

### SEAPORT-E TEAM MEMBER DATA SHEET

Field	Data Entry	Notes
Company Name	Chesapeake Technology International Corporation	Full legal name of your company as it would appear on a contract.
Existing SeaPort-e Prime?	Yes, Contract No. N00178-07-D-5006	Indicate if your company currently holds a SeaPort-e prime contract (Yes/No/Don't Know).
Address	44427 Airport Road, Suite 100	Street address of your company's primary location.
City	California	City of your company's primary location.
State	MD	State of your company's primary location.
ZIP	20619	ZIP + 4 postal code of your company's primary location.
CAGE Code	1N6Y7	Your company's CAGE code.
DUNS	124240222	Your company's DUNS number.
EPOC First Name	Lori	The E-Business Point of Contact (EPOC) and Alternate EPOC authorized to represent your company in contractual matters (e.g., submitting proposals, accepting task order awards) and generally intended to be your company's primary representative or user(s) of the SeaPort portal.
EPOC Last Name	Murphy	
EPOC E-mail	lmurphy@ctic-inc.com	
EPOC Phone Number	301-862-2726	
Alternate EPOC First Name	Kevin	
Alternate EPOC Last Name	Satow	
Alternate EPOC E-mail	ksatow@ctic-inc.com	
Alternate EPOC Phone Number	301-862-2726	
Business Ownership	VOSB	Large Business or Small Business; and any Small Business subcategories (e.g., SDB, WO,

		Hub-Zone, Veteran-Owned, Service-Disabled, etc.).
Business Size	1,12	<p>Please designate your company size from the following options. If your company is large, please select #14:</p> <ol style="list-style-type: none"> <li>1. 50 or fewer</li> <li>2. 51-100</li> <li>3. 101-250</li> <li>4. 251-500</li> <li>5. 501-750</li> <li>6. 751-1000</li> <li>7. Over 1000</li> <li>8. \$1M or less</li> <li>9. Over \$1M - \$2M</li> <li>10. Over \$2M - \$3.5M</li> <li>11. Over \$3.5M - \$5M</li> <li>12. Over \$5M - \$10M</li> <li>13. Over \$10M - \$17M</li> <li>14. Over \$17M</li> </ol>
Technical Capability	<p>Chesapeake Technology International Corporation (CTI) is a veteran-owned small business headquartered in Maryland with offices and personnel in California, Colorado, South Carolina, and Virginia. Operational in April 2000, CTI specializes in providing system engineering, software, and support for Electronic Warfare (EW), Command, Control Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) and related systems and simulators with the advanced technologies needed in military and civilian environments.</p> <p>The company's key competencies include Services Oriented Architecture (SOA) design and implementation, automated mission planning and advanced system autorouting algorithm development, major simulator and military system design, development, integration and testing including embedded software development,</p>	Description of your company's technical capability.

mission planning, C4ISR systems, operational functionality, research and development, fielding and field support.

CTI has a unique team of operationally experienced analysts and system/software engineers who are thoroughly knowledgeable in key technologies and modern engineering development processes. CTI provides rapid, responsive, proven, cost-effective engineering solutions and operational support for customers whose success depends on multiple sensors, integrated systems, and data fusion technology and simulation. CTI personnel have both operational and tactical military experience, including Marine Corps, Navy, and Air Force Electronic Warfare and Psychological Operations (PSYOPS) experience. Additionally, CTI has extensive advanced technical expertise in software development, systems engineering, modeling and simulation, quality assurance and configuration management. A large percentage of personnel have Top Secret or higher clearances.

Some of the products that CTI has developed include:

- EA-6B aircraft system and simulator software
- Software for hand-held computers
- Embedded system controller software
- System designs and software for Unmanned Aerial System (UAS) surveillance and attack payloads such as the Thunderstorm Fury
- Advanced Airborne Electronic Attack (AEA) autorouting and display software for multi-threat mission planning, command and control, and training systems
- MAGTF (Marine Air Ground Task Force) Electronic Warfare Services Architecture (EWSA)
- Marine Corps, Navy, and Air Force Services Oriented Architecture (SOA) designs
- Airborne integrated C4ISR systems used in counter-narcotic-terrorism airborne surveillance operations
- Operator situational awareness displays for Electronic

	<p>Attack (EA) platforms</p> <ul style="list-style-type: none"> <li>• Avionics and weapons system simulation software</li> <li>• High Frequency Internet Relay Chat (HF IRC) system for multiple platform over-the-horizon radio text messaging</li> <li>• Over The Horizon Radar Warning Receiver (OTH RWR) capability with Integrated Broadcast Systems</li> <li>• Haptic Tactile Situation Awareness System (TSAS) for Degraded Visual Environment (DVE) helicopter control and Hostile Fire Indications (HFI)</li> </ul>																												
Tasking	Subcontractor to CRL	Task that your company will perform.																											
Functional Area(s)	3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.14, 3.15, 3.16, 3.17, 3.18, 3.19, 3.20, 3.21	Functional Area of the SOW that your company will perform.																											
Past Performance	<p>CTI has extensive corporate experience in programs similar to or supporting Seaport-e mission areas and requiring activities across the board. The following is a summary of past performance on three prime contracts.</p> <table border="1"> <tr> <td colspan="3"><b>Prime Contract #1 - Marine Air-Ground Task Force (MAGTF) Electronic Warfare Services Architecture (EWSA)</b></td> </tr> <tr> <td><b>Contract Number</b></td> <td colspan="2">N68936-11-D-00023</td> </tr> <tr> <td><b>Delivery Schedule</b></td> <td colspan="2">01/01/2011-12/31/2015</td> </tr> <tr> <td><b>Contract Type</b></td> <td colspan="2">IDIQ CPFF</td> </tr> <tr> <td><b>Customer</b></td> <td colspan="2">NAWC-WPNS</td> </tr> <tr> <td colspan="3"><b>1. Procuring Contracting Officer (PCO)</b></td> </tr> <tr> <td><b>Name:</b></td> <td>Thomas Vitale</td> <td><b>Telephone:</b> 760-939-1603</td> </tr> <tr> <td><b>Current Address:</b></td> <td>429 E. Bowen Rd. - Mailstop 4015 China Lake, CA 93555</td> <td>DSN: 437-1603 <b>Fax:</b> 760-939-3095 <b>Email:</b> <a href="mailto:Thomas.vitale@navy.mil">Thomas.vitale@navy.mil</a></td> </tr> <tr> <td colspan="3"><b>2. Contracting Officer's Rep (COR)</b></td> </tr> </table>	<b>Prime Contract #1 - Marine Air-Ground Task Force (MAGTF) Electronic Warfare Services Architecture (EWSA)</b>			<b>Contract Number</b>	N68936-11-D-00023		<b>Delivery Schedule</b>	01/01/2011-12/31/2015		<b>Contract Type</b>	IDIQ CPFF		<b>Customer</b>	NAWC-WPNS		<b>1. Procuring Contracting Officer (PCO)</b>			<b>Name:</b>	Thomas Vitale	<b>Telephone:</b> 760-939-1603	<b>Current Address:</b>	429 E. Bowen Rd. - Mailstop 4015 China Lake, CA 93555	DSN: 437-1603 <b>Fax:</b> 760-939-3095 <b>Email:</b> <a href="mailto:Thomas.vitale@navy.mil">Thomas.vitale@navy.mil</a>	<b>2. Contracting Officer's Rep (COR)</b>			List company past performance along with customer names and phone numbers.
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<b>Name:</b>	Ms. Cara Testerman,	<b>Telephone:</b> 805-989-3413
<b>Current Address:</b>	NAVAIRWARCENWPNDIV 575 "I" AVE SUITE 1, BLDG 65 POINT MUGU, CA 93042	<b>Fax:</b> N/A <b>Email:</b> <a href="mailto:cara.testerman@navy.mil">cara.testerman@navy.mil</a>

**3. Administrative Contracting Officer's (ACO)**

<b>Name:</b>	Mrs. Gayle Whittington	<b>Telephone:</b> 410-962-9956
<b>Current Address:</b>	DCMA Baltimore 217 East Redwood St., Suite 1800 Baltimore, MD 21202	<b>Fax:</b> N/A <b>Email:</b> <a href="mailto:gayle.whittington@dcma.mil">gayle.whittington@dcma.mil</a>

Under this contract, CTI has been actively involved in the architecture development and implementation of the MAGTF EWSA and the Intrepid Tiger II EW pod at Point Mugu, CA. This effort has progressed from a Joint Concept Technology Demonstration (JCTD) to a deployed Quick Reaction Capability (QRC) in a very short period of time (less than two years). The Intrepid Tiger II pod is the first instantiation of a MAGTF EWSA compliant system. The entire EWSA is based upon open source and government off-the-shelf technologies that are maintained under government control and management. These technologies include the GOTS Raptor-X capability, DoD Discovery Metadata Specification (DDMS), Open Services-Oriented Architecture (OSOA), Open Graphics Language (OpenGL), open source Linux (Ubuntu), and other commercial and government open source technologies. The overall program is managed by a Configuration Control Board (CCB), is maintained within a government configuration management system (forge.mil), and is currently in a Block 1 development cycle for incorporation of new capabilities, payloads, and host platforms.

The developed MAGTF EWSA capability is tested and validated by the government throughout the development, integration, and deployment lifecycle. CTI tests the environment against each of the open source technologies described prior to delivery and throughout the development, integration, and deployment lifecycle. This compliance testing is done through a strict set of unit testing (primarily using JUnit), integration

testing (within the actual target environments and against other compliant nodes and systems), and prior to deployment (by the NAVAIR test organizations).

The MAGTF EWSA system of systems is highly data driven and its capabilities are implemented using FPGA-based jamming waveform generation, mission library-based threat identification and management, and real-time mission re-planning, export, and update. From within the Raptor-X operator's environment, new mission plans can be built, uploaded to the Intrepid Tiger II pod while in-flight, and activated remotely by the ground-based operator or by the pilot in the host aircraft. Any authorized user within the MAGTF EWSA network can perform this function.

The MAGTF EWSA is based wholly on a services-oriented construct. It heavily utilizes OSOA technology including the System Component Architecture (SCA) as implemented by the Apache Tuscany server. The MAGTF EWSA also includes a "Reactive Service Bus" component which was designed and developed by CTI which allows for management of the SOA infrastructure within a mobile, ad-hoc tactical environment. This provides for robust SOA capabilities such as quality management, fault tolerance, etc. in spite of "lossy" communications and highly mobile nodes.

CTI also has been the key developer on the ALQ-231 Intrepid Tiger II pod for payload control, cockpit interface, network interface/collaboration, and ground control. From a payload control perspective, CTI has extensive experience configuring, controlling, monitoring, and utilizing RF components for sensing, jamming, and communicating. This includes interaction with amplifiers, antenna switching units, modulators, and other RF-related components.

CTI practices active leadership in all requirements and design reviews, and joint testing with the customer. All of these efforts take place in a fully open Integrated Product Team environment where risks are identified early and tracked on a regular basis and customer team

members are kept apprised of progress as well as problems on a monthly basis as a norm, and daily or weekly as circumstances require. The result on the MAGTF EWSA program is a close partnership with the government technical and contract leadership which underscores our commitment to the Public/Private Partnership relationship and has ensured rapid resolution of issues proven in the delivery of critical capabilities to the Marine Corps within the required timeframe.

**Functional Areas:**

- 3.1 Research and Development Support
- 3.2 Engineering, System Engineering and Process Engineering Support
- 3.3 Modeling, Simulation, Stimulation, and Analysis Support
- 3.4 Prototyping, Pre-Production, Model-Making, and Fabrication Support
- 3.5 System Design Documentation and Technical Data Support
- 3.6 Software Engineering, Development, Programming, and Network Support
- 3.9 System Safety
- 3.10 Configuration Management (CM) Support
- 3.11 Quality Assurance Support
- 3.14 Interoperability, Test and Evaluation, Trials Support
- 3.18 Training Support
- 3.19 In-Service Engineering, Fleet Introduction, Installation and Checkout Support
- 3.20 Program Support

**Prime Contract #2 - 4-D SBIR Phase 2 - Algorithms for Dynamic 4D (3D space with time) Volumetric Calculations and Analysis**

<b>Contract Number</b>	N68936-11-C-0003
<b>Delivery Schedule</b>	03/21/2011 – 03/21/2013
<b>Contract Type</b>	CPFF

<b>Customer</b>	NAWC-WPNS	
<b>1. Procuring Contracting Officer (PCO)</b>		
<b>Name:</b>	Thomas Vitale	<b>Telephone:</b> 760-939-1603
<b>Current Address:</b>	429 E. Bowen Rd. - Mailstop 4015 China Lake, CA 93555	<b>DSN:</b> 437-1603 <b>Fax:</b> 760-939-3095 <b>Email:</b> <a href="mailto:Thomas.vitale@navy.mil">Thomas.vitale@navy.mil</a>
<b>2. Contracting Officer's Rep (COR)</b>		
<b>Name:</b>	Ms. Cara Testerman,	<b>Telephone:</b> 805-989-3413
<b>Current Address:</b>	NAVAIRWARCENWPNDIV 575 "I" AVE SUITE 1, BLDG 65 POINT MUGU, CA 93042	<b>Fax:</b> N/A <b>Email:</b> <a href="mailto:cara.testerman@navy.mil">cara.testerman@navy.mil</a>
<b>3. Administrative Contracting Officer's (ACO)</b>		
<b>Name:</b>	Mrs. Gayle Whittington	<b>Telephone:</b> 410-962-9956
<b>Current Address:</b>	DCMA Baltimore 217 East Redwood St., Suite 1800 Baltimore, MD 21202	<b>Fax:</b> N/A <b>Email:</b> <a href="mailto:gayle.whittington@dcma.mil">gayle.whittington@dcma.mil</a>
<p>In 2010 Naval Air Warfare Center Weapons Division awarded a Phase 1 SBIR to CTI based upon a need for enhanced computation approaches and alternative methods for determining Electronic Attack platform positioning using the Jammer Acceptability Region (JAR) computations. The intent of this SBIR has been to:</p> <p>“Develop an innovative software capability that can correctly and efficiently calculate the optimal flight path given the terrain data, aircraft position, flight characteristics, and positions of known threat emitters. Proposed solutions should identify required computer hardware configuration, third party tools, algorithms, and techniques. The software should execute within the mission planning timeline, and the developed algorithms should allow users to retrieve the data from the calculations to</p>		



effectively place a sensor at the right place and at the right time to be effective.” [SBIR N010-019 Solicitation]

To accomplish these goals, CTI has developed a number of approaches for solving the computational, visualization, routing, and scalability/distribution needs of this program. Each of the methods, along with some additional ones derived from the analyses performed, were developed and delivered in prototype forms demonstrating the viability of these approaches within the mission planning environment.

After successfully completing the Phase 1 SBIR, CTI was selected to perform the Phase 2 development program for this SBIR. Over the next two years, CTI has successfully developed a wide array of capabilities that fulfill all of the key requirements of this program and more. Many of these capabilities are ready for, or are already being transitioned to, existing programs of record.

These included meeting the functional requirements of

- Defining optimizations for JAR computations in support of Protected Entity/Electronic Attack (PE/EA) auto-routing
- Planning updates to auto-routing engine to support PE auto-routing in the presence of EA and EA auto-routing
- Designing 3-D/4-D visualizations
- Determining how to scale required computations for various employment environments
- Determining approaches for integrating within the Joint Mission Planning System (JMPS)/Joint Threat Analysis System (JTAS) environments
- Determining approaches for including modern networked and asymmetric threats

The results from this Small Business Innovate Research (SBIR) program

are numerous. While successfully implementing and improving upon the existing JAR computations and visualizations, CTI also succeeded in developing new and innovative JAR-related concepts, approaches, and displays. These new applications of the JAR concept show significant viability, feasibility, and usability and were developed into a substantial capability during the Phase 2 programs. Not only was it shown that JARs can be applied to the planning and analysis process, but they can be applied in a meaningful and timely manner. The algorithms, visualizations, tools, and applications developed during this program have advanced the state-of-the-art for EW planning and analysis, EW automation, and application of EW within dynamic, complex threat environments.

**Functional Areas:**

- 3.1 Research and Development Support
- 3.2 Engineering, System Engineering and Process Engineering Support
- 3.3 Modeling, Simulation, Stimulation, and Analysis Support
- 3.4 Prototyping, Pre-Production, Model-Making, and Fabrication Support
- 3.5 System Design Documentation and Technical Data Support
- 3.6 Software Engineering, Development, Programming, and Network Support

<b>Prime Contract #3 - EA-6B ICAP III Simulator Support</b>	
<b>Contract Number</b>	N68936-09-D-0017
<b>Delivery Schedule</b>	02/27/2009-02/27/2014
<b>Contract Type</b>	IDIQ CPFF

<b>Customer</b>	NAWC-WPNS	
<b>1. Procuring Contracting Officer (PCO)</b>		
<b>Name:</b>	Ms. Kelly Reason-Williams	<b>Telephone:</b> (805) 989-8514
<b>Current Address:</b>	Contracting Officer, Code 254300E 575 "I" AVE SUITE 1, BLDG 65 Naval Air Systems Team NAWCWD Point Mugu, CA 93042	DSN 351-8514 <b>Fax:</b> (805) 989-1613 <b>Email:</b> <a href="mailto:kelly.reason-william@navy.mil">kelly.reason-william@navy.mil</a>
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<b>Current Address:</b>	DCMA Baltimore 217 East Redwood St., Suite 1800 Baltimore, MD 21202	<b>Fax:</b> N/A <b>Email:</b> <a href="mailto:gayle.whittington@dcma.mil">gayle.whittington@dcma.mil</a>
<p>This is CTI's contract supporting the Point Mugu trainer Integrated Product Team (IPT), NAVAIR Orlando, and the USMC EA-6B training devices at MCAS Cherry Point, NC and NAS Whidbey Island, WA. It is a prime contract where CTI has been responsible for full lifecycle, simultaneous multi-simulator upgrades for the USMC. Included under this contract are efforts such as USMC training device development, aircraft concurrency, total simulator disassembly and reassembly, facility moves and upgrades, major technology upgrades, and testing and enhancements across all subsystems. The following paragraphs summarize these tasks:</p> <ul style="list-style-type: none"> <li>• Large scale tactical scenario improvements. CTI corrected latent</li> </ul>		

defects in the implementation of the Government Furnished Information (GFI) Distributed Information Warfare Constructive Environment (DICE) tactical Electronic Warfare (EW) environment and other discrepancy fixes on the 15E43 EA-6B ICAP III Team Tactics Trainer (TTT). This required coordination with multiple government agencies to incorporate a completely new DICE release and develop advanced Tactical Environment Control (TEC) graphical tools for theater level scenario generation and run time control. These tools currently are being further enhanced to include Link 16 simulation and scenario control.

- Design, development, and enhancements. This includes upgrades of Instructor Operator Station (IOS), integrated multi-simulator communication systems, Tactical Environment Control (TEC), cockpit fidelity upgrades and multiple aircraft Block concurrency upgrades. These involved enhanced Electronic Warfare upgrades for communication and radar receivers, jammers, High Speed Anti-Radiation Missile (HARM), and ALE-47 self-protection system simulation in dense air, sea, and land threat environments.
- Large scale system disassembly, transport, and reassembly. This effort involved coordinating and moving the 2F185 6-Degree-Of-Freedom (6-DOF) full motion Operational Flight and Navigation Trainer (OFNT) from NAS Whidbey Island, WA via Point Mugu, California to MCAS Cherry Point, North Carolina. This involved significant coordination with government entities including NAWCWD Point Mugu, MCAS Cherry Point, NAVAIR Orlando, facilities contractors, and multiple subcontractors to successfully pre-test, disassemble, pack, transport, assist in facility preparation, reassemble, repair any discrepancies found,

and retest.

- Multiple training device Technology Refresh efforts. CTI has completed technology refreshes and integration of the 2F185 OFNT and 15E43 in an Information Assurance (IA) compliant environment. Work included refresh/replacement of all major subsystems: Visual, Image Generator (IG), and Digital Radar Landmass Simulation (DRLMS), tactical scenario generation and improvements incorporating EW data sets, High Level Architecture (HLA), Distributed Interactive Simulation (DIS), and Joint Semi-Automated Forces (JSAF).
- Space system simulation development. CTI has recently been involved in integration and demonstration of National Reconnaissance Office (NRO) ASSET scenario tools for scenarios related to simulated Integrated Broadcast Service (IBS) into the tactical environment and aircrew displays for Multi-Mission Advanced Tactical Terminal (MATT) simulation and training.
- Integrated Logistics Support (ILS). CTI has been the trainer ILS IPT lead for all the USMC EA 6B ICAP III trainer upgrade efforts including 2F188, 2F185, 11H163, and 15E43. CTI took on the responsibility to support Point Mugu in their efforts to ensure that the Training Systems Division (TSD) and the user community have the proper analyses, documentation, spares, consumables, and planning to fully support the simulators through their various upgrade cycles. As part of this effort we are also involved in planning for future upgrades and for support of complete USMC IA requirements.

These efforts underscore not only CTI's technical abilities which are significant, but also the proven capabilities to lead IPT teams and

coordinate multiple program level simulator development efforts to successful completion. CTI's dedication to providing quality products to the Marine Corps has resulted in a number of commendations to key individuals from the Commanding General, 2nd Marine Air Wing, Cherry Point as well as from the EA-6B Integrated Product Team leadership at Point Mugu, CA.

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- 3.6 Software Engineering, Development, Programming, and Network Support
- 3.7 Reliability, Maintainability, and Availability (RM&A) Support
- 3.9 System Safety Engineering Support
- 3.10 Configuration Management (CM) Support
- 3.11 Quality Assurance Support
- 3.12 Information System Development, Information Assurance (IA) and IT Support
- 3.14 Interoperability, Test and Evaluation, Trials Support
- 3.16 Logistics Support
- 3.17 Supply & Provisioning
- 3.18 Training Support
- 3.19 In-Service Engineering, Fleet Introduction, Installation and Checkout Support
- 3.20 Program Support
- 3.21 Administrative Support

