Putting ideas into action.

CTC’s Vision, Mission, and Culture

Vision
To be the most sought after, unbiased provider of innovative solutions and services in support of the public good for the benefit of our nation.

Mission
Concurrent Technologies Corporation provides scientific, applied research and development solutions that:
- Incorporate innovative technology and management solutions
- Satisfy the needs of our clients and the public interest or common good
- Emphasize increased quality, effectiveness, and rapid technology transition and deployment.

Culture
Concurrent Technologies Corporation has the requisite experience, knowledge, and resources to effectively meet the diverse needs of our clients and the public interest, while fostering shared values and a spirit of working together as a One Company.

CTC was contracted by the Air Force Research Laboratory to design, demonstrate, and validate a robotic laser coating removal system for removal of coatings from F-16 aircraft. Read the story beginning on page 6.
At Concurrent Technologies Corporation (CTC), our employees explore, develop, and share new ideas that move science, engineering, and technology forward in the national interest. CTC is a professional services firm that is fully focused on assisting every client with achieving its mission. Our innovative solutions are benefiting U.S. warfighters, homeland security, the healthcare community, and industry in many diverse ways.

This annual report brings to the forefront some of the ways CTC is putting ideas into action for our clients and introduces some of the people behind the ideas.

The People Behind the Ideas

CTC’s scientists, engineers, and other professionals have capably built our outstanding technical reputation. Our employees are our key differentiating factor in this highly competitive marketplace.

In Fiscal Year 2010 (FY10) we worked to reinvigorate and further grow our technical capabilities through increased employee communication, rewards, and recognition. CTC is dedicated to enhancing career opportunities for all employees, fostering interactive communication, and ensuring a dynamic, safe workplace. To support this long-term commitment, we implemented a number of new ideas such as a Science, Engineering, and Technology Collaboratorium—a thought incubator where employees can be mentored by Ph.D.-level scientists.

Helping Every Client Achieve its Mission

Delivering on our brand promise means ensuring that all of our clients experience the CTC brand in a consistent manner—a manner consistently associated with quality, integrity, and exceptional performance. To clients in the U.S. and abroad, CTC delivers assured outcomes. Our reach is broad; our areas of expertise, diverse.

Focusing on Technical Excellence

This annual report is an accounting to those we serve—our employees, clients, communities, and potential clients—and purposefully focuses, not on individual project successes, but on several of this year’s standout innovations. Some of this year’s most impressive technological achievements took place in the areas of advanced robotics, metalworking, modeling, visualization, and logistics. We believe CTC’s demonstrated ability and reliability in these and other areas of expertise are the hallmark of our service.

Our aspirations for CTC are to continue to serve our employees well, build strong client relationships, focus on technical achievement that supports our national interest in the broadest sense, and provide the highest quality solutions in our clients’ best interests. As we move into Fiscal Year 2011, we are excited about our future and confident that, thanks to the experienced governance of our Board of Directors, the technical prowess of our employees, and the confidence shown in our team by our clients, we are poised for continued success.
The dynamic is palpable. At CTC, innovation and out-of-the-box thinking are encouraged and rewarded. The pace is never slow. The drive to deliver the best total solution to each client in a timely manner is ever-present. We have high expectations and consistently demand new ideas.

CTC’s growth is a result of its employees and their common desire to be the best in their fields. Here, smart people share ideas. Good ideas become breakthrough technologies. Collaboration leads to innovation.

CTC’s scope is broad with areas of expertise ranging from advanced materials, manufacturing, and engineering to power and energy and more. (See listing at left.) The following five articles spotlight some of CTC’s most impressive recent technological achievements and introduce you to a few of the people who are putting ideas into action for our clients.

Putting ideas into action.® Innovation in Science, Engineering, and Technology
Advancing Robotic Laser Coatings Removal Technology

Advancements in robotic laser coatings removal technology are leading to reduced maintenance costs for U.S. weapon systems and improved mission readiness. CTC is dedicated to further transitioning the benefits of its progress in this area not only to the U.S. military, but to U.S. industry where changes in manufacturing and maintenance processes can lead to economic stimulus.

CTC has supported the Air Force Research Laboratory (AFRL)-led laser coatings removal program since its inception in 1999. Our joint successes began with the validation and transition of handheld laser systems at Air Force Logistics Centers across the nation. Next, CTC led the design and transition of a robotic laser coating removal system (RLCRS) at Tinker Air Force Base designed for the depainting of flight controls from various weapon systems. These successful efforts were recognized with the 2005 and 2009 Environmental Security Technology Certification Program (ESTCP) Project of the Year Awards.

Coatings removal...or depainting...is important to the warfighter, the environment, and the taxpayer.

The successful implementation of these systems led to Hill Air Force Base requesting the AFRL/CTC team to design and transition a robotic system for the depainting of radomes and other off-aircraft components. This was accomplished in just 16 months from concept to completion. Once implemented this system provided a $350,000 annual savings for radome processing over the prior system and reduced strip times from over four hours to 30 minutes. The implementation of this system was recognized with a 2009 U.S. Air Force Science and Technology Award for Manufacturing Technology.

“Building upon this success, the AFRL issued a new task order to CTC in 2009. The objective is to automate aircraft remanufacturing processes to support U.S. Air Force depot transformation and maintenance needs,” says Milissa Pavlik, CTC’s Executive Director of Power, Energy, and Green Technology Solutions.

“The Department of Defense (DoD) operates maintenance depots where weapon systems are repaired to ensure mission readiness,” Pavlik explains. “U.S. service men and women depend on the reliability of these weapon systems. Complete depainting of aircraft is part of the normal maintenance process. Until now, paint has been removed in a manner that generates large quantities of hazardous waste. In addition to environmental concerns, this is costly, time consuming, and labor-intensive.”

“Aging weapon systems require innovative new manufacturing processes to maintain mission readiness, and in FY10 the CTC/AFRL team completed the conceptual design for a new RLCRS,” says Pavlik. “CTC is proud of the team and its accomplishments. Georgette Nelson demonstrates excellent leadership as the primary client lead, resulting in continued program growth, and Jim Arthur, Lead Engineer, displays innovative engineering design and installation support that has and continues to exceed client expectations. Other major contributors to this program’s success over the years have included Shanna Denny, Jerry Stem, Jerry Mongelli, Randy Straw, Dave Tomlinson, Dr. Melissa Klingenberg, and many of CTC’s top-notch technical resources from across the Capabilities and Solutions Teams. We know more achievements for this team are on the way!”

The RLCRS will be validated on a decommissioned F-16 located at one of CTC’s Johnstown, Pennsylvania facilities. The benefits of the new CTC/AFRL system will include the reduction of the plastic media, paint stripping chemicals, hazardous waste, air emissions, and maintenance costs that are associated with aircraft depainting. The robotics used for this project will be scalable for use not just on the F-16 but also for larger aircraft, including cargo and tankers. According to plans, the technology will be transitioned to the F-16 maintenance depot located at Ogden Air Logistics Center, Hill Air Force Base by the end of 2011.

In addition to this project, ongoing efforts are underway at CTC to test, evaluate, and ultimately transition new developments in areas such as material removal, laser technology, robotics, sensor technology, and handheld end effector modifications, as well as automated rapid cure coating technology, for both on- and off-aircraft applications.

The successful execution of this project has also led other services to investigate, and in some cases, transition laser based coatings removal solutions to the U.S. Army, Navy, Coast Guard, original equipment manufacturers, and more.
Delivering Essential Logistics Support to U.S. Warfighters

CTC’s Web-based application, the Transportation Capacity Planning Tool (TCPT), has successfully deployed in support of Operation Enduring Freedom and proven to be a Force multiplier. This isn’t the first time that CTC replaced a time-consuming, paper-based system with a common operational environment and real-time visibility of resources to enable faster military reactions in a dynamic wartime environment.

“The CTC-developed Transportation Capacity Planning Tool has grown into an approved Global Combat Support System-Marine Corps (GCSS-MC) bridge technology,” says Dr. Michael Knapp, Vice President, Information Sciences. “On May 19, 2010, as a result of our successful new deployment of the TCPT in support of Operation Enduring Freedom, the U.S. Marine Corps (USMC) awarded CTC a certificate of appreciation for outstanding technical expertise. The CTC team was praised for its can-do attitude, determination, and dedication to mission accomplishment.”

“We are proud to have been recognized and publicly thanked for one reason: because this new technology is working so well for our troops,” he notes.

For more than 15 years CTC has partnered with the USMC to deliver essential logistics services in support of the warfighter. CTC’s demonstrated capabilities in Logistics Lifecycle Management also include the multi-award-winning Marine Corps Equipment Readiness Information Tool (MERIT) and the Total Life Cycle Management Common Operating Picture (TLCM-COP) decision support tool.

It began with MERIT, which CTC created to help the Marine Corps measure material readiness in real time. MERIT transforms existing legacy data into valuable information that provides a dynamic, adaptable view of equipment readiness. Today, this first-of-its-kind equipment-readiness management tool is in use in every theater of USMC operations. U.S. Marines report that with MERIT, “what used to take days now takes minutes.” The success of this product has led to CTC’s development of at least seven additional decision-support tools for the U.S. Marine Corps Logistics Command known as the Life Cycle Modeling Integrator (LCMI).

Leaders have the information they need to make decisions efficiently and effectively. The data fusion techniques employed by TLCM-COP are also helping to expose inconsistencies across the disparate systems and gaps within the supply chain.

“CTC’s Web-based application, the Transportation Capacity Planning Tool (TCPT), has successfully deployed in support of Operation Enduring Freedom and proven to be a Force multiplier. This isn’t the first time that CTC replaced a time-consuming, paper-based system with a common operational environment and real-time visibility of resources to enable faster military reactions in a dynamic wartime environment.”

“We are proud to have been recognized and publicly thanked for one reason: because this new technology is working so well for our troops.”

CTC ANNUAL REPORT Fiscal Year 2010
Taking Exportable Combat Training to a New Level

CTC’s expertise in modeling, visualization, data fusion, data mapping and multi-level security technologies; geospatial planning; and education and human performance successfully come together to create realistic and rigorous training exercises that are helping U.S. troops survive and succeed in today’s rapidly changing operational environments. Our work in these advanced technology areas continues to expand as our reputation grows thanks to CTC employees who vigorously push the envelope of knowledge.

Helping Warfighters Train

Not long ago, it was very easy to construct a military training exercise with a single event such as “mechanized infantry company attacks at 0800 to take the hill.” Today’s military personnel are required to do much more. To meet these needs, CTC developed the highly successful Exportable Combat Training Program (E-CTC) that prepares our troops to survive and succeed in rapidly changing operational environments characterized by complex interactions with civilians, allies, joint forces, and non-governmental and governmental agencies.

CTC provides U.S. warfighters a rigorous, realistic, and relevant pre-deployment training capability.

CTC developed RIPPLE in 2005 for the National Training Center (NTC) with the support of the U.S. Army Forces Command (FORSCOM). Service men and women receive interpersonal training; for example, they interact with “actors” in simulated Iraqi towns.

“Ripple brings the best training practices from across the U.S. Army and Marine Corps together into a single application to manage and execute collective military training,” says Thomas V. Olszowy, RIPPLE Program Manager. “Ripple embeds and fuses data, tools, and methods to create a superior quality training event while reducing the workload on the staff.”

E-CTC is Customizable

RIPPLE has served clients so well that it gave birth to E-CTC, which is the next, expanded iteration. E-CTC is available to all branches of the military and, like RIPPLE, totally customizable.

Field training is widely varied. It can last from a few hours to a few weeks. It can involve a few infantry platoons, a maintenance company, a Marine Expeditionary Force, or any size unit in between. The E-CTC is the go-to resource for officers tasked with creating effective, scenario-based field training.

E-CTC has been so successful that the CTC team has added the following modules:

- Event Management: Modeling and visualization technologies are used to represent real-world combat events and scenarios. Associated geo-spatial and temporal information, are also incorporated.
- Human Terrain Management: CTC uses modeling and visualization technologies of high-fidelity sociological aspects of modern and future combat conditions such as networks of relationships between people, local customs, patterns of movement, and other information that affects and motivates human behavior by leveraging existing sociological research and social network technologies.
- Advanced Analysis for After Action Reviews: Modeling and visualization technologies are applied to a unit’s combat mission plan to measure and assess the unit’s performance. CTC-developed technology is able to provide near real-time assessment of key individual and unit readiness.
- Advanced Workflow: Data fusion, data mapping, and multi-level security technologies are leveraged to extract unclassified data from classified data and deliver unclassified data in a timely manner.
- Geospatial Planning: CTC leverages the U.S. Army’s Advanced Warfare Environment (AWarE) to facilitate coordination, synchronization, and visualization of combat events from the unit level to the individual level in a geo-spatial and temporal framework. Near real-time, multi-platform and multi-echelon modeling and visualization technologies are applied.

E-CTC is the next step in exportable training to help U.S. troops survive and succeed in today’s rapidly changing operational environments.
Developing a New, Higher-Strength Steel

CTC played a major role in the development, certification, and implementation of HSLA-115, a new higher strength modification of the HSLA-100 structural steel used for critical applications on aircraft carriers and other U.S. Navy combatant vessels.

CTC’s Technical Experts Build U.S. Knowledge Base

Naval hull structures require high-strength alloy steels with superior toughness and resistance to dynamic fracture. When the U.S. Navy identified a need for a new steel with yield strength (YS) higher than HSLA-100 with equivalent notch toughness in specific structural applications for weight reduction, the Navy Metalworking Center (NMC), operated by CTC for the Office of Naval Research Navy ManTech Program, led a project team to evaluate candidate solutions.

The project team included Naval Sea Systems Command (NAVSEA), the Naval Surface Warfare Center - Carderock Division (NSWCCD), Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNSY), Navy Joining Center (NJC), Northrop Grumman Shipbuilding - Newport News (NGSSB-NN), Accelor Mittal Steel USA and DDL Omni.

The project team and Navy stakeholders concluded that HSLA-115 structural steel plate for critical naval applications has been developed and subject to a Material Selection Information (MSI) process. The new steel has the same specified chemical composition and mechanical property requirements as HSLA-100 Comp.3 except that the yield strength range is 115–130 ksi instead of 100–120 ksi for HSLA-100. Additionally, it is produced by special processing consisting of continuous-cast slabs, low slab reheat temperature (resulting in a lower plate finishing temperature), double austenitizing, and water-quenching after tempering. The NMC and its project team successfully submitted and received approvals for the data and MSI documents ahead of schedule to support key shipyard need dates.

Kevin Stefanick, CTC’s Project Manager for the HSLA-115 Evaluation and Implementation Program, explains, “Talented teamwork, commitment, and persistence was the key to this project’s success both internally within CTC and also among the appreciated external stakeholders and partners. The U.S. Navy is seeking solutions to reduce weight and lower the center of gravity for surface ships to improve their performance at a reasonable cost. As a result of our team’s work, over 2,000 tons of HSLA-115 material has been procured to date and is being fabricated and implemented on CVN 78 and will result in 100-200 long tons of topside weight reduction per hull, which will help improve the ship’s center of gravity. Additional applications are anticipated in the future as well.”

HSLA-115 will also achieve:

• Improved survivability, strength, and weight reduction at an affordable price
• Lowered center of gravity by 0.05 feet
• Improved risk factors of safety where thickness is not reduced to improve performance for critical applications
• Overall neutral acquisition cost impact

“Overall, reducing the ship’s weight and maintaining survivability performance with an affordable cost will help U.S. warfighters carry out their missions,” Stefanick concludes.
Using a New Agent-Based Modeling Approach for Healthcare

“This is an amazing approach, unique in the marketplace and fully capable of helping decision-makers more accurately predict how best to spend healthcare dollars to achieve desired changes. It fills a gap in existing research because it allows us to synthesize information in a more meaningful way than ever before,” says Heather Rogers, Ph.D., CTC scientist, psychologist, health researcher, and population statistician.

• Where should the U.S. Government invest healthcare dollars for the best return on investment?
• Which program or combination of programs, out of many possible courses of action, are the most effective for your organization or business investment?
• At what point will your efforts attain only diminishing returns?
• Given a limited budget, what is the best approach to achieving wellness among the most people?
• In short, how can we more accurately predict how to get the most effective yield in healthcare spending?

CTC assembled a multi-disciplined team, including a health scientist/subject matter expert and operations research analyst, that has developed a better way to model behavior-related decisions linked to important chronic diseases such as cardiovascular disease and cancer.

CTC’s new agent-based modeling approach can help decision-makers more accurately predict how to get the most effective yield in healthcare spending.

Team leaders include Rogers, David Davis, former Hospital CEO with 25 years’ experience in the healthcare industry; Norm Reitter, Information Technology Advisor; and Dan Widdis, Principal Operations Research Fellow.

Teenage Smoking is Prototype

The team created a prototype model that addressed an issue of great human importance: teenage smoking. Widdis designed a system that integrates effects of multiple interventions using statistics from many peer-reviewed studies. The agents, using simple decision rules, displayed complex behavior. The team then evaluated many possible intervention program investment strategies using large-scale experimental design techniques that they created and validated during last spring’s International Data Farming Workshop in Monterey, California. “Using this agent-based modeling approach, we found results that we didn’t expect,” says Rogers.

That’s because the new system models human decisions and multi-level interactions, offering much more than the traditional linear approach to modeling. “We analyze complex interactions in complex systems,” says Widdis. This model more accurately reflects the results of individual decisions about their behavior, for example, the decision to smoke or quit smoking.

People make decisions within the context of multiple roles and influences in their lives. To experienced researchers, the most exciting aspect of CTC’s new model is that it looks at how people make decisions within the context of these multiple roles, allowing for the impact of community, societal factors, government influences, and more. The new system analyzes all available layers of data, synthesizing research results so that we can view information in a more meaningful way. In the case of smoking cessation, the new system shows that certain interventions applied to a percentage of the population will most likely achieve desired results. Charts clearly show when to stop spending money on an intervention because the effort has reached a point of diminishing returns.

New Approach is Unique and Relevant

“CTC has accomplished what I needed as a healthcare decision-maker,” says Davis, who anticipates that the new approach will help decrease healthcare costs. “We have the necessary computational power to conduct sophisticated models that allow us to discover emergent phenomena for the public good.” This new service directly supports CTC’s nonprofit mission.

Reitter adds, “We are now able to offer clients—federal and private organizations—a highly visible and viable service that provides policy analysis decision-support for complex problems. This new service has relevance in answering questions such as ‘What influences individuals to make health choices?’ and ‘What is the best mix of intervention programs that most effectively increase the number of individuals making health choices, thus reducing disease?’ to help guide smart decision-making on a local, regional, or national level.”
Newsworthy: Highlights of FY10

Concurrent Technologies Corporation’s (CTC’s) focus is on identifying and creating breakthrough technologies and applying them through an integrated business and technical approach to produce transformative solutions. In fiscal year 2010 (FY10), we not only delivered on that promise, we won competitively awarded contracts to do even more.

The Year’s Largest Contract Award
CTC has operated the National Defense Center for Energy and Environment (NDCEE) since the program’s inception in 1991. In FY10, CTC was awarded a $425 million contract to continue operating the NDCEE for another five years. Because this is one of CTC’s largest long-term contracts, this award meant a great deal to the Company. Under the last contract, more than 500 employees at CTC offices throughout the nation worked on NDCEE projects. The new contract represents an increase of $75 million over the previous award value, and the scope of work to be performed has also been increased.

The NDCEE serves as a national leadership organization to address high-priority environmental, sustainability, energy, safety, and occupational health requirements for the DoD, other federal government organizations, and the industrial community. The DoD Executive Agent for the NDCEE is the Office of the Assistant Secretary of the Army for Installations, Energy and Environment.

Contracts Illustrate CTC’s Breadth
Among the new contracts that CTC was awarded this year through open competition are the following, which represent various areas of expertise and a variety of clients.

- Environmental and Energy Quality Technologies for the Air Force Research Laboratory (AFRL). Through a five-year Indefinite Delivery/Indefinite Quantity (IDIQ) contract worth up to $49 million awarded by the U.S. Air Force Research Laboratory, Wright-Patterson Air Force Base, Ohio, CTC will support an advanced laser coatings removal development project (See page 6.) and other task orders as assigned.
- Research and development of ground robotic technology for the Naval Surface Warfare Center Crane (NSWC Crane). This Cost Plus Fixed Fee (CPFF) task order contract has a ceiling of $46 million over five years, consisting of two base years and three option years. The CTC team will conduct research and development (R&D) of ground robotic systems and ancillary subsystems and software. This R&D will provide a new or improved assortment of tools for the Department of Defense and the warfighter.

Professional, business, and project management services in support of the Commander, Naval Installations Command and Commander, Navy Region Northwest. This $7.3 million cost-plus-fixed-fee, IDIQ single award contract includes a base year and two one-year option periods that, if exercised, bring the total estimated value of the contract to $21 million. This contract was competitively awarded by the Fleet and Industrial Supply Center Puget Sound.

Rapid Prototyping and Technology Initiative (RPTI) for the U.S. Army’s Armament, Research, Development, and Engineering Center (ARDEC). This is a five-year IDIQ contract intended to assist ARDEC’s mission to rapidly respond to the warfighter’s need for armament-related products and services.

Research and development of ground robotic technology for the Naval Surface Warfare Center Crane (NSWC Crane). This Cost Plus Fixed Fee (CPFF) task order contract has a ceiling of $46 million over five years, consisting of two base years and three option years. The CTC team will conduct research and development (R&D) of ground robotic systems and ancillary subsystems and software. This R&D will provide a new or improved assortment of tools for the Department of Defense and the warfighter.

Technical and management support for implementation of Voluntary Protection Programs (VPP) for the Army National Guard (ARNG) Bureau. With a base year value of over $600,000 and optional years totaling over $2.8 million, CTC will provide technical and management support for the implementation of the Occupational Safety and Health Administration’s (OSHA) VPP at all 50 ARNG State sites and four U.S. territories.

CTC in the News
As an employer-of-choice for service men and women, CTC elected to join the Army Partnership for Youth Success (PaYS) Program. Participation in PaYS solidifies CTC’s commitment to helping transition soldiers from Army life to the civilian workforce. Left to right are Major Donald M. Campbell, Jr., Commanding General, U.S. Army Recruiting Command; Edward J. Sheehan, Jr., CTC President and Chief Executive Officer; and Brigadier General Arnold N. Gordon-Gray, Deputy Commanding General, U.S. Army Cadet Command.

CTC hosted a signing ceremony to formalize its commitment to the Army Partnership for Youth Success (PaYS) Program. Participation in PaYS solidifies CTC’s commitment to helping transition soldiers from Army life to the civilian workforce. Left to right are Major Donald M. Campbell, Jr., Commanding General, U.S. Army Recruiting Command; Edward J. Sheehan, Jr., CTC President and Chief Executive Officer; and Brigadier General Arnold N. Gordon-Gray, Deputy Commanding General, U.S. Army Cadet Command.

(continued)
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Edmund J. Sheehan, Jr., CTC President and Chief Executive Officer, emphasized CTC's desire to help soldiers transition from Army life to the civilian workforce. "In FY10, 36 of our employees served in the active military or Reserve, and many employees remain employed by or are retired from the military. These employees know what it's like to face that omnipresent question in every service member's mind: What will I do when I leave military service? CTC understands the unique circumstances that both Reserve and transitioning active military members face, and we stand ready to help make the transition smoother for all involved parties. To our service men and women, I can honestly say 'You will feel at home at CTC.'"

Hydrogen Fueling Station Opens

The newspaper headline read: "Robbins Air Force Base Opens Hydrogen Station," and CTC was credited as "the company that built the new station." Scott Kenner, Principal Project Engineer at CTC, noted: "The hydrogen used at Robbins will power 20 forklifts at a new distribution center on the base. This is one of four projects across the nation intended to help the DoD and Department of Energy develop and test alternative fuel sources. Each of the facilities will use different technology, allowing the government to determine which method to use in coming missions."

The new station can produce up to 100 kg of hydrogen per day, which can power up to 100 forklifts.

Helping Clients Succeed

To clients in the U.S. and abroad, CTC delivers assured outcomes. Our reach is broad; our areas of expertise, diverse. This section highlights just a few of our many activities and accomplishments; however, it captures the spirit of CTC.

Publications

CTC employees (names in red) authored or co-authored the following publications and presentations from July 1, 2009 to June 30, 2010.

Publications

Papers


Edmund J. Sheehan, Jr., CTC President and Chief Executive Officer (right) attended the ribbon cutting of a Hydrogen Fueling Station at Robbins Air Force Base, Georgia, one of four projects across the nation intended to help the DoD and Department of Energy develop and test alternative fuel sources.

Other Technical Literary Work


Presentations


Publications and Presentations


Colgan, K. "Description of a Pre-Rotation Defect in Friction Stir Welding of 5456 Aluminum." Presentation made at the 8th International Conference on Friction Stir Welding, Timferfonder, Germany, May, 2010.


Duln, J. & Turrent, T. "Cost to Readiness & AFRGONEN RESET." Presentation made at the National Assessment of Environmental Professionalss Annual Conference, Atlanta, GA, April, 2010.


Publications and Presentations


Representative Technology and Collaborating Partners

CTC often joins with other outstanding nonprofit, research-based organizations and universities to develop innovative solutions and to solve our clients’ technology challenges. The following organizations with whom we have partnered over the past year have given us permission to use their names in this publication.

Albany State University
Auburn University
Buttele Memorial Institute
Carnegie Mellon University
Cliffin University
Florida International University
The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc.
Integrated Justice Information System Institute
Missouri University of Science and Technology
National Intelligence Education Foundation
Noblis

North Carolina Central University
Oak Ridge National Laboratory
Pennsylvania State University
South Carolina Research Authority
Southwest Research Institute
Syracuse Research Corporation
Tuskegee University
University of Dayton Research Institute
University of Hawaii
University of Maryland
University of Pittsburgh
Villanova University


If you would like more information about these topics, or if you would like to talk to a CTC subject matter expert (SME), please contact Mary Bevan, Director, Corporate Communications, at bewan@ctc.com.
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A Winning Organization

CTC has been recognized again and again as an exceptional place to work, most recently winning eight top awards in ten months. The most gratifying aspect of earning these honors is that, because most are based on independent employee feedback and favorable workplace practices, these awards provide tangible evidence that CTC really is a great place to work.

Chronologically, the first award bestowed upon CTC in FY10 was the Pennsylvania Governor’s Award for Safety Excellence. Its purpose is to recognize organizations with outstanding safety and prevention programs and the superior management/employee collaborations that make these programs so successful. This recognition is attributed to the mutual, vigilant commitment of CTC employees and management who work together to ensure that the CTC workplace is safe.

CTC Earns Multiple Honors as a Military-Friendly Organization

CTC’s responsibility to America’s warfighters is motivated by a sense of shared mission. Because our team of professionals includes many former members of the U.S. Armed Forces representing every branch of the military, CTC’s resolve is further heightened. The skills that military personnel bring to CTC ensure we will maintain relevancy in support of our many military clients.

Scott McClucas, CTC Electrical Engineer, sums up this sentiment: “Working in the private sector gave me a sense of accomplishment because I could show people components I designed and manufactured. However, after serving in combat deployments, I felt like something was lacking. Now at CTC, I take pride in knowing our challenging projects are truly for the betterment of the warfighters.”

“The award of serving in combat deployments, I felt like something was lacking. Now at CTC, I take pride in knowing our challenging projects are truly for the betterment of the warfighters.” – Scott McClucas, CTC Electrical Engineer

Two awards came from the Employer Support of the Guard and Reserve (ESGR), the Liberty Bell Award and the Patriot Award. The ESGR is a Department of Defense organization that focuses on promoting cooperation and understanding between National Guard and Reserve members and their civilian employers.

The Liberty Bell Award recognizes CTC’s continuing, exceptional support of its military employees. It takes into account our willingness to go beyond the law’s requirements in many ways, such as the support of employees’ families during mobilizations.

The Patriot Award is based on employee nominations and recognizes employers who support a strong National Guard and Reserve force. CTC employees Cratina Tomlinson and Gino Spinas were specifically recognized in the Patriot Award nomination, which recognized CTC’s “personnel policies, leadership, and consistent reliability.”

In recognition of the Company’s “understanding the value that military-experienced talent brings to the organization,” CivilianJobs.com named CTC a winner of the 2010 Most Valuable Employers (MVE) for Military “. This places CTC in an elite group of the top 25 “most valuable” U.S. employers—a list that includes Fortune 500 companies.

The Military Times EDGE Magazine ranked CTC ninth out of the top 50 “Best for Vets” Employers for 2010. Again in this competition CTC edged out a number of multi-billion dollar organizations to make the top 10. Military Times EDGE reviewed companies from the Fortune 1,000, Defense News 100, and Federal Times’ GSA 250 listing. Companies were graded on recruiting, training and mentoring programs for veterans, corporate culture, and reserve policies.

The Best Keep Getting Better

Additional awards set CTC apart as an exemplary employer and contractor. For the ninth consecutive year, CTC was named as one of the “100 Best Places to Work in Pennsylvania.” Of CTC’s more than 1,400 employees nationwide, more than half work in Pennsylvania locations. Only three companies, including CTC, have ever made the list for nine consecutive years.

Edward J. Sheehan, Jr., CTC’s President & Chief Executive Officer, notes: “The majority of this ranking and evaluation grade is based on employee feedback, and I am proud that our employees feel that CTC is such a great company.”

Another honor was based largely on employee feedback. The NonProfit Times, a leading business publication for nonprofit management, ranked CTC among the Top 50 Best Nonprofits to Work for in the Nation in 2010. Specifically, according to the annual independent study, CTC ranked number four in the large business category and 21 overall.

Finally, CTC was again recognized as a 2010 Top 100 Government Contractor by WashingtonTechnology Magazine. The annual ranking of the top government contractors reveals a collection of companies that are keeping pace with customer demands and entering new markets to fuel their growth. Companies are evaluated on how they solve customers’ problems, support critical missions, decrease costs, and provide technology-rich products and services to the federal government.

CTC’s shared corporate values and strong employee focus are behind the achievements we have amassed this year. These awards speak to CTC’s commitment to our talented, dedicated employees and to their drive to provide innovative advanced technology solutions to our clients.
Putting ideas into action.® Innovation in science, engineering, and technology.

Empowering People Who Inspire and Innovate at Work and in the Community

We recognize the value of every employee and the differentiating role they play in our continued success.

At the foundation of our corporate culture is a shared sense of respect and service to clients and the communities we serve.

As noted, in just ten months CTC won eight top awards that distinguished our Company as an exceptional place to work and a top-ranked service provider. (See page 24.)

Fueling these awards are tangible examples of CTC’s values at work—examples of employees who inspire and innovate on the job and in their communities.

Enriching Careers and Communities

Here, we highlight just a few of the many deserving, dedicated individuals who “made headlines” in FY10. For example, Margaret DiVirgilio, Senior Vice President, Chief Financial Officer and Treasurer of CTC, was elected President of the Women In Defense (WID), a National Security Organization. A nonprofit organization, WID, an affiliate of the Women In Defense, was named Outstanding Nonprofit Organization, WID, an affiliate of the Women In Defense, is recognized nationally as an expert in the fields of physical metallurgy and welding, especially those of high strength structural steels.

Honoring Lifetime Achievement

Paul J. Konkol, Principal Welding Engineer at CTC, was named a Fellow of the American Welding Society for his distinguished contributions to the field of welding science and technology. Konkol, one of only two Fellows selected for induction to the Society in 2010, is recognized nationally as an expert in the fields of physical metallurgy and welding, especially those of high strength structural steels.

Contributing through CTC Foundation

When Haiti experienced the modern world’s worst earthquake, our employees were able to use the CTC Foundation as a conduit for giving.

CTC’s Kevin Klug, Ph.D., requested funding from CTC Foundation to support educator Steven C. Schrock’s robotics course at Overhills Middle School, North Carolina. Pictured here are students at an after-school Science Olympiad meeting.

CTC Foundation gives generously to the communities we serve.

When scholarships are awarded to deserving family members of Military Police Soldiers, the Military Police Regimental Association National Board of Directors writes in appreciation that CTC’s “generous support over the years is unmatched by any other organization.”

When educator Steven Schrock of Overhills Middle School near Fort Bragg and Pope Air Force Base contacted CTC’s North/South Carolina operations center requesting funds to support a robotics course, our Foundation responded.

In FY10, CTC Foundation provided $270,000 in community support. Collectively, more than 300 individual donations were made to over 200 charitable organizations and community operations in 15 U.S. States and internationally through worldwide charities. Giving is diverse: $159,000 went to charitable groups, $38,000 to educational institutions, and $33,000 to the arts.

Congratulations and thanks to these and all CTC employees who go the extra mile, contributing, volunteering, and definitely excelling.

CTC’s Chief Scientist, Dr. Joseph R. Pickens, was invited to serve on the Industrial Panel of the prestigious Sagamore Conference, which has been organized by the U.S. Army Materials Division (or its predecessor organization) since 1954. This year’s topic for the nation’s leading experts: advanced lightweight metals.

The National Association for Surface Finishing awarded Dr. Melissa Klingenberg, a CTC Principal Technical Advisor, an Award of Merit for her dedication, service, and technical contributions to the surface finishing industry. As with Konkol, the award represents lifetime achievement in her field.

Doing Standout Work

CTC employees Jack Watts, Cleo Hicks, Linda McGowan, Lyle Joyner, Gary Webster and Jodie Maule from the Center for Personal and Professional Development at Dam Neck Naval Annex in Virginia Beach, Virginia, along with their families, joined Janeann Hudson, CTC Instructional Designer, at the 10th Annual Hampton International Children’s Festival. Janeann helped increase the volunteer count by 200 people this year by suggesting the festival participate in “Give a Day and Get a Free Disney Day.”

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Employing People Who Inspire and Innovate at Work and in the Community

Developing Leaders, Cultivating Excellence

Career growth and professional development opportunities are central to CTC’s value proposition with all employees. CTC University, established in February 2006, has been a tremendous success story for the Company. During the past year, CTC staff completed more than 500 college courses under the tuition reimbursement program and took over 3,000 SkillSoft courses as part of CTC University.

In addition, CTC employees are encouraged to develop and present training sessions for their peers. Called “Brown Bags” because they are offered on an informal basis during the traditional lunch hour, these training sessions range in topics from physics to the correct way to complete certain forms. In FY10, CTC employees participated in more than 150 Brown Bag sessions.

Enjoying Family Time

CTC understands and values employees’ off-time with family and friends, and we both sponsor and encourage get-togethers such as Company picnics and Take Our Daughters and Sons to Work Day® at our locations across the nation. These photos tell the story. They illustrate qualities that distinguish CTC’s value-driven corporate culture and make this a great place to work.

More than 100 children joined their parents for CTC’s 2010 Take Our Daughters and Sons to Work Day at our offices across the nation. This group from CTC’s office in Huntsville, Alabama, are checking out a friction stir weld in progress. From left to right: Mallory Machnica, Hunter Machnica, Amanda Colligan, Julia Colligan and Kevin Colligan.

Sozit Ayalew and children Nathan and Isabella enjoy CTC’s family outing at Nationals Park, Washington, D.C.

Honor Roll

CTC is tireless in its drive to support U.S. military needs by developing and disseminating advanced technology solutions to help ensure that the world’s most sophisticated defense program will continue to be the world’s most capable.

Our responsibility to America’s warfighters is motivated by a sense of mission. Our team of professionals includes many former members of the U.S. Armed Forces representing every branch of the military, and CTC’s resolve is further heightened because many of our employees are now answering the call to duty.

Join us in honoring our colleagues who were on active or Reserve duty in FY10.

Jessica E. Andrews
Shermeen S. Baig
Andre V. Baith
Steven M. Cowden
Daniel R. Curry
Timothy C. Dabbs
Peter J. Demko
Daniel A. DeVos
Kevin P. Duff
John E. Forte
David R. Gillie
Timothy S. Gilson
Kevin D. Hillegas
Gregory M. Jablunovsky
Kaete L. Kauffman
Daryl S. King
David-John, Leventhal
Robert C. Williams

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Consolidated Financial Highlights

CTC and its Affiliates ended Fiscal Year 2010 (FY10) with continued growth from several perspectives. The graphs below depict a few of the financial highlights that CTC experienced at the close of FY10.

CTC ended FY10 with 142 new contracts. These new contracts represented a total gross value of $591 million, exceeding the total gross value from new contracts in the prior year by $223 million.
In Memoriam

Congressman John P. Murtha, 1932–2010

A Lifetime of Service

Jack Murtha made a difference. A Congressman for 36 years, representing the 12th Congressional District that included Johnstown, PA, he was a champion for CTC, his district, and our nation. As we remember his life, we celebrate his accomplishments and pledge to continue to move forward in a manner that would make him proud.

In 1987, Congressman Murtha knew the nation needed an organization that could offer the Department of Defense and the defense-industrial base innovative new solutions—ways to build and dismantle ships, airplanes, and weapon systems that could be accomplished using environmentally friendly and affordable solutions that were technically based for long-term sustainability. Congressman Murtha knew that this mission could be accomplished cost-effectively outside of Washington, DC, in a place like Johnstown, where the cost of living was among the most affordable in the U.S. and the people possessed a strong work ethic.

The match worked.

Congressman Murtha provided the spark and support, and our employees did the rest. Today, we’re serving the nation from more than 50 U.S. and international locations.

With pride, we dedicate this annual report to the honored memory of Congressman John P. Murtha.

"You were put on this earth to make a difference."

– Congressman John P. Murtha
Putting ideas into action.

Concurrent Technologies Corporation (CTC) is an independent, nonprofit, applied scientific research and development professional services organization providing innovative management and technology-based solutions to government and industry. As a nonprofit organization, CTC conducts impartial, in-depth scientific and technology-based assessments and delivers reliable, unbiased solutions that emphasize increased quality, enhanced effectiveness, and rapid technology transition and deployment.

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