A. Labor Mix

The table below provides the estimated composition of the annual hours by Labor Category. The Offeror shall propose the Level of Effort provided below. Offerors' proposals may not deviate from the total number of hours included in Section B.

Labor Category	CLIN 2000 Annual Labor Hours	CLIN 2100 Annual Labor Hours	CLIN 2200 Annual Labor Hours	CLIN, 2300 Annual Labor Hours	CLIN, 2400 Annual Labor Hours	Total Hours
PROGRAM MANAGER (K)	1,920	1,920	1,920	1,920	1,920	9,600
DEPUTY PROGRAM MANAGER (K)	1,920	1,920	1,920	1,920	1,920	9,600
PRINCIPAL SYSTEMS ENGINEER (K)	3,840	3,840	3,840	3,840	3,840	19,200
SENIOR SYSTEMS ENGINEER (K)	17,280	3,840	26,880	30,720	34,560	113,280
SYSTEMS ENGINEER – COMBAT SYSTEMS (K)	3,840	1,920	1,920	1,920	1,920	11,520
SYSTEMS ENGINEER (K)	38,400	42,240	46,080	49,920	53,760	230,400
JUNIOR SYSTEMS ENGINEER (K)	28,800	32,640	36,480	40,320	44,160	182,400
PRINCIPAL SOFTWARE ENGINEER (K)	3,840	3,840	3,840	3,840	3,840	19,200
SENIOR SOFTWARE ENGINEER (K)	23,040	26,880	30,720	34,560	38,400	153,600
SOFTWARE ENGINEER (K)	55,680	59,520	63,360	67,200	71,040	316,800
JUNIOR SOFTWARE ENGINEER (K)	84,480	88,320	92,160	96,000	99,840	460,800
SENIOR TEST ENGINEER (K)	1,920	1,920	1,920	1,920	1,920	9,600
TEST ENGINEER (K)	3,840	5,760	5,760	5,760	5,760	26,880

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Labor Category	CLIN 2000 Annual Labor Hours	CLIN 2100 Annual Labor Hours	CLIN 2200 Annual Labor Hours	CLIN, 2300 Annual Labor Hours	CLIN, 2400 Annual Labor Hours	Total Hours
JUNIOR TEST ENGINEER (K)	3,840	5,760	5,760	9,600	9,600	34,560
PROGRAMMER (K)	5,760	9,600	13,440	17,280	21,120	67,200
COMPUTER TECHNICIAN (K)	11,520	13,440	15,360	17,280	19,200	76,800
M&S (K)	3,840	3,840	3,840	3,840	3,840	19,200
TOTAL	**293,760**	**307,200**	**355,200**	**387,840**	**416,640**	**1,760,640**

B. <u>Government Defined Labor Categories:</u>

NON-KEY PERSONNEL – MINIMUM QUALIFICATIONS

In order to provide additional clarification to the Statement of Work, minimum qualifications are provided for Non-Key Personnel. The Contractor shall provide Non-Key Personnel who meet or exceed the minimum qualifications provided below. See SOW C.19, prior to charging Non-Key Personnel. During the life of the Task Order the Contractor has autonomy to manage Non-Key personnel and Non-Key categories as they deem appropriate to perform the tasking required.

1) SENIOR SYSTEMS ENGINEER

A Bachelor of Science (BS) Degree in an engineering, computer science, mathematics, or physical sciences discipline is required. The ideal candidate will possess ten (10) years of general combat systems experience, with eight (8) years of specific, relevant experience.

The Senior Systems Engineer must have the training, skills, and experience to conduct detailed and complex system engineering activities for Enterprise-level Modeling & Simulation (M&S) solutions. Key responsibilities include:

1. Conducting and coordinating individual projects.
2. Leading systems engineering activities for combat systems computer programs.
3. Performing function and system-level requirements analysis, documentation, and distribution.
4. Coordinating the development, testing, and assessment of combat systems computer program solutions for military applications.
5. Conducting market/trade studies and analysis.
6. Establishing acceptance criteria for M&S solutions.

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7. Creating and maintaining systems engineering schedules and monitoring technical progress.

8. Performing job estimation activities.

2) SYSTEMS ENGINEER

A Bachelor of Science (BS) Degree in an engineering, computer science, mathematics, or a physical sciences discipline is required. The ideal candidate will have seven (7) years of general combat systems experience, with five (5) years of specific, relevant experience.

The Systems Engineer must have the training, skill, and experience necessary to conduct and coordinate systems engineering activities for combat systems and Enterprise-level Modeling & Simulation (M&S) solutions. Key responsibilities include:

1. Conducting and coordinating individual projects.

2. Coordinating systems engineering activities associated with combat systems computer programs, including analysis and system architectures.

3. Performing detailed function and system-level requirements analysis, documentation, and distribution.

4. Coordinating the development, testing, and assessment of combat system computer program solutions for military applications.

5. Conducting market/trade studies and analysis.

6. Establishing acceptance criteria for M&S solutions.

3) JUNIOR SYSTEMS ENGINEER

A Bachelor of Science (BS) Degree in an engineering, computer science, mathematics, or a physical sciences discipline is required. The ideal candidate will have four (4) years of general combat system experience and four (4) years of specific, relevant experience.

The Junior Systems Engineer must have the training, skill, and experience necessary to support Modeling & Simulation (M&S) requirements research, M&S test execution, and M&S system checkouts. The candidate should be a Subject Matter Expert in their respective engineering concentration and will be expected to introduce systems applications to leading-edge technological developments. Key responsibilities include:

1. Performing function and system-level requirements analysis.

2. Creating and distributing requirements documentation.

3. Conducting market/trade studies and analysis.

4. Establishing acceptance criteria for M&S solutions.

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4) SENIOR SOFTWARE ENGINEER

A Bachelor of Science (BS) Degree in an engineering, computer science, mathematics, or physical sciences discipline is required. The ideal candidate will have ten (10) years of general software engineering and combat system experience, with another ten (10) years of specific experience in combat systems software architecture design and development.

The Senior Software Engineer must have the training, skills, and experience to design, develop, and maintain complex, real-time combat system and Modeling & Simulation (M&S) computer programs. Key responsibilities and qualifications include:

1. Demonstrated experience in conducting and coordinating individual projects.
2. Proficiency in one or more software languages, including Ada, C, C++, Java, and Python.
3. Experience with software integration planning and testing within combat systems.
4. Establishing and maintaining software development schedules and monitoring the technical progress of computer program module development.
5. Experience utilizing computer program development tracking tools to capture new development requirements, track defects, and accurately reflect the current implementation status of each item.
6. Involvement in job estimation activities.

5) SOFTWARE ENGINEER

A Bachelor of Science (BS) Degree in an engineering, computer science, mathematics, or a physical sciences discipline is required. The ideal candidate will have five (5) years of general software engineering experience, with four (4) years of specific experience in the design and development of combat systems and Modeling & Simulation (M&S) software.

The Software Engineer must have the training, skills, and experience to design, develop, and maintain complex, real-time combat system and M&S computer programs. Key responsibilities and qualifications include:

1. Conducting and coordinating individual projects.
2. Proficiency in one or more software languages, including Ada, C, C++, Java, and Python.
3. Analyzing requirements to design and develop robust M&S solutions.
4. Planning and executing software integration and testing with combat systems.
5. Establishing and maintaining software development schedules and monitoring the technical progress of computer program modules.
6. Utilizing computer program development and tracking tools to manage requirements, track defects, and reflect current implementation status.
7. Conducting periodic reviews of design and development artifacts.

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8. Supporting the establishment of test methodologies and criteria.

6) JUNIOR SOFTWARE ENGINEER

A Bachelor of Science (BS) Degree in an engineering, computer science, mathematics, or a physical sciences discipline is required. The ideal candidate will have two (2) years of specific experience and demonstrated proficiency in one or more software languages, including Ada, C, C++, Java, and Python.

The Junior Software Engineer must have the training and skills necessary to implement defined software development items in accordance with established software development practices. Key responsibilities include:

1. Analyzing requirements to design and develop Modeling & Simulation (M&S) solutions.
2. Conducting periodic reviews of design and development artifacts.
3. Supporting the establishment of test methodologies and criteria.

7) TEST ENGINEER

Four (4) years general combat system experience as defined above. Four (4) years specific experience. Requires:

1. Training, skills and experience necessary to test M&S solutions in Combat and Weapon system facilities.

2. Ability to accurately plan, conduct, document and analyze test results on various M&S products.

8) JUNIOR TEST ENGINEER

Two (2) years specific experience. Requires:

1. Experience in executing test activities, designing tests, conducting tests, analyzing and documenting test results for combat system simulations.

2. Experience tracing tests to requirements and providing test artifacts to support simulation accreditation activities

9) PROGRAMMER

Six (6) years general computer programming experience, four (4) years of which shall be specific experience as defined above.

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Demonstrated experience with software engineering in the areas of computer program design, development and maintenance of combat systems software architectures in one or more of the following software languages: Ada, C, C++, Java, and Python.

10) COMPUTER TECHNICIAN

Three (3) years of experience in computer hardware configuration and installation, including combat systems specific experience.

Demonstrated experience in network connections, configuration and hardware diagnostics, and troubleshooting.

C. Geographic Distribution

For proposal purposes, the Contractor shall assume personnel will be located in the Contractor's facility except as noted in SOW C.7.

D. Key Personnel Qualifications

To perform the requirements of the Statement of Work (SOW), the Government desires Key Personnel with the appropriate experience and professional qualifications. Key Personnel qualification levels are considered to be desired for those individuals whose resumes are submitted for evaluation with the proposal. All individuals performing under the key personnel labor categories are considered key. Resumes for any replacement of key personnel that are submitted following award shall have qualifications equal to or higher than the qualifications of the person to be replaced, as required by the clause entitled C-237-H002 - Substitution of Key Personnel. Following award, the qualification levels are considered to be minimums for any growth beyond those individuals initially proposed.

All experience may be obtained concurrently for each labor category. The experience listed for each Key Labor Category should be directly related to the tasks and programs listed in the SOW.

All Key resumes must be reviewed by the Contract Specialist and Contracting Officer's Representative (COR) before the Contracting Officer approves direct charges to the contract.

The solicitation requires six (6) Key Personnel positions, each of which will be filled by a one or two FTEs. All Key Personnel positions shall be considered senior. The following table lists these Key Personnel positions, as well as the Government's desired attributes for each:

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Key Personnel Position	Desired Attributes
PROGRAM MANAGER 1 FTE	A Bachelor of Science (BS) Degree in engineering, computer science, mathematics, or a physical sciences discipline is required. The ideal candidate will have ten (10) years of general combat systems experience and fifteen (15) years of specific experience. Will have the training, skills, and experience necessary to conduct and coordinate all contractual activities. This includes monitoring and reporting contract performance status and metrics, financial coordination and reporting, and coordinating the issuance and closing of Task/Delivery Orders. The successful candidate will have a demonstrated ability to work with large and diverse teams and the ability to effectively provide guidance, direction, and supervision in all areas of the contracted effort, such as program management, systems engineering, performance status and metrics, and financial management, coordination, and reporting. Combat system experience in one or more of the areas listed in the SOW, along with the training and skills necessary to conduct and coordinate contractual activities, is required. M&S experience is highly desirable.
DEPUTY PROGRAM MANAGER 1 FTE	A Bachelor of Science (BS) Degree in engineering, computer science, mathematics, or a physical sciences discipline is required. The ideal candidate will have two (2) years of general combat systems experience and five (5) years of specific experience. Will have the training, skills, and experience necessary to conduct and coordinate all contractual activities. This includes monitoring and reporting contract performance status and metrics, financial coordination and reporting, and coordinating the issuance and closing of Task/Delivery Orders. The successful candidate will have a demonstrated ability to work with large and diverse teams and the ability to effectively provide guidance, direction, and supervision in all areas of the contracted effort, such as program management, systems engineering, performance status and metrics, and financial management, coordination, and reporting. Combat system experience in one or more of the areas listed in the SOW, along with the training and skills necessary to conduct and coordinate contractual activities, is required. M&S experience is highly desirable.

PRINCIPAL SYSTEMS ENGINEER 2 FTE	Bachelor of Science (BS) Degree in an engineering, computer science, mathematics or physical sciences discipline. Fifteen (15) years general combat systems experience, ten (10) years of which shall be specific experience as defined above. Requires: 1. Experience in conducting and coordinating individual projects; 2. Experience in coordinating systems engineering activities associated with large scale, Enterprise level, combat systems computer programs and computing infrastructure; 3. Experience in establishing and maintaining systems engineering schedules 4. Experience in monitoring the technical progress toward these schedules; job estimation activities.
SENIOR SYSTEMS ENGINEER – COMBAT SYSTEMS 2 FTE	Ten (10) years general combat system experience. Twelve (12) years specific experience. Requires: 1. Experience in conducting detailed, complex system engineering activities associated with Enterprise level combat system simulations. 2. Experience with functional and system level requirements analysis, requirements generation and technical community review
PRINCIPAL SOFTWARE ENGINEER 2 FTE	Bachelor of Science (BS) Degree in an engineering, computer science, mathematics or physical sciences discipline. Fifteen (15) years general software engineering experience in the areas of computer program development, ten (10) years of which shall be specific experience in combat systems software architecture design and development. Requires: 1. Experience conducting and coordinating individual projects; 2. coordinating development activities associated with large scale, Enterprise level, combat systems computer program design; 3. designing, developing, and maintaining complex, real time combat systems computer programs; 4. one or more software languages including Ada, C, C++, Java and Python; 5. software integration planning and testing with combat systems; establishing and maintaining software development schedules and monitoring the technical progress of computer program module development toward these schedules; 6. utilizing computer program development tracking tools that capture all new development requirements, tracks computer program defects, and accurately reflects current implementation status; 7. job estimation activities.

SENIOR TEST ENGINEER 1 FTE	Six (6) years general combat system experience as defined above. Six (6) years specific experience. Requires: 1. Experience necessary to test Enterprise level complex, real time combat system wrap around simulations in combat and weapon system laboratories. 2. Experience in establishing and maintaining test development schedules and monitoring the technical progress of computer program testing activities toward these schedules. 3. Experience in estimating and planning test activities, designing tests, conducting tests, analyzing and documenting test results for combat system wrap-around simulations. 4. Experience shall include tracing tests to requirements and providing test artifacts to support simulation accreditation activities. 5. Requires experience with job estimation activities.

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