(U) STATEMENT OF WORK (SOW)

for the

(U) Signals Intelligence Systems Acquisition (SIGINT)

Directorate

(U)

(U) Support Services "WHETSTONE"

(U) August 2011

WARNING - THIS DOCUMENT SHALL NOT BE USED AS A SOURCE FOR DERIVATIVE CLASSIFICATION

DECL ON: 25X1, 20351110, RRG Dated July 2005 DRV FROM: NRO Classification Guide 6.0, 21 May 2005

Approved for Release: 2020/07/08 C05126425

SECRET//TK//REL TO USA, FVEY

			REVISIONS	5
Rev.	Date	Rev. By	Paragraph/Pages Affected	Remarks
Initial	4/01/11			
Final	5/6/11		All	Added documents, security marking changes, deleted CDRL A002 and renumbered other CDRLs, SEI requirements changes, minor clarification to requirements, renumbered requirement CDRL list clarification, added definition of Collection Segment, added Kickoff Meeting, added GFE list, added Personne Availability table, added support
Final	8/31/11		All	Updated footer to read "NRO000-11-C- 0394"

-SECRET//TK//REL TO USA, FVEY

(b)(1) (b)(3)

(U) TABLE OF CONTENTS

Section

<u>Title</u>

Page 1

1	(U) INTRODUCTION4
1.1	(U) Purpose
1.2	(U) Background
1.3	(U) Scope of Effort
2	(U) APPLICABLE DOCUMENTS
2.1	(U) Compliance Documents7
2.2	(U) Reference Documents
3	(U) REQUIREMENTS AND TASK DESCRIPTIONS9
3.1	(U) WHETSTONE Program Management
3.1.1	(U) Program Management9
3.1.2	(U) Staffing10
3.1.3	(U) Reviews and Status Reports10
3.2	(U) SIGINT Directorate Front Office Support11
3.2.1	(U) Graphics Support11
3.2.2	(U) Web Master and Data Management Support11
3.2.3	(U) Director's Action Group Support12
3.2.4	(U) Chief of Staff Management Support12
3.2.5	(U) Corporate Communications
3.2.6	(U) Business Operations Support13
3.2.7	(U) Acquisition Process Support14
3.3	(U) Program Control (PC) Support15
3.3.1	(U) General15
3.3.2	(U) Budget Planning and Execution15
3.3.3	(U) Earned Value Management (EVM)15
3.3.4	(U) Schedule Analysis15
3.3.5	(U) Cost Estimating
3.4	(U) Technical Support
3.4.1	(U) System Engineering and Integration Support16
3.4.1.1	(U) General
3.4.1.2	(U) Analysis and Design 17
3.4.1.3	(U) Architecture Development
3.4.1.4	(U) Customer Outreach
3.4.1.5	(U) Future Acquisition Planning
3.4.1.6	(U) Requirements Management and Verification
3.4.1.7	(U) Configuration Management
3.4.1.8	(U) Risk Management
3.4.1.9	(U) Acquisition Support to Development
3.4.1.10	(U) Mission Assurance

SECRET#/TK//REL TO USA, FVEY

3.4.1.11	(U) Interface Management	21	
3.4.1.12	(U) Ground Engineering	22	
3.4.1.13	(U) Vehicle Engineering	22	
3.4.1.14	(U) Maintenance and Engineering		
3.4.2	(U) Space and Launch Support		
3.4.2.1	(U) General	22	
3.4.2.2	(U) Acquisition	23	
3.4.2.3	(U) Payload Engineering	25	
3.4.2.4	(U) Special Payloads	26	
3.4.2.5	(U) Vehicle Engineering	26	
3.4.2.6	(U) Integration and Test	27	
3.4.3	(U) Command and Control Support	27	
3.4.3.1	(U) General		
3.4.3.2	(U) Acquisition	29	
3.4.3.3	(U) Echelon 2 Support	30	
3.5	(U) Staff Support	31	(b)(3)
3.5.1	(U) Business Process and Action Support	31	
3.5.2	(U) Management Information Systems and Web Support	31	
3.5.3	(U) Training Support	33	
3.6	(U) Cost Efficiency Performance Management	33	
3.7	(U) Miscellaneous	33	
3.7.1	(U) Transition	33	
3.7.2	(U) Travel	34	
3.7.3	(U) Security	34	
3.7.4	(U) Government Furnished Equipment	34	
3.7.5	(U) Training	35	
4	(U) DELIVERABLES	36	
4.1	(U) Contract Data Requirements List (CDRL) Items	36	

-SECRET//TK//REL TO USA, FVEY-

1 (U) INTRODUCTION

(U//FOUO) This Statement of Work defines the tasks for the Support Services Contractor for the	
and Front Office support for the Signals Intelligence	(b)(3)
(SIGINT) Systems Acquisition Directorate ("SIGINT Directorate").	

1.1 (U) Purpose

(U) The purpose of the WHETSTONE contract is to provide technical, programmatic and administrative support to the within the National (b)(3) Reconnaissance Office's (NRO) SIGINT Directorate in the areas of Program Management, Support Services including Program Control, Systems Engineering, Spacecraft Development, Payload Development, Integration and Test, Launch and on-site factory representation.

1.2 (U) Background

(b)(1) (b)(3)

-SECRET//TK//REL TO USA, FVEY-

SECRET//TK//REL TO USA, FVEY

(S//TK//REL) In support of acquisition, launch, and other activities, and its support team work closely with the NRO System Engineering Directorate (SED), NRO Ground Enterprise Directorate (GED), NRO Mission Operations Directorate (MOD) and NRO Communications Directorate (COMM) to support Intelligence Community (IC) and Department of Defense (DoD) missions.	(b)(3) (b)(1) (b)(3)
(c//TK//REL) The Contractor team performs tasks in the areas of System Engineering, System Integration, Factory Acceptance Testing (FAT or DT&E 1), Site Integration and Verification (SIV or DT&E 2), Requirements Verification and Validation (V&V), System Installation, Engineering Trade Studies, System Performance Analysis, Requirements Analysis and other analysis necessary to supportacquisitions, Requirements Development, Advanced Planning and Program Advocacy, Collection Optimization, Business Process and Operations Support and Program Management. Activities include all stages of the acquisition lifecycle from strategic planning to system disposal for high altitude SIGINT spacecraft and associated nosted on high altitude SIGINT spacecraft and for Command and Control ground systems that support both SIGINT and	(b)(3) (b)(1) (b)(3)
(U) The SIGINT Director is responsible for acquisition of all new SIGINT spacecraft and overall performance and operation of on-orbit SIGINT spacecraft including HEO, GEO and LEO (Low Earth Orbit) spacecraft. The Contractor supports the SIGINT Directorate Front Office by working tasks as part of the The The tracks, disseminates and coordinates all SIGINT Directorate actions ensuring that appropriate products and responses are prepared and submitted by the SIGINT Directorate. The also provides acquisition policy development, strategic planning, business operations, corporate communications and outreach support to the SIGINT Directorate Front Office. The Contractor provides internal web site design and maintenance for the SIGINT Directorate and web site and support to the SIGINT Directorate Chief of Staff.	(b)(3)
(U) The Contractor interfaces with and works ongoing and emerging issues in conjunction with the Government and Federally Funded Research and Development Center (FFRDC) team managing projects and systems to develop plans, reports, documentation and coordination to satisfy program objectives. Such interactions may include coordination and joint development of various program documents and joint interchanges with other agencies, stakeholders and industry partners. The Contractor utilizes existing program documentation, systems, applications, schedules, policies, procedures and processes as have been established and are currently in effect in	
(U) Frequent travel to locations inside the Continental US (CONUS) and outside the Continental US (OCONUS) will be required for many of the personnel working on this contract in support of	
1.3 (U) Scope of Effort	
5 //TK//REL)-This Statement of Work (SOW) defines the tasks to be performed. The	

Government estimates the Level of Effort (LOE) to support this SOW at approximately | | Full Time Equivalents (FTE) with an LOE based on standard of hours per year. Of the estimated FTE, **FTE** are dedicated to support, **FTE** are dedicated

- SECRET#TK//REL TO USA, FVEY-

(b)(3)

(b)(1)(b)(3)

to SIGINT Directorate Front Office support. FTE are dedicated to support and FTE is dedicated to support.	(b)(3) (b)(1)
(U) Any changes which significantly affect FTE count will be accomplished through an Engineering Change Proposal (ECP).	(b)(3)
(U) The Contractor furnishes the necessary qualified personnel, resources, and materials to perform identified tasks and support and the SIGINT Directorate Front Office throughout the duration of this contract.	
(U) The Contractor performs work under this SOW at a Contractor facility within miles of the NRO Headquarters, at other Contractor facilities (ex: Denver), at Government provided spaces at NRO Headquarters and at Government provided spaces at key development contractor locations as on-site factory representatives (ex: Los Angeles, California).	(b)(3)
(U) Note that a key goal of this contract is to use innovative and creative solutions to produce	

(U) Note that a key goal of this contract is to use innovative and creative solutions to produc cost efficiencies throughout the life of this contract while still meeting SOW requirements.

-SECRET//TK//REL TO USA, FVEY-

SECRET//TK//REL TO USA, FVEY

2 (U) APPLICABLE DOCUMENTS

(U) The Contractor shall comply with the requirements of the following documents and subsequent revisions. All work performed on this contract shall be compliant with the documents below.

2.1 (U) Compliance Documents

(U) Compliance Documents

(TABLE IS UNCLASSIFIED//FOUO)

SECRET//TK//REL TO USA, FVEY

-SECRET//TK//REL TO USA, FVEY-

2.2 (U) Reference Documents

(U) Reference Documents

(b)(3)

(TABLE IS UNCLASSIFIED//FOUO)

-SECRET//TK//REL TO-USA, FVEY

3 (U) REQUIREMENTS AND TASK DESCRIPTIONS

(U) This section outlines the work the Contractor shall perform under the WHETSTONE Support Services contract. Work shall be in accordance with this SOW and the applicable documents in Section 2.

(U) The Contractor shall provide all personnel, facilities, equipment, and materials needed to accomplish the tasks of this SOW.

(U) The Contractor shall provide and maintain a highly qualified technical and programmatic staff with the experience and subject matter expertise necessary to perform the tasks listed in the SOW throughout the duration of this contract.

(U) The Contractor shall interface and work with other support contractors, including Federally Funded Research and Development Center (FFRDC) personnel to develop plans, reports, and documentation as needed to satisfy program objectives.

(U) The Contractor shall provide OCI non-conflicted support, as stated in ______ in performance of the tasks detailed herein.

3.1 (U) WHETSTONE Program Management

3.1.1 (U) Program Management

(U) [PM-001] The Contractor shall plan and implement management processes to ensure effective execution of the contract.

(U) [PM-002] The Contractor shall ensure open and timely communication occurs with Management on contract execution status and issues.

(U) [PM-003] The Contractor shall inform the Contracting Officer Technical Representative (COTR) of significant schedule, technical, financial, and contractual issues affecting the program, including delivery of CDRL or products, recommend solutions and take corrective action as directed.

(U) [PM-004] The Contractor shall assign a Program Manager responsible for all functions specified in this SOW including management support and technical services. The Program Manager is responsible for providing the necessary support to fulfill the requirements contained in this SOW. The Program Manager will coordinate the activities of the contractor as well as any subcontractor personnel in support of contract activities.

(U) [PM-005] The Contractor shall assign a Contracts Manager responsible for all contractual functions related to this contract including financial and contractual performance. The Contracts Manager will directly interface with the Contracting Officer.

(U) [PM-006] The Contractor shall perform program control activities ensuring that appropriate program progress reports (Program Status Report - **CDRL A001**), program staffing reports (Personnel Status Report – **A003**), financial performance reports (Contract Funds Status Report

-SECRET//TK//REL TO USA, FVEY

NRO000-11-C-0394 Attachment 1

Page 9

(b)(3)

Approved for Release: 2020/07/08 C05126425

- CDRL A002), and other contractual performance information are provided in a timely manner to assist in balancing cost, schedule, and risk.

3.1.2 (U) Staffing

(U) [PM-007] The Contractor shall manage the contract to ensure all tasks, especially personnel tasks, are accomplished in a timely and complete manner.

(U) [PM-008] The Contractor shall ensure qualified contractor and subcontractor personnel are cleared, available to work and on staff during transition and throughout the contract per the applicable Key Personnel clause and Personnel Availability table shown below.

	(U) Personnel Availability			
Days from Start of Contract	Key Personnel	Non-Key Personnel		
Day 1	100%	25%		
Day 15	100%	50%		
Day 30	100%	75%		
Day 45	100%	100%		

(U) [PM-009] The Contractor shall develop a process for providing contractor and subcontractor personnel, retaining contractor and subcontractor personnel, and replacing or removing contractor and subcontractor personnel when required.

(U) [PM-010] The Contractor shall develop a methodology for assessing priorities and resources when resolving conflicting project requirements.

3.1.3(U) Reviews and Status Reports

(U) [PM-011] The Contractor shall conduct Management Meetings (Summary Level) every 3 months with Senior Management. Top-level discussions shall include progress reports against schedule for tasks, risks, staffing, accomplishments, cost efficiencies and any other issues or concerns (Program Status Report – **CDRL A001**). The Contractor shall be responsible for recording meeting minutes, submitting them to the COTR for approval and then distribution afterwards (**CDRL A004**).

(U) [PM-012] The Contractor shall provide copies of all program documentation produced as a result of this effort. The Government shall have unlimited rights to all products delivered. Technical deliverables shall contain no proprietary data. Any other deliverables that may contain proprietary data shall be marked appropriately.

SECRET#TK//REL TO USA, FVEY

(U) [PM-013] The Contractor shall have the capability to provide, on demand, any products produced under this contract as hardcopy published reports and briefings, on CD-ROM and in fully editable softcopy in formats compatible with the NRO Management Information System (NMIS).

3.2 (U) SIGINT Directorate Front Office Support

3.2.1 (U) Graphics Support

(U) [SIFO-001] The Contractor shall provide graphics support to the SIGINT Directorate Front Office to include:

- Develop, maintain and present visual and multimedia presentations including brochures, documents and briefings
- Develop and maintain SIGINT Directorate training and education programs and materials
- Provide graphics and web design services in support of SIGINT Directorate web site development and maintenance
- Provide support for items such as meeting notification, action item tracking and responses, responses to action items and hosting of SIGINT Directorate meetings and forums
- Coordinate with the NRO's Media Services Center for all SIGINT Directorate graphics, video, and printed materials

3.2.2 (U) Web Master and Data Management Support

(U) [SIFO-002] The Contractor shall provide web master and data management support to the SIGINT Directorate Front Office to include:

- Develop, maintain and update the SIGINT Directorate web site to include modifications and enhancements per Government request
- Develop, maintain and update the SIGINT Directorate web-based action item tracking system to include modifications and enhancements per Government request
- Develop, maintain and update SIGINT Directorate records management and document archive software applications to enable rapid retrieval of SIGINT Directorate historical information to include modifications and enhancements per Government request
- Develop, maintain and update SIGINT Directorate staffing and logistics webbased applications and databases to include modifications and enhancements per Government request
- Support and present SIGINT Directorate inputs on the IC Intelink and NRO Intranet

SECRET//TK//REL TO USA, FVEY

• Coordinate with the NRO's Media Services Center and the NRO COMM Directorate as needed to ensure SIGINT Directorate materials on NRO web sites are up to date and accurate

3.2.3 (U) Support

(U) [SIFO-003] The Contractor shall provide support to the SIGINT Directorate to include:

- Manage and execute the SIGINT Directorate action item process to include receiving, recording and tracking action items, distributing action items to the appropriate personnel, coordinating with other NRO Directorates and Offices on action details and coordinating responses with appropriate internal and external parties, keeping the SIGINT Directorate Front Office aware of late, pending and new actions and maintaining the action item database
- Develop and implement effective SIGINT Directorate records management and document archiving systems in accordance with Federal and NRO policies
- Support SIGINT Directorate staffing and logistics functions to include disseminating and tracking awards, personnel arrival and departures and personnel performance reporting status
- Provide routine administrative support to to include appointment scheduling, calendar management and attending SIGINT Directorate and NRO meetings as representatives

3.2.4 (U) Chief of Staff Management Support

(U) [SIFO-004] The Contractor shall provide support to the Chief of Staff (COS) of the SIGINT Directorate to include:

- Facilitate daily operations of the ______ and staff assigned to the COS including executing plans, schedules, assignments and oversight of ______ activity
- Develop and maintain presentations for internal and external audiences and maintain a quality control process for all presentations
- Identify internal and external issues that may impact the SIGINT Directorate including existing and proposed policy and legislation. Disseminate policy and legislative changes to appropriate parties within the SIGINT Directorate
- Make recommendations and prepare briefings, point papers and other materials based on analysis of complex policy issues and documents
- Participate in internal and external committees, Integrated Process Teams (IPT), staff meetings and other NRO meetings as needed within the NRO Headquarters area, CONUS and OCONUS locations
- Provide SIGINT support to the COS to include:

-SECRET//TK//REL TO USA, FVEY

(b)(3)

SECRET//TK//REL TO USA, FVEY

- Facilitate NRO training programs by tasking and tracking training course nominations/attendance
- Review Freedom of Information Act (FOIA) requests for technical/security subject matter.
- Coordinate SIGINT Directorate Front Office Continuity of Operations (COOP) Plan in accordance with all applicable policies, processes and direction
- Advise SIGINT Directorate leadership on manpower allocation processes and requirements

3.2.5 (U) Corporate Communications

(U) [SIFO-005] The Contractor shall provide Corporate Communications support to the SIGINT Directorate Front Office to include:

- Maintain membership on the Corporate Communications Council and participate in all Council meetings and report status and actions back to SIGINT Directorate Chief of Staff (COS)
- Coordinate with the Office of Strategic Communications on launches and other high interest and/or high profile activities
- Lead SIGINT Directorate Outreach Group in the development and maintenance of the SIGINT Directorate briefings and facilitate outreach teaming across offices within the SIGINT Directorate
- Draft and review SIGINT Directorate briefings to ensure a consistent message in accordance with SIGINT Directorate leadership direction
- Coordinate with NRO Corporate Communications to facilitate publication of SIGINT Directorate articles for IC and NRO publications. Review outgoing SIGINT Directorate articles for unclassified publication.

3.2.6 (U) Business Operations Support

(U) [SIFO-006] The Contractor shall provide Business Operations/Financial Management support to the SIGINT Directorate Front Office to include:

- Advise SIGINT Directorate leadership on financial management and financial reporting processes and requirements
- Support the SIGINT Directorate Comptroller to include developing, enhancing and maintaining financial processes, analysis of program financial execution focusing on cost, schedule, budget and requirements, developing budgets, supporting Quarterly Program Reviews (QPR), supporting budgeting and program assessment tools and supporting financial audit preparation to include help in preparing briefings

-SECRET//TK//REL TO USA, FVEY

-SECRET//TK//REL TO USA, FVEY

- Support SIGINT Directorate leadership in Congressional interfaces to include responding to and/or providing information to Congressional staffers, the Office of the Director of National Intelligence (ODNI), the Office of Management and Budget (OMB), Undersecretary of Defense for Intelligence (USD(I)) and others. Develop and/or review program and Congressional documentation to verify consistency with program requirements and spend plans.
- Support SIGINT Directorate leadership in developing, tracking and reporting current and future budgets as well as maintaining internal program execution data to include program requirements and spend plans.
- Support SIGINT Directorate leadership and the SIGINT Directorate Contracting Office on contracting processes and requirements

3.2.7 (U) Acquisition Process Support

(U) [SIFO-007] The Contractor shall provide Acquisition Process Support to the SIGINT Directorate Front Office to include:

- Advise SIGINT Directorate leadership on Governance and Management Control processes and requirements
 - Draft, review, coordinate and update SIGINT Directorate Governance Plan, SIGINT Directorate Leadership Delegation Letters and SIGINT Directorate Annual Statement of Assurance
- Support SIGINT Directorate leadership on NRO Corporate Decision Making process
- Provide Acquisition Policy and Process Support to include:
 - Advise SIGINT Directorate leadership on IC and NRO acquisition policy, processes and requirements
 - Draft, review, coordinate and update SIGINT Directorate acquisition documents (ADMs, PMPs, BAARS, etc)
 - Research, write, review and coordinate SIGINT Directorate acquisition related background papers and point papers
- Provide Strategic and Operating Plans Support to include:
 - o Advise SIGINT Directorate leadership on NRO Strategic and Operating Plans
 - Draft, review, coordinate and update SIGINT Directorate Strategic and Operating Plans
 - Advise SIGINT Directorate leadership on other (ODNI, DoD, etc) Strategic and Operating Plans as required

-SECRET//TK//REL TO USA, FVEY

3.3 (U) Program Control (PC) Support

3.3.1 (U) General

(U) The Contractor shall provide support to execute PC functions. The tasks shall include: (b)(3)

- Budget Planning, Submission and Execution
- Oversight of Cost and Schedule Performance
- Earned Value Analysis of contracts

(U) [PC-001] The Contractor shall support and participate in Government and spacecraft developer meetings and Program Management Reviews (PMR).

3.3.2 (U) Budget Planning and Execution

(U) [PC-002] The Contractor shall provide support in developing, tracking and reporting current and out year budgets, as well as maintain the internal execution data including program requirements and spend plans.

(U) [PC-003] The Contractor shall develop and review internal and external documentation, program contract change documentation and verify consistency with the program requirements and spend plans.

(U) [PC-004] The Contractor shall provide analysis of program cost, schedule, budget and requirements.

3.3.3 (U) Earned Value Management (EVM)

(U) [PC-005] The Contractor shall provide support in reviewing internal program compliance with the applicable EVM criteria.

(U) [PC-006] The Contractor shall provide support to analyze EVM-related reports and documentation and recommend the proper actions to correct any deficiencies found.

(U) [PC-007] The Contractor shall support the development of EVM documentation as required to meet internal and external reporting requirements.

(U) [PC-008] The Contractor shall support Integrated Baseline Reviews (IBR), Joint Surveillance Reviews (JSR), and serve as liaison to the NRO Earned Value Center of Excellence.

3.3.4 (U) Schedule Analysis

(U) [PC-009] The Contractor shall provide support for the review and analysis of program schedules and relating schedule information to EVM data. Activities include:

- Identifying risk areas
- Developing reports to present schedule information to technical and management teams
- Supporting internal and external reporting requirements

SECRET//TK//REL TO USA, FVEY

SECRET//TK//REL TO USA, FVEY

Supporting Integrated Baseline Reviews

3.3.5 (U) Cost Estimating

(U) [PC-010] The Contractor shall provide cost estimating support to all programs. Cost estimating activities include:

- Developing and refining estimates for total program, upgrades, risks, special studies, etc
- Supporting budget drills
- Providing Engineering Change Proposal (ECP) analysis
- Serving as liaison to NRO

3.4 (U) Technical Support

3.4.1 (U) System Engineering and Integration Support

3.4.1.1 (U) General

(U) The Contractor shall provide technical and programmatic support to coordinate and execute System Engineering and Integration (SE&I) functions.

(U) [SEI-001] The Contractor shall assign a System Engineering and Integration (SE&I) Lead responsible for managing all System Engineering and Integration support functions.

-(S//TK//REL) [SEI-002] The Contractor shall provide on-site factory representation in the			
for SI	E&I activities to include assembly, integration and test for		
HEO/GEO spacecraft and	and system and subsystem manufacturing for		
HEO/GEO spacecraft and Spacecraft Operations support.			

(U) [SEI-003] The Contractor shall support and participate in Government and spacecraft developer technical exchange meetings (TEM), Program Management Reviews (PMR) and design reviews.

(U) [SEI-004] The Contractor shall review, analyze and assess technical materials and documents to include Contract Data Requirements List (CDRL) specifications delivered as part of ______ contracts, Interface Control Documents (ICD) and other documents both CDRLs and non-CDRLs.

(U) [SEI-006] The Contractor shall support Engineering Change Proposal (ECP) reviews and technical evaluations, proposal evaluations, budget formulations and preparing/training the team.

-SECRET//TK//REL TO USA, FVEY

Approved for Release: 2020/07/08 C05126425

(b)(3)

(b)(1) (b)(3)

(U) [SEI-007] The Contractor shall provide technical support in developing verification and test approaches as well as reviewing test data for requirements verification for programs.	
(U) [SEI-008] The Contractor shall generate, maintain and manage technical and program documentation, reports and presentations for programs.	(b)(3)
 (U) [SEI-009] The Contractor shall develop presentations and create correspondence that captures and conveys technical analyses and positions in concise and coherent products for programs. 	
(U) [SEI-010] The Contractor shall maintain a Signals Intelligence targets database based on inputs from the National Security Agency (NSA), National Air and Space Intelligence Center (NASIC) and other Government organizations. This database will be required for the detailed assessments and analyses required in support of current system acquisition and operations and future system planning.	
(U) [SEI-011] The Contractor shall coordinate program activities with NRO System Engineering Directorate (SED), NRO Mission Operations Directorate (MOD) and NRO Ground Enterprise Directorate (GED) as well as other Developers, Mission Ground Station personnel, external NRO customers in the Intelligence Community and Department of Defense.	(b)(3)
(U) [SEI-012] The Contractor shall support development, coordination, implementation and maintenance of all communication-related requirements necessary to support development and acquisition processes and launch and checkout of space vehicles.	
- (\$//TK//REL) [SEI-013] The Contractor shall provide support to SE&I activities for to include:	(b)(1) (b)(3)
• Generation of acquisition strategy and RFP documentation (SOW and Requirements)	
• Interface definition	
Requirements management and verification	
Risk management and identification	
• Analysis of vehicle components and subsystems	
• Test planning and verification	
Program readiness assessments	
• Launch site and launch vehicle integration	
 Participation and attendance at design reviews, technical exchange meetings (TEM), program reviews and program milestone reviews 	
3.4.1.2 (U) Analysis and Design	
(<i>SI</i> /TK//REL) [SEI-014] The Contractor shall provide support in the area of analysis and design of current and future programs to include the development, maintenance and exploitation	(b)(3)
-SECRET//TK//REL TO USA, FVEY-	

of high fidelity models and simulations, based on either organic or commercially procured software. At a minimum, modeling, simulation and analysis topics shall include intercept channel performance, target geolocation performance, narrowband/wideband communications performance, space vehicle orbit design and aging and system reliability.

3.4.1.3 (U) Architecture Development

(b)(3) (b)(1) (b)(1) (b)(1) (c)(1) (c

(U) [SEI-016] The Contractor shall evaluate Defense and Intelligence Community user requirements and architecture modifications against program specifications.

3.4.1.4 (U) Customer Outreach

(U) [SEI-017] The Contractor shall provide support with the development and maintenance of strong communication and relationships with the SIGINT and MASINT user communities to include visits to NSA and interactions with the Combatant Commands (COCOMs).

(U) [SEI-018] The Contractor shall provide support with the collection, analysis, dissemination and archiving of relevant operational mission highlights that reflect the performance of operational systems.

(U) [SEI-019] The Contractor shall support the development and presentation of program overview and advocacy briefings to the Intelligence Community and Department of Defense.

3.4.1.5 (U) Future Acquisition Planning

(U) [SEI-020] The Contractor shall support all aspects of future acquisition planning from concept generation, market research, acquisition strategy development, drafting public announcements, source selection execution and preparation for required acquisition decision boards. The Contractor <u>support</u> shall include:

- Development of _____ spacecraft and Command and Control systems acquisition plans, strategy and market research
- Preparation and review of pre-solicitation and Request for Proposal (RFP) documentation including acquisition schedules, technical baseline documents including Statement of Work (SOW) and Requirements, contract deliverable items (CDRLs), proposal instructions, proposal evaluation criteria, contract fee plans and contract clauses
- Development of Independent Program Summaries, Independent Program Reviews, Key Decision Points and Trade Studies
- Subject matter expertise during proposal evaluations

(U) [SEI-021] The Contractor shall provide analytical and programmatic support related to current and future Overhead Persistent Infra-red (OPIR) systems.

SECRET//TK//REL TO USA, FVEY

(U) [SEI-029] The Contractor shall provide support to Collection Segment requirements delineation to include the areas of: Joint Chiefs of Staff requirements generation process, Director of National Intelligence (DNI) requirements generation process, Joint Capability Document development, IOSA Requirements Document (ISRD) Segment requirements document development. The Contractor support shall include:	
(U) [SEI-028] The Contractor shall provide assistance to the requirements documentation and approval process as well as assist in assessing developing and implementing the program plan for the verification and validation of program requirements.	
(U) [SEI-027] The Contractor shall provide technical support in the area of requirements management and verification for programs.	
(U) [SEI-026] The Contractor shall identify the necessary support tools and facilitate their procurement, installation, maintenance, and operation within (b)(3)
3.4.1.6 (U) Requirements Management and Verification (U) [SEI-025] The Contractor shall manage and support the requirements processes within as defined in the Program Management Plan, and the flow of requirements and changes within and its associated developers. The requirements processes include requirements definition, traceability, analysis, allocation, verification and sell-off.	
(b)((b)(
 (U) [SEI-023] The Contractor shall support system concept and trade studies related to development of spacecraft and Command and Control related technologies for insertion into specific programs. The Contractor support shall include: Determine the technology maturity level and provide recommendations as to how these technologies can be inserted into programs. Identify how these technologies can be integrated and coordinated with current programs. Analyze the performance of candidate architectures against various levels of user and system requirements. Assess associated cost, schedule and technical risk to the baseline program. 	b)(3)
(b)((b)(

NRO000-11-C-0394 Attachment 1

-SECRET//TK//REL TO USA, FVEY-

- Coordination with the cognizant authority at all levels of requirements development, documentation and approval of requirements for the Collection Segment
- Generation of Collection Segment requirements by delineating the requirements flow down from system level documents to Collection Segment level documents

(U) [SEI-030] The Contractor shall support the maintenance of the ______requirements database, and provide book managers to perform Configuration Management for ______proposals and requirements.

(U) [SEI-031] The Contractor shall support the translation of operational requirements into user requirements, assess system level performance, conduct required trades against mission satisfaction and execute verification of requirements.

3.4.1.7 (U) Configuration Management

(U) [SEI-032] The Contractor shall manage and support the configuration management processes as defined in the Configuration Management Plan.

(U) [SEI-033] The Contractor shall perform the following Configuration Management activities:

- Schedule and track the Configuration Control Board (CCB)
- Schedule and track the Engineering Review Board (ERB) at the and NRO level
- Schedule and track the Senior Management Group (SMG) forum
- Prepare, distribute and archive CCB, ERB and SMG meeting minutes
- Maintain action items, make recommendations, and trace items forwarded or generated from higher level CCB products
- Maintain Presentation Media and Graphics

(U) [SEI-034] The Contractor shall provide support for the configuration management of the contract document baseline in accordance with the most current version of NRO System Engineering Management Corporate Business Process 130 (CBP-130).

(U) [SEI-035] The Contractor shall provide support to track and archive all acquisition contract deliverable items known as Contract Data Requirements Lists (CDRLs), responses to CDRLs and CDRL approval letters for contracts.

(U) [SEI-036] The Contractor shall draft and publish Requests for Change (RFCs) documents as necessary to update _______ controlled documentation to include acquisition specifications and interface control documents.

(U) [SEI-037] The Contractor shall review all NRO Requests for Change (RFCs) documents and advise the of related impacts to systems, plans or processes.

SECRET//TK//REL TO USA, FVEY

3.4.1.8 (U) Risk Management

(U) [SEI-038] The Contractor shall manage and support the	•	program risk identification
and management process including the management of the]	Risk Management Board.

(U) [SEI-039] The Contractor shall identify risks to _____ programs and assist in development and tracking of mitigation and corrective action plans.

(U) [SEI-040] The Contractor shall support the maintenance of the program risk database.

3.4.1.9 (U) Acquisition Support to Development

(U) [SEI-041] The Contractor shall support ______ acauisitions by assessing developer designs at the collection segment and lower-levels against ______ and user requirements. (b)(3)

(U) [SEI-042] The Contractor shall support and participate in program developer design reviews at the segment, element, subsystem, unit and sub-unit levels.

(U) [SEI-043] The Contractor shall support enterprise or end-to-end system-level design reviews that involve collection segments.

(U) [SEI-044] The Contractor shall develop and maintain life-cycle baselines and Program Master Schedules. The Contractor shall analyze development program schedules in support of risk assessment and create an independent assessment of the program's risk posture.

3.4.1.10 (U) Mission Assurance

(U) [SEI-045] The Contractor shall support the development, application and monitoring of the NRO Mission Assurance Standards for analysis and prevention of issues that have caused failures, launch delays, reduced mission life and performance and significant rework.

(U) [SEI-046] The Contractor shall provide support to the Parts, Material and Processes activities to include a sound understanding of the requirements for space qualified parts, materials and processes and recommendations on the application of these requirements to programs.

(U) [SEI-047] The Contractor shall provide support to develop and monitor the Quality Assurance program which is based upon Quality Assurance Standards in the NRO Mission Assurance Plan.

3.4.1.11 (U) Interface Management

(U) [SEI-048] The Contractor shall provide support in defining, managing, testing, verifying, and validating collection segment internal interfaces.

(U) [SEI-049] The Contractor shall provide support in defining, managing, testing, verifying, and validating collection segment external interfaces. The Contractor support shall include:

- Develop and maintain joint Interface Requirement or Control Documents with interface stakeholders
- Support flow of interface requirements into the program requirements and design baseline

-SECRET//TK//REL TO USA, FVEY

SECRET//TK//REL TO USA, FVEY

- Plan and execute interface testing as necessary to support final system delivery
- Verify and validate interface performance and support documentation and correction of any shortfalls

3.4.1.12 (U) Ground Engineering

(U) [SEI-050] The Contractor shall provide System Engineering support to Command and Control systems to include interface definition, requirements development and flow-down, software and hardware design, participation in design and program management reviews, Ground Station integration, test planning, deployment and operations.

3.4.1.13 (U) Vehicle Engineering

(U) [SEI-051] The Contractor shall provide System Engineering support related to spacecraft vehicle and SIGINT payloads to include requirements development, flow-down and verification, trade studies and analysis of vehicle components and subsystems, system performance analysis, design and fabrication reviews, test planning and verification and program readiness assessments.

3.4.1.14 (U) Maintenance and Engineering

3.4.2 (U) Space and Launch Support

3.4.2.1 (U) General

(S//TK//REL) The	Contractor shall provide technical and programmatic support to coordinate	
and execute	Space and Launch (S&L) functions for	(b)(1)
spacecraft and	The Contractor support shall include:	(b)(3)

-SECRET#TK//REL TO USA, FVEY-

(b)(3)

(b)(1) (b)(3)

SECRET//TK//REL TO USA, FVEY

- (U) Acquisition planning and program assessment
- (U) Requirements development, verification and validation
- (U) Technical studies and analysis of components and subsystems
- (U) System performance analysis
- (U) Design and fabrication reviews
- (U) Insight into spacecraft design, design processes, issues, and risks
- (U) Insight into unit, subsystem and system level testing and test set issues and risks
- (U) Insight into manufacturing at all levels, integration issues, and risks
- (U) Analysis of as-designed, as-built hardware configuration to support hardware sell-off and Consent to Ship
- (U) Test planning and verification
- (U) Technology and program readiness assessments
- (U) Spacecraft transition planning and execution
- (U) Transition Implementation Phase (TIP) activities for deployment, on-orbit verification and calibration (OOC & OOV) and special test events
- (U) Launch site and launch vehicle integration insight and risks
- (U) Assisting launch and mission operations and maintenance

(U) [SL-001] The Contractor shall assign a Space and Launch Lead responsible for managing all Space and Launch support functions.

(87/TK//REL) [SL-002] The Contractor shall provide on-site factory representation in the		(b)(3)
for S&	L activities to include assembly, integration and test for	
HEO/GEO spacecraft and	and system and subsystem manufacturing for	(b)(1)
HEO/GEO spacecraft.		(b)(3)

(U) [SL-003] The Contractor shall coordinate program activities with NRO System Engineering Directorate (SED), NRO Mission Operations Directorate (MOD) and NRO Office of Space Launch (OSL) Directorates as well as other Developers, Mission Ground Station personnel and external NRO customers in the Intelligence Community and Department of Defense (DoD).

3.4.2.2 (U) Acquisition

(U) [SL-004] The Contractor shall identify risks to S&L program plans and assist in development and tracking of mitigation and corrective action plans.

SECRET//TK//REL TO USA, FVEY

(U) [SL-005] The Contractor shall support preparation and review of S&L Engineering Change		
Proposals (ECP) including generation of Statement of Work (SOW) and requirements docu	ments	
and subsequent proposal evaluations, budget formulations and preparing/training the	team.	(b)(3)

(U) [SL-006] The Contractor shall support activities for developing Spacecraft vehicles in interface definition, requirements development, hardware and software design and production, unit, subsystem and element integration and test and integration and deployment with Command and Control systems.

(Sf/TK//REL) [SL-007] The Contractor shall support and participate in S&L design reviews, trade studies, technical exchange meetings (TEM), Program Management Reviews (PMR), evaluation of software and hardware specifications, verification plans and procedures, test data and qualification and acceptance test plans at the unit, subsystem and element levels. Units/subsystems will include reflectors, feeds and feed electronics, RF electronics, digital signal processing and downlink subsystems, spacecraft propulsion, attitude control, thermal control, command and data handling, electrical power, mechanical hardware and

(U) [SL-008] The Contractor shall review, analyze and assess technical materials and documents for S&L to include Contract Data Requirements List (CDRL) specifications delivered as part of contracts, Interface Control Documents (ICD) and other documents both CDRLs and non-

CDRLs.

(U) [SL-010] The Contractor shall provide support to the S&L requirements management and verification process to include requirements definition, flow-down and changes, traceability, analysis, allocation, verification and sell-off.

(U) [SL-011] The Contractor shall support and participate in readiness activities for major S&L program milestones including Pre-Ship Audits (PSA) and Pre-Ship Reviews (PSRs) for spacecraft vehicles.

(U) [SL-012] The Contractor shall make frequent and extended travel as needed to prime and subcontractor locations, launch sites and Mission Ground Stations for S&L activities to include contractor reviews, launch and initialization activities and formally witnessing tests and requirements sell-off.

-(S#TK//REL) [SL-013] The Contractor shall provide support to S&L activities for	(b)(1)
to include:	(b)(3)

- Generation of acquisition strategy and RFP documentation (SOW and Requirements)
- Interface definition
- Evaluation of hardware and software design and production

SECRET//TK//REL TO USA, FVEY-

(b)(3) (b)(1)

-SECRET//TK//REL TO USA, FVEY

- Unit, subsystem, element and system integration and test
- Integration and deployment with Command and Control systems
- Launch site and launch vehicle integration
- Participation and attendance at design reviews, technical exchange meetings (TEM), program reviews and program milestone reviews
- Review of verification plans and procedures and qualification and test plans at the unit, subsystem and element levels.
- Identification, assessment and tracking of program risks and corrective action plans

3.4.2.3 (U) Payload Engineering

(57/TK//REL)-[SL-014] The Contractor shall provide support to Payload Engineering for design, development, integration and test of the primary payload.

(S7/TK//REL) [SL-015] The Contractor shall provide support to Payload Engineering for special enhancements to spacecraft to include development, integration and test, verification and integration with the host spacecraft vehicle.

(U) [SL-016] The Contractor shall provide System Engineering support to Payload Engineering at the unit and subsystem levels to include requirements development, flow-down and verification, receiver development and trades, integration, system performance and production of payload units.

(b)(1) (b)(3)

(U) [SL-021] The Contractor shall provide support to Payload Engineering for design, development, integration and test activities for Power Converters to include fabrication, assembly and test of power converter units, power converter modules (PCMs) and point of loads (POLs) devices.

-SECRET//TK//REL TO-USA, FVEY-

NRO000-11-C-0394 Attachment 1

Page 25

3.4.2.4 (U) Special Payloads

±81/TK//REL) [SL-022] The Contractor shall provide support to to include requirements analysis, program planning, design, development, payload integration and test and launch.

(SI/TK//REL) [SL-024] The Contractor shall provide support to

to include definition, integration and test of the ground segment and the interfaces required for operations.

3.4.2.5 (U) Vehicle Engineering

(U) [SL-025] The Contractor shall provide support to Vehicle Engineering to include requirements development, flow-down and verification, bus architecture development and trades, design integration and protective modes design and evaluation.

(SI/TK//REL) [SL-026] The Contractor shall provide support to Vehicle Engineering to include design, development and integration and test activities for Spacecraft vehicles

(SI/TK//REL) [SL-027] The Contractor shall provide support to Vehicle Engineering to include design, development and integration and test activities for Spacecraft vehicles

(b)(1) (b)(3)

(b)(1)

(b)(3)

(U) [SL-028] The Contractor shall provide support to Vehicle Engineering to include design, development and integration and test activities for Spacecraft vehicles in Electrical Power subsystems to include solar cells, batteries and power storage and distribution.

(U) [SL-029] The Contractor shall provide support to Vehicle Engineering to include design, development and integration and test activities for Spacecraft vehicles in Propulsion subsystems to include thrusters, control processes and mono/bi-propellant propulsion design.

(*s***//TK//REL)** [SL-030] The Contractor shall provide support to Vehicle Engineering to include design, development and integration and test activities for Spacecraft vehicles

(S//TK//REL) [SL-031] The Contractor shall provide support to Vehicle Engineering to include design, development and integration and test activities for Spacecraft vehicles

(U) [SL-032] The Contractor shall provide support to Vehicle Engineering to include design, development and integration and test activities for Spacecraft vehicles in Structures and Mechanisms subsystems to include mechanical payload structures, payload reflectors, spacecraft subsystems equipment location, loads analysis and the spacecraft bus.

SECRET//TK//REL TO USA, FVEY

NRO000-11-C-0394 Attachment 1

-SECRET//TK//REL TO USA, FVEY-

(U) [SL-033] The Contractor shall provide support to Vehicle Engineering to include the assessment of analysis and testing of spacecraft electronic components at the system, unit and part levels for Spacecraft mission life endurance when exposed to the natural space environments (ex: Single Event effects, radiation dose-mapping analysis, parts de-ratings).

-(S//TK//REL) [SL-034] The Contractor shall provide support to Vehicle Engineering to include the assessment of the design, analysis and testing of spacecraft

(b)(1) (b)(3)

(b)(3)

(U) [SL-035] The Contractor shall provide support to Vehicle Engineering to include the assessment of analysis for the strict contamination control and maintenance processes needed during the design, materials selection, fabrication, assembly and test, storage, shipping, launch integration, execution and deployment phases and through on-orbit operations.

3.4.2.6 (U) Integration and Test

(U) [SL-036] The Contractor shall provide support to S&L Assembly, Integration, Test, and Launch (AIT&L) activities to include tracking and monitoring vehicle level assembly, integration and test activities, reviewing and monitoring execution of installation, test and flight hardware handling procedures and reviewing schedules.

(U) [SL-037] The Contractor shall support and participate in S&L launch system integration activities to include reviewing spacecraft and launch vehicle system and interface requirements, attending meetings, working groups and design reviews, analyzing technical design solutions and assisting with the coordination of launch system integration activities.

(U) [SL-038] The Contractor shall support and participate in S&L launch and initialization activities to include mission rehearsal preparation and execution, launch execution, evaluating launch constraints, reviewing initialization, nominal operations and contingency procedures focusing on vehicle and personnel safety and anomaly resolution.

(U) [SL-039] The Contractor shall provide 24x7 (24 hours per day, 7 days a week) support for mission rehearsals and launch execution for spacecraft with some personnel deployed for extended periods of up to

(U) [SL-040] The Contractor shall provide support to S&L launch operations to include reviewing and assessing launch planning, reviewing operations and safety documentation, verifying interface requirements. monitor and status of factory and launch site operations, assist in preparation and training the launch team, participate in operations, training and pre-launch activities to include mission readiness reviews and monitoring spacecraft shipment and launch.

3.4.3 (U) Command and Control Support

3.4.3.1 (U) General

(%//TK//REL) The Contractor shall provide technical and programmatic support to coordinate and execute Command and Control (aka: Ground, C&C) functions for C&C systems

-SECRET//TK//REL TO USA, FVEY

including Ground Antennas, Ground Terminals, telemetry, ranging, Mission Data, and Spacecraft Control for spacecraft. The Contractor support shall include:	(b)(1) (b)(3)
• (U) Program Management, System Integration and Acquisition/Development of HEO and GEO Command and Control ground systems	
• (U) Program Management, System Integration and Acquisition/Development of operational Command and Control ground systems upgrades	
• (U) Programmatic support to adjunct payload ground systems for SIGINT	
• (U) Echelon 2 maintenance technical support of operational C&C systems	
(U) [CCD-001] The Contractor shall assign a Command and Control Lead responsible for managing all Command and Control support functions.	
(U) [CCD-002] The Contractor shall coordinate C&C program activities with NRO System Engineering Directorate (SED), NRO Mission Operations Directorate (MOD) and NRO Ground Enterprise Directorate (GED) as well as other Developers and Mission Ground Station personnel.	
<i>(%//TK//REL)</i> [CCD-003] The Contractor shall provide on-site factory representation in the for C&C activities to include development, manufacturing, integration and test of C&C systems.	(b)(3) (b)(1)
(Sf/TK//REL) [CCD-004] The Contractor shall provide on-site factory representation in for C&C activities to include Echelon 2 (E2) software and hardware maintenance support of operational C&C systems.	
(U) [CCD-005] The Contractor shall identify risks to C&C program plans and assist in development and tracking of mitigation and corrective action plans.	
(U) [CCD-006] The Contractor shall support preparation and review of C&C Engineering Change Proposals (ECP) including generation of Statement of Work (SOW) and Requirements documents and subsequent proposal evaluations, budget formulations and preparing/training the team.	(b)(3)
(U) [CCD-007] The Contractor shall perform analysis of C&C systems in areas such as Trade Studies (ex: review of emerging technologies, options to replace equipment), System Performance, Requirements Analysis, Architecture Review and provide an independent recommendation of technical and programmatic solutions and strengths/weaknesses.	
(U) [CCD-008] The Contractor shall review, analyze and assess technical materials and	

documents for C&C to include Contract Data Requirements List (CDRL) specifications delivered as part of ______ contracts, Interface Control Documents (ICD) and other documents both CDRLs and non-CDRLs.

-SECRET#/TK//REL TO USA, FVEY-

(U) [CCD-009] The Contractor shall support the C&C requirements management and verification process to include requirements definition, flow-down and changes, traceability, analysis, allocation, verification and sell-off.

(U) [CCD-010] The Contractor shall support the review of Hardware and Software Discrepancy Reports (DR) for new C&C developments and upgrades to operational C&C systems generated by the factory and Sites.

(U) [CCD-011] The Contractor shall support the Request for Change (RFC) process (draft, review, brief) for C&C systems.

(b)(3)(b)(3)including Space to Ground (C&C), Spacecraft Control and Ground Terminal and externalinterfaces including NRO Ground processing systems (not C&C) andground(b)(3)(b)(3)(b)(1)

(CCD-013) The Contractor shall make frequent and extended travel as needed to factory locations and Mission Ground Stations for C&C activities to include deliveries of new and operational C&C systems to Ground Stations which includes installations and Transition to Operations (TTO) and formally witnessing tests and requirements sell-off.

3.4.3.2 (U) Acquisition

(U) [CCD-014] The Contractor shall support activities for developing C&C systems in interface definition, requirements development and flow-down, hardware and software design, test plans and procedures, production, unit, subsystem and element integration and test and Ground Station integration, deployment and operations with the NRO, Developers, Mission Ground Station personnel and external NRO customers.

(U) [CCD-015] The Contractor shall support and participate in C&C software and hardware design reviews, technical exchange meetings (TEM), Program Management Reviews (PMR), architecture reviews, evaluation of software and hardware specifications, verification plans and procedures, test data, qualification and acceptance test plans at the unit, subsystem and element levels.

(U) [CCD-016] The Contractor shall support design, development, manufacturing, integration and test of Ground Antennas and Ground Terminals to include electromagnetic characteristics and performance, servo and control system functionality and the antenna control system hardware and software.

(U) [CCD-018] The Contractor shall support design, development, manufacturing, integration and test of Telemetry and Ranging Systems to include processing low rate and high rate telemetry and ranging signals received from the Spacecraft.

SECRET//TK//REL TO-USA, FVEY

(b)(1) (b)(3)

(U) [CCD-019] The Contractor shall support design, development and integration and test of Spacecraft Control Systems including the hardware and software necessary to command, control, configure and maintain the Spacecraft.

(**%**//TK//REL)-[CCD-020] The Contractor shall support design, development and integration and test of C&C Systems that interface with external systems such as ground systems, Mission Management and Ground Processing systems.

(U) [CCD-022] The Contractor shall support activities to deliver new C&C systems to Mission Ground Stations via established processes to include monitoring of installation and testing, formally witness testing and requirements sell-off and attending key delivery meetings including Test Readiness Reviews (TRR), Operational Transition Reviews (OTR) and Operational Readiness Reviews (ORR).

(87/TK//REL) [CCD-023] The Contractor shall provide support to C&C activities for to include generation of RFP documentation (SOW and Requirements), interface definition, integration and deployment with Ground Stations and participation and attendance at key meetings including design reviews, technical exchange meetings (TEM) and program milestone reviews.

3.4.3.3 (U) Echelon 2 Support

(S//TK//REL) [CCD-024] The Contractor shall support activities for upgrades to operational C&C systems to include interface definition, requirements development and flow-down, hardware and software design, test plans and procedures, integration and test and Ground Station integration, deployment and operations with the NRO, Developers, Mission Ground Station personnel and external NRO customers.

(U) [CCD-025] The Contractor shall support and participate in software and hardware design reviews, technical exchange meetings (TEM), program management reviews, architecture reviews, evaluation of software and hardware specifications, verification plans and procedures, test data, qualification and acceptance test plans at the unit, subsystem and element levels for upgrades to operational C&C systems.

(*S*//TK//REL) [CCD-026] The Contractor shall support design, development and integration and test of operational C&C systems to include Ground Antennas, Ground Terminals, Mission Data systems, Telemetry and Ranging systems, Spacecraft Control systems and interfaces with external systems such as ground systems and Ground processing systems.

(U) [CCD-027] The Contractor shall support readiness activities associated with operational and E2 deliveries to Mission Ground Stations and other locations including System Integration, FAT or DT&E 1, OIV, MST, PSA, PSR and SIV or DT&E 2.

SECRET//TK//REL TO USA, FVEY

(b)(1) (b)(3)

(b)(3) (b)(1)

(U) [CCD-028] The Contractor shall support activities to deliver upgrades to operational C&C systems to Mission Ground Stations via established processes to include monitoring of installation and testing, formally witness testing and requirements sell-off and attending key delivery meetings including Test Readiness Reviews (TRR), Operational Transition Reviews (OTR) and Operational Readiness Reviews (ORR).

(b)(1)(b)(3)(b)(3)(b)(3)(c)(3)</t

3.5 (U) Staff Support

3.5.1 (U) Business Process and Action Support

(U) [STAFF-001] The Contractor shall provide Business Process and Action support to the Chief of Staff (COS) to include:

- Manage and execute the action item process, to include receiving and recording action items, distributing action items to the appropriate personnel, tracking action items, coordinating with other SIGINT Directorate offices and NRO Directorates and Offices on action details, coordinating responses with appropriate Government managers before response, providing status updates to COS and leadership on new, pending, and late actions, and maintaining the information contained in the action item database
- Develop and implement effective action item management archives in accordance with Federal and NRO policy
- Facilitate the development of presentations for internal and external audiences and support/assist with a quality control process for all presentations; review presentations to ensure a consistent message in accordance with and SIGINT Directorate leadership direction
- Identify internal and external issues that may impact including existing and proposed policy and legislation; disseminate policy and legislative changes to appropriate parties within
- Provide Acquisition Policy and Process Support to include:
 - Advise leadership on IC and NRO acquisition policy, processes and requirements
 - Coordinate and update acquisition documents (ADMs, PMPs, BAARS, etc)
 - Review and coordinate program background papers and point papers

3.5.2 (U) Management Information Systems and Web Support

(MIS) support to to include:

-SECRET//TK//REL TO USA, FVEY

- (U) Manage permissions to all files, folders, mail groups, and security groups; review all security group/permission rosters at least quarterly and reconcile any discrepancies
- (U) Facilitate user accounts for both classified and unclassified government networks; work with government account approvers to initiate and track account requests; validate user accounts as required
- (U) Facilitate the development and maintenance of databases tracking personnel, equipment and permissions
- (U) Facilitate the procurement of new information technology (IT) equipment for both operational and support missions to include workstations, communication systems and specialized operational systems
- (U) Facilitate the procurement, tracking, management, and disposition of all approved, government-owned portable electronics to include pagers and laptops.
- (U) Coordinate with SIGINT Directorate security on all IT-related actions, to include data transfers, personnel inprocessing and outprocessing, and IT equipment procurement and management
- (U) Participate in weekly meetings with _____ COS to determine new and continuing support directives and provide status updates on existing projects/processes
- (U) Develop and maintain the resources for the _____ intranet pages and sites ______ web site)
- (U) Initiate and track Customer Request (CR) work orders with the NRO Communications Directorate (COMM); maintain tracking database to document status of each request; interface with COMM as required to ensure all CRs are completed by customer need date; serve as representative at monthly CR review meetings with COMM representatives
- (U) Execute annual property audits and software licenses
- (U) Provide technical insight and expertise to answer any IT-related taskings and action items
- (U) Serve as ______ and/or the SIGINT Directorate's representative to any/all IT-related working groups and Integrated Product Teams; report status to ______ COS on working group status, any action items assigned, etc.
- (U) Facilitate account access for third-party data systems, networks, and web tools (e.g. prime contractor electronic data exchange); coordinate with third-party system administrators to review accounts and approving official lists at least quarterly
- (U) Review and provide comments to Requests for Changes (RFC) documents, prime contractor proposals and Engineering Change Proposals (ECP)
- (U) Facilitate installation of any software not on NRO system baselines; coordinate with COMM for installation, testing, and maintenance of software as needed
- (U) Create, maintain and/or operate all web-based tools (e.g. award fee tool, action item tracking tool, etc.) to support business activities
- (U) Support data/records management process; assist in ensuring electronic records are created, maintained, and archived in accordance with NRO and policies and processes; participate in efforts to update data management

SECRET#TK//REL TO USA, FVEY

processes, tools, and databases; support in updating records management structures and tools to include file plan, and ensure all electronic records comply with any changes in the file plan

• (U) Provide complete and comprehensive technical Information Technology support to

(b)(3)

(b)(3)

3.5.3 (U) Training Support

(U) On occasion, the Contractor's technical subject matter experts may be required to develop, maintain and deliver instructional lectures for personnel to familiarize them with current and legacy systems, processes, procedures or acquisition policies. This need does not require any individuals to possess special teaching credentials.

3.6 (U) Cost Efficiency Performance Management

(U) [CEPM-001] The Contractor shall identify innovative and creative solutions to produce cost efficiencies throughout the life of the contract while meeting contract and mission requirements. The Contractor shall review all proposed cost efficiency opportunities including risk assessment and mitigation with the COTR before implementation.

(U) In accordance with FAR Part 17.207, Exercise of Options, the Government must show that exercising contract options are the most advantageous method of fulfilling the Government's need, price and other factors considered. The Contractor's performance in Cost Efficiency Performance Management task will be an element in determining whether to exercise contract options.

3.7 (U) Miscellaneous

3.7.1 (U) Transition

(U) [MISC-001] The Contractor shall manage the transition of functions from the incumbent currently performing these tasks "seamlessly" without interruption or disruption to operations for a transition period of 45 days from the start of the contract. As part of transition, the Contractor shall conduct a Contract Kickoff Meeting to be held no later than 5 business days after the start of the contract to review all elements of the SOW, the transition approach including staffing plans, and demonstrate a mutual understanding of the tasks to be accomplished.

(U) [MISC-002] The Contractor shall provide a Transition Plan (**CDRL A005**) which includes the staffing plan, the transfer of responsibility of tasks from the incumbent and assumption of all associated processes, software files and tools including the _____web site, databases, documents and any Government Furnished Equipment (GFE) to support _____quickly and effectively (ex: network connectivity to ______GWAN/CWAN accounts).

(U) [MISC-003] In order to facilitate transition, the Contractor shall archive, maintain and document all Contractor-unique processes, software files and tools (Contract Process Data List – **CDRL A008**) including the web site, databases, documents and any GFE required to execute the tasks in this SOW. The Contractor shall also provide any Analytical Models and Simulations (**CDRL A007**) required to execute the tasks in this SOW.

SECRET#TK//REL TO USA, FVEY

(U) [MISC-004] The Contractor shall provide an Outgoing Transition Plan (**CDRL A006**) after requested by the COTR to transition responsibilities and functions performed in the contract by this Contractor to a follow-on Contractor.

3.7.2 (U) Travel

(U) [MISC-005] As an integral part of performing the tasks in this SOW, extensive travel will be required to Contractor and Government facilities in domestic and foreign locations. Any travel to foreign locations shall be submitted to the COTR for approval. All travel whether foreign or domestic will conform to Federal Travel Regulations in effect at the time the travel is performed.

3.7.3 (U) Security

(U) The Government will exercise full and complete control over granting, denying, withholding or terminating security clearances for Contractor employees.

(U) [MISC-006] All personnel assigned to work on this contract shall be United States citizens.

(U) [MISC-007] All personnel assigned to work on this contract that will be handling classified information, shall have, at a minimum, a TOP SECRET SCI Access (TS//SI/TK) and will be subject to a CI polygraph.

(U) [MISC-008] All classified work for this effort shall take place within NRO accredited SCIF spaces following NRO-approved physical, technical, personnel and Automated Information Systems security policies and guidelines.

(U) [MISC-009] The Contractor shall provide sufficient SCIFed office space for any classified work performed at the Contractor site as well as provide space to accommodate efficient communications with _____ The majority of the Contractor work shall be performed at SCIF space within ______ of the NRO Headquarters.

(U) [MISC-010] Security guidance for this contract shall be in accordance with the compliance documents listed in the SOW. The Contractor shall ensure compliance with NRO security requirements to ensure proper security issues are addressed and security approval is obtained.

3.7.4 (U) Government Furnished Equipment

(U) [MISC-011] Title to any Contractor Acquired Property procured under this contract shall remain vested in the Government and become accountable Government property.

(U) The Government may make available office spaces and workstations in the NRO Headquarters area and at the For the Contractor personnel located in office spaces, the Government will provide office space, office equipment, security and parking.

(U) Contractor personnel assigned to provide SIGINT Directorate Front Office support will conduct their primary support activities in Government furnished workspaces at NRO Headquarters.

(U) [MISC-012] The Government will provide GFE to the Contractor at the start of the contract to include the tools listed in Appendix 1. The Contractor shall be responsible for development

SECRET//TK//REL TO USA, FVEY

and maintenance of these tools to perform the associated tasks in the SOW. Note that this list does not preclude the Contractor from developing new tools to perform the tasks.

3.7.5 (U) Training

(U) [MISC-013] Maintaining and upgrading the technical skills of Contractor personnel is the responsibility of the Contractor and shall be accomplished at no additional cost to the Government. The Government will provide training for NRO or IC unique courses not otherwise available in the commercial sector on a case by case basis.

-SECRET//TK//REL TO USA, FVEY

SECREF//TK//REL TO USA, FVEY

4 (U) DELIVERABLES

4.1 (U) Contract Data Requirements List (CDRL) Items

(U) The Contractor shall prepare and submit the CDRL items identified in the SOW and listed below.

(U) The Contractor shall coordinate all deliverables, whether originated by the Contractor or requested by the Government (exclusive of invoices for contract payment with COTR), prior to delivery to verify the contract format, distribution and number of copies.

(U) Additional deliverables will occur throughout the Period of Performance and their associated schedule will be defined as required.

CDRL Number	Title
A001	Program Status Report (Quarterly)
A002	Contract Funds Status Report (Monthly)
A003	Personnel Status Report (Monthly)
A004	Meeting Minutes (As Required)
A005	Transition Plan (10 Business Days after start of contract)
A006	Outgoing Transition Plan (Due 30 days after requested)
A007	Analytical Models and Simulations (As required)
A008	Contract Process Data List (Updated annually)

-SECRET//TK//REL TO USA, FVEY

SOW APPENDIX 1

GOVERNMENT FURNISHED EQUIPMENT LIST

(U) The Government will provide applications, databases and tools to the Contractor at the start of the contract to include the items listed below. Note that the Contractor is responsible for the development and maintenance of these tools as part of the WHETSTONE contract.

- (U) SIGINT Directorate Web Site including intranet pages
- (U) SIGINT Directorate Action Item Tracking System
- (U) SIGINT Directorate Records Management and Document Archive Application
- (U) SIGINT Directorate Staffing and Logistics Applications
- (U) Signals Intelligence Targets Database
- (U) Requirements Database
- (U) Program Risk Database
- (U) Action Item Database
- (U) Personnel Tracking Database
- (U) Web Site including intranet pages
- (U) High Frequency Structure Simulator (HFSS) Tool
- (U) Vehicle Managers Issue Tracker (VoMIT) Tool
- (U) Tasks, Orders and Actions Directory (TOAD) Tool
- (U) Web Tools including:
 - o (U) Announcements
 - $\circ\quad (U) \ Award \ Fee$
 - o (U) Conference Rooms
 - o (U) Contract Action
 - o (U) Document Manager (ECP, RFC)
 - o (U) ECP Evaluation
 - o (U) Technical Evaluation
 - o (U) Glossary of Acronyms
 - o (U) POCs/Phones
 - (U) Schedule RFC Status
 - (U) SMG Agenda/Minutes/Action

-SECRET//TK//REL TO USA, FVEY

-SECRET//TK//REL TO USA, FVEY-

- o (U) SMG Topic Request
- o (U) Award Fee Self-Assessment
- o (U) Technical Support Action Item Tracker
- o (U) Weekly Status Report
- o (U) Shift Log
- o (U) CDRL Review
- o (U) Document Review
- o (U) Major Review Sign-up

-SECRET//TK//REL TO USA, FVEY-