//REL TO USA, FVEY)~~ [REDACTED]

(U) ELC—EELV Launch Capability contract.

(U) EO—electro-optical.

(U) EPF—Eastern Processing Facility. The new NRO space vehicle processing facility, currently being built at CCAFS. This facility provides the necessary support for final preparations, testing and status monitoring just prior to launch.

(U) ERP—enterprise resource planning.

(U) ESD—earliest service date.

(U) FA—functional availability. A measure of system performance that incorporates both improved estimates of satellite life and addresses user requirements.

~~(U//FOUO)~~ FACTS—Future Architecture for Command and Telemetry Services. Replaces unsupportable legacy network equipment with a future architecture for command and telemetry services necessary to continue the crucial transmission of command and telemetry data for spacecraft and their launch vehicle.

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(U) FASM—Focused Area SIGINT Mapping. One of three FA curves used to describe the system performance of IOSA high altitude spacecraft.

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) FCI—facilities condition index.

~~(S//TK//NF)~~ [REDACTED]

(U) FOC—full operational capability.

(U) FOT—Final Operational Transition. Full integration of spacecraft into operations.

~~(S//SI//REL TO USA, FVEY)~~ [REDACTED]

(U) FSC—functional success criteria.

(U) FSR—final spacecraft review.

(U) Gbps—Gigabits per second (10^9 bits per second).

(U) GED—NRO Ground Enterprise Directorate.

(U) GEO—geosynchronous orbit. An orbital regime at approximately 22,000 nautical miles characterized by its 24-hour orbital period which places an object in a stationary position relative to the Earth's rotation.

~~(S//REL TO USA, FVEY)~~ [REDACTED]

(U) GOA—Government of Australia.

(U) HEO—highly elliptical orbit. A highly non-circular orbit characterized by a maximum altitude of 25,000 nautical miles and 12-hour orbital period.

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

~~(S//REL TO USA, FVEY)~~ [REDACTED]

(U) HVT—high value target.

(U) I&IT—information and information technology.

(U) IA—information assurance.

(U) IAMS—identity and access management services.

(U) IBS—Integrated Broadcast Service. A complex and dynamic intelligence dissemination "system of systems" that is a theater-tailored dissemination architecture with global connectivity using a common message format in support of current and programmed tactical and strategic warfare systems.

~~(U//FOUO)~~ [REDACTED]

(U) ILC—initial launch capability.

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

~~(S//NF)~~ (U) [REDACTED]

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

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(U) IOC—initial operational capability.

~~(S//TK//REL TO USA, FVEY)~~

~~(S//TK//REL TO USA, FVEY)~~

(U) IP—internet protocol

(U) ISI—Innovative Solutions Initiative. Classified analog to the Director's Innovation Initiative.

(U) IV&V—Independent validation and verification.

(U) JSpOC—Joint Space Operations Center. A command and control weapon system focused on planning and executing US Strategic Command's Joint Functional Component Command for Space mission.

~~(S//TK//REL TO USA, FVEY)~~

(U) KDP—key decision point.

(U) KPP—key performance parameter.

~~(S//TK//REL TO USA, FVEY)~~

(U) LCC—life cycle cost.

(U) LEO—low earth orbit. An orbital regime between 90-600 nautical miles characterized by short orbital periods (approximately 90-100 minutes) that allow for frequent revisits per day.

(U) LON—launch-on-need.

(U) LPI/LPD—low probability of intercept/low probability of detection.

(U) LT&I—launch, transfer, and initialization.

~~(S//TK//REL TO USA, FVEY)~~

(U) Mbps—Megabits per second (10⁶ bits per second).

(U) MC&G—mapping, charting, and geodesy.

~~(U//FOUO)~~

~~(S//TK//REL TO USA, FVEY)~~

(U) MGS—mission ground station.

(U) MHz—megahertz (10⁶ Hertz or cycles per second).

(U) MIPS—million instructions per second.

(U) MLE—mean life estimate. Estimate of remaining lifetime of a space asset taking into account current state and system reliability.

(U) MMD—mean mission duration.

~~(S//NF)~~

(U) Data carrying mechanism that belongs to the family of packet-switching networks.

(U) MSA—major system acquisitions.

~~(S//TK//REL TO USA, FVEY)~~

(U) NAB—NRO Acquisition Board.

(U//FOUO)

(U//FOUO)

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(U) NGE—NRO Ground Enterprise. NRO ground architecture that includes all hardware and software required for command and control, mission management, and data processing for NRO spacecraft.

(U) NCEO—Next Generation Electro-optic system.

(U) NIIRS—National Imagery Interpretability Rating Scale. Standardize system for describing the intelligence tasks that can be performed using an image.

(U) NMS—NRO Mission Support.

(U) NOPS—NRO Operations Squadron.

(U) OCIO—Office of the CIO.

(U) OCMC—Overhead Collection Management Center. Joint, fully-integrated organization which brokers all SIGINT overhead requirements.

(U) OCO—Overseas Contingency Operations.

~~(S//REL TO USA, FVEY)~~

(U) OPELINT—Operational Electronic Intelligence.

(U) OPIR—overhead persistent infrared. A subset of MASINT focused on infrared signatures.

~~(S//TK//REL TO USA, FVEY)~~

(U) OSHC—Office of Strategic Human Capital.

(U) OSL—Office of Space Launch.

~~(S//TK//NF)~~

(U) PATRIOT—NRO Communications Directorate contract.

~~(S//TK//NF)~~
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(U) PDR—preliminary design review.

(U) Performance Objectives: Future Support - Budgeted activities that are not providing capabilities in the current budget year (FY 2009), but will significantly contribute to the outcomes, goals, and initiatives of the NIS mission objectives once they become operational (e.g., acquisition programs, research and technology programs.)

(U) Performance Objectives: Indirect Support - Operational or future budgeted activities that provide (or will provide) general support for intelligence activities (e.g. logistics, infrastructure, corporate management).

(U) Performance Objectives: Mission Objectives - One of the five mission objectives included in The National Intelligence Strategy of the United States of America, October 2005. Mission objectives relate to our efforts to predict, penetrate, and preempt threats to our national security and to assist all who make and implement US national security policy, fight our wars, protect our nation, and enforce our laws in the implementation of national policy goals.

(U) PKI—public key infrastructure.

(U) PR/CSAR—personnel recovery/combat search and rescue.

~~(S//NF)~~

(U) PROFORMA—weapons related, machine-to-machine signals intelligence and information.

~~(S//TK//REL TO USA, FVEY)~~

(U) Puppet Master - Replacement to the Future Architecture for Command and Telemetry Services (FACTS).

~~(S//TK//REL TO USA, FVEY)~~

(U) R/S—relay satellite.

~~(S//TK//REL TO USA, FVEY)~~

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(U) RCRP—Reconfigurable Receiver Payload. Payloads whose mission can be completely altered dynamically via software reprogramming of hardware functions, making the payload adaptable to a wide range of evolving missions. This flexibility enables a Quick Reaction Capability (QRC) where the payload functionality can be quickly changed after payload deployment, in order to rapidly respond to changing mission needs.

(U) RF—radio frequency or receive facility.

~~(S//TK//REL TO USA, FVEY)~~

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(U) SAR—synthetic aperture radar. A collection capability that uses returns from actively transmitted radar signals to produce high-resolution images regardless of weather or darkness.

~~(S//TK//REL TO USA, FVEY)~~

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(U) SCMIS—Secret collateral management information system.

(U) SDR—system design review.

~~(TS//SI//TK//REL TO USA, FVEY)~~

~~(S//TK//NF)~~

(U) SETA—system engineering and technical analysis.

~~(S//TK//REL TO USA, FVEY)~~

~~(S//TK//REL TO USA, FVEY)~~

(U) SIW—strategic indications and warning.

~~(S//TK//REL TO USA, FVEY)~~

(U) SPP—Space Protection Program. Joint NRO and Air Force Space Command program to provide decision makers in the DoD and IC a comprehensive national strategy for protecting our national security space systems.

~~(S//REL to USA, FVEY)~~

(U) SRR—system requirements review.

(U) SV—space vehicle.

(U) TECHELINT—Technical Electronic Intelligence.

(U) TI—technical intelligence.

~~(S//NF)~~

~~TOP SECRET//SI//TK//NOFORN~~

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~~(S//REL TO USA, FVEY)~~ [REDACTED]

(U) TRR—Test Readiness Review. A multi-disciplined technical review to ensure that a subsystem or system is ready to proceed into formal test.

(U) TT&C—telemetry, tracking, and commanding.

~~(S)~~ [REDACTED]

(U) UGA—unified ground architecture.

(U) UK—United Kingdom.

(U) ULA—United Launch Alliance. The Lockheed-Martin/Boeing joint venture for manufacturing and supporting the Atlas V and Delta IV EELV booster systems.

(U) UMIS—unclassified management information system.

(U) VAFB—Vandenberg Air Force Base.

(U) VHF—very high frequency. Portion of radio frequency range from 30 MHz to 300 MHz.

~~(S//SI//TK//REL TO USA, FVEY)~~ [REDACTED]

(U) VSAT—very small aperture terminal. Small earth station that transmits or receives satellite signals. Examples include satellite TV, shipboard communications, distance learning, and telemedicine.

(U) VWB—very wide band.

(U) WAN—wide area network.

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

~~(S//TK//REL TO USA, FVEY)~~ [REDACTED]

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