

NATIONAL RECONNAISSANCE OFFICE 14675 Lee Road Chantilly, VA 20151-1715

November 18, 2013

Mr. Steven Aftergood Senior Research Analyst Federation of American Scientists 1725 DeSales St NW, Suite 600 Washington, D.C. 20016

Dear Mr. Aftergood:

This is in response to your email letter, dated 30 April 2013, received in the Information Management Services Office of the National Reconnaissance Office (NRO) on 30 April 2013. Pursuant to the Freedom of Information Act (FOIA), you requested a copy of "all unclassified portions of the NRO Congressional Budget Justification Book (CBJB) for Fiscal Year 2014."

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 five hundred and thirty four pages responsive to your request. These pages are being released to you in part.

Material withheld is denied pursuant to FOIA exemption (b) (3) which allows the withholding of information prohibited from disclosure by statute, 10 U.S.C. § 424 which states: "Except as required by the President or as provided in subsection (c), no provision of law shall be construed to require the disclosure of (1) The organization or any function... (2)... number of persons employed by or assigned or detailed to any such organization or the name, official title, occupational series, grade, or salary of any such person... (b) Covered Organizations... the National Reconnaissance Office;" and 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 \$100.00. The costs associated with processing your request include four hundred thirty four pages at .15 per page which totals \$80.10. It has been determined that this document falls into the category of public interest, therefore 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 F13-0082.

Sincerely,

Imnith R. Donin for

Douglas J. Davis Chief, Information Review and Release Group

Enclosure: CBJB for FY2014 (534 pgs)

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National Intelligence Program

FY 2014 Congressional Budget Justification



Volume IV

NATIONAL RECONNAISSANCE PROGRAM





APRIL 2013

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(U) TABLE OF CONTENTS

	Page
BOOK 1	
(U) PROGRAM OVERVIEW	I
(U) COLLECTION & OPERATIONS	
(U) GEOINT EO	
(S//REL TO USA, FVEY)	23
(U) EO INTEGRATION & SUPPORT	
(U) GEOINT RADAR	
(S//REL TO USA, FVEY)	
(S//REL TO USA, FVEY)	
(U) RADAR INTEGRATION & SUPPORT	
(U) SIGINT LOW	
(S//REL TO USA, FVEY)	
(U) LOW ALTITUDE INTEGRATION & SUPPORT	
(U) SIGINT HIGH	
(U) SIGINT HIGH ALTITUDE REPLENISHMENT PROGRAM (SHARP)	
(S//REL·TO USA, FVEY	
(U) HIGH ALTITUDE INTEGRATION & SUPPORT	
(U) SPACE COMMUNICATIONS	
(S//REL TO USA, FVEY)	
(U) SPACE OPERATIONS DEVELOPMENT SEGMENT	
(U) RELAY READINESS AND LAUNCH	111
(U) SPACE COMMUNICATIONS INTEGRATION & SUPPORT	
(U) MISSION TRANSPORT SERVICE	
(U) MISSION SYSTEM ENCRYPTION	125
(U) LAUNCH	
(U) LAUNCH VEHICLES	137
(U) LAUNCH OPERATIONS & ENGINEERING	

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Page

(U) PROCESSING & EXPLOITATION

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(U) MISSIO	N CONTROL
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(U)	(S//REL TO USA, FVEY)
(U) STATION	N INTEGRATION & SUPPORT
(U) ENTERPRIS	EIT
(U) ENTERPRI	SE IT SYSTEMS
(U) CONNEC	
(U) ENTERP	RISE ARCHITECTURE & PLANNING
(U) INFORM	ATION ASSURANCE
(U) IT OPER	ATIONS & MANAGEMENT
	BOOK 2
(U) RESEARCH	& TECHNOLOGY
(U) RESEARCH	ł & TECHNOLOGY
(U) RESEAR(CH & TECHNOLOGY DEVELOPMENT
(U) RESEAR	CH & TECHNOLOGY SUPPORT
(U) ENTERPRISE	E MANAGEMENT & SUPPORT
(U) ENTERPRIS	SE MANAGEMENT
(U) ACQUISI	TION MANAGEMENT
(U) COOP	
(U) EDUCAT	ION & TRAINING
(U) FINANCI	3
(U) HQ MAN	AGEMENT

TOP DEGRET//GI/TK//NOFORN

TOP SECRET//SI/TK//NOFORN-

	Page
(U) HUMAN RESOURCES	339
(U) NRO MISSION SUPPORT	347
(U) SECURITY	355
(U) SPECTRUM MANAGEMENT	363
(U) SYSTEMS ENGINEERING	369
(U) FACILITIES & LOGISTICS	377
(U) FACILITIES	381
(U) LOGISTICS	393
(U) ACQUISITION SUMMARIES	401
(U) SPECIAL TOPICS	441
(U) CONGRESSIONAL REPROGRAMMING ACTIONS	461
(U) RESOURCE EXHIBITS	463
(U) GLOSSARY	513

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(U) PROGRAM OVERVIEW

(U) Budget Request



(U) Description

(U) Overhead reconnaissance enables the US and its Allies to maintain strategic and operational superiority across a broad spectrum of missions around the globe. It is the foundation of US global situational awareness, providing timely access to locations around the world. NRO systems assist national policy formulation in general as well as intelligence, military, and homeland security operations in particular, without risk of violating international law or convention. Using increasingly diverse sensor systems, the NRO provides customers with unprecedented flexibility, enabling intelligence integration, assessment, and problem-solving across geographic boundaries and intelligence domains. These capabilities contribute directly to our ability to achieve diplomatic goals, deter aggression and the proliferation of WMD, combat terrorism, and conduct security operations worldwide.

(U) The NRO provides unique support to national security objectives by:

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• (S//TK/NF)	
• (S//REL TO USA, FVEY)	
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(U) FY 2014 Overseas Contingency Operations (OCO) funding is not included in the FY 2014 Congressional Budget Justification. FY 2014 OCO funding will be provided as a budget amendment when finalized.

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(U) Strategic Direction

(U) The FY 2014 NRO program is based upon the following principles:

٠	(S//REL TO USA FVEY)

- (U) Continue to introduce economies in its acquisitions and operations when these economies contribute to mission success.
- (U) Give protection and resilience of the NRO mission the same priority as system performance.
- (U) Continue to investigate and support incorporation and hosting of ground-breaking advanced technologies.

(U) To achieve its program objectives within the outline of the above principles, the NRO considered a wide series of comparisons and trades in the formulation of the FY 2014 President's Budget. Economies were achieved in the following areas in order to balance mission requirements with anticipated future budget constraints.

- (U/FOUO) NRO ground and communications systems have been tailored to future mission needs to conform to a common set of standards and capabilities replicated across all NRO ground sites and facilities. These changes were consistent with and an extension of changes proposed in previous NRO budget submissions, but included new levels for communications systems and ground network systems standardization, along with reductions in IT systems aligned with the DNI's direction on reducing IT. These changes are also broadly consistent with NRO resiliency and protection objectives.
- (U//FOUO) Future SIGINT capabilities were redesigned to be consistent with Functional Manager requirements, while minimizing cost.
- (U//FOUO) Transition points for reformulation of future NRO GEOINT capabilities were inserted.
- (U//FOUO) Future persistence and wide-area surveillance capabilities and related Activity Based Collection objectives were addressed through offsetting cost savings achieved in other areas of the program.
- (U//FOUO) Future communications initiatives were programmed based on savings achieved in other areas
 of the NRO communications program, partly through adoption of commercial acquisition practices. NRO
 also will rely more on commercial products, processes, and acquisition models to achieve cost savings and
 other efficiencies across NRO ground and communications systems.

(U) The NRO will continue to monitor and achieve cost savings through adoption and extension of Evolutionary Acquisition principles to all its future major system procurements and strive to incorporate smart program streamlining concepts while managing risk.

(U) The NRO programmatic strategy is shaped around the following DNI priorities:

(U) Intelligence Integration

• (U) Continue developing cross-system tasking, mission management, and sensor data processing tools enabling NRO systems to operate as a fully integrated constellation to maximize multi-INT collection, increase effective persistence, and enhance mission value through synergistic collection.

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- (U) Continue ongoing efforts to improve the ability of overhead sensors to operate cooperatively with airborne and terrestrial sensors.
- (U) Expand on successes developing new operational concepts and sensor data processing tools enabling legacy satellites, designed against different collection requirements and operating well beyond their design lives, to effectively address current intelligence problems.
- (U) Implement ground efficiencies through further cross-system architectural integration, expanded common processing, and additional shared services.
- (U) Continue developing new product types tailored to evolving user needs.
- (U) Continue improving tools and processes enabling timely cross-INT and cross-domain tipping and cueing.

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(U) Counterterrorism and Transnational Threats

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• (U) Build on the recent 88 percent reduction in collection-to-analyst dissemination timelines to further reduce production and dissemination requirements for time-sensitive data.

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- (S//TK//REL TO USA. FVEY)

(U) Counterproliferation

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•	(U) Continue R&D to increase satellite sensor spectral diversity and sensitivity.		

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(U) Indications and Warning

- (U) Continue to be the cornerstone of the nation's I&W data collection.
- (S//TK//NF)

(U) Counterintelligence

- (U) Continue comprehensive efforts focused on protecting the end-to-end overhead reconnaissance enterprise.
- (U) Continue addressing supply chain vulnerabilities.
- (U) Continue strengthening information assurance and network security capabilities.
- (U) Continue implementing robust insider threat detection processes and methodologies.

(U) Investment Areas to Support Mission Priorities

(U) This budget submission represents the biggest restructure of the NRO portfolio in a decade. The NRO Evolved Acquisition strategy is delivering ever-improving systems at or below estimated cost, on time or early. This has enabled simultaneous investment in new capabilities to change the basic calculus of future overhead collection while improving capabilities on existing systems to improve support to the IC.

(U) Activity Based Collection

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(U) Replenish Integrated Overhead SIGINT Architecture (IOSA)

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(U) Promoting Efficient Spending

(U) The NRO has implemented several practices for reducing administrative costs, improving operations, increasing efficiencies, and cutting unnecessary spending. For example the NRO held its FY 2012 travel budget to FY 2010 levels. The NRO is committed to achieving continued efficiencies in travel throughout the FYDP. The NRO also conducted a thorough review of projected conference spending and appropriately amended policies and controls. All NRO conference attendance or sponsorship now requires senior level review, approval, and the proper public reporting. Regarding real property, the NRO moved aggressively to make more efficient use of the Government's real estate assets. NRO put controls in place to ensure the size of the civilian real estate inventory will not increase and is reducing leased space within the Washington DC area. The NRO has also optimized the management of Government-owned vehicles. The NRO initiated a replacement and renewal schedule whereby standard sedans operate on a replacement schedule of at least three years or until the vehicle has been driven in excess of 60,000 miles (whichever comes first), unless material defects prevent the vehicle from operating in a safe manner or if a replacement would save the NRO money over the life of the vehicle. By reducing administrative costs, improving operations, increasing efficiencies, and cutting unnecessary spending, the NRO will be able to reinvest into activities to provide more robust tracking and public reporting of Federal spending, and to fund internal audits and investigations to root out fraud and error in Federal programs and activities.

(U) Summary of Changes by Expenditure Center

(U) Changes From FY 2013 to FY 2014:

(U) The NRO has restructured its budget submission in order to improve traceability of funding for Congressional and Executive Branch oversight. The new structure consolidates all NRP funding supporting each Major System Acquisition (MSA) into a single subproject and all funding for related MSAs into a single budget project. For instance, all funding for the Mission Processing Increment 1.2 acquisition will reside in the Mission Processing 1.2 subproject and all funding for current and future Mission Processing MSAs will reside in the Mission Processing project. This change will gather funds from all organizations within the NRO and for all support activities associated with each program baseline and co-locate them within a single subproject. This will facilitate review of the scope of each effort by eliminating the spread of funding and justification for one baseline across multiple projects.

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(U) As part of the move to consolidate MSA funding, technology insertion efforts that are being developed within a program for possible insertion on future spacecraft as part of the NRO Evolved Acquisition process, have been moved to the Research and Technology project. These efforts which will still be managed by the development program office will reside in separate subprojects within the R&T project which has historically been managed by the NRO AS&T directorate. These efforts will now be more clearly identified as Advanced Research and Development activities and the construct will allow for a smoother transition of technology from AS&T to development program offices.

(U) The IC CIO is working to standardize the IT budget construct across the IC. This has resulted in the creation of a new budget project, IT Operations and Management, in the Enterprise IT Systems EC. This resulted in the move of the NRO IT Enterprise Operations function from the Connectivity project to this new project, however the scope and function of this activity within the NRO remains unchanged.

(U) In order to improve alignment of Launch Services funding under the new launch services and launch capability contracts, the Launch Capabilities Infrastructure subproject has been functionally transferred from the Launch Capabilities Infrastructure project and into the Launch Vehicles project. This approach is an element of the Air Force EELV Acquisition Strategy and supports the creation of a "level playing field" for full competition with new entrants. The approach also enables a seamless transition to a Launch Production Service that will be fully burdened with launch capability costs.

(U) During this transition, there can be increased confusion as funding migrates from areas where it has been executed for many years to new locations. The NRO recognizes the challenge this can create and will work closely with Congress to ensure traceability of these realignments.

(U) These tables provide a summary level view. Details are provided in the project and subproject level justifications.

(U) Funding Increases, Decreases and Functional Transfers



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(U) Positions Increases, Decreases and Functional Transfers



(U) Annual Performance and Accountability

(U) The FY 2014 request, in concert with the FY 2012 Agency Financial Reports provided in November 2012, and "FY 2012 NIP Summary of Performance and Financial Information" dated April 2013, meets the FY 2012 annual performance and accountability requirement for the IC. This request reflects a commitment to demonstrating that resources produce measurable results. Relationships among resources, performance expectations, and performance results are addressed throughout the request.

(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



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(U) Funding for National Intelligence Strategy Mission Objectives

(U) The following chart displays the FY 2014 funding request as allocated to support the NIS MOs. Activities that support MO6, Support Current Operations, are funded within the other MOs. The NIP Summary--Volume I describes the IC's progress and goals in each MO mission area.

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(U) FY 2014 Workforce Highlights

(U) The NRO's government workforce is borrowed in that it is comprised of military and civilian employees directly employed by other government organizations – primarily Air Force, Navy, and CIA – who provide expertise in acquisitions, research and technology, satellite and ground operations, and enabling services in support of the NRO mission. In FY 2014, the NRO plans to continue implementation of enterprise workforce planning methodologies to present a more precise and, therefore, comprehensive picture of current and future staffing requirements to meet mission objectives when engaging with the parent organizations that supply the NRO's workforce.

(U) Summary of Planned Workforce Changes

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(U) Requested Workforce Changes

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(U) The NRO uses FFRDCs to provide objective technical analysis and assessment, program and technology continuity, and freedom from conflict of interest in advising the government on the development, acquisition, test, launch, and operations of some of the most complex systems built by man. FFRDCs are positioned throughout the NRO enterprise based on program requirements to provide expertise that is not readily available within the government workforce and to maintain a knowledge baseline that is not supported by the current availability and stability of the government workforce. The majority of the FFRDC workforce supports NRO program offices in acquisition and delivery of space system hardware, launch systems, or their associated ground equipment. This end-to-end involvement reduces development risks and costs and, as demonstrated by recent NRO performance, allows for a higher probability of mission success. More information on NRO's use of FFRDC STEs is contained in a dedicated exhibit in the Resource Exhibits section.

(U) Employment Demographics

(U) Since the NRO is staffed by a borrowed workforce, it is dependent on parent organizations to execute many of the human resources functions that support day-to-day mission operations, to include assignments, hiring, promotions, and career development. At the end of FY 2012:

- (U) The NRO had an overall fill rate of 89 percent, largely set by policies and practices of our parent organizations. Cuts to core contractor levels limit flexibility to augment government technical expertise.
- (U) The NRO grade distribution reflects the expertise required to satisfy its space mission. The majority of the workforce resides in senior grades: GS-13 through senior executive.
- (U) The NRO average age was consistent with the trend in the federal government, with employees in the late-40s to mid-50s bracket holding senior ranking positions with 15 plus years of service. Retirement eligibility statistics are tracked by parent organizations.
- (U) Military personnel comprised 46 percent of the NRO workforce, a ratio that has been consistent over the past several years. Changes anticipated with the new National Defense Strategy could affect the number and demographics of military personnel at the NRO in the future.

(U) Workforce Conclusion

(U) A collaborative approach to human capital management between the NRO and the parent organizations is fundamental to mission success Because of the NRO's borrowed workforce staffing model, it is imperative that it has the necessary tools and data to execute effective workforce analysis and planning.

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(U) Section I: Project Description

1. (U) Description

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



(U) Base resources in this project are used for:

(S//TK//REL TO USA: FVEY)



- (U) Conduct integrated systems engineering to ensure requirements definition, requirements management, performance assessment, and system closure across space, ground, and between segments. Conduct system verification, validation, and testing to ensure user requirements are satisfied.
- (U) Acquisition support activities such as engineering change proposal evaluations, acquisition planning, and technology assessments/insertion.
- (U) Prime contractor design evaluation.
- (U) Program risk reduction, technical studies, and analyses.
- (U) Requirements analyses.

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- (U) Modeling and simulation.
- (U) Travel and training.
- (U) Key programs/initiatives:



(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

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- (S//REL_TO_USA, FVEY)
- (U) Complete fabrication of the Development Test Vehicle 1 and conduct acoustic and shock testing and analyses.
- (U) Perform Phase B risk reduction, studies, and technology maturation activities.
- (S//REL TO USA, FVEY)

• (S//REL-TO-USA, FVEY

2. (U) Participating Organizations

A. Funds

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

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(U) Section I: Project Description

1. (U) Description

(S//REL TO USA, FVEY)

(U) Base resources in this project are used for:

- (S//REL-TO-USA, FVEY)
 - (U) Supporting spacecraft anomalies to include anomaly investigation, resolution, and root cause determination, developing new capabilities to support operational spacecraft, and supporting on-orbit operations.
 - (U) Maintaining and operating space vehicle simulators configured in support of operational spacecraft and prioritizing the use of engineering development units for anomaly resolution, and flight software patch development.
 - (U) Performing daily and long-term data trending to determine and predict spacecraft subsystem
 performance and leveraging the information to conduct EO risk reduction, trade studies, and analyses.
 - (U) Ensuring the operational constraints of individual spacecraft are captured following subsystem degradations or system failures.
 - -- (U) Providing on-orbit spacecraft anomaly data to developers that may have potential reach back to in-development spacecraft.
 - (U) E2 maintenance of the legacy Spacecraft Control Element software within the Operations Facility (O/F). Correcting discrepancies in the delivered baseline Spacecraft Control Element command and control ground software, and test and deliver new software versions.
 - (U) Key programs/initiatives:
 - (S//REL TO USA, FVEY)
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• (S//REL TO USA. FVEY)	
• (S//REL TO USA, FVEY)	

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

- (S//REL TO USA; FVEY)
- (S//REL TO USA, FVEY
- (S//REL TO USA, FVEY)

2. (U) Participating Organizations

A. Funds

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B. Positions

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(U) Section I: Project Description

1. (U) Description

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(U) Base resources in this project are used for:

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•	(S//TK//REL_TO_USA, FVEY)
•.	(S//TK//REL TO USA, EVEY)
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•	(S//TK//REL TO USA, FVEY)

• (U) Core contractor support to the program office (Contracted Advisory and Assistance Services/System Engineering and Technical Analysis (CAAS/SETA) and FFRDC).

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- (U) Conduct integrated systems engineering to ensure requirements definition, requirements management, performance assessment, and system closure across space, ground, and between segments. Conduct system verification, validation, and testing to ensure user requirements are satisfied.
- (U) Travel, transportation, training, and awards.
- (U) Key programs/initiatives:

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— (S//TK//REL TO USA, FVEY)			
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(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

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2. (U)) Participating Organization	ons		·	
A. Fu	inds				
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(U) Section III: Subproject Specific Detail/Budget

- 1. (S//NF)
- A. (U) Description

(S//REL TO USA, FVEY)

- (U) Space vehicle systems engineering.
- (U) Requirements analysis.
- (U) Modeling and simulation.
- (U) Operations and maintenance planning/coordination.
- (U) Program and business management analysis.
- (U) Integration, test, and launch integration support.
- (U) Acquisition support activities, such as engineering change proposals and acquisition planning
- (U) Radar risk reduction and technology maturation analysis and trade studies.

(U) Resources in this subproject are used for:

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(U) Other Contractual S	ervices:			
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(U) Increases:);	· · ·		
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(U) Decreases:

• (S//NF)

(U) Functional Transfers:

- (S//TK//NF)
- (U) 1 civilian and 3 military positions from Radar Integration & Support project, Radar Integration & Support subproject to better align personnel to project.

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(U) GEOINT <u>RADAR</u>



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(U) Section I: Project Description

1. (U) Description

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•	(S//TK//REL TOUSA,	FVEY)	
	(S//TK//DEL_TO USA	EVEN)	

(U) Base resources in this project are used for:

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•	(S//REL TO USA, FVEY)			
•	(S//REL TO USA, FVEY)			
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• (U) Technology development and insertion activities to enhance capabilities in accordance with mission needs against an evolving target environment.

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(S//REL TO USA EVEV)

- (U) Core contractor support to the program office (CAAS/SETA and FFRDC).
- (U) Conduct integrated systems engineering to ensure requirements definition, requirements management, performance assessment, and system closure across space, ground, and between segments. Conduct system verification, validation, and testing to ensure user requirements are satisfied.
- (U) Travel, transportation, training, and awards.
- (U) Key programs/initiatives:

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— (S//REL TO USA, FVEY)	
— (TS//TK//NE)	
- (S//REL TO USA EVEY)	
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(U) The NRO expects the project to accomplish the following in FY 2014:

(S//REL TO USA_EVEY)

• (U) Conduct analyses in support of the Intelligence Community Capability Requirements process and the Joint Requirements Oversight Council.

2. (U) Participating Organizations

A. Funds

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(U) Section III: Subproject Specific Detail/Budget

1. (S//NF)

A. (U) Description

(S//REL TO USA EVEY)

- (U) Space vehicle systems engineering.
- (U) Requirements analysis.
- (U) Modeling and simulation.
- (U) Operations and maintenance planning/coordination.
- (U) Program and business management analysis.
- (U) Integration, test, and launch integration support.
- (U) Acquisition support activities, such as engineering change proposals and acquisition planning.
- (U) Radar risk reduction and technology maturation analysis and trade studies.

(U) Resources in this subproject are used for:

(S//NF)			
• (S//NE)			
• (U) Other Contractual Services:			
— (\$//NF)		· · · · · · · · · · · · · · · · · · ·	
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(U) GEOINT RADAR (U) RADAR INTEGRATION & SUPPORT

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(U) Section I: Project Description

1. (U) Description

(S//REL TO USA, FVEY)

(U) Base resources in this project are used for:

• (S//REL TO USA, FVEY)

- (U) Anomaly support.

- (U) Trending and analysis.

- (U) Calibrations.
- -- (U) Problem resolution/discrepancy reporting.
- (U) Operations products development and refinement.

(S//REL TO USA, FVEY)



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U.) Key	programs/initiatives:

(SUDEL TO USA EVEN

- (S//REL TO USA, FVEY)

- (S//REL TO USA, FVEY)

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(U) SIGINT LOW (S//REL TO USA, FVEY)

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(U) Section I: Project Description

1. (U) Description

(S//TK//REL TO USA EVEY)

(TS//TK//NF) (S//TK//REL TO USA, EVEY)

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

(U) Base 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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- (U) Conduct integrated systems engineering to ensure requirements definition, requirements management, performance assessment, and system closure across space, ground, and between segments. Conduct system verification, validation, and testing to ensure user requirements are satisfied.
- (U) Provide core contractor and FFRDC resources for engineering, acquisition, and technical assistance.

	(S//TK//REL TO USA, FVEY)	
•	(S//TK//REL TO USA, FVEX)	
	(S//TK//REL TO USA, FVEY)	

- (U) Perform technical and programmatic reviews of contractor acquisition performance and program issues, satellite factory operations, and on-orbit satellite performance and anomaly support, providing analyses and recommendations to the program manager.
- (U) Key programs/initiatives:

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

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

٠	(S//TK//REL TO USA, FVEY)	
•	(S//TK//REL TO USA, EVEY)	
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٠	(S//TK//REL TO USA, FVEX)	
•	(S//TK//REL TO USA, FVEY)	
•	(S//TK//REL TO USA, FVEY)	

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(U) Functional Transfers:

- (S//TK//NF)
- (U) 1 civilian and 8 military positions from other NRO acquisition and operations activities to support program acquisition requirements.

C. (S//TK)

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

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(U) Section I: Project Description

1. (U) Description

(U) The Low Altitude Integration and Support project provides resources for factory maintenance of operational vehicles, ground software baseline delivery management, and ground recapitalization.

(U) Base resources in this project are used for:

- (U) Supporting adaptive and corrective factory maintenance and anomaly activities, delivery management, and recapitalization which include:
 - (U) Integrating and delivering flight and data conditioning software baselines.
 - (S//TK//REL-TO-USA, EVEY)
 - (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.
 - (SHTK/REL TO USA, FVEY)
 - -- (U) Remaining postured to assume health and safety responsibilities of operational spacecraft in the case of disaster or communication failure at the primary ground station.
 - (U) Replacing ground software, equipment, parts, and materials to prevent ground system failure caused by obsolescence.

- (SHTKHREE TO USA, FVEY)

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(U) Section III: Subproject Specific Detail/Budget 1. (S//NF) A. (U) Description (S//TK//REL TO USA. FVEY) (S//NF) • (S//NF) B. (U) Summary of Change FY 2013/2014 for SIGINT Low Factory Support Subproject

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(U) Decreases:	ı	-

- (S//NF)
- (U) Functional Transfers:
- (U) 2 military positions from Low Altitude Integration & Support subproject to appropriately align resources within the budget structure.

C. (U) Object Class Display for SIGINT Low Factory Support Subproject

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(U) SIGINT HIGH (U) SIGINT HIGH ALTITUDE REPLENISHMENT PROGRAM (SHARP)

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- (U) Section I: Project Description
- 1. (U) Description



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

(U) Base resources in this project in concert with related funding in the NRO MIP are used to:

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

• (U) Develop, produce, integrate, test, and install the command and control segments at the mission ground stations (MGS).

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

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

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(S//TK//REL TO USA. FVEY)

- (U) Provide acquisition'support efforts, studies, enhancements, and other design changes.
- (U) Provide core contractor (including FFRDC) support to the SIGINT High Expenditure Center (EC), advanced studies for future SIGINT systems, and reach back to on-orbit assets.
 - (U) These system engineering resources are necessary to ensure the High Altitude SIGINT constellation performance requirements are achieved.
 - (U) Efforts include management of interfaces outside the direct control of the SHARP program manager (including hosted payloads, processing, communications, and other IOSA elements) to ensure interfaces are properly defined and tested.
 - (U) Efforts also include trade studies, analyses, and reviews of prime contractor and subcontractor acquisition performance.
 - (U) Core contractor support is jointly funded between NRO MIP and NRP.

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



(S//TK//REL_TO_USA, FVEY)

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

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

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	— (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) Key programs/initiatives:

(S//REL TO USA, FVEY)

- (U) Maintain SHARP technical performance requirements.

- (U) Perform SHARP risk reduction activities including the acquisition of additional engineering models and test sets to increase efficiency of production, integration, and test processes.

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:


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

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(U) Section I: Project Description

1. (U) Description

(U) The High Altitude Integration & Support project provides factory maintenance for SIGINT High on-orbit space systems.

(U) Base resources in this project are used for:

•	(S#TK#REL TO USA, FVEY)	
•	(S//TK//REL TO USA, FVEY)	
•	(S#TK/REL TO USA; FVEY)	
•	(U) Key programs/initiatives:	
	— (S//REL TO USA, FVEY)	
	— (S#REL TO USA, FVEY)	

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014—continue to provide spacecraft and ground anomaly investigation and resolution for high-altitude systems.

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

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(U) Section I: Project Description

1. (U) Description

(U) The Space Operations Development Segment project provides funding for activities supporting C&C and data dissemination for space-based communications systems.

(U) Base resources in this project are used for:

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•	(S//TK//REL	TO USA, FVEY)					
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• (S//TK//REL-TO-USA, FVEY)		
• (U) Key programs/initiatives:		
— (U) Perform technology refresh of two N	IDDS small earth terminals.	
— (S//TK//NF)		
(U) There are no new activities in this project in F	Y 2014.	
(U) The NRO expects the project to accomplish the	e following in FY 2014:	
• (S#TK/REL TO USA, FVEY)	·	
• (U) Continue O&M support to the legacy MDD	OS architecture.	
• (U) Continue dissemination services communic	ation infrastructure development.	
• (U) Perform technology refresh of MTOC hard	ware and software.	· ·
 (S//TK//REL TO USA, FVEY) (S//TK//REL TO USA, FVEY) 		
• (S//TK//REL TO USA, FVEY)		
• (S//TK//REL TO USA, FVEY)		
• (S//TK//REL TO USA, FVEY)		
2. (U) Participating Organizations		
A. Funds		

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(U) Section III: Subproject Specific Detail/Budget

1. (S//NF)

A. (U) Description

(U) The Broadcast and Dissemination subproject provides funding for activities supporting data dissemination for space-based communications systems. Resources in this subproject are used for:

•	(S//TK//REL TO USA, FVEY)				
•_	(S//TK//REL TO USA, FVEY)				
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• (U) Other Contractual Services:

 (S//TK//NF)
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B. (U) Summary of Change FY 2013/2014 for Broadcast and Dissemination Subproject

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• (U) I civilian and 1 military position to other NRO acquisition and operations activities.

C. (U) Object Class Display for Broadcast and Dissemination Subproject

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2. (S//NF		

A. (U) Description

(U) The Relay Command and Control subproject provides funding for command and control for space-based communications systems. Resources in this subproject are used for:

• (S//TK//REL TO USA, FVEY)		
• (S//TK//REL TO USA, FVEY)		
(S/NF)		
• (U) Other Contractual Services:		
(S//TK/NF)		
— (S//TK/NF)		
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(U) SPACE COMMUNICATIONS (U) RELAY READINESS AND LAUNCH

This Exhibit is GECRET//NOFORN

(U) Section I: Project Description

1. (U) Description

(S//TK//REL TO USA EVEY)

(U) Base resources in this project are used to:

- (U) Maintain and monitor vehicles for health and safety functions.
- (U) Maintain required test and ground equipment at factory and launch sites.
- (U) Perform planning for spacecraft integration in preparation for launch.
- (U) Perform systems engineering required to support launch planning, rework, and anomalies.
- (U) Perform required test activities for call-up and readiness activities.
- (U) Perform required rework resulting from latent problems or defects from the development contract identified after vehicle sell-off.
- (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) Provide integration and support services for these activities through SETA and FFRDC contracts.
- (U) Key programs/initiatives:

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(U) SPACE COMMUNICATIONS (U) MISSION TRANSPORT SERVICE

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(U) Section I: Project Description

1. (U) Description

(S//TK//NF)

(U) Base resources in this project are used for:

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

• (U) SETA and FFRDC systems engineering services for:

- (U) Requirements and CONOPS development.
- (U) Architecture development.
- (U) Independent verification and validation.
- (U) Transition to operations.
- (U) Life-cycle readiness.
- (U) Configuration, risk, and schedule management.
- (U) Technology planning and insertion.
- (U) Performance assessment.

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- (U) Acquisition support.
- (U) Support to launch flow, readiness, and initialization activities.
- (U) Key programs/initiatives:
 - (U) Conduct end-to-end demonstrations of MTS hardware from multiple vendors to ensure waveform and cryptographic hardware compatibility.
 - · (S//TK//REL TO USA, FVEY)
- (U) There are no new activities in this project for FY 2014.
- (U) The NRO expects the project to accomplish the following in FY 2014:
- (U) Conduct risk reduction brassboard and engineering model development of FWT units with multiple vendors' designs to meet prescribed functional requirements in support of flight qualification and unit production need dates.
- (U) Mature FWR technology to ensure availability of multiple procurement sources for communications terminal wideband receivers.

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(U) SPACE COMMUNICATIONS (U) MISSION SYSTEM ENCRYPTION

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(U) Section I: Project Description

1. (U) Description

(U) The Mission System Encryption project provides resources to develop and deploy required cryptographic solutions and provide information assurance (IA) services supporting current and future space-based intelligence collection and special communications systems architectures. The Mission System Encryption project will provide net-ready encryption technology for next generation high-speed national security space (NSS) capabilities, enabling seamless integration of space, air, and ground architectures.

(U) Base resources in this project are used to:

- (U//FOUO) Provide full COMSEC life-cycle support for the organization's COMSEC assets. Perform operations including registration, ordering, generation, distribution, and accounting via Electronic Kev Management System operations. b3 (10 USC 424)
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- (U) Formulate enterprise IA architectures, standards, and solutions using information systems security engineering services, IA research, and IA engineering critical to NRO missions and programs, as well as those of other NSS customers.
- (U) Analyze threats to and vulnerabilities of future NSS space and ground systems to establish future cryptographic security requirements and deliver state-of-the-art NSA certified IA technologies and solutions.

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(U) Section III: Subproject Specific Detail/Budget

1. (S//NF)

A. (U) Description

(U) The Mission System Encryption subproject provides resources to develop and deploy required cryptographic solutions and provide IA services supporting current and future space-based intelligence collection and special communications systems architectures. Resources in this subproject are used for:

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• (S/NF)		
• (U) Other Contractual Services:		
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• (U) Equipment:		
— (S//NF)		
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B. (U) Summary of Change FY 2013/2014 for Mission System Encryption Subproject

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# (U) LAUNCH (U) LAUNCH VEHICLES



#### (U) Section I: Project Description

#### 1. (U) Description

(U) This project procures Evolved Expendable Launch Vehicles (EELV) launch services, conducts integration activities and studies of NRO satellites to launch vehicles, and studies alternate launch service providers.

(U) Base resources in this project are used to:

- (U) Procure standard EELV launch services on a fixed price basis, fully funded approximately two years prior to launch (except for EELV heavy launch vehicles, which are fully funded approximately three years prior to launch).
- (U) Procure launch vehicle propellants three to six months prior to initial launch capability.
- (U) Procure well-defined mission-unique hardware plus integration efforts beginning up to five years in advance of the launch date.
- (U) Conduct early investigation and analyses of advanced launch systems for potential NRO application.
- (U) Sustain launch capability through maintenance and operations of the launch sites and amortization of capital equipment and tooling.
- (U) Perform systems engineering and launch activities to resolve fleet-wide launch issues.
- (U) Maintain critical engineering skills at the launch vehicle manufacturing facilities.
- (U) Perform EELV launch site and launch range proficiency training.

(U) Schedules for launch vehicles are as follows:



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

(U) In addition, there are two new activities in this project for FY 2014:

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

(U) The NRO expects the project to accomplish the following in FY 2014:

- •__<del>(S//REL TO USA, EVEY</del>)
- (S//REL TO USA. FVEY)
- (S//REL TO USA, FVEY)
- (S//REL TO USA, FVEY)
- (U) Perform early integration of NRO systems on new launch vehicles.
- (U) Conduct launch vehicle performance and acquisition trades for new research and development programs.
- (U) Analyze other innovative space lift concepts and potential new entrants for launch of NRO payloads, including reusable launch vehicles and new entrant certification.

## 2. (U) Participating Organizations

A. Funds

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# 2. (U) Position Changes Summarized by Subproject

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(U) Section III: Subproject Specific Detail/Budget

1. (<del>S//NF</del>)

## A. (U) Description

(U) The LV Advanced Plans subproject provides funding for the conduct of early investigation and analyses of advanced launch systems for potential NRO application. Resources in this subproject are used for:



#### B. (U) Summary of Change FY 2013/2014 for LV Advanced Plans Subproject

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## C. (U) Object Class Display for SIGINT Launch Vehicles Subproject

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## 5. (<del>S//NF</del>)

## A. (U) Description

(U) This subproject funds the EELV Launch Capability (ELC) contract to maintain the infrastructure and support required for the launch of National Security Space missions. Launch capabilities is separate from launch vehicle hardware, which is funded through the EELV Launch Services contracts.

(U) The NRO and the Air Force maintain a partnership to provide the EELV launch capability for the nation. This funding request represents the NRO's contribution to the ELC contract. In FY 2014, the NRO is funding 25 percent of the common launch capability infrastructure cost. This contribution sustains the NRO's partnership with the Air Force, enabling insight into launch investment and infrastructure planning and providing NRO input to the ELC contract management and execution.

- (U) Retain critical skills at EELV contractor facilities and the launch sites and maintains proficiency of the EELV contractor workforce.
- (U) Transport and process all EELV launch vehicles in support of NRO launches.
- (U) Perform systems engineering and maintain critical launch vehicle engineering skills.
- (U) Operate and maintain launch complexes at Vandenberg Air Force Base and Cape Canaveral Air Force Station for the Atlas V and Delta IV launch vehicle families.

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# (U) LAUNCH (U) LAUNCH OPERATIONS & ENGINEERING



#### (U) Section I: Project Description

#### 1. (U) Description

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

(U) Base resources in this project are used to:

- (U) Integrate and process NRO satellites onto launch vehicles and perform mission assurance activities.
- (U) Procure engineering activities, analyses and studies affecting multiple satellite missions on one or more launch systems, mission overflight assessments, radio-frequency vulnerability assessments, and other integrated, multimission threat and impact assessments.
- (U) Fund NRO's contribution to the common Air Force and NRO FFRDC support for general systems engineering and integration and launch vehicle certification.

(U) The NRO expects the project to accomplish the following in FY 2014:

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• (S//REL TO USA, FVEY)

(S//REL TO USA, EVEY)

• (U) Perform on-orbit S-band satellite support contacts through NRO Operations Squadron (NOPS).

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(U) Section II: Subproject Detail/Budget

1. (U) Budget Changes Summarized by Subproject



2. (U) Position Changes Summarized by Subproject

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(U) Section III: Subproject Specific Detail/Budget

#### 1. (S//NF)

#### A. (U) Description

(U) The Launch Operations subproject provides funding for the operations of OSL launch-base utilities, launch mission support from the Eastern and Western Launch Ranges, and NOPS which provides commanding & telemetry connectivity for Launch and early orbit check out for all NRO and other selected launches, and a range of NRO satellite program command and control operations. NOPS delivers responsive connectivity, innovative services, and diverse experience to ensure the NRO's operational success. Resources in this subproject are used for:

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B. (U) Summary of Change FY 2013/2014 for Launch Operations Subproject

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(U) Functional Transfers:

• (S/NE

# C. (U) Object Class Display for Launch Operations Subproject

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#### 2. (<del>SH</del>

#### A. (U) Description

(U) The Launch Support subproject provides secure communications at the launch sites and engineering activities supporting launch systems analysis. Launch support manages the extreme risks associated with launch to ensure the satellite is successfully placed in the proper location and condition so it can accomplish its mission for the nation. Resources in this subproject are used for:

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## 4. (<del>S//NF</del>)

## A. (U) Description

(U) The Payload Processing subproject provides resources for processing of the space vehicles in preparation for launch. This includes the O&M of the NRO Payload Transportation System, which provides secure transportation from the factory to the launch base; VAFB or CCAFS. This subproject also includes funding for the Payload Launch Site Support Services (PLSSS) contract, which includes all the forklifts, tractors, trailers, and other mechanical hardware for satellite vehicle electrical aerospace ground equipment, and satellite vehicle mechanical aerospace ground equipment, as well as the contractor facility support at Vandenberg AFB, CA. Resources in this subproject are used for:

( <del>S//NF</del> )		
• (U) Contractual	Services:	
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## B. (U) Summary of Change FY 2013/2014 for Payload Processing Subproject

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(LI) Decreases:			



#### C. (U) Object Class Display for Payload Processing Subproject



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# (U) GEOINT/SIGINT INTEGRATED GROUND DEVELOPMENT ENGINEERING & MANAGEMENT (U) MISSION CONTROL



## (U) Section I: Project Description

#### 1. (U) Description

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



(U) The Mission Control project consists of one subproject, Mission Control 1.2. The Mission Control 1.2 subproject supports the Mission Control Block 1, Increment 2 Major System Acquisition (MSA) which completed a successful Joint Intelligence Acquisition Board (JIAB) on 16 August 2012. The Mission Control 1.2 subproject also supports the pre-acquisition activities for the Mission Control Block 2 MSA. Funding for the Mission Control Increment 1.2 MSA began in FY 2013.



161

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- (U//FOUG) The Forecast Simulator component provides long-term simulations of the GEOINT NTM collection performance. Forecast Simulator models system performance of the NTM imagery life cycle to include tasking, planning, scheduling, communications allocation, image processing, and delivery throughput. Forecast Simulation uses current operations conditions, current operations tasking, and vehicle characteristics.
- (U) The Mission Assessment System is responsible for making aggregated mission and tasking status data available for analysis by personnel interested in overall mission assessment. The design includes an analysis front-end to the Mission Support Data Storage System, which aggregates the mission and tasking data from various input sources. The Mission Assessment System aggregates workflow metrics information from the Overhead Tasking Management System. The analysis user interface is provided via web browser using business intelligence products and data warehouse technology.
- (U) Multi-INT Missions provides multi-INT planning, execution, and situational awareness. The Multi-INT Mission Planning component provides mediated execution of multi-INT collaboration requests received from external users. The Multi-INT Mission Tipping provides tipping and cueing services in response to identified external stimuli. Multi-INT Missions enables multi-INT users to track the execution of multi-INT requirements (whether mediation- or tip/cue-based). The Multi-INT Mission functions currently exist as software applications that are installed in test and limited operational environments.

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

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•	( <del>S//TK//REL TO USA, FVEY</del> )
•	(U) Provide factory development support, maintenance, and replacement of components required for the five Mission Centers in the Mission Control MSA, which includes implementation of corrective software upgrades and capabilities to sustain high-availability operations, including emergency software changes in response to operational priorities.
•	(S//TK//REL-TO-USA, FVEY)
•	(S//TK//REL TO USA, FVEY)
•	(S//TK//REL-TO-USA, EVEX
•	(U) Develop innovative mission management and command and control solutions to meet intelligence needs.
•	(U) Develop requirements, documentation and planning, and pre-acquisition activities for Ground Enterprise Block 2.

• (U) Key programs/initiatives: Mission Control ground enhancements to support the following spacecraft and ground capabilities:

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 (U) Integrated Situational Awareness (GEM-08) capabilities—enable joint asset allocation management; visibility into mission requirements disposition/status; and asset-level situational awareness.



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# 2. (U) Position Changes Summarized by Subproject

This Exhibit is <del>SECRET//NOFORN_</del>	

(U) Section III: Subproject Specific Detail/Budget

## 1. <del>(S//NF</del>)

#### A. (U) Description

(U) The Mission Control 1.2 subproject acquires and maintains the five Mission Control Mission Centers: EO SPE; Radar SPE; SIGINT SPE; MITC; and Space-Ground Routing for the Mission Control Increment 1.2 JIAB approved baseline. Resources in this subproject are used for:

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•	( <del>S//NF</del> )		 	

• (U) Other Contractual Services:

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# (U) GEOINT/SIGINT INTEGRATED GROUND DEVELOPMENT ENGINEERING & MANAGEMENT (U) MISSION FRAMEWORK



(U) Section I: Project Description

1. (U) Description

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

(U) The Mission Framework project consists of one subproject, Mission Framework 1.2. This subproject supports the Mission Framework Block 1, Increment 2 MSA which completed a successful JIAB on 16 August 2012. This project also supports the pre-acquisition activities for the Mission Framework Block 2 MSA. Funding for the Mission Framework Increment 1.2 MSA began in FY 2013.



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- (U//FOUO) Mission Framework participates in NRO-level enterprise licensing agreements by collecting requirements and identifying funding requirements. The enterprise licensing agreements support the procurement of approved products used to support Mission Framework acquisitions and assure significant cost savings; expedite hardware, software, licensing, and maintenance deliveries; and provide tracking/reporting capabilities.
- (U//FOUO) COTS bulk-buy Program Management Office, an NRO-level service, is the avenue GED uses to
  procure hardware, software, and licensing for operational requirements. The Kodiak contract is an enterprise
  contract that the Communications Directorate executes for the NRO to purchase hardware and software
  from an Approved Product List.



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(U//FOUO) The Service Broker Mission Center delivers critical mission support services in support of SIGINT vehicle development and operations. These services include reference data services (e.g., ephemeris, space weather, and geodesy) and security services (e.g., information assurance, security audit, resource management). The approach is focused on reducing duplicative hardware and software applications to deliver enterprise services and expanding reuse of existing services. Increment 1.2 components for the Service Broker Mission Center include:

- (U//FOUO) Audit Log Event Reporting Tool (ALERT) provides an enterprise COTS tool for audit log
  retention. It is a security information event management application that receives, collects, processes, filters,
  and correlates events generated from security devices, network devices, and host systems, and provides
  visual alarms and customizable reports. The ALERT system provides two distinct capabilities; the ability to
  collect all system-high classified security logs at one central location per MGS, and the ability to correlate
  events to provide more detailed information about possible attacks. ALERT will provide storage for all
  of the logs it is intended to collect. ALERT provides local network attached storage to retain one year of
  online storage.
- (U//FOUO) Mission Support Services provides a GED Enterprise-wide system for user and system authentication and authorization services for users and systems. In Increment 1.2, Mission Support Services maintains the established baseline, integrates new clients, develops fine-grain access controls, and deploys support for infrastructure service provider and application service provider applications. Mission Support Services is integrated with, and highly dependent on, the Identity and Access Management System. IAMS provides the user interface for provisioning user and system/service identities and managing system access requests using interactive workflows for user, administrators, approvers, and security. Mission Support Services is a software-only delivery that will allow for deployment into a virtualized or non-virtualized environment. Utilizing MFCE hardware and virtual infrastructure environments, Mission Support Services deploys into the MFCE operational and operational demonstration environments at each site.
- (U//FOUO) Real-Time Control (RTC) provides a common real-time control capability across all operational
  nodes that support the Overhead SIGINT constellation. RTC enables integration of processing clients and
  mission management with the satellites and ground resources. RTC enables the deployment of resources
  through mission management and coordinates and synchronizes ground commands in order to achieve endto-end signal paths for use by client mission processing capabilities. The typical signal path makes signal
  data from a specific satellite's mission receiver available through the site signal distribution switches to the
  input of a signal processing client.

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(U//<del>FOUO)</del> The Sharing, Fusion, and Tools Mission Center provides the NRO's information sharing framework and messaging transformation. Increment 1.2 components for the Sharing, Fusion, and Tools Mission Center include:

 (U/FOUO) Distributed Common Ground System-Intelligence Community (DCGS-IC) provides information sharing framework, content discovery engine and content discovery wrappers for selected sources, user interface, content federation with the DCGS family of systems, and the security components necessary to deliver those capabilities. In Increment 1.2, DCGS adds a limited number of new useridentified features; develops toward complete IOC 2 for JWICS and SIPRNET fielded DCGS-IC systems; delivers additional performance capabilities, context indexing; increases the number of concurrent users; and provides additional content and services.

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- (U//FOUO) The Information Sharing and Routing Architecture (ISARA) framework provides a collaborative service oriented architecture that is used to share data, information, and services across the NRO and out to the IC. ISARA provides an extensible enterprise messaging architecture that is used to disseminate and transport mission data in a variety of formats and sizes across the NRO Enterprise, making data available to internal NRO users and external mission partners across multi-level security domains in the IC. ISARA's standards-based architecture leverages COTS solutions to build a hardware-agnostic infrastructure.
- (U//FOUC) Messaging Sustainment provides sustainment of Ground Reporting and Messaging and ISARA. The messaging and information sharing capabilities fulfill the responsibility to provide NRO-collected data and information for automated retrieval upon discovery by IC and DoD authorized users.
- (U//FOUO) GForge provides sustainment of the collaborative, Web-based information management system that provides a common workspace and enables cross-network collaboration for users and projects throughout the NRO and IC.
- (U) Base resources in this project are used to:
- (S//TK//REL TO USA, FVEY)

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- (U) Migrate Mission Framework applications to the standardized development, test, prototype, and operational Mission Framework environments.
- (U) Improve efficiencies of network infrastructure through the acquisition and build out of additional intrasite bandwidth and interfaces.
- (U) Continue maintenance and development of real-time execution services for overhead SIGINT systems.
- (U) Sustain enterprise services for security logging and messaging.
- (U) Continue security services for Public Key Infrastructure across the Ground Enterprise.
- (U) Maintain information sharing between national and tactical users.
- (U) Sustain enterprise messaging and data forwarding capabilities.
- (S//TK//REL TO USA, FVEY)
- (U) Rapidly identify and prototype key technologies and operational concepts related to mission needs.
- (U) Develop requirements, documentation, and planning for Ground Enterprise Block 2.
- (U) Key programs/initiatives: Mission Framework ground enhancements to support the following spacecraft and ground capabilities:

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- (U) External Sensor Data Ingest/Processing (GEM-12) capabilities store data from non-overhead including external multisource data, combined with NTM assets to innovate detection, geolocation, and identification techniques for high-value targets in key mission areas.

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- (U) Maintain operational Mission Framework systems (hardware and software).

- (U) There is no new activity in this project for FY 2014.
- (U) The NRO expects the project to accomplish the following in FY 2014:
- (U) Sustain/maintain all operational Mission Framework capabilities.
- (S//TK//REL-TO-USA, FVEY)

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- (U) Sustain the standard Mission Framework environment.
- (U) Complete the second network operations center required to satisfy availability and security auditing requirements.

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#### (S//TK//REL TO USA EVEY)

- (U) Provide improved management, control, and status functions for Signal Data Distribution System, bandwidth management, and prioritization for the network.
- (U) Update the end-of-life controller hardware supporting the exchange of configuration/control and status information for SIGINT data distribution and real-time control.
- (U) Provide improved quality of existing services and add a limited number of new user identified features necessary to work towards DCGS-IC IOC 2 capabilities by 1QFY17.
- (U) Manage the transition of legacy messaging systems into an enterprise service.
- (U) Decommission legacy directory service and transition systems to the enterprise-wide security service.

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2. (U	) Participating Organizations				

#### A. Funds



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- (U) Analysis tools to support screening and temporal analysis, data reduction, and interactive reporting.
- (U) Data sharing capabilities including query, access, subscription, dissemination, and automatic reporting.

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(U) Base resources in this project are used to:

- (U) Provide communications signals copy and exploitation capabilities, at MGSs and multiple NSA/Central Security Services, IC, and DoD locations.
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- (S//REL TO USA, EVEY)
- (U) Supplement standard GEOINT and select airborne sensor data processing with advanced geospatial products.
- (U) Develop multi-INT processing capabilities that transform GEOINT and SIGINT sensor data into enriched intelligence information.
- (U) Develop evolving ground processing techniques for GEOINT and SIGINT to address dynamic customer needs.

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• <del>(S//</del>	TK//REL TO	USA FVEY)					
• (U)	Develop innov	ative processing	g solutions to r	meet intelligen	ce needs.		
• (U) Blo	Develop requi	rements, docum	nentation, plan	ning, and pre-a	equisition acti	vities for Groun	d Enterpri
• (U) and	Key programs/ ground capabil	initiatives: Miss ities:	sion Processing	g ground enhan	cements to sup	port the followir	ng spaceera
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<del>REL)-</del> _	- <del>(U)</del>						
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(U) Overhead Multi-INT Collaboration (GEM-16) capabilities: improve rapid tasking and event response across NRO resources for surveillance and reconnaissance; enable actionable intelligence and faster prosecution of HVT; improve data correlation/fusion capability for refined estimates of identification, location, and behavior; event recognition from multi-INT fusion and notification from fusion results; near real-time identification and tracking from multi-INT fusion; and repository for fusion data and associations.

— (U) Fusion and Integration of Multiple Intelligence Sources (GEM-18) capabilities: enhance data discovery and multi-INT fusion opportunities; increase access/availability to GEOINT data for overlay to improved target identification when fused with SIGINT; increase multi-INT data access for importing and exporting data to include open source and intelligence data; and improve multi-INT event processing to support enhanced air, ground, and maritime domain situational awareness.

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( <del>S//SI/TK//REL TO USA, FVEY</del> )
( <del>S//REL TO USA, FVEY</del> )
— (U) Maintain operational Mission Processing systems (hardware and software).
(U) There is no new activity in this project for FY 2014.
(U) The NRO expects the project to accomplish the following in FY 2014:
• (U) Sustain/maintain all operational Mission Processing capabilities.
• <del>(S//SI//TK//REL_TO-USA, FVEY</del> )
• ( <del>S//NF</del> )
• ( <del>S//SI//TK//REL-TO-USA, FVEY</del> )

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• (U) Develop GEOINT TCPED improvements (GEM-20: GEOINT TCPED improvements) capabilities.

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## (U) MISSION GROUND STATIONS

-<del>(S//TK//REL TO USA, FVEY) (U)</del>

This Exhibit is SECRET//NOFORN

- (U) Section I: Project Description
- 1. (U) Description (S//TK//REL TO USA, FVEY)

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(U) Base resources in this project are used to:

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•	(S//TK//REL_TO_USA, FVEY)			
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•	(S//TK//REL TO USA, FVEY			
•	(S//TK//REL_TO_USA, FVEY)			
				-
•	(U) Provide MOD headquarters su	pport.		

- (U) Operate and maintain the NROC.
- (U) Support the OCMC.

<del>(Ŭ)</del>

- (U) Key programs/initiatives:
  - (U) Initialize newly launched spacecraft and associated systems.
  - (<del>S//TK//REL TO USA, FVE</del>

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## C. (U) Object Class Display for ADF SOUTHWEST Subproject

This Exhibit is SECRET/NOFORN-	

## A. (U) Description

(U) The HQ Support subproject includes resources for systems engineering, strategic planning, and program support for the NRO Mission Operations Directorate. Government personnel in concert with contractors provided technical support for:

- (U) Integration, readiness, and verification activities in support of ground developments and satellite launches and terminations.
- (U) Evaluation of constellation strategy options, including impact to operations of orbit adjustments and other changes to NRO systems posture.
- (U) Operational need statement evaluations.
- (U) Future architecture requirements evaluations and study support.
- (U) Systems engineering configuration management boards.
- (U) Budget, financial execution, and contracts support.
- (U) Program security.

(U) Resources in this subproject are used for:

#### (S//NF

• (U) Other Contractual Services:

	— <del>(S//NF)</del>		
	— ( <del>s//NF)</del>		
•	<del>(S//NF</del> )		

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## B. (U) Summary of Change FY 2013/2014 for HQ Support Subproject

This Exhibit is SECRET//NOFORN-

(U) There are no changes to this subproject

C. (U) Object Class Display for HQ Support Subproject



#### 5. (S//NF)

#### A. (U) Description

(U) The NROC subproject operates and maintains the NROC, which is responsible for 24-hour-a-day operations to continually apprise DoD, IC, and National users of NRO system status. The NROC provides command and control capabilities for NRO leadership during contingency operations and exercises, and maintains awareness and protection of NRO systems from environmental and man-made threats. This is accomplished through teaming with National Air and Space Intelligence Center; CIA/Weapons Intelligence, Nonproliferation, and Arms Control (CIA/WINPAC); USSTRATCOM; and the Joint Space Operations Center and utilizing their finished intelligence products as the baseline to conduct:

- (U) Collision avoidance analysis, vulnerability tests, and NRO systems survivability assessments.
- (U//FOUO) Defensive space control engineering and analysis, and support to warfighter operations with laser and radio frequency deconfliction analysis.

(U) Resources in this subproject are used for:



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## B. (U) Summary of Change FY 2013/2014 for NROC Subproject

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( <del>S//NF)</del>
(U) Increases:
• (57777)
(U) Decreases:
• <del>(S//NE)</del>
(U) Functional Transfers:

• (U) 2 civilian and 3 military positions from Station Integration and Support project, Station Integration and Support subproject.

C. (U) Object Class Display for NROC Subproject

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6. <del>(S//NF</del> )	

#### A. (U) Description

(U) The OCMC subproject supports the OCMC which is responsible for 24-hour-a-day overhead SIGINT operations management on behalf of the IC. Responsibilities include:

- (U) Allocating SIGINT satellite collection assets against intelligence targets in accordance with priorities and guidance established by the National SIGINT Collection Subcommittee.
- (U) Timely reporting of SIGINT constellation-level collection performance to national and military customers throughout the world.
- (U) Tools and infrastructure for NRO operations at OCMC.
- (U) Support services for budget, financial execution, and contracts.

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• (U) Other Contractual Services:



(SHNE)

(U) Increases:

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(U) Functional Transfers:



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FVEY)

Operations project, ADF Colorado subproject.

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

This Exhibit is SECRET//NOFORN

### (U) Section I: Project Description

#### 1. (U) Description

(U) The Station Integration & Support project includes resources for systems engineering, strategic planning, and program support for the NRO Mission Operations Directorate. Government personnel in concert with Core and non-Core contractors provide technical support to MOD. This project also provides the entire MOD budget for travel (TDY and PCS), awards, and training.

(U) Base resources in this project are used for:

- (U) Integration, readiness, and verification activities in support of ground developments and satellite launches and terminations.
- (U) Evaluation of constellation strategy options, including impact to operations of orbit adjustments and other changes to NRO systems posture.
- (U) Operational need statement evaluations.
- (U) Future architecture requirements evaluations and study support.
- (U) Systems engineering configuration management boards.
- (U) Budget, contracts, and security support to MOD.
- (U) MOD personnel travel, permanent change of station moves to and from the NRO MGSs, mission training, and awards recognition.
- (U) Key programs/initiatives:
  - -- (U) Engineering support to initialize newly launched spacecraft and associated systems.
  - (U) Implement ground station resiliency capabilities.
  - (U) Consolidation of enterprise-level activities to increase management and cost efficiencies.

(U) There are no new activities in this project for FY 2014.

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# (U) ENTERPRISE IT SYSTEMS (U) CONNECTIVITY

This Exhibit is SECRET//NOFORN

#### (U) Section I: Project Description

#### 1. (U) 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. Beginning with FY 2014, the Enterprise Operations subproject previously included in this project was moved to the new IT Operations & Management project.

(U) Base resources in this project are used for:

 (U) Enterprise Systems that deliver enterprise-wide capabilities such as, access and network defense services providing data protection, hosting services providing computing and storage for the management information systems infrastructure, and user and integrated communications providing voice and desktop services, all enabling NRO and IC collaboration. The development and maintenance of an enterprise technology roadmap with the underpinning architecture and supporting policies and procedures, referred to as consolidated management services, is also provided. This project also includes the initial deployment of the next generation cloud computing architecture (Central Park), the NRO instantiation of the IC IT Enterprise (IC ITE) Cloud.

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- (U/FOUO) Core systems that provide distribution services through switches and routers. Core systems
  also demonstrate the Common Services Layer-Global (CSL-G), aka Quicksilver, concept, which promotes
  collaboration and information sharing among peered networks based on community-recognized electronic
  credentials at the FIVE EYES dissemination level. Core also procures high-speed cryptographic devices
  and timing systems.
- (U) Edge systems that provide distribution services through classified and unclassified LANs (previously known as the Next Generation Edge/LAN), and the PuppetMaster program (a recapitalization of the Future Architecture for Command and Telemetry Services system) supporting satellite and launch operations (state of health/command and control).

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(U) Key programs/initiatives:



- (U//FOUO) The Edge Router Network program, which designs, acquires, integrates, tests, and deploys NRO's unclassified and classified Wide Area Networks between the "closet" and Core infrastructure.
- (U) A Command and Telemetry program providing a highly reliable mission critical satellite command and telemetry WAN.
- (U) The Network Defense program, which provides enterprise-level perimeter protection, incident response, audit, and situational response capabilities across the NRO.
- (U) An Enterprise Management Information Systems program focused on engineering, development, integration, implementation, and delivery of IT solutions across five classification domains.
- (U//<del>FOUO</del>) The NRO's Identity and Access Management program, which is designed to build, deploy, operate, and maintain reliable, interoperable, and secure Identity and Access Management capabilities for mission, mission support, and administrative systems.
- (U) The Multimedia program, providing user services and unique mission solutions to the NRO and its user community across voice, video, and critical conferencing system platforms.

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

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٠	• <del>(S//TK/REL TO USA, FVEY)</del>	
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•	(U// <del>FOUO)</del> Complete effort to migrate from an ATM backbone to an IP backbone.	

- (U) Continue deploying the PuppetMaster program, supporting satellite command and telemetry requirements. Deploy approximately 20 nodes, representing roughly 30 percent of the total planned deployments.
- (U) Incorporate CSL-G technology into Core networks to facilitate consolidation and improve compatibility across IC networks consistent with planned activities.

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#### (S//TK//REL TO USA; FVEY)

• (U) Converge contractor WAN (CWAN) capabilities to align with NRO standards and IC direction. Specific activities include a domain name service clean-up, allocation of Public Key Infrastructure certifications to CWAN users, and the development of a CWAN directory and comprehensive audit strategy.

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- (U) Continue migration to a unified management information system platform to support unclassified, secret/collateral, and TS/SCI enterprise environments consistent with the IC ITE Desktop Environment objectives including collaboration tool upgrades, virtual desktop client deployment, and standardization of user profiles and naming conventions.
- (U) Deliver an automation environment to facilitate virtualized user desktops and standard storage, computing, and server load-balancing infrastructure.
- (U) Implement next generation IT and telecommunications capabilities fundamental to the NRO's ability to ensure continuous improvement, provide cost-effective IT services, leverage the strengths of the marketplace, and adapt to future IT architectures and industry trends.

### (U) Accommodation Procurement

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#### 2. (U) Participating Organizations

#### A. Funds

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C. (U) Object Class Display for Edge (Local Area Network Systems) Subproject

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#### A. (U) Description

(U) The Enterprise Systems subproject provides essential engineering, development, and procurement activities for enterprise-wide network defense, management information systems, identity and access management, and multimedia services. This subproject also provides integration of NRO-unique applications onto the IC ITE Desktop Environment provided gold disk. Resources in this subproject are used for:



• (U) Other Contractual Services:



• (U) Equipment:



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# (U) ENTERPRISE IT SYSTEMS (U) ENTERPRISE ARCHITECTURE & PLANNING

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#### (U) Section I: Project Description

#### 1. (U) 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 CIO advises the Director, NRO, and NRO senior managers on all IT-related matters. The CIO develops NRO IT strategy and policies that incorporate National, IC, Federal, and DoD guidance into the NRO IT Architecture and into the NRO Enterprise Architecture (EA). The CIO develops and implements IT policy and portfolio management programs to govern how the NRO selects, monitors, and evaluates IT investments and how it acquires, controls, manages, operates, and maintains IT services and capabilities.

(U) Base resources in this project are used to produce the following outcomes:

- (U) A current and relevant NRO IT Strategy that informs IT activity owners throughout the NRO of the vision and direction for NRO Enterprise IT and provides a roadmap that guides the development (and/or outsourcing to IC ITE services and capabilities) of IT capabilities and services needed to enable NRO mission and business functions.
- (U) An NRO EA that provides data and information useful to NRO seniors in planning for and making resource management decisions required to satisfy DNI and OMB EA requirements.
- (U) An NRO IT Architecture that identifies a sequencing of IT capabilities and IT services; and identifies enabling IT activities and investment priorities needed to accomplish NRO mission and business objectives.
- (U) The planning, formulation, coordination and enforcement of IT policy, governance, and standards that guide the development (and/or outsourcing to IC ITE services and capabilities) of secure and interoperable IT solutions that are compliant with NRO, IC, Federal, and DoD technical and policy guidance.
- (U) The implementation of a comprehensive NRO enterprise IT investment portfolio that facilitates the establishment of an optimal IT spend plan and supports NRO leadership priorities and decision support concerning the selection, monitoring, and evaluation of IT investments throughout execution.
- (U) Cross NRO and IC collaboration pertaining to technology exploitation that yields solutions to complex information sharing and other business and technology challenges.
- (U) IT products and services in response to, and that enable, key IC ITE goals and objectives, with a specific focus on a community-wide IT asset (e.g., software services) registry and a repository that facilitates asset reuse across the community.

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- (U) Network architecture and engineering leadership/expertise and resultant artifacts that guide the IC from
  many, disparate, costly network topologies to a more consolidated topology that is shared by all community
  partners. The resultant reference architecture and standards will serve as a key enabler to the IC in achieving
  both network consolidation and investment reduction goals as defined by the DNI via its IC ITE endeavor
  and as implemented via a franchised implementation strategy.
- (U) Centralized security and administrative support provided to all internal CIO offices and activities.
- (U) Improved IT efficiency, effectiveness, and information sharing across the NRO and the IC.
- (U) Key programs/initiatives:
  - (U) Enterprise architecture and planning.
  - (U) IT investment portfolio planning and management.
  - (U) IT policy and related compliance, and it governance development and enforcement.
  - (U) Centralized enterprise software asset management facilitation.
  - (U) IT and information assurance (IA) workforce development.
  - (U) IC ITE transition.

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

- (U) Maintain and refresh the NRO IT Strategy.
- (U) Manage/execute and refresh the NRO IT Architecture Plan and supporting artifacts.
- (U) Refresh and extend, as required, NRO IT standards.
- (U) Enforce IT policies and instructions, and apply effective IT governance processes.
- (U) Complete final implementation phases (initiated in FY 2013) of a comprehensive IT portfolio management process.
- (U) Coordinate IT workforce development opportunities and functions, including training opportunities/programs required to increase the number of certified government information assurance professionals.
- (U) Provide technical support for agency-wide technical issue resolution and support to IC working groups and forums, including support to the implementation of IC ITE capabilities and community IT service provisioning.

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# (U) Section II: Subproject Detail/Budget

# 1. (U) Budget Changes Summarized by Subproject

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# 2. (U) Position Changes Summarized by Subproject

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#### (U) Section III: Subproject Specific Detail/Budget

### 1. (S//NF)

#### A. (U) Description

(U) The CIO Program Management subproject supports the daily business operations to key CIO areas through integration and oversight of the CIO security program, technical oversight of contracts, HR and related programs, strategic communications, technical editing, event execution and web support by the Business Management Group as well as facilitating collaboration within the CIO and across the NRO by assisting leadership with the general management and accomplishments of their tasks via the Director's Action Group. Resources in this subproject are used for:



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- (U) Increases:
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C. (U) Object Class Display for Enterprise IT Guidance & Services Subproject

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#### 3. <del>(S//NF</del>)

#### A. (U) Description

(U) The IT Architecture & Planning subproject contains a comprehensive set of activities that lead, align, shape, and promote optimum enterprise information and information technology (1&IT) solutions. These solutions enable the NRO and IC mission and workforce through cross-cutting I&IT technical leadership and delivery of 1&IT vision, strategy, architectures, standards, and profiles. Resources in this subproject are used for:

- (U) Development of enterprise IT Architectures and roadmaps, Data Architectures, IT Strategy, IT Standards and compliance, IT governance and oversight, and an IT Target Architecture that guide and inform management.
- (U) Lead IT Architecture governance boards and advise management on IT Architecture issues.
- (U) Provide technology assessments and studies for enterprise IT initiatives and optimization activities, work with acquisition offices to develop and transition capabilities.
- (U) Develop a cohesive strategy and implementation plan for using data center resources to fulfill mission capabilities given fiscal constraints. Publish a data center modernization roadmap.

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- (U) Maintain, operate, and deliver enhancements to a robust community-wide IT asset registry and repository (ER2) capability that enables the collection, analysis (e.g., cost avoidance decision support) and sharing (e.g., reuse vice redundant development/integration) of IT capabilities; and, serves as a critical architecture and operational underpinning for IC ITE Application Mall and related Application Store capability offerings.
- (U) Facilitate reviews that lead to a refresh, publish and update of data center site IT integration standards.
- (U) Identify, work cross organizations to adopt and publish instructions that include metrics and measures that will lead to more efficient use of IT resources.
- (U) Influence development and adoption of external IT-IA-Information Management standards, data, and services activities or products that directly and indirectly impact NRO programs and activities.
- (U) Refine Corporate Standards Program processes, keep the standards baseline current, and assist in the development of a replacement standards repository tool.
- (U) Oversee, lead, participate, and vote in chartered community groups strengthening partnerships across the IC, DoD, and federal government.

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B. (U) Summary of Change FY 2013/2014 for IT Architecture & Planning Subproject

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(U) Functional Transfers:

• (U) 2 civilian positions from CIO Program Management subproject to support operational requirements.

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# C. (U) Object Class Display for IT Architecture & Planning Subproject

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### A. (U) Description

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- (U) Process development and implementation, and facilitation of the decision support required to execute an
  annual enterprise IT investment portfolio function that yields a comprehensive and coordinated budget-year
  IT investment portfolio and related investment-level artifacts. The portfolio process leverages the technical
  and activity/services roadmaps developed and maintained by CIO enterprise architecture activities, and all
  investment business cases and related decision support is guided by NRO mission and business priorities.
  Resultant portfolio artifacts serve as input to the NRO's planning, budgeting, and execution year cycles.
- (U) Production, coordination, and compliance verification of IT related policies and instructions required to ensure interoperable IT capabilities and services that conform to NRO, IC, DoD policies and standards.
- (U) Orchestration and facilitation of a cross-NRO IT governance process and supporting decision support activities and forums that yield ownership and coordination of NRO's IT strategic IT architecture, implementation strategy/roadmaps, enabling activities and priorities, and requisite investment allocation and performance measurement/adjustment.
- (U) Definition/coordination and delivery of workforce development opportunities to include internal and external training, information sharing sessions, certification programs, etc. that focus on the advancement of technical expertise that align with requisite NRO IT and IA occupations/professionals and related NRO technical direction.
- (U) Cross NRO IT programmatic planning and execution oversight of IC ITE transition activities required to ensure effective NRO decision support and business readiness pertaining to potential IT service outsourcing to designated IC ITE community services/service providers.

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# (U) ENTERPRISE IT SYSTEMS (U) INFORMATION ASSURANCE

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### (U) Section I: Project Description

#### 1. (U) Description

(U) The Information Assurance (IA) Program provides the critical resources to effectively govern the NRO enterprise IA program to guide NRO Directorates and Offices in their implementation of IA activities and solutions regarding NRO's mission-critical assets. The CIO governs the IA enterprise capability to enable and safeguard the mission.

(U) The IA program consists of a governance structure that focuses on IA architecture and engineering, enterprise cyber threat and vulnerability management, continuous monitoring, enterprise risk management, situational awareness, and assessment and authorization. Safe information sharing is incorporated within a Cross-Domain Support Office and Privacy Office, along with an extensive, comprehensive NRO-wide training program that addresses internal/external IA risks.

(U) Base resources in this Program are used to:

- (U) Perform continual assessment of cyber threats to NRO assets and engage with the Directorates and Offices to effectively address vulnerability mitigation actions and examine mission critical/essential systems to identify specific vulnerabilities.
- (U) Enhance enterprise threat and vulnerability assessments by conducting analysis and prioritization, and engaging in the remediation process.
- (U) Promote risk-based decisions and prioritize vulnerabilities based on threat analysis and risk posed to the NRO assets.
- (U) Enhance the NRO enterprise IA architecture by further defining service descriptions for use by NRO Directorates and Offices assigned as common service providers and provide gap analysis on IA architecture and way forward for meeting common services.

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- (U) Continue to transition roles and responsibilities in accordance with IC Directive 503 to finalize the NRO's transition to the new certification and accreditation process enabling continuous monitoring and enhanced risk-based decisions.
  - (U) Begin phased implementation of the NRO Continuous Monitoring Program to continuously monitor critical controls across all NRO systems.
  - (U) Aggressively transition the NRO enterprise to a new formal assessment and authorization tool that produces bodies of evidence, further enabling system/common services reciprocity at the IC and DoD levels.
- (U) Integrate systems security engineering in program and system development lifecycles to:
  - (U) Ensure that IA critical requirements definition and refinement are embedded and front-loaded into these core processes to include ground and space assets.
  - (U) Support independent assessments of NRO shared assets with the IC and DoD.
  - (U) Ensure FISMA compliance by producing quarterly and annual FISMA reports and OMB Exhibit 53/300 annual reporting requirements.
- (U) Further monitor the NRO privacy program in support of the Senior Agency Official for Privacy by ensuring proper controls and processes exist to address privacy breaches and compromise of personal NRO information.
- (U) Further the IA workforce professionalization through enhanced skills training.
- (U) Key programs/initiatives include:
  - (U) Further refinement of the NRO cyber assurance posture by focusing on continuous monitoring, IA system engineering, and situational awareness for NRO ground and space systems and operations.
  - (U) Enhanced value and proposed efficiencies to the NRO by providing risk-based decisions and priorities based on the analysis of threat and vulnerabilities posed to our National assets.
- (U) There are no new activities in this project for FY 2014.
- (U) The NRO expects the project to accomplish the following in FY 2014:
- (U) Maintain or exceed a 95 percent authorization level for NRO ground and space assets.
- (U) Achieve full operating capability for the NRO's authorization tool allowing for system and asset reciprocity with IC, DoD, and Federal agencies.
- (U) Analyze data/information sets collected from the host-based security system to identify and reduce threat to NRO assets.
- (U) Partner internally and externally to the NRO to implement an enterprise patch management process to achieve an acceptable patching level of software for NRO mission critical/essential assets to reduce the likelihood of system vulnerabilities based on outdated software updates.
- (U) Partner internally and externally to the NRO to implement a robust situational awareness and continuous monitoring capability to ensure NRO's cyber assurance and achieve an acceptable risk posture.

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2. (U) Position Changes Summarized by Subproject

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#### (U) Section III: Subproject Specific Detail/Budget

1. (S//NF)

#### A. (U) Description

(U) The Information Assurance - IA subproject:

- (U) Provides NRO's IA program's governance structure (program implementation objectives provided above) that ensures consistent IA guidance and direction is provided to the NRO mission programs to secure mission execution and operations.
- (U) Monitors its assets by continuous monitoring of critical controls, situational awareness, and embedded systems engineering. The NRO systems should remain in a continuous state of acceptable risk as determined by the Authorizing Official. Critical collected data provides for situational awareness of the NRO risk posture.
- (U) Remediates mission critical and essential system vulnerabilities and addresses critical audit findings. Provides for critical resources to remediate mission system vulnerabilities.
- (U) Develops the enterprise IA Architecture and implements service descriptions for use by NRO Directorates and Offices assigned as common service providers. Major initiatives include Identity and Access Management, Enterprise Audit, and Computer Network Defense.
- (U) Performs enterprise information systems security engineering to include:
  - (U) Integrated critical common security services to support IC ITE and secure cloud implementations ensuring secure information sharing and safeguarding.
  - (U) Ensuring IA requirements are identified, embedded, and integrated early in the system development.

(U) Resources in this subproject are used for:

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# (U) ENTERPRISE IT SYSTEMS (U) IT OPERATIONS & MANAGEMENT

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### (U) Section I: Project Description

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I. (U) Description	•	
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- (U) Employ a consolidated enterprise IT services contract.
- (U) Provide a 24x7 Enterprise Management Operations Center.
- (U) Operate a 1,000-person, forward deployed labor force at a headquarters division, four squadrons, 15 global operational detachments and 6 operating locations.

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- (U) Key programs/initiatives: Support Mission Operations Directorate and NRO IT optimization efforts, which are in line with the DNI IC ITE initiatives.
- (U) There are no new activities in this project for FY 2014.
- (U) The NRO expects the project to accomplish the following in FY 2014:
- (U) Operate, maintain, and defend the NRO's enterprise information systems and terrestrial communication networks.



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# (U) RESEARCH & TECHNOLOGY (U) RESEARCH & TECHNOLOGY DEVELOPMENT

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### (U) Section I: Project Description

#### 1. (U) Description

(U) The Research & Technology Development project provides resources for 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 through investments in: new sources and methods, more effective utilization of on-orbit assets, advanced multi-INT ground architectures, survivability concepts, enablers, technology, CONOPS, and architecture- and system-level resiliency enhancements. Our Science and Technology (S&T) efforts encompass basic research, applied research, and advanced technology development. These activities enable evolutionary and revolutionary improvements to current and future GEOINT, SIGINT, multi-INT, communications, and ground systems to advance NRO capabilities and resilience posture.

(U) Base resources in this project are used for, but not limited to, research and development in the following focus areas:

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- (U) Temporal Responsiveness: Ability to task ISR system elements with the appropriate speed relative to the target dynamics and optimize collection efficiencies and responsiveness to tactical users. This includes machine-to-machine tasking, tip and cue, target hand-off, and dynamic user interaction.
- (U) The Unexpected: New sources and methods employing new sensors and phenomenology, and unusual or unexpected uses of existing sensor systems.
- (U) Target Discrimination: Ability to use multiple and diverse sensors, correlated temporally and spatially, against the same target in order to more fully understand, characterize, and identify with higher confidence.
- (U) Patterns of Life: Ability to take advantage of massive data sets, multiple data sources, and high-speed
  machine processing to identify patterns without a priori knowledge or pattern definition. Visualization and
  presentation of patterns for human interpretation to enable identification of normal and abnormal behaviors
  to detect, characterize, and identify elusive targets.

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- (U) Affordability: focus on development and insertion of technologies and techniques designed to improve the cost effectiveness of NRO systems.
- (U) Key programs/initiatives:
  - (U) Basic research: acquire knowledge or understanding in new technologies and concepts. Investments in basic research may lead to subsequent applied research and advanced technology developments. Basic research efforts are typically at Technology Readiness Level (TRL) 1-2. Basic research for the NRO is conducted primarily through the Director's Innovation Initiative (DII), which is a program to solicit and fund revolutionary technology and concept ideas through unclassified and classified channels, including entrants without prior NRO affiliation. Basic research also includes post-doctoral research, grants, and cooperative agreements to further the Nation's space capabilities.

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(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014: Due to the nature and scope of the NRO research and development organization, there are numerous accomplishments each year across the entire range of GEOINT, SIGINT, MASINT, and communications functional areas as well as fundamental technology advancements. The following are major initiatives and a representative sample of the planned accomplishments for FY 2014:

• (U) Conduct the annual DII solicitations to identify high potential technologies for the NRO. Identify at least three DII projects for continuation toward transfer/transition of the technology to NRO programs of record.

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• (U) Demonstrate decision support tools that provide insight into the readiness of potential threats and enable rapid and appropriate course of action implementations, including a multilevel security version of the Themis decision support tool.

# 2. (U) Participating Organizations

### A. Funds

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# (U) Section III: Subproject Specific Detail/Budget

### 1. (<del>S//NF</del>)

### A. (U) Description

(U) The Basic Research subproject develops new and innovative sources and methods through the DII and white papers proposed by industry, academia, other government organizations, and laboratories. The DII solicitation provides access to revolutionary classified and unclassified R&D concepts through an annual Broad Area Announcement process that specifically seeks out organizations not normally associated with the NRO and/or the IC. This subproject includes investments in post-doctoral candidates researching space relevant technologies, as well as grants and cooperative agreements as a technique for establishing critical research partnerships with a variety of organizations. Overall, this subproject allows the NRO to invest in cutting edge technologies and high-payoff concepts relevant to the NRO's mission in a risk-tolerant environment. Specific research and development efforts include, but are not limited to:

- (U) Enabling collection technologies including: collecting previously unknown or unobservable phenomena and improving collection of known phenomena; providing persistent surveillance; reducing satellite vulnerability; providing flexible collection; enhancing performance and manufacturing efficiencies; reducing size, weight, and power (SWaP); and rapid reconstitution and augmentation.
- (U) Enabling data processing, management, and dissemination technologies including innovative adaptation of video game and IT technologies, enhanced information products, inherent communications security, unconstrained communications, high integrity data storage virtualization, transparent access control for data stores and streams, and transparent information assurance for service oriented architectures.
- (U) Enabling cross-cutting technologies in advanced materials research, microelectronics, power generation and storage, and on-board processing techniques.

Resources in this subproject are used for:

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B. (U) Summary of Change FY 2013/2014 for Basic Research Subproject	

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• (U) Nanotechno	ologies for structura	applications, micr	oelectronics improv	ements, and pe	rformance
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#### (U) Section I: Project Description

1. (U) Description

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(U) The DoD also provides resources to this effort as a NIP/MIP collective investment. Milestones are based on a combined NIP/MIP investment. This request reflects only the NIP portion of the program. Refer to NRO MIP CJB for details about the MIP portion.



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- (U//FOUO) Enhance the effectiveness of existing ISR architecture through the use of tipping and cueing and coordinated collection.
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# (U) RESEARCH & TECHNOLOGY (U) RESEARCH & TECHNOLOGY SUPPORT

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#### (U) Section I: Project Description

#### 1. (U) Description

(U) The Research & Technology Support project provides engineering and infrastructure support to the Director, Advanced Systems & Technology (AS&T), for research and technology activities.

(U) Base resources in this project are used for:

- (U) Engineering and scientific analysis.
- (U) Technology analysis and forecasting.
- (U) Contract, 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) Key programs/initiatives: Recommending R&D investments to meet current and future architectural needs.

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014—provide critical support to the AS&T mission and vision.

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# (U) ENTERPRISE MANAGEMENT (U) ACQUISITION MANAGEMENT

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#### (U) Section I: Project Description

### 1. (U) Description

(U) The Acquisition Management project includes acquisition support resources for the IMINT, SIGINT, and Communications (COMM) Directorate-level staffs.

(U) Base resources in this project are used for:

- (U) Acquisition support activities in this project include travel, training, awards, Contract Advisory and Assistance Services, and FFRDC support.
- (U) Support for directorate front office operations, financial management, and security.
- (U) Acquisition support activities to include furthering technology maturation activities and future NRO studies.

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014—provide directorate-level acquisition and operations support.

#### 2. (U) Participating Organizations

A. Funds

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#### 2. (<del>S//NF)</del>

### A. (U) Description

(U) The GEOINT Directorate Management subproject provides resources for acquisition support activities for the IMINT Systems Acquisition Directorate to include travel, training, awards, Contract Advisory and Assistance Services, and FFRDC support. It provides support for directorate-level front office operations, financial management, and security. This subproject will also provide acquisition support activities to include furthering GEOINT technology maturation activities and studies to inform the future GEOINT architecture. Resources in this subproject are used for:

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•	(U) Other Cont	tractual Services:			

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# B. (U) Summary of Change FY 2013/2014 for GEOINT Directorate Management Subproject

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(U) Functional Transfers:

- (U) 4 military position to other NRO acquisition and operations activities.
- (U) 3 civilian position from GEOINT Radar EC, Radar Integration & Support project, Radar Integration & Support subproject to better align personnel to project.

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# (U) ENTERPRISE MANAGEMENT (U) COOP

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### (U) Section I: Project Description

#### 1. (U) Description

(U) The Continuity of Operations project provides oversight of program activities required to ensure critical NRO systems and functions continue to operate under contingency scenarios.

(U) Base resources in this project are used for:

- (U) Development of procedures and processes to support continuity of operations capabilities.
- (U) Transfer of operational control of NRO assets to alternate locations.
- (U) Exercise and maintenance of governing processes.
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(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

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

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#### 2. (U) Participating Organizations

#### A. Funds

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# (U) ENTERPRISE MANAGEMENT (U) EDUCATION & TRAINING

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#### (U) Section I: Project Description

### 1. (U) Description

(U) The Education and Training project provides resources for NRO and IC corporate initiatives that focus on improving workforce performance.

(U) Base resources in this project are used for:

- (U) Training courses.
- (U) Career and professional development programs.
- (U) Retention initiatives.
- (U) Exploitation of joint IC training opportunities.

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

- (U) Improve and expand course offerings to advance acquisition professional certifications.
- (U) Integrate NRO University (NROU) with ODNI-affiliated intelligence and acquisition universities and expand course offerings across the IC.
- (U) Provide leadership development courseware to support ODNI 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 to compete for and attend external training and education courses (EMS 00018).

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# (U) ENTERPRISE MANAGEMENT (U) FINANCE

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#### (U) Section I: Project Description

#### 1. (U) Description

(U) The Finance project provides resources to support the proper execution and accounting for NRO funds in accordance with Generally Accepted Accounting Principles, timely and accurate processing of invoices, and preparation of the NRO's external financial reports in compliance with OMB requirements.

(U) Base resources in this project are used for:

- (U) Funds administration and budget execution, cash management and monitoring of standard general ledgers in the financial accounting system.
- (U) NRO accounting policy, design, and operational effectiveness of its internal control processes over property plant and equipment in accordance with Federal accounting standards.
- (U) Reimbursable funds management and accounts payable functions, to include monitoring for, and reporting of, improper payments.
- (U) Financial policy guidance for NRO programs to ensure efficient and effective financial management and financial regulation compliance.
- (U) Preparation of external financial reports and conducting internal controls assessments over financial reporting.
- (U) Business IT support for NRO financial applications and systems including the NRO Financial Information System, Electronic Procurement Exchange Business Suite, Financial Information Requirements Tool, and electronic invoicing.

(U) New activities in this project for FY 2014:

- (U) Automating the compilation of the financial statements.
- (U) Implement system changes to reduce the number of manual accounting adjustments needed to prepare financial reports by improving the classification of costs recorded in the NRO Financial Information System.
- (U) The NRO expects the project to accomplish the following in FY 2014:
- (U) Sustain a clean audit opinion on the FY 2014 NRO financial statements.
- (U) Remediate any remaining material weaknesses identified in the FY 2013 audit report.

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- (U) Continue the upgrade of the NRO Financial Information System, the NRO's enterprise-wide, web-based financial transaction management and administrative system.
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- (U) Provide support for improvements in NIP financial management and execution monitoring by participating in DNI-led working groups and responding to IC financial management tasking.

### 2. (U) Participating Organizations

### A. Funds

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**B.** Positions

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3. (U) Major Contracts Supporting This Project

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- (U) Section II: Subproject Detail/Budget
- 1. (U) Budget Changes Summarized by Subproject

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# 2. (U) Position Changes Summarized by Subproject

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(U) Section III: Subproject Specific Detail/Budget

#### 1. (S//NF)

# A. (U) Description

(U) The Finance subproject provides:

- (U) Funds administration and budget execution, cash management and monitoring of standard general ledgers in the financial accounting system.
- (U) Accounting for NRO property plant and equipment in accordance with Federal accounting standards.
- (U) Reimbursable funds management and accounts payable functions.
- (U) Preparation of external financial reports and conducting internal controls assessments over financial reporting.

# (U) Resources in this subproject are used for:



B. (U) Summary of Change FY 2013/2014 for Finance Subproject

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# (U) ENTERPRISE MANAGEMENT (U) HQ MANAGEMENT

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#### (U) Section I: Project Description

#### 1. (U) 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, IG, Business Plans and Operations, Contracts, Acquisition Center of Excellence, Cost and Acquisition Assessment Group, Office of Policy and Strategy, Office of Strategic Communications, Center for the Study of National Reconnaissance, and Resource Management.

(U) Base resources in this project are used for:

- (U) Corporate legal counsel, IG oversight, contract management, contract settlement, complaint processing, reasonable accommodations for persons with disabilities, awareness training and diversity programs, program and budget analysis, budget formulation and defense, budget reporting, Strategic Communications, Business Plans and Operations, and DNRO management functions.
- (U) Acquisition best practices through support to source selection efforts.
- (U) Acquisition training for the NRO work force via seminars, formal training courses and just-in-time training.
- (U) Independent cost analysis support for NRO acquisitions including estimates, earned value assessments, trade studies, the Integrated NRO Architecture initiative, refinement of estimating analysis tools and techniques and joint cost research, methods development, and data collection.
- (U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

- (U) Complete the NRO Agency Financial Report, submit quarterly metrics updates to ODNI, submit FY 2015 CBJB and FY 2016 Intelligence Program Budget Submission, conduct quarterly execution reviews, semi-annual performance reviews, and FY 2013 performance reporting.
- (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 estimation requests.

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- (U) Provide support for approximately 120 NRO and mission partner source selections and related acquisition activity; and give acquisition training through formal and informal (timely acquisition topics, just-in-time, and graduate program) training courses.
- (U) Provide for ethics training to all NRO employees and monitor and review corporate regulatory structure to satisfy OMB, ODNI, DoD, and internal NRO requirements and standards.
- (U) Develop and implement NRO strategy and policy while advocating for NRO interests and supporting national, DoD, IC, civil space, commercial and international overhead reconnaissance policy and strategy.
- (U) Conduct comprehensive audits, inspections, investigations and special reviews of NRO programs and operations. Office of the Inspector General (OIG) fulfills the oversight role for the annual audit of the NRO Financial Statements, as well as, the annual audit of the NRO's information security program, which is a requirement of the Federal Information Security Management Act of 2002.

#### 2. (U) Participating Organizations

#### A. Funds

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#### **B.** Positions

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#### 3. (U) Major Contracts Supporting This Project



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# (U) Section II: Subproject Detail/Budget

# 1. (U) Budget Changes Summarized by Subproject

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# 2. (U) Position Changes Summarized by Subproject



(U) Section III: Subproject Specific Detail/Budget

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#### A. (U) Description

(U) The HQ Management subproject 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. Resources in this subproject are used for:



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# C. (U) Object Class Display for HQ Management Subproject

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#### A. (U) Description

(U//FOUO) The Inspector General - HQM subproject provides comprehensive oversight of NRO programs and operations through audits, inspections, investigations, and special reviews. OIG fulfills the oversight role for the annual audit of the NRO Financial Statements, as well as, the annual audit of the NRO's information security program, which is a requirement of the Federal Information Security Management Act of 2002. OIG training resources provide travel and training of OIG personnel which is necessary to meet professional standards and retain required certifications. The IG also maintains the statutory-required support for the Council of the Inspector General on Integrity and Efficiency.

Resources in this subproject are used for:

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# (U) ENTERPRISE MANAGEMENT (U) HUMAN RESOURCES

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#### (U) Section I: Project Description

#### 1. (U) Description

(U) The Human Resources project provides resources for NRO strategic human capital programs as well as payroll and related costs for NRO civilian personnel. The NRO strategic human capital programs include enterprise workforce analysis and planning; recruitment and academic outreach; leadership and organizational development, talent assessment and management, succession management, and employee engagement initiatives; life cycle personnel management services, enterprise position management, personnel policies, and employee recognition; and data integrity, analysis, and management.

(U) Base resources in this project are used for:

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

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- (U) Enterprise workforce analysis and planning supporting a strategic initiative for workforce development, recruitment and retention of qualified personnel.
- (U) Lifecycle personnel management, to include position management, policies and employee recognition.

(U) With the exception of the 74 positions within the HR project, positions are distributed among the other ECs within the NRP.

(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

- (U) Continue to provide full-time and part-time compensation and benefits for the diverse NRO workforce.
- (U) Develop and maintain web applications and SharePoint sites to automate personnel processes.
- (U) Establish, implement, and monitor an effective workforce planning and tracking system at the NRO.

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- (U) Conduct employee engagement activities that gauge the health and attitude of the NRO workforce via employee climate surveys.
- (U) Conduct outreach activities that raise awareness at academic and military institutions about the NRO mission and career opportunities in critical occupations.

# 2. (U) Participating Organizations

### A. Funds

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**B.** Positions

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#### 3. (U) Major Contracts Supporting This Project



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## A. (U) Description

(U) The Human Capital Management subproject provides the following at the NRO enterprise level. The organizational development program, which increases individual, team, and organization effectiveness to meet current and future workforce needs and sustains change across the NRO and our leadership development programs, equips the workforce at all levels to excel at leading in the NRO-unique work environment. Employee engagement gauges the health and attitude of the NRO workforce via employee surveys. Succession planning activities creates a cadre of leaders to assume key positions in the NRO, ensuring continuity of operations and mission success. Our outreach activities raise student awareness at academic and military institutions about the NRO mission and career opportunities in critical occupations. The NRO enterprise-wide strategic workforce planning establishes an enterprise capability to optimize human capital across the NRO, shapes the workforce

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of the future, engages and informs parent organizations' decision processes, and links human capital decisions with the NRO's budget process. Our HR Information Systems allow for data integrity, products, and strategies to establish and monitor effective workforce planning and tracking efforts at the NRO. Resources in this subproject are used for:

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(U) Functional Transfers:

• (U) 6 civilian and 21 military positions from other NRO acquisition and operations activities to more accurately reflect the performance of the human capital management functions.

C. (U) Object Class Display for Human Capital Management Subproject

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

This Exhibit is SECRET//NOFORN-

#### (U) Section I: Project Description

#### 1. (U) Description

(U) The NRO Mission Support (NMS) project directly supports national decisionmakers, Combatant Commanders, and deployed military forces by developing and delivering quick reaction capabilities, as well as innovative tactics, techniques, and procedures and material solutions, to improve the ability of the NRO to satisfy emerging IC and DoD information needs. The NMS project places top priority on developing capabilities that provide multi-INT, multiplatform, and fully integrated information in timeframes actionable by the users. These capabilities are developed in concert with Mission Partners (NSA, NGA, CIA, etc.) and users to solve the customers' operational and intelligence needs/problems. 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 needs. 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 pursue and capture high-value targets.

(U) Base resources in this project are used to:

• (U) Proactively engage customers by providing:

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- (U) Real-time direct technical support to operations and integration of new capabilities to assist operations via the Forward Presence Program.
- (U) Timely understanding of NRO operational systems status, technical capabilities, collection mitigation strategies, and system acquisition schedules to senior DoD leadership.
- (U) Services that facilitate the planning, concepts of operations development, tactics, techniques, and procedures development and integration of technology capabilities into DoD and IC agency operations.

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- (U) Rapidly develop and deliver capabilities that provide actionable operational and intelligence information by:
  - (U) Enabling appropriate user access to all pertinent NRO collected data in an operationally relevant timeframe.
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  - (U) Developing and deploying multi-INT, multidomain, multiplatform, and multisensor data fusion and integration capabilities that improve the quality and timeliness of ISR systems and data collection, processing, exploitation, and dissemination for military, national, and civil customers.
- (U) Key programs/initiatives:

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	(U) Evolving NRO capabilities to sup	port Personnel Re	covery and Com	bat Search and	Rescue.
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— (U) Leveraging existing and emerging information sources and methods, including multi-INT technologies in imagery and geospatial information, to implement new community initiatives focused on system integration, tool development and integration, information sharing, fusion, and quick product delivery to address complex problems.

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<ul> <li>(U) Analyzing th each of the COCO</li> </ul>	e performance of missile warning systems, including configuration assessments at

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(U) There are no new activities in this project for FY 2014.

(U) The NRO expects the project to accomplish the following in FY 2014:

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- (U) Provide intelligence data to warfighters in the field using mobile devices.
- (U) Enhance the detection and tracking of maritime vessels.
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# (U) Accommodation Procurement

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# (U) ENTERPRISE MANAGEMENT (U) SECURITY

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#### (U) Section I: Project Description

#### 1. (U) Description

## (b)(3) 10 USC 424

(U//FOUO) (U) The Security project provides a wide array of security support and services in physical security, personnel security, counterintelligence, and information systems to the entire NRO government and industry population. The Office of Security and Counterintelligence supports approximately (5)(3) 10 government and industry personnel in over (b)(3) NRO-sponsored facilities and almost (b)(3) Information systems.

(U) Base resources in this project are used for:

- (U) Development and distribution of security policy guidance.
- (U) Identification, analysis, and dissemination of information on terrorist and foreign intelligence service threats.
- (U) Planning long-range security initiatives.
- (U) Security clearance investigations (EMS_00045).
- (U) Polygraph examinations.
- (U) Adjudication and granting of NRO accesses (EMS_00033).
- (U) Physical security, inspection, and accreditation of secure facilities and information systems.
- (U) Security, information assurance, and CI training and awareness products for NRO employees.
- (U) Counterintelligence.
- (U) Dedicated cyber CI program to protect information systems from exploitation and potential insider threat
- (U) Dedicated enterprise IT audit program to protect national intelligence, identify threats, detect and deter penetration of IC information resources, reveal misuse, and identify usage trends.
- (U) Key programs/initiatives:
  - (U) Continue to enhance the enterprise IT audit program.
  - (U) Achieve IT auditing of FVEY information systems.
  - (U) Field an integrated IT auditing architecture that effectively gives analysts the ability to filter and reduce audit data, enabling detailed analyses.

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- (U) There are no new activities in this project for FY 2014. (b)(3)
- (U) The NRO expects the project to accomplish the following in FY 2014: 10
- USC • (U) Provide protection services to ensure zero breaches of the exterior perimeter of the NRO HQ compound 424 and outlying buildings.
- (U//FOUO)• (U) Complete initial and periodic clearance reviews to stay within the ODNI directed timelines of 90 percent of initial reviews completed in 114 days and 90 percent of periodic reviews completed in 145 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 and complete the implementation of Intelligence Community Directive (ICD) 503 IT systems security risk management, certification, and accreditation policy.
  - (U) Continue the Cyber-CI program for proactive detection and neutralization of insider threat.
  - (U) Enhance the enterprise IT audit program to protect national intelligence, identify threats, detect and deter penetration of IC information resources, reveal misuse, and identify usage trends for other lawful purposes.

## 2. (U) Participating Organizations

## A. Funds

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**B.** Positions

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# (U) ENTERPRISE MANAGEMENT (U) SYSTEMS ENGINEERING

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## (U) Section I: Project Description

## 1. (U) Description

(U) The Systems Engineering project provides enterprise systems integration and architecture systems engineering activities in support of the NRO. The NRO Systems Engineering Directorate (SED) utilizes government personnel and core contractors (CAAS/SETA and FFRDC) to establish systems engineering processes, maintain and manage the integrated NRO architecture and long-term investment planning baseline, and represent the NRO at all requirements-based interaction and interfaces with the IC and DoD. SED 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) Base resources in this project are used to:

- (U) Interface directly with the IC to ensure space intelligence collection needs are met. Develop integrated transport and ground architectures for GEOINT, SIGINT and communication systems. Specific functions include requirements management, architecture management, risk management/mitigation, schedule management, and configuration management.
- (U) Lead and drive new and innovative strategic solutions that leverage mission partner efforts and build upon multi-INT information with enhanced data access, content, and delivery timelines. Push efficiency initiatives across the NRO to enable more capability with current systems.
- (U) Prepare for and execute review functions independent from program offices to include, but not limited to, conducting major system level reviews such as System Requirements Reviews, Preliminary Design Reviews, and Critical Design Reviews.
- (U) Conduct major cross-departmental decision boards including, but not limited to, moving capabilities from the development phase into every day operations that make intelligence data available for worldwide use.
- (U) Perform enterprise mission assurance to prevent on-orbit satellite failures.
- (U) Inform and provide the technical basis for enterprise-level programmatic decisions. Provide the NRO Technical Planning Guidance which enables budget resource trades across the NRO.

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- (U) Perform end-to-end integration and end-to-end testing to assure that each system can perform as planned for launch and operations from both a ground and vehicle perspective. Perform final enterprise reviews prior to FY 2014 NRO launch campaign.
- (U) Coordinate with NRO mission partners on cross-agency mission integration activities across the separate NRP, NGP, CCP, and GDIP programs in accordance with DNI priorities.
- (U) Develop NRO satellite and ground requirements and maintain/run system-level modeling and simulation to ensure satellites meet performance commitments and IC/warfighter needs.
- (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. Execute industrial base efforts to retain key capabilities.
- (U) Perform enterprise-level analysis supporting requirements and architecture development and interface definition.
- (U) Provide technical analyses and represent the NRO for overhead-related IC and DoD interactions.
- (U) Support pre-acquisition architecture development for new programs and candidate concepts, including requirements definition and concept of operations.
- (U) Plan and execute full system life cycle readiness, to include definition of acquisition readiness schedules and milestones, data reporting requirements, and supporting engineering assessments.
- (U) Conduct NRO enterprise-level analyses addressing protection, survivability, and counter denial and deception.
- (U) Work with IC partners to ensure end-to-end continuity and security of essential functions in primary and reconstituted modes to ensure access to critical capabilities across IC agencies and customers.
- (U) Provide management of NRO enterprise-level systems engineering processes and tools.
- (U) Travel and training of government personnel supporting SED.
- (U) There are no new activities in this project for FY 2014.
- (U) The NRO expects the project to accomplish the following in FY 2014:
- (U) Perform enterprise end-to-end testing and reviews prior to and after launches to ensure that the planned FY 2014 NRO launches are successful.

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- (U) Mitigate risks to NRO systems by ensuring that critical technologies developed and produced by space industrial base industry partners are protected as part of the NRO's strategic planning efforts.
- (U) Translate capabilities into mission architecture requirements and standards through the Mission Architecture Requirements Document to allocate mission architecture requirements to NRO systems and functions.
- (U) Publish NRO Enterprise Plan to establish and document architecture thrusts and vectors.
- (U) Produce mission architecture metrics and perform analysis including Functional Availability and Mean Life Estimates to ensure capabilities meet mission needs.
- (U) Decompose NRO system level requirements to NRO functional areas.
- (U) Produce threat and vulnerability assessments in direct support of system milestone decision reviews to protect current and future NRO missions.
- (U) Produce requirements documentation such as Statements of Capabilities in direct support of programs to ensure mission partner needs are addressed by the NRO mission architecture.
- (U) Implement a standardized NRO enterprise requirements, schedule, and configuration management tool suite.

## 2. (U) Participating Organizations

#### A. Funds

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# (U) FACILITIES & LOGISTICS (U) FACILITIES

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#### (U) Section I: Project Description

#### 1. (U) Description

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(U) All NRO enterprise facilities design and construction funds are consolidated in the Facilities project, consistent with NRO guidance for construction budgeting consolidation and construction classification reporting. Major construction is defined as any new construction or capital improvement, with a cost greater than \$2 million. Minor construction is defined as any new construction or capital improvement with a cost of \$2 million or less. Repair is defined as refurbishment, repair, or replacement. The NRO has created a new Repair subproject and realigned funds from the Major Construction, Minor Construction, and Planning & Design subprojects to reduce confusion caused by having refurbishment, repair, and replacement activities within these other subprojects.

(U) Base resources in this project are used to:

• (U) Operate and maintain NRO facilities and grounds.

• (S//REL-TO-USA.-EVEY) • (11//FOLIO) Provide Of M for assential leased space in support of NPO requirements within the National

- (U//FOUO) Provide O&M for essential leased space in support of NRO requirements within the National Capital Region. Leased facilities include (b)(3) 10 USC 424 (EMS_00035).
- (U) Provide timely facility infrastructure standards support, enterprise management, policy, and guidance (to include power and cooling expertise) to the NRO.

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- (U) Maintain the comprehensive NRO Facilities Strategic Master Plan for all NRO facilities to allow for project development as a result of facilities condition index (FCI) assessments (EMS_00022, NRP_00723) and facility capacity assessments (EMS_00035).
- (U) Key programs/initiatives:
  - (U) Continue effort to achieve a 10 percent FCI for all NRO mission critical facilities.

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- (U) Implement a standardized preventive maintenance methodology across the NRO enterprise.
- (U) Implement strategic space plan for the NRO.

(U) In addition, there are twelve new activities in this project for FY 2014:

- (U) Aerospace Data Facility Colorado (ADF-C) monitoring and control (utility infrastructure), Supervisory Control and Data Acquisition Phase 1 construction.
- (U) ADF-C cooling towers 4, 5, and 6 construction.
- (U) ADF-East (ADF-E) enterprise-level (IC badging NRO Integrated Security System) construction.
- (U) ADF-E fire detection system phase 5 construction.
- (U) ADF-E Joint Collaboration Cell expansion phases 1-4 construction.
- (U) ADF-E rotary uninterruptable power supply replacement phase 1-4 construction.
- (U) ADF-E Williams Woods additional main switchgear construction.
- (U) ADF-Southwest (ADF-SW) Power Monitoring Phase 3 construction.
- (U) Headquarters load bank install construction.

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- (U) OSL-Cape Canaveral Air Force Station (CCAFS) connect Satellite Support Facility to Lighthouse Substation construction.
- (U) OSL-Vandenberg Air Force Base (VAFB) upgrade Building 2500 transformers and automatic transfer switch.
- (U) Construction, repair and recapitalization projects across the NRO enterprise for facilities capital improvements and a surge in construction requirements, consistent with the NRO Strategic Facilities Master Plan, to progress towards a FCI of 10 percent for mission critical enterprise facilities and equipment.
- (U) Planning and design for future construction, repair and recapitalization projects at across the NRO enterprise for facilities capital improvements and a surge in construction requirements, consistent with the NRO Strategic Facilities Master Plan, to progress towards a FCI of 10 percent for mission critical enterprise facilities and equipment.

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(U) The NRO expects the project to accomplish the following in FY 2014:

- (U) Continue progress toward the achievement of FCI of 10 percent for all mission critical NRO enterprise facilities per DNI direction to improve IC foundation and infrastructure and to meet mission ground station recapitalization requirements.
- (U) Accomplish infrastructure projects such as safety and security systems recapitalization and power and cooling upgrades across the NRO facilities enterprise.
- (U) Complete renovation of the ADF-E Primary Security Operations Center and security suite.
- (U) Conduct design activities for facility recapitalization projects beginning in FY 2014, aimed at improving mission critical FCI and capacity shortfalls (EMS_00022, 00035, NRP_00723, 00724, 00725).

## 2. (U) Participating Organizations

#### A. Funds

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#### **B.** Positions

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# (U) FACILITIES & LOGISTICS (U) LOGISTICS

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#### (U) Section I: Project Description

#### 1. (U) 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) Base 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, wellness support to include clinic
  health services, Employee Assistance Program, records life cycle 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, process reengineering, and
  reception and representational funds.

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- (U) Administration of the centralized NRO vehicle program to include vehicle leases, procurement, maintenance, inventory management, policy, and procedures.
- (U) Key programs/initiatives:
  - (U) Deploy an enterprise wide media services portfolio capability.
  - (U) Expand the NRO's Telework program for staff officers and proceed with establishment of alternative work locations for contractors.
  - (U) Expand the NRO environmental safety program through the Energy Conservation Investment Program, continue with site audits, and assist in expansion of the Utility Energy Services Contracts.
  - (U) Transport classified and unclassified cargo by airlift, courier, government and commercial trucking, sealift, and mail services.

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- (U) Virtualize Systems, Applications, and Products (SAP) in data processing applications. SAP is the NRO's largest business system, supporting all directorates and offices. As an Enterprise Resource Planning (ERP) tool, SAP supports human resources, supply chain management, travel management, inventory and warehousing, and procurement.
- (U) Migrate SAP infrastructure to the cloud.
- -- (U) Harden SAP security profile via governance, risk, and compliance initiatives.
- (U) Increase awareness of SAP capabilities across the NRO and greater IC to facilitate opportunities for interoperability, reduced duplication, and enhance organizational alignment.
- (U) Mature the interfaces between the SAP and NRO Financial Information System to allow for more integrated workflow between transaction and finance systems.
- (U) Expand SAP footprint to support more ERP capabilities at NRO ground stations.
- (U) Standardize and integrate supply chain management across the NRO enterprise.
- (U) Implement a robust logistics equipment replacement program to replace equipment that has been identified as beyond its life expectancy and in need of replacement.
- (<del>S//TK//NF</del>
- (U) Standardize, consolidate, or improve enterprise logistics functions, focusing particularly on warehouse operations, procurements, waste destruction, recycling, barcode technology, and heritage artifact storage.
- (U) Implement a comprehensive strategy to reduce personal printers across the NRO.
- (U) Initiate transition to multifunction devices that will replace copiers, faxes, scanners, and some printers.

(U) There are no new activities in this project for FY 2014.

- (U) The NRO expects the project to accomplish the following in FY 2014:
- (U) Perform sustainment efforts for hardware and software to ensure interoperability and standardization for business systems across all NRO Enterprise facilities.
- (U) Improve the ERP system relative to the functionality of the supplier-customer relationship.
- (U) Enhance the travel system functionality program including expanding its interface to the NRO's financial system.
- (S//TK//REL TO USA. FVEY)
- (U) Operate and maintain the Global Material Tracking System with business intelligence capabilities.
- (U) Implement a robust logistics equipment replacement program.
- (U) Deliver additional Human Capital Data Management application capabilities to Office of Strategic Human Capital.
- (U) Re-compete and upgrade of SAP development contract to a performance-based contract model.
- (U) Re-negotiate and right-size SAP license contract with regard to SAP product mix, license type and volume.

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# (U) LIFE CYCLE COST SUMMARY

# (U) Acquisition Summary



# (U) Independent Cost Estimate

(U) An updated ICE was completed in FY 2012. To be consistent with the scope of the ICE, the budget shown in the LCC table includes space and ground acquisitions, system integration, and other government costs. The acquisition is not funded to the ICE profile as a result of the negotiated milestone payment schedule caused by the transition to a fixed price contract.

## (U) Major Performers

Performer Name/Location	Function	Contract Award Date
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# (U) NRO GROUND ENTERPRISE (U) LIFE CYCLE COST SUMMARY

(<del>S//TK//REL TO USA, FVET)</del>

(U) The NGE's long-range objective is to develop a fully-integrated IC ground architecture where information is virtual, assured, available on demand, and globally accessible to authorized users empowered with the tools and services necessary to generate tailored, timely, trusted, and actionable intelligence products. The NGE's long-range goal is to create an IC Enterprise that operates and enables authorized users to receive and query trusted information on-demand to improve the speed and execution of decisions from anywhere in the world.

(U/<del>FOUO</del>) The capabilities the NGE acquires are driven by the needs of NRO's primary mission partners: NGA and NSA, along with principles, policies, and guidance from the ODNI and the DoD. The primary objectives of Increment 1.2 are as follows:

- (U) Deliver new mission capabilities to satisfy the Block 1 Statement of Capabilities Key Performance Attributes and fully exploit new spacecraft functionality (thus sustaining core NRO capabilities).
- (U) Integrate NRO's ground via functionally-aligned mission centers.
- (U) Provide an integrated NRO response to collection management authorities' tasking.
- (U) Maintain and enhance operations to sustain defined operational availability and support to users.
- (U) Promote integration of information across multiple intelligence sources to better respond to changing target sets.

(U/<del>/FOUO)</del> The acquisition strategy for the NGE is aligned with the mission support areas described above and is executed by the Ground Enterprise Directorate at the NRO.

## (U) Acquisition Summary

(U) Mission Control 1.2 (<del>3//TK//REL TOUSA, FVEY</del>)

(U) The program consists of multiple contracts structured to develop and integrate new capabilities into the Mission Control operational baseline, as well as the necessary sustainment functions required to maintain the full operational capability of these systems.

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(U) The ODNI and OSD approved the MC 1.2 MSA Program Management Plan baseline in August 2012.

(U) Mission Framework 1.2

(S//TK//REL TOUSA, FVEY)

(U) The program consists of multiple contracts structured to develop and integrate new capabilities into the Mission Framework operational baseline, as well as the necessary sustainment functions required to maintain the full operational capability of these systems.

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(U) Mission Processing 1.2

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(U) The program consists of multiple contracts structured to develop and integrate new capabilities into the Mission Processing operational baseline, as well as the necessary sustainment functions required to maintain the full operational capability of these systems.

(S//SI//TK//NOFORN) (S//TK//REL_TO USA. FVEY)

(U) The ODNI and OSD approved the MP 1.2 MSA Program Management Plan baseline in August 2012.

#### NRO Replenishment Planning & Functional Availability

## (U) NRO CONSTELLATION CAPABILITIES

(U) The NRO acquires and operates satellites that provide continuous 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).



## (U) CONSTELLATION REPLENISHMENT PLANNING

(U) A primary responsibility of the NRO is ensuring that the entire NRO constellation is replenished efficiently and in time to guarantee mission success. Replenishment planning is a complex process that is based on numerous factors.



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(U) Industrial Base. The NRO relies on the health of the space industrial base to produce innovative overhead intelligence systems that give the US an advantage over our adversaries. The space industrial base must not only implement advanced, next generation technologies but continually conduct R&D to discover new solutions to intelligence problems. This means our industry partners must attract and retain a highly trained, technical workforce possessing unique skills and abilities gained from years of experience developing space systems and components. Primes must also maintain access to key component suppliers, unique manufacturing processes, and rare raw materials. Financial viability is driven by factory utilization rates to meet demand for key components, specialized manufacturing processes and facilities, and access to rare raw materials. The absolutely indispensable role of the space industrial base means NRO replenishment planning will be influenced by industrial base considerations.

## NRO Replenishment Planning & Functional Availability

(U) Program Health. Technical and programmatic challenges (requirements changes, resource/supply interruptions, funding changes) inherent to executing 5 to 10 year long development programs can change the replenishment calculation. Replenishment decisions must consider the execution status of on-going developments when forecasting initial launch capability and enterprise readiness.



#### (U) FUNCTIONAL AVAILABILITY

(U) Functional Availability (FA) analysis applies probability theory to industry data, including component wear-out projections and failure rates, combined with operational life spans updated from on-orbit experience, against sclected criteria of mission satisfaction or Functional Success Criteria (FSC). FA is the probability that a constellation of satellites will meet all assigned FSC at a future point in time.

(U) Role of FA. NRO leadership uses FA primarily as a risk management tool to assess the potential for performance impacts due to program delays, as well as launch and on-orbit failures. The goal of launch replenishment planning is to fund programs to maintain an acceptable level of risk as illustrated by the FA thresholds: FA provides a guardrail for protecting mission success; it does not identify the optimum time for replenishment. Since FA calculations represent a minimum threshold they do not include legacy NRO spacecraft whose future is uncertain due to mechanical or funding uncertainties.

(U) Mean Life Estimate. MLE is the average of all the possible life spans of the satellite, according to models of the satellite's failure modes, component failure rates, and resource depletion rates. The accuracy of an MLE is contingent upon the amount of experience with similar satellites and components. New programs or blocks will have less information and thus more conservative MLEs until there is significant on-orbit experience. MLEs change over the life of the satellite based on on-orbit satellite health data and increased information about key components. Typically, a satellite has about a 50 percent chance of operating beyond its current MLE. Decision makers should be cautious about drawing conclusions based on MLE. MLE measures a satellite's "life" but does not indicate its collection capability with respect to satisfying the constellation's FSC.

(U) The following sections contain FA analysis results on the GEOINT, SIGINT, and COMM missions. The accompanying graphics display the FA curve for each mission and the reliability data and MLE for each satellite. Each section defines the FSC, explains differences from the previous CBJB, and explains changes in satellite reliability. Future systems that would be required to sustain a mission but have not yet been selected are indicated in purple and marked as "unfunded" but analyzed based on the satellite reliability and FSC for the previous system. In the case of satellites procured but stored, the earliest date by which it could be placed in orbit is indicated by the earliest service date.

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## (U) GEOINT EO Functional Availability Summary

(U) The GEOINT constellation FA model addresses individual vehicle reliability estimates, vehicle-specific life limitations, vehicle orbits, constellation-level limitations, and the probability of successful launch and initialization of replacement satellites.



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## **GEOINT Radar Satellite Reliability**



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## (U) GEOINT Radar Mean Life Estimates

(U) The bar chart indicates the predicted reliability of the satellites from analysis date (or launch date for new satellites) to 10 percent reliability. The MLE, is the statistical best estimate of the operational life of the satellite. For purposes of reliability and MLE computation, the probability of launch success is not included.

## (U) Satellite Status





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## **SIGINT Low Satellite Reliability**



2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 Fiscal Year This Figure is Generative Line Figur

## (U) SIGINT Low - Mean Life Estimates

(U) The bar chart indicates predicted individual plane reliability from the analysis date (1 Dec 2012) or from the planned launch date for each new plane of one or two satellites until reliability reaches the 10 percent level. MLE dates represent the statistical best estimate of the operational life of each plane. The probability of launch success is not included in these MLE calculations.

(U) The black portion at the beginning of each bar reflects the on-orbit checkout for each new plane. Launch changes are changes from the last CBJB.

## (U) SIGINT Low - Satellite Status

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## (U) IC IT ENTERPRISE (IC ITE)

## (U) Roles and Responsibilities

(U/FOUO) Intelligence integration remains a top priority for the DNI and NRO leadership. IT is considered a key lever to achieve improved integration by migrating the IC from independent, federated IT architectures to a consolidated, aligned IT architecture. Moreover, a fiscally constrained budget environment combined with emerging world threats and an enduring need for actionable intelligence require the IC to become more efficient and provide IT capabilities with less funding. These efficiencies cannot be achieved through IT solutions alone and must be accompanied by fundamental changes in IT business/service models.

(U) The NRO has established a formal transition effort as the DNI's IC ITE architecture paves the way for a fundamental shift toward operating as an IC Enterprise that uses common, secure, shared capabilities and services. The NRO is currently and will continue to develop and execute plans to transition to IC ITE service offerings, as they come online, in order to achieve IT efficiencies and contribute towards expected NRO IT budget reductions by FY 2018. The NRO has selected an overall Transition Program Manager, established Transition Managers for each of the forthcoming IC ITE service offerings, completed a formal Program Initiation Review with NRO IT leadership and created an IC ITE Transition Program Management Plan. Throughout FY 2012 and into FY 2013, NRO has also been actively participating in the community joint engineering teams, community governance councils, community business/funding related forums, executive level reviews; and has commenced an internal applications inventory and an internal desktop requirements collection effort. Expectations have been established such that the individual transition project managers are working toward delivering a capability (i.e., applications, networks, desktop, etc.) transition plan and associated activity/sequencing roadmap that will serve as a central part of the NRO IC ITE Transition Plan.

(U) The NRO IC ITE transition strategy is primarily divided into two core planning areas: transition to the common community desktop environment (IC ITE DTE) and a transition to integrated hosting environments (c.g., community clouds), both serving as key enablers for requisite application refactoring needed to attain compatibility with the target virtualized cloud environments and transition of NRO users to the community desktop service offering. In organizing the IC ITE transition program, we are leveraging the use of function specific transition projects supported by cross-NRO (domain expertise) integrated project teams. In addition, IC ITE transition project managers have been chartered to lead investment management activities as a means to broker IC ITE transition requirements and related investment needs within the NRO IT Investment Portfolio Management process. Through these dual management functions (project management and investment management), decision support associated with IC ITE transition requirements will leverage the NRO IT investment management and governance processes to facilitate corporate, coordinated decisionmaking.
(b)(3) 10 USC 424

(U//FOUO)In February 2013, NRO accepted the DNI's designation as the IC ITE Network Requirements and Engineering Service Provider. As service provider, NRO will coordinate with community partners to develop, monitor, and enforce the common standards/reference models for IC ITE Campus Area Networks (CANs) and Wide Area Networks (WANs).

## (U) FY 2014 Budget Request

(U) This section includes IC ITE information directly related to the FY 2014 budget request. The IC will provide additional IC ITE information under separate cover including: spend plans, a migration plan,

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a transition roadmap, security certification, interoperability and IT program alignment certifications, and an updated IC-wide data center strategy in accordance with congressionally directed due dates.

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(U) FY 2014 IC ITE Service Provider – Network Requirements and Engineering - NRO

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## (U) Expected Accomplishments

(U) During FY 2014, the NRO will aim to achieve internal IT efficiencies while maintaining mission excellence and acceptable IT service levels. The organization will accomplish this, in part, through the refinement and execution of its IC ITE transition plans. NRO transition planning for FY 2014 will largely focus on preparation for a systematic transition to IC ITE common services, particularly the common desktop environment and cloud services. However, as IC ITE community-level planning (business and technical) progresses through FY 2013, we expect additional technical/service concepts to be defined along with identification of responsible community service providers. The NRO will support these IC planning activities and will augment its internal IC ITE planning to accommodate the transition requirements and activities associated with future IC ITE services.

(U) IC ITE transition accomplishments anticipated to be realized during the FY 2014 timeframe include:

- (U) Initiate a systematic NRO end user transition to the community desktop environment once the environment fully supports NRO FVEY Integree requirements and as internal, dependent NRO application transition/refactoring is completed. End user/desktop transition strategy is to be completed in FY 2013.
- (U) Based on application inventory data analysis conducted in FY 2013, NRO will conduct application refactoring (i.e., virtualization) required to re-host applications into NRO's Common Mission Environment (interim) or appropriate IC cloud when operational. Application refactoring prioritization will be driven by the needs of NRO user transition to the community desktop environment. Application refactoring and cloud re-hosting will be initiated in FY 2013.
- (U) In parallel with application refactoring and migration, continue to increase NRO data migration to the cloud, to include requisite smart data tagging.
- (U) Adjust internal IT service offerings to those functions only required to complement the services offered by the community service provider (i.e., desktop machine procurement, cloud provisioning, enterprise management support, etc.).

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- (U) Formalize and execute the business/funding models (e.g., service level agreement establishment, performance monitoring and reporting, etc.) associated with and defined by IC ITE service providers.
- (U) Realign NRO's IC Federated Network roles into newly designated IC Network Requirements and Engineering Services Provider role.
- (U) Develop and implement standard reference architectures and governance for IC ITE CANs and WANs.

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## (U) CYBER ACCORDING TO OMB TAXONOMY

## (U) Cyber Overview

## (U) Mission

(U//FOUO) The NRO's cyber security efforts are a key component of a broader Information Assurance (IA) Program that provides critical resources to effectively govern and guide NRO Directorates and Offices in their implementation of Information Assurance activities and solutions regarding NRO's mission-critical assets. More specifically, NRO's enterprise cyber threat and vulnerability management activities are geared toward and continue to strengthen NRO's cyber security posture and close gaps in NRO cyber missionrelated capabilities to prevent malicious cyber activity, detect, analyze and mitigate cyber threats to NRO mission systems and applications. Enabling programs provide planning, policy development, workforce training, support public-private partnerships to share appropriate cyber security information and provide research and development necessary to address specific NRO technology needs and capabilities.

#### (U) OMB Cyber Taxonomy

(U) Beginning in FY 2014, OMB adopted a new cyber taxonomy for cyber activities. The activities included here were counted as cyber activities and no additions or deletions of activities were made based on adoption of the new cyber taxonomy.

### (U) FY 2014 Request

#### (U) NRO FY 2014 CBJB cyber resources will be used for the following activities:



(U) The following describes the activities in the FY 2014 request to strengthen cyber security efforts and close gaps in cyber mission-related activities. The NRO descriptions incorporate the concepts of OMB Cyber Taxonomy, as applicable.

#### (U) Cyber Security and Counterintelligence

#### (U) Protecting Networks

(U) The NRO Protecting Networks and Information Security and Shaping the Cyber Security Environment programs provide the critical resources to effectively govern the NRO cyber security activities to guide NRO Directorates and Offices in their implementation of activities and solutions regarding NRO's mission-critical assets. The NRO CIO governs the enterprise cyber security capabilities necessary to enable and safeguard the mission.

(U) The NRO cyber security activities consist of a governance structure that focuses on Information Assurance architecture and engineering, enterprise cyber threat and vulnerability management, continuous monitoring, enterprise risk management, situational awareness and assessment and authorization. Safe information sharing is incorporated by way of a Cross-Domain Support Office and Privacy Office, along with an extensive, comprehensive NRO-wide training program that addresses both internal and external information assurance risks.

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(U) Base resources in this program are used to:

• (U) Perform continual assessment of cyber threats to NRO assets and engage with the Directorates/Offices to effectively address vulnerability mitigation actions and examine mission critical/essential systems to identify specific vulnerabilities.

• (U) Enhance our enterprise threat and vulnerability assessments by conducting analysis, prioritization, and engaging in the remediation process.

• (U) Promote risk-based decisions and prioritize vulnerabilities based on threat analysis and risk posed to the NRO assets.

• (U) Enhance the NRO enterprise IA Architecture by further defining service descriptions for use by NRO Directorates and Offices assigned as common service providers; and provide gap analysis on the NRO architecture and way forward for meeting common services.

• (U) Continue to transition roles and responsibilities in accordance with IC Directive 503 to finalize the NRO's transition to the new C&A process enabling Continuous Monitoring and enhanced risk-based decisions

- (U) Begin phased implementation of the NRO Continuous Monitoring Program to start continuously monitor critical controls across all NRO systems.
- (U) Aggressively transition the NRO enterprise to a new formal assessment and authorization tool further enabling system and common services reciprocity at the IC and DoD levels.

• (U) Integrate systems security engineering to include the program and system development lifecycles.

• (U) Ensure that Information Assurance critical requirements definition and refinement are embedded and front-loaded into these core processes to include ground and space assets.

(U) Continue support of independent assessments of NRO shared assets with the IC and DoD.

• (U) Further refine the NRO Cyber Assurance posture by focusing on Continuous Monitoring, IA System Engineering, and Situational Awareness for NRO Ground and Space systems and operations.

• (U) Provide enhanced value and proposed efficiencies to the NRO by providing risk-based decisions and priorities based on the analysis of threats and vulnerabilities posed to our National assets.

• (U) Provide Cross-Domain and Privacy services and functions at the NRO.

• (U) NRO has taken actions to address the Protecting Operational Networks objective by providing the DNRO information regarding operational networks from foreign attack and other threats, to include other external defenses against insider threat.

- (U) Weigh enterprise risk implications of placing an NRO system into operations and, only when deemed acceptable, authorizes operation using a risk-based assessment process.
- (U) Monitor the patching of known exploitable vulnerabilities on NRO Management Information Systems, and meet IA Vulnerability Alert compliance by reporting to US Cyber Command (NRO IA Vulnerability Management).
- (U) Coordinate, prioritize, track, mitigate, and remediate vulnerabilities at the information enterprise level vice addressing them system-by-system (Enterprise Vulnerability and Remediation).

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- (U) Employ Information Security Architects/Enterprise Information Systems Security Engineers to allocate security requirements/standards and integrate IA into/throughout the systems development life-cycle.
- (U//<del>1000)</del> Employ the Enterprise Operations Squadron to provide 24x7 network protections for NRO's operational networks and computer systems.
- (U//FOUO) Designate Enterprise Operations Squadron's Defensive Operations Flight as the Tier 2 Network Protection Service Provider and is the single focal point for NRO network protection.

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• (U) Employ an NRO Cyber Incident Response Team that in coordination with the NRO Chief Information Security Officer reports to the IC as appropriate.

## (U) Counterintelligence

(U) The NRO's Security and Counterintelligence provides multilevel support to all NRO networks. Cyber CI deploys automated insider threat detection tools, analyzes collected data in conjunction with disparate data sources to produce investigative leads, performs assessments to rule out malicious activity occurring on NRO networks, and provides support to Mission Ground Stations for incident response. Counterintelligence Cyber Unit conducts counterintelligence activities over the NRO information systems architecture that concentrate on insider threat, traditional, and asymmetric methodologies.

## (U) Accomplishments

(U) The following provides a synopsis of NRO IA and cyber security activities for FY 2012. Critical activities focused on securing the Enterprise IT environment and aligning processes to strengthen the NRO cyber security posture. The NRO continued to make tremendous strides with its transition to IC Directive 503, looking to promote interoperability and efficiency across the IC through the trust and reciprocal acceptance of assessments and authorizations across the IC and DoD.

(U) The NRO achieved an "Excellent" in the CCRI evaluation of NRO's Unclassified- and Secret-level networks. The NRO continues to use its maturing Enterprise Vulnerability Assessment Remediation process to coordinate, prioritize, and track the mitigation and remediation of vulnerabilities across the NRO enterprise.

(U) The NRO continues to mature its Information Assurance Enterprise efforts by producing programs of records. During FY 2012, Identity and Access Management and Enterprise Audit were funded at the NRO Enterprise level to further support cyber security and counterintelligence requirements.

(U) The NRO IA program continues to provide integrated engineering, security, assessment (testing), and authorization support to its internal Infrastructure Service Providers and the IC's IC ITE. The integrated Security Team ensures security is embedded throughout the development, deployment, and operational activities of the service providers.

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## (U) Cyber security Resource Summary



## (U) Cyberspace Operations

## (U) Description

(U) The NRO has no efforts that fall within the taxonomy of Cyberspace Operations.

## (U) Other FISMA and CNCI Activities Resource Summary

(U) FISMA and CNCI reporting continues to be accomplished using the resources, functions, and activities mentioned above.

#### TOP SECRET//SI/TK//NOFORM

# (U) RESOURCE EXHIBITS CONTENTS

		Page
1.	(U) Funds by Expenditure Center and Appropriation Account, FY 2012 - FY 2018	465
2.	(U) Total Personnel and Total Positions by Expenditure Center, FY 2012 - FY 2014	466
3A.	(U) Civilian FTEs and Military Positions by Service/Agency, FY 2012 - FY 2014	467
3B.	(U) Total Positions by Service/Agency and Position Type, FY 2012 - FY 2014	468
4.	(U) Funds by Service/Agency, FY 2012 - FY 2014	469
5.	(U) Funds by Appropriation Title and Account, FY 2012 – FY 2014	470
6.	(U) Comparison of FY 2013 Total to FY 2014 Request by Expenditure Center	471
7.	(U) FY 2012 Major Contractors by Expenditure Center	472
<b>8.</b>	(U) Authorized and Filled Military Positions by Service/Agency and Position Type, FY 2010 – FY 2012	478
9.	(U) Crosswalk to DoD Budget Line Numbers (R-1, P-1, SAG), FY 2014 Request	479
10.	(U) Funds by Object Class, FY 2014 Request	480
11.	(U) FY 2013 Appropriation and FY 2014 Program Changes	481
12.	(U) Land and Structures, FY 2012 - FY 2014	482
13.	(U) Detail of Permanent Civilian and Military Positions	483
14.	(U) Resource Summary by Component, Expenditure Center, and Project	484
15.	(U) Federally Funded Research and Development Center (FFRDC)	500

#### TOP CEORET//O//TK//NOFORN-

## (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, located at Buckley Air Force Base, Denver, CO.

(U) ADF-E-Aerospace Data Facility-East, located at Fort Belvoir, Springfield, VA.

(U) ADF-SW-Aerospace Data Facility-Southwest, located at White Sands, NM.

TO (U) ADM—Acquisition Decision Memorandum.

USA. FVEN (+++)

(U) AI&T—assembly, integration, and test.

(U) AIM—automatic and interactive mapping. AIM provides Operational ELINT (OPELINT) and Technical ELINT that consists of the day-to-day automatic and interactive reporting of emitter activity, including the introduction, characterization, disposition, movement, utilization, tactics, and activity levels of known foreign emitters and, where applicable, associated military systems.

(S//TK//REL TO USA, EVEY)

(U) ALERT—audit log event reporting tool. ALERT is an Enterprise COTS tool. It is a Security Information Event Management application that receives, collects, processes, filters, and correlates events generated from security devices, network devices, and host systems, and provides visual alarms and customizable reports.

(<del>S//TK//REL TO USA, FVEY</del>)

(U) AOR-area of responsibility.

(U) ARB-Acquisition Review Board.

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

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

(U) ASAT—anti-satellite.

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#### TOP GEORET//SI/TK//NOFORN

(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)

(U) ATP---authorization to proceed.

(U) BOL—beginning-of-life.

(S//REL TO USA, FVEY

(U) C&A--certification and accreditation.

(U) C&C-command and control.

(U) C&T—command and telemetry.

(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.

(U) CAIG-Cost Analysis Improvement Group.

(U/<del>FOUO</del>) CAROUSEL. A new 64-bit encryption algorithm that will be used by U.S. Space Systems requiring U.S.-only command and control protection.

## 

(U) CCAFS—Cape Canaveral Air Force Station, the eastern launch range, located near Cocoa Beach, FL and adjacent to NASA's Kennedy Space Center.

<del>(S//TK//NF</del>)

(U) CCS---constellation calibration services.

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

(U) CDR—critical design review.

(<del>S//TK//REL TO USA, FVEY</del>)

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

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

(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.

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18 November 2013

#### FOP DEORET//DI/TK//NOFORM



(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) COMSEC—communications security.

(S//TK//REL TO USA, AUS)

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

(S//REL TO USA, FVEY)

(U) CSL—Common Services Layer.

(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) CWAN-contractor wide area network.

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

(S//TK//REL TO USA, FVEV)

(U) DCGS-Distributed Common Ground System.

(U) D12E—Defense Intelligence Information Enterprise. A component of the Defense Information Enterprise that transforms information collected to satisfy intelligence needs or into forms suitable for further analysis or action. It involves integration, evaluation, and interpretation of information from available databases for use in the development of intelligence products.

(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.

(S//REL TO USA, FVEY)

(U) E2-Echelon 2. Factory maintenance in support of ongoing operational systems.

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#### OP OF ORET !! OI/TK!!NOFORN

(U//FOUO) EA—Enterprise Architecture. The systems, segments, and elements that together, enable the NRO enterprise to meet the US Government's intelligence needs through spaceborne reconnaissance.

(U) EC—expenditure center.

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

## (S//REL TO USA, EVEY)

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

(U) ELC-EELV Launch Capability contract.

(U) EO-electro-optical.

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

(U) ER2—Enterprise Registry and Repository. An ODNI-sponsored IC enterprise capability delivered by the NRO, the IC Service Provider for ER2. ER2 provides the IC the ability to publish, manage, and discover IT mission, business, and enterprise IT resources throughout their lifecycle to facilitate discovery, sharing and reuse. ER2 provides the IC the ability to manage information about IC-wide shared IT resources including services, software, applications, architecture profiles and blueprints, technical standards, security patterns, and data schemas, and discover the relationships between those resources. This enables stakeholders to make better informed decisions on the utilization, maintenance, and management of IT resources.

(U) ERMS-electronic records management system.

(U) ERP--enterprise resource planning.

(U) ESA—electronically steered array.

(U) ESD—earliest service date.

(U) EVM—earned value management. Project management method used throughout the IC and DoD.

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

(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)

(U) FCI-facilities condition index.

(U) FlexCrypto-flexible cryptographic equipment. Program to replace obsolete KG-247 cryptographic hardware.

(U) FOC—full operational capability.

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

(S/ISI//REL TO USA, FVEY

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18 November 2013

#### OP CEORET//CI/TK//NOFORN

<del>(S//TK//NF) <u>(U</u>//FOUO</del>)

#### <del>(3//TK//NF)</del> <del>(U//FOUO</del>)

(U) Gbps—Gigabits per second (10⁹ bits per second).

(U) GED-NRO Ground Enterprise Directorate.

(U) GEM—ground enterprise milestone.

(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.

(U) GForge. A collaborative, web-based information management system that provides a common workspace and enables cross-network collaboration for users and projects throughout the NRO and IC.

(U) GIMS-GEOINT Information Management System. NGA tasking system for NRO GEOINT satellites.

(U) GoA-Government of Australia.

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

(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.

(<del>S//TK//REL TO USA, FVEY</del>)

(S//REL TO USA, FVEY)

(U) HVT-high value target.

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

(U) IA—information assurance.

(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) IBS-S—IBS SIMPLEX. A broadcast communications system relaying time-critical, tactical intelligence data in near real-time from national intelligence collection systems.

(U/<del>FOUO</del>) ICFN—Intelligence Community Federated Network. Project that enables the phased convergence and consolidation of IC networks in support of a secure, integrated, resilient and agile enterprise-wide communications infrastructure. ICFN will achieve efficiencies through integration of networks in support of cross-community communications and data services to be accessed and delivered throughout the Information Technology Enterprise.

(U) ICITE—IC Information Technology Enterprise. The enabling foundation for intelligence missions from the White House to the foxhole. It is the committed, integrated, community-wide efforts to design, develop, and deploy needed mission capabilities; enable secure information sharing; and to engage and sustain a highly skilled, innovative and high-performance workforce.

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18 November 2013

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( <del>S//SI/TK//REL_TO_USA, EVEY</del> )	
(U) ILC—initial launch capability.	
(S//TK/REL TO USA, EVEY	
(S//TK//REL TO USA, FVEY)	
(S//TK//REL TO USA; FVEY)	
(U) IOC—initial operational capability.	
(SHIRIKEL TO OBA, THET)	
BHIRHID IC USA, IVEY	
(S//TK//REL TO LISA, EVEY)	

(U) IP/MPLS-internet protocol/multiprotocol label switching.

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

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

(U) IV&V-independent validation and verification.

(U) JIAB—Joint Intelligence Acquisition Board.

(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) LIDAR—light detection and ranging.

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

TOP SECRET//SI/TK//NOFORN

518

#### TOP SECRET//SI/TK//NOFORN-

(<del>S//TK//REL_TO_FVEY</del>)

(S//TK//NE)

#### (SHTK//REL TO USA, FVEY)

(U) Mbps—Megabits per second ( $10^{6}$  bits per second).

(U) MC-mission center. Functional mission are construct to organize ground development.

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

(U//FOUO) MDDS-M-22 Data Dissemination System.

(U) MEO-medium earth orbit.

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

(SHTK//REL TO USA; FVEY

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

(U) MGS-mission ground station.

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

(U) MITC—Multi-INT Tasking and Coordination. MITC provides mission management for GEOINT, SIGINT and multi-INT operations.

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

(U) MM-mission management.

(U) MMD-mean mission duration.

(U) MOD-Mission Operations Directorate.

(S//NE)

(U) MSA-major system acquisitions.

(U) MS-B-milestone B.

### <del>(S//TK//REL) (U)</del>

(U) MTDEMC—Multi-INT Technology, Discovery, and Evolution Mission Center. MTDEMC provides Multi-INT processing and multi-INT fusion capability.

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

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519

18 November 2013

#### TOP BEORET//BI/TK//NOFORN

(<del>S//TK//NF</del>)

(U) NAB-NRO Acquisition Board.

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

(U) NFIS—NRO Financial Information System.

(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.

(S//REL TO USA, EVEY)

(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, located at Schriever Air Force Base, Colorado Springs, CO.

(U) NROC-NRO Operations Center.

(U) NROU-NRO University.

(U) NSS—National Security Space.

(U) OBP-on-board processing.

(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) OSL—Office of Space Launch.

(U) P&S-planning and scheduling.

(S//TK//NF

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

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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) PR/CSAR-personnel recovery/combat search and rescue.

(S//NE)

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

(SHTK//REL TO-USA, FVEY)

(U) PS—processing segment.

(U) PTS-product transmission segment.

(U) PuppetMaster – Replacement to the Future Architecture for Command and Telemetry Services (FACTS).

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

(U) Quicksilver. Network (also known as Common Service Layer – Global) that seeks to improve data and services exposure between intelligence production systems (referred to as the "back-office") by providing an agile and cost effective information-sharing infrastructure that provides higher performance than current IC networks. Quicksilver is being deployed at seven locations (six in CONUS, and one OCONUS).

(U) R/S—relay satellite.

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

(U) RC-IED-radio controlled IED.

(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.

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(U) RF-radio frequency or receive facility.

<del>(S//TK//REL_TO_USA, FVEY</del>)

(U) RFI—radio frequency interference.

(U//FOUO) RTC---real-time control. RTC provides a common real-time control capability across all operational nodes that support the overhead SIGINT constellation.

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

(U) S&T—science and technology.

(U) (CLASS) SAP-Systems, Applications, and Products.

(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)

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

(U) SDR—system design review.

(U) SED—Systems Engineering Directorate.

(TS//SI/TK//REL TO USA EVEY)

(U) SETA—system engineering and technical assistance.

(U) SGR—Space Ground Routing. SGR receives the satellite data from communications satellites then sends the data to the appropriate ground processors.

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

(S//TK//REL TO USA, EVEY)

(U) SIW-strategic indications and warning.

(U//<del>FOUO</del>) SM—Service Management. Performs planning and scheduling of MTS space, ground and terrestrial communication assets to meet Mission Transport Service user communications service requests. (b)(3) 10 USC 424

(U) SOSI—space object surveillance and identification. Adam, description.

(S//TK//REL TO USA. EVEY)

(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.

TOP SECRET//SI/TK//NOFORN-

522

18 November 2013

#### TOP SECRET//SI/TK/NOFORN

(S//REL TO USA, FVEY)

(U) SRR—system requirements review.

(U) SWaP-size, weight, and power.

(U) SV-space vehicle.

(U) TCPED-tasking, collection, processing, exploitation, and dissemination.

(U) TDRSS-Tracking and Data Relay Satellite System. NASA relay satellite.

(U) TECHELINT-Technical Electronic Intelligence.

(U) TI-technical intelligence.

(S//NF)

(S//REL TO USA, FVEY)

(U) TRL-technology readiness level. Adam, description.

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

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

(<del>c</del>)

(U) UGA—unified ground architecture.

(U) UK—United Kingdom.

(U) UMIS-unclassified management information system.

(U) VAFB—Vandenberg Air Force Base, the western launch range, located near Lompoc, CA.

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

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

(U) VOIP—voice over internet protocol.

(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.

(TS//SI/TK//NF)

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