THE STORY OF TRUTH

VERITAS

August 2016

Taylor Cole

DARING DESIGNER

CONCEIVING CONTRACTS

The Corona standouts who stood it up

LASER FOCUSED

The strategic plan for technical direction

From the Editor THE STORY OF TRUTH

Welcome to the third issue of Veritas! We continue to receive tremendous response to each issue, reaching more readers than ever. Our last issue more than quadrupled internal online engagement than the prior issue, and readers accessed the external online link more than 450 times. More and more, external readers and Corona alumni tell us how much they enjoy the magazine and appreciate hearing our story.

This issue showcases some amazing talent we have among our ranks – both in our technical and business capability.

Managing editor Dave Annarino has written a fabulous profile on Taylor Cole, a brilliant mind that has advised the highest ranks of military leadership. The diverse aspects of Taylor Cole are something to behold, and I think you'll really enjoy learning more about our colleague and the significant contributions he's made in the Global War on Terror and for our command. We also have two online digital extras you'll definitely want to check out that give you a first-person, and first-dog, perspective of Taylor soaring.

While technical capability is our hallmark, we also have business capabilities – finance, legal counsel and contracting – that have their own stand-outs.

As any newcomer can attest, contracting with the government can be complicated and difficult for those not versed in the myriad of federal laws and regulations governing it. Establishing a contracting capability can be equally difficult, especially when you've never done it before. In 2009, our lean contracts team launched and overcame major challenges while charting new territory as they set sail into the journey. Our team did it with aplomb, earning high praise in the process and establishing Corona as a full acquisition command for the first time in our history.

Photo by Peter Hurley

Speaking of history, we've added a new feature, The History of Truth, which will highlight the incredible legacy our command has in its treasure chest. Our new command archivist, Aida Cuevas, will be bringing that history to life and she unearths stories from our archive.

While he didn't come from the archive, our legal counsel, Sam Frazer, is a retired Army colonel, who came to Corona as an Army Reservist and retired three years ago, following his final active duty deployment – to the battlefield of Afghanistan. Sam appears in our other new feature, called Profile of Truth. Sam was an Army pilot turned Army attorney turned Navy civilian attorney. Now, he is our legal eagle and guides our command with expert advice, in both military and civilian law, and recently swore in his son as a Navy officer, which should make an interesting situation for the Army-Navy game in December!

I certainly hope you enjoy this issue as much as the last. I think it's our best yet!

We are Corona. This is our story. Please share it.

THE STORY OF TRUTH
VERITAS

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WASHINGTON (June 30, 2016) Capt. Stephen H. Murray, commanding officer of Naval Surface Warfare Center (NSWC), Corona Division, delivers a command overview presentation during a Tech Demo event at Naval Sea Systems Command (NAVSEA) headquarters. The Tech Demo provided an opportunity for NSWC Corona to showcase its full spectrum of capabilities to NAVSEA program offices and directorates.

If you have a question for the CO, send an email to the editor at troy.clarke@navy.mil.

Talent! During onboarding, I challenge our new employees to become the best at what they do. We have so many examples across the Command of folks doing just that. I am amazed every day at the talent, level of knowledge and commitment of the military personnel, government civilians and contractors who execute our mission in support of the Navy and Marine Corps team. I've been so proud to see that talent recognized through both a greater number of awards from sponsor organizations and increased tasking from those same sponsors.

We highlight the Contracts department in this edition. With our recent growth, many onboard may not remember when Corona did not have its own contracting capability. In just seven years, Corona has received its own contracting warrant and built a very talented team of contracting professionals. That team recently completed their triennial Procurement Surveillance Program audit with outstanding results.

Talent only gets us so far in the execution of our mission. Teamwork is equally important. We can only succeed when all seven departments mesh together. Our technical departments execute the work our warfighters need. Comptroller, Contracts, and Corporate Operations enable that work to happen through execution of their missions. It has been a pleasure to watch the talent grow in all of our departments in my time onboard.

I continue to be amazed at what the Corona team can accomplish. I see no challenge too great for us! Keep up the great work!

Captain Steve Murray
Commanding Officer
Naval Surface Warfare Center, Corona Division

WELCOME ABOARD

NORFOLK, Va. (June 27, 2016) New Naval Surface Warfare Center (NSWC), Corona Division employee Brian L. Cochran. Cochran joins Performance Assessment Department as a technician. (U.S. Navy photo)

NEW HIRES *June 13 - July 25, 2016*

13 June

AR13	Laura Cawood
PA31	Crystal Currier
MS11	Jesse Molina
AR16	Johnathan Osborne
RS13	Travis Tierno

26 June

MS12	Troy Carpenter
104	Quincy Caston
RS13	Debora Chavez
PA02	Brian Cochran
PA44	Jaun Egas
AR11	Victor Garcia
RS14	Shane Owens
RS24	Lindsay Stone
PA03	Steven Weinrich

11 July

MS32	Cassidy Bevington
AR17	Robert Caprara
AR33	Carlos Carrillo
RS31	Dean Garcia
RS31	Thien Hoang
00M3	Marcus Jesses
AR12	Shehan Kahanda
PA11	Moriah Langley
RS11	Chu-Hwa Lee
AR17	Danielle Mavridis
1016	Darla Sutton
AR12	Daniel Swann
AR15	David Tat

25 July

MS11	Lawrence Azevedo
AR17	Marcos Barrera-Castrejon
RS14	Mark Dearmas
AR32	Lijuan Liu
AR12	Noemi Mendoza
PA41	Charles Morton
AR16	Jason Ramirez

FY16
Hiring to Date: 147
Hiring Goal: 189

BRAVO ZULU

Thompson-Ravitz Award

TROY CLARKE *Public Affairs Officer*

The Navy's Thompson-Ravitz Award bears the names of Rear Adm. William Thompson, the first designated public affairs officer selected for flag rank and served as the Chief of Information and Rear Adm. Robert Ravitz, a former director of the Naval Reserve public affairs program and special assistant to the CHINFO. In June, NSWC Corona received a Thompson-Ravitz award for "Triangulating for Success: Showcasing the NAVSEA Experience at AFCEA West." On a special request from then - NAVSEA Commander Vice Adm. Hilarides, NSWC Corona led NAVSEA Headquarters public affairs, the Regional Maintenance Centers, the Naval Shipyards and the NAVSEA Warfare Centers to successfully plan and execute the debut of NAVSEA's booth at the Armed Forces Communications and Electronics Association/U.S. Naval Institute West 2015 trade show. Notably, this most recent award is the seventh Thompson-Ravitz award in a row across various categories for the command – an unprecedented winning streak across the Department of the Navy – making NSWC Corona the most awarded command in the Navy for excellence in public affairs. Last year, NSWC Corona also received the T-R Best in Show Award for "Better Together – Harnessing a Navy lab for Innovation and Growth."

"I'd also like to recognize the sustained excellence of one of our repeat winners: Naval Surface Warfare Center, Corona has submitted award-winning entries for seven consecutive years!"

– Rear Adm. Dawn Cutler
Navy Chief of Information

COMMAND ARCHIVE *The History of Truth*

My name is Aida Cuevas, and I am the new command archivist.

My passion for history started at a very early age. But it wasn't until I walked into the Seaver Center at the Natural History Museum of Los Angeles County that I became fully aware just how deep that passion really was. At that moment, I realized that, not only did I want to preserve the past, but I wanted to share it with others.

I've dedicated my career to preserving history, and I'm excited to help tell Corona's story. Although I've only been working here for a few weeks, what I've discovered is nothing short of amazing. I'm even more excited to share it with you. In the coming months, I will continue identifying, organizing, and preserving artifacts that paint a picture of our command's rich heritage. These discoveries will be used in a variety of ways, including sharing them with you in my new column, History of Truth.

Please help me continue our storied legacy by donating any of your papers, photographs, mementos or artifacts to the archive. By doing so, you will become part of the collective memory of this great institution – and your items might even be highlighted in a future issue of Veritas!

Aida Cuevas

A U.S. Navy F-4J Phantom from Fighter Squadron 21 (VF-21) "Free Lancers" launching an AIM-7 Sparrow missile. VF-21 was assigned to Carrier Air Wing 2 aboard the aircraft carrier USS Ranger for a deployment to Vietnam from October 14, 1969 to June 1, 1970

AIM-7E-2 SPARROW III

Guidance System Number R11641-b-2

The AIM-7E-2 Sparrow III Air-to-Air missile was developed in the early 1960s by the U.S. Navy as a medium range, radar-guided missile. The range of the Sparrow gave pilots the ability to engage targets beyond visual range. When the AIM-7E version of the Sparrow was deployed for the Vietnam War, the rules of engagement that the pilots had to follow did not allow pilots to fire at targets they had not visually identified, meaning Sparrow engagements happened at short ranges. Because of this, the Sparrow was updated to give it better short-range performance, and this version known as the "dogfight Sparrow" was designated the Sparrow AIM-7E-2.

Our featured artifact is a seeker head section of a Sparrow III AIM-7E-2 missile. This version was introduced in 1969 and this seeker head came from a very early version of the missile being accepted by the Navy in December 1968. This missile was delivered to NWS Concord in California in July 1969 where it was tested and deemed fit for duty before it was shipped out to the USS Constellation in September of the same year. Constellation deployed on her fifth combat tour to Vietnam and spent time on Yankee Station as well as a brief stint in the Sea of Japan. The missile was put on numerous flights during this tour but was taken out of use on Jan. 11, 1970, due to an issue with the seeker head.

The missile was returned to the states where it was checked out and repaired at Naval Air Rework Facility Alameda. After it was repaired, the missile was sent to China Lake. Sometime in the 1970s, the missile was sent to NSWC Corona which was operating under the Fleet Missile Systems Analysis and Evaluation Group name at the time. Here it was planned to be used to develop a test unit that would play information into the Seeker Head and then the results of how the missile responded could be recorded and compared to what the missile was supposed to do. However, the Air Sparrow branch that was handling the development of this technology closed before it could be finished and the missile was handed over to the Sea Sparrow branch, Self Defense Branch today.

Here, the missile was used for a learning tool for flight analysis classes. When the branch moved into the Joint Warfare Assessment Lab in the 1990s, the branch could not store the whole missile and thus all but the seeker head and this test stand were discarded. When the branch moved again into the Daugherty Memorial Assessment Center in 2009, the seeker head was removed from service with the branch and set aside for inclusion in the NSWC Corona archive.

AIM-7E-2 Sparrow III Guidance System Number R11641-b-2 from the NSWC Corona Archive

Annual EMPLOYEE PICNIC and 5K Run

Lissa Velasco, right, fills a plate with food for her sons during annual Corona Division annual Employee Picnic and 5K Run. The event included barbecue hamburgers and hot dogs, sides, assorted baked goods and beverages.

Competitors, including Ed Corpuz, checking his watch, left, Lee Howder and Operations Specialist 2nd class Chris Hala take off during Corona Division 5K Run before annual Employee picnic.

Competitors in the adult trike race leave the starting line during Corona Division annual Employee Picnic and 5K Run.

NORCO, Calif. (July 16, 2016) Children scamper up the climbing wall during annual Naval Surface Warfare Center (NSWC), Corona Division Employee Picnic and 5K Run. Activities included a climbing wall, double Monkey Motion jumper, jump houses and obstacle courses, Fun Olympics and various contests with DJ playing music throughout the day.

Participants in the water balloon toss throw balloons back and forth during Corona Division annual Employee Picnic and 5K Run.

CONCEIVING CONTRACTS

The Corona standouts who stood it up

by Marlowe Churchill

(Jan. 24, 2012) Corona Division Command Contracts Manager Sean Foley, left, and Contracting Officer Charles Sam Rainwater participate in "Doing Business with the Government" program at Corona City Hall.

Despite its technical excellence, it's hard to imagine that NSWC Corona not long ago was considered a "backwater," a remote place that needed help from other agencies just to get the job done.

Need new computers? Send requests to Fleet Logistics Center, San Diego or Port Hueneme Division. Need more help? Get in line.

Back then, Corona didn't have a full-fledged Contracts Department.

Fast forward to today. Dr. William Luebke, former Corona Technical Director and now NSWC Port Hueneme TD, thinks the department should be nominated for the prestigious David Packard Excellence in Acquisition Award, given to the top Department of Defense agency with the most innovative acquisition practices.

A recent Naval Sea Systems Command inspection gave Corona high marks for contract acquisition practices, Luebke said.

Still Acting TD at Corona until a new TD is hired, Luebke remembers his first impressions in 2009 when he became Corona's TD. He wondered, how can you have this sought-after technical capability, with growing demand, yet have no contracting office to keep pace?

"When I first got here, we were nearly fully dependent on other organizations to do our contracting. Port Hueneme Division was a major player. Our shop was two or three people. My concern was how in the world are we going to get to world-class status, and, if and when we do that, get us to surge?"

Before there was a Contracts Department, Corona depended primarily on Port Hueneme to oversee a single massive contract – an omnibus contract competitively won for years by a large prime contractor. The process was cumbersome, inefficient and left some Corona departments questioning if they could fulfill work before funding was exhausted and contractors possibly had to stop working. Some departments sought help from Fleet Logistics Center, San Diego, to solve critical issues. Corona found itself so reliant on others to issue contracts that it often found itself waiting in line for help.

Corona also relied on others to make essential purchases – from toilet paper to expensive computer equipment. Some actions took up to three or more months to complete.

"It was very apparent to me that we had to take charge of our future," Luebke said. So he met with Sean Foley, Sam Rainwater and Dan Deconzo, Contract's original team members, to map out a strategy of convincing NAVSEA leadership to award small warrants at first, then show Corona could be trusted with bigger contracts.

"We earned some of those small warranting numbers. We hit it out of the park," Luebke recalled.

The staff began growing.

Soon, the new department began hiring business specialists and obtained talented college interns to help with the expanding workload as more and more small contracts were awarded in place of the giant single contract.

The impact was huge with "new blood" – many with graduate degrees and prior military service – coming aboard. "We had tons of success with interns," Rainwater said.

Splitting the omnibus contract into 16 smaller contracts opened the door for competition, efficiency and cost savings. In the first three years, federal small business policies enabled Deconzo to fast-track contracts to small firms, accelerating the award timeline and driving down costs to the command in excess of $20 million.

In so doing, Corona puts its signature stamp of excellence, renowned in the technical world, on a vital part of an acquisition command.

"Corona's story is one that truly, through perseverance, through really hard work, bringing in the talent, taking care of that talent, has gone from a backwater, single-shop center to a multifunctional organization. Corona now is known far and wide for work being done here. I would say, as an organization, Corona is doing what it does best, it's the real deal as its own entity," Luebke said.

From backwater shop that relied on Port Hueneme Division, Corona now has assumed responsibilities for Port Hueneme.

Luebke paid Foley, Rainwater and Deconzo his ultimate compliment for their groundbreaking work.

"Their pictures are on my piano!" he said.

Rainwater said the long haul to transform Corona's contracting issues is hard to comprehend, because it began with so much to do with so little resources – and without a roadmap to follow. "We had to be on a level playing field with everybody else." Today, 42 contracting personnel have taken over an entire building and expect their numbers to increase to about 50 before too long, he said. Rainwater, contracts division chief who started out as a contractor in 1978, commends Foley for his leadership.

"If it weren't for Sean Foley," Rainwater said, "this would not have happened. If we failed, the whole experiment would be tossed out the window. We had zero. But little by little, we started to take in more work." Currently, they oversee, produce and administer 939 contracting actions – from nuts and bolts to vital air training range operation support – obligating $164 million during the last fiscal year. The department also has Contracting Officer Representatives working for the command to ensure all government rules are followed and that there are no irregularities in contracts.

The CORs maintain a scorecard that rates the contractors on compliance to DoD, NAVSEA and Corona regulations, making it transparent that no irregularities will be overlooked, Rainwater said. The Procurement Surveillance Program that keeps watch on contracts and expenditures is one of NAVSEA's best, added Luebke, and the Contracts Department was recently commended in an inspection.

In fact, Gisela Aguilar, an acquisitions liaison and COR Certifying Manager, has been just named an Employee of the Quarter for her leadership in enhancing Contract's internal website and spearheading the development of the COR scorecard system.

Foley recommended Aguilar for the award, stating she "champions teamwork and cooperation throughout the enterprise ensuring that all phases of the acquisition process produces work at an exceptional quality level."

The acquisitions warrant has created new horizons for Corona to reach out to local businesses and issue contracts for work on base and within the command.

NORCO, Calif. Dan Deconzo, Corona Division small business deputy, holding microphone, moderates panel discussion during Industry Partnership Forum at Norco College.

Deconzo, who oversees the outreach to small businesses, describes the past seven years as the "Corona miracle."

Deconzo said he now has a partnership with Riverside Community College as it networks with area chambers of commerce and the business community. That partnership serves as a conduit to steer small businesses to Corona. He now has hundreds of small businesses to consult as contracts arise.

Looking back, Deconzo said Corona is considered by NAVSEA and sister warfare centers as "the golden child. We're the little train that could. We are the Corona miracle."

V

Taylor Cole

DARING DESIGNER

A glimmer of morning rises through evergreen trees along slopes of weathered granite, as rays of California orange expose the red clay rooftops of neatly groomed rows of American dreams. Above it all, perched proudly above the charming town of Rancho Cucamonga, rests the beauty and grandeur of Cucamonga Peak.

“I had always looked at Cucamonga Peak and knew one day I wanted to fly it,” says Taylor Cole, as he sits on a plane to his next adventure. Fly it, he would.

Far from home, jet engines vibrate Taylor's seat at 35-thousand feet in the air, as he recalls his last 35 years of life. He shares photos of his four-year-old daughter and talks about the business she inspired to bring children's books to life through light and sound. He chats about piloting planes and the joy it brings her each time they brush the sky. A grin appears when he recalls the time he became a finalist on the game show “Wipe Out,” and how he loves to cruise through the streets of Los Angeles on his banged-up unicycle. Taylor flips through image after image, story after story – of risk and reward, calculation and chance, passion and success – of a life he designed.

“It's easy to misunderstand me and see a person that is all over the place. I just don't see it that way,” says Taylor.

Along the way, Taylor has adopted many skills and talents. One, in particular – skydiving and BASE jumping – runs through his veins. He has jumped from planes, buildings, towers and cliffs more than a thousand times. In June, his team “Too Wrapped Up” took gold in the four-way canopy formation in Lake Wales, Fla. at the National Parachuting Championships. In the province of Chongqing, China, Taylor leapt from the world's largest glass-bottom skywalk, 2,300 feet over the Yangtze River, for a televised audience of a million. More than a thousand times, he has taken the leap of faith armed with nothing more than a pack on his back, smile on his face, and battle cry of “Yeah buddy!” Taylor Cole

by David Annarino

MOAB, Utah (November 23, 2007) Corona Engineer Taylor Cole jumps at “Turkey Boogie” a casual gathering of BASE jumpers from around the world over Thanksgiving weekend. Taken from an exit point called “Millers Walk” near Mill Creek, it was Taylor’s 134th BASE jump. This image also appeared on the cover of Skydiving Magazine. *Photo by Chris Bazil*

is considered one of the top BASE jumpers in the world, showered with sponsors. And that's just the beginning.

Most of his mornings actually begin with two feet on the ground. As Taylor approaches the front gate of Naval Surface Warfare Center Corona, he puts on his engineer's hat and joins the thousands of other like-minded innovators who have passed through the same turnstiles in support of the warfighter. Taylor began working at Corona in 2003, with a bachelor's in mechanical engineering from the University of California, Riverside. "I started in Force Training as a range guy working electronic warfare systems," he says. "I loved this job as

FORT IRWIN, Calif. (July 21, 2010) Naval Surface Warfare Center (NSWC), Corona Division, Engineer Taylor Cole, left, describes counter-improvised explosive device (C-IED) efforts of NSWC Corona Performance Assessment Department engineers to NSWC Corona Commanding Officer Jay Kadowaki, right, as West Point Cadet/NSWC Corona summer intern Geoff Hewitt, center, looks on. Capt. Kadowaki observed first-hand his command's support of Brigade Support Team (BST) during mission rehearsal exercises and met with key Joint Improvised Explosive Device Defeat Organization's (JIEDDO) Joint Center of Excellence (JCOE) personnel.

a younger engineer but wanted more." That passion for success brought him back to UCR where he completed a master's in fluid mechanics, opening new doors for the ambitious engineer.

"I was working in the STILO (Scientific & Technical Intelligence Liaison Office) in the last year of my master's when Rear Adm. Macy's call came out for anyone to help with IEDs (Improvised Explosive Devices). I stayed up all night writing a paper I called 'Seams Analysis' which laid out a plan to predict the patterns of IEDs." That paper got the attention of Dan Bergstrom, head of Corona's Performance Assessment Department.

"This analysis was unlike any T&E (training and engagement) we had done," says Bergstrom, "but once I observed the application with Marines, I knew Taylor had something powerful."

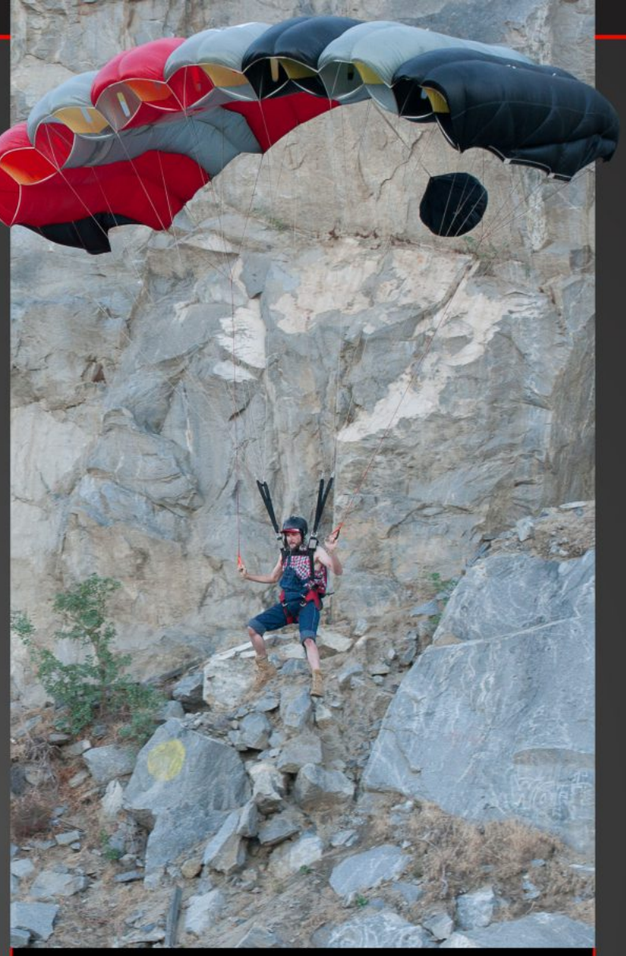
Taylor's passion for problem-solving led to a new role as tactical mathematician at the National Training Center in Fort Irwin, California, where he joined an eclectic team of mathematicians, engineers, physicists and programmers to combat IEDs during a time when they were most devastating to troops. This was the beginning of Taylor's work with ORSA – Operations Research Systems Analysis. "We invented positions that exist today, like data linguist," he says.

At the NTC, Taylor's creativity shined. One night, he devised a plan to track a convoy using the cover of darkness. The next day, after the troops returned from training, he analyzed their movement patterns. "That's when they said, Taylor, we want to try something, and they sent me out to Fort Stewart. There, we came up with another method to help troops on the battlefield."

With a process refined, he flew to Fort Polk, La., where things took a turn. "You know, we're just doing the same thing we normally do, training these guys. In the first week, they found all of the IEDs and captured all the bad guys."

Impressive to most, it didn't sit well with one, says Taylor. "The planner for Fort Polk came out and chewed me out and said you just ruined training for 3,500 troops." That raised the eyebrows of some top brass, including the current Secretary of Defense, who got wind of the issue during his visit. Sleep was lost that night, and the next morning, "they came in and talked to us, and I remember talking to Ashton Carter and he's like, so what happened? So we explained it to him and everybody pointed to me and said we predict human behavior. And he said, 'wow, we need to jump on this!" That conversation led to others, until the Army adopted the capability, including most Marine regiments, helping

RIVERSIDE, Calif. (September 19, 2015) Taylor Cole meticulously packs his rig in preparation for a base jump at the Riverside Rock Quarry. *Photo by Jeremiah Fishell*



RIVERSIDE, Calif. (September 19, 2015) Taylor Cole base jumps at the Riverside Rock Quarry. *Photo by Jeremiah Fishell*

to neutralize the threat of IEDs in combat zones.

The success of this project led to many others for Cole, including a four-month deployment. "When I was sent to Bahrain as the project lead, I was tasked by Rear Adm. Fanta to model specific ship movements," he explains. In addition, he completed analysis of Bahrain's IEDs and carrier interactions in the Strait of Hormuz.

When Taylor returned, he received several honors, including an invitation to a think tank discussing naval strategies and the Global War on Terrorism medal, a rare achievement for civilians, he says. "The way I was allowed to think has changed the way I see the world. I judge less, explore more, fight saying no, and smile more."

At the base of Cucamonga Peak, the rustling of packs and shuffling of feet break the silence of 3 a.m. as Taylor and his jumping buddies, Will Kitto and Matt Blank, begin their ascent up the mountain in darkness. For four hours, they climb in anticipation of a jump they say has never been attempted. At the summit, 8,800 feet in the air, they're greeted by the warm glow of morning and unspeakable views. "It looked like we were in a different world. I knew my house was somewhere out there but everything looked far more majestic and beautiful than it ever has from my house. It was stunning – a view that you just can't see from day-to-day living."

Getting down would require careful engineering.

"We trained almost every weekend to get our launches down as we didn't know what to expect. We took elevation maps and planned a path down the mountain that would be a shallower glide slope than what the Ozone XT16 (speed-flying rig) was capable of," says Taylor. "I was watching the winds non-stop knowing that 8,800 feet was going to be gnarly big air. We considered turbulence, weather, heat, density, altitude, speed and other factors. Everything checked out."

"It's a game of practice," says computer technician Will Kitto, friend and jumping partner, with a background in physics. "This idea that humans learn to fly involves a lot of thinking and statistics. Taylor has overcome a lot of challenges by thought and analysis of aerodynamics."

At Corona, thought and analysis became a driving force for Cole. Following a five-year stint as the project lead for ORSA and think-tank contributions, Taylor returned to Corona as Science and Technology Lead in the Range Systems Engineering department.

"A person is not a widget," says Taylor. "They don't simply fill the old gap in an organization because of what's on their resume. A person is everything that person does, everything they are passionate about, everything they dream about."

In 2016, he returned to his alma mater as a mentor, challenging future engineers to change the world. At UCR, he helped students complete their senior research projects, assigning them projects the Navy actually needs, including a low-cost desalination device, stabilized ocean buoy and self-sufficient shelter.

"Taylor is a dynamic and extremely out-of-the-box thinker," says Arman Hovakemian, Corona's chief technology officer. "This office is fortunate to have him and his disruptive thinking helping us engage the universities and their students in our STEM outreach programs."

The first student project tackled the global issues of water shortages and rising energy costs, by designing an affordable desalination process. "Saving energy and producing clean water is a tactical issue for the Navy," says Dr. J. Paul Armistead, Office of Naval Research

program officer, in an ONR news release.

Currently, desalination requires massive amounts of energy. Nuclear submarines produce fresh water using their engines to heat ocean water. Taylor's students opted for a process called thermocline driven desalination, using the ocean's natural thermal gradient to drive water production and minimize energy consumption. In their design, warmer water from the ocean's surface is atomized into a low pressure chamber where the difference in saturation temperature causes flash evaporation of water vapor from the seawater. The vapor then moves into a second chamber where it is chilled by cooler water from the ocean depths, finally condensing into distilled water. The final test produced a trickle of fresh water.

The second group of students attempted to improve ocean buoy technology, for which the Navy has multiple uses, including tracking and targeting. They designed a dynamically stabilized ocean buoy, equipped with a cylindrical hull and small propeller, able to withstand waves as high as three feet and move to a prescribed location using a motorized propeller.

Taylor's final two groups engineered an extreme weather shelter capable of operating in sub-arctic temperatures and desert heat. Powered by solar and wind turbines,

NORCO, Calif. (July 12, 2016) Taylor Cole, Left, describes the path he took to become an engineer as Arman Hovakemian, chief technology officer and Doug Sugg, cybersecurity lead, look on at Corona Division during briefing for participants in the Materials Connection Research Experience for Undergraduate summer program at University of California, Riverside (UCR).

with lead batteries to store energy and thermoelectric cooling plates to keep humidity stable, the shelters could power and maintain computer servers inside – at $102,000 a pop – in theory. "Think how much money could be saved with a shelter that can operate for a full year," says Taylor.

Taylor has had several jumping partners over the years, but his dog, Slurpee, holds a special place. At just one week old, Taylor discovered the puppy abandoned in a trash can with cigarette burns down her back and whiskers burnt off. Tough as nails, she made a full recovery, and the adopted pet began joining him on his many adventures. Slurpee loved to watch Taylor BASE jump – following him to the top, supervising the leap, and then rushing back down to greet him. In her 12 years, Slurpee has "jumped" 250 times and shows no signs of slowing down.

Corona's Bergstrom says the students' ideas were imaginative and gave his staff ideas they hadn't considered. "They had a unique approach to problem solving," he added.

For Taylor, witnessing that passion for the Navy was a pleasure, "I absolutely love working for the military. I am hugely patriotic and the work we do can be so helpful. Doing math to save a life or kill a bad guy is a highlight."

As Taylor reflects on life and career, thoughts of family are not far behind. "I'm always learning as a father. I love it. I want so badly for my daughter to have a drive for life and adventure that blows my views out of the water. She can do this with anything she decides to be."

Taylor chose to be an engineering, skydiving, BASE-jumping, paragliding, reality TV, thrill-seeking entrepreneur, pilot father. "I used the math from my degree to predict bad guys in war, to scout BASE jumps, and to find seams or gaps in rules," he says.

And with that, the word "breathtaking" leaves his lips, as he looks out over the horizon from the top of Cucamonga Peak. With the warm sun at his back, standing at the edge of what feels like the top of the world, Taylor looks down… takes a deep breath… and jumps.

No words can describe the next six minutes, as a steady gush of wind carries him away.

Serenity – and the occasional "this is epic" – paint the sky. Ripples of canvas gently shutter as the grace of the elements propel him across the earth.

Eight-thousand feet becomes six … Five becomes four … Three becomes two … Until his feet brush the dirt. Planted firmly on the ground – for a moment – landing within feet of his car, Taylor collects his rig, nods to his friends, and drives off to meet his family for breakfast.

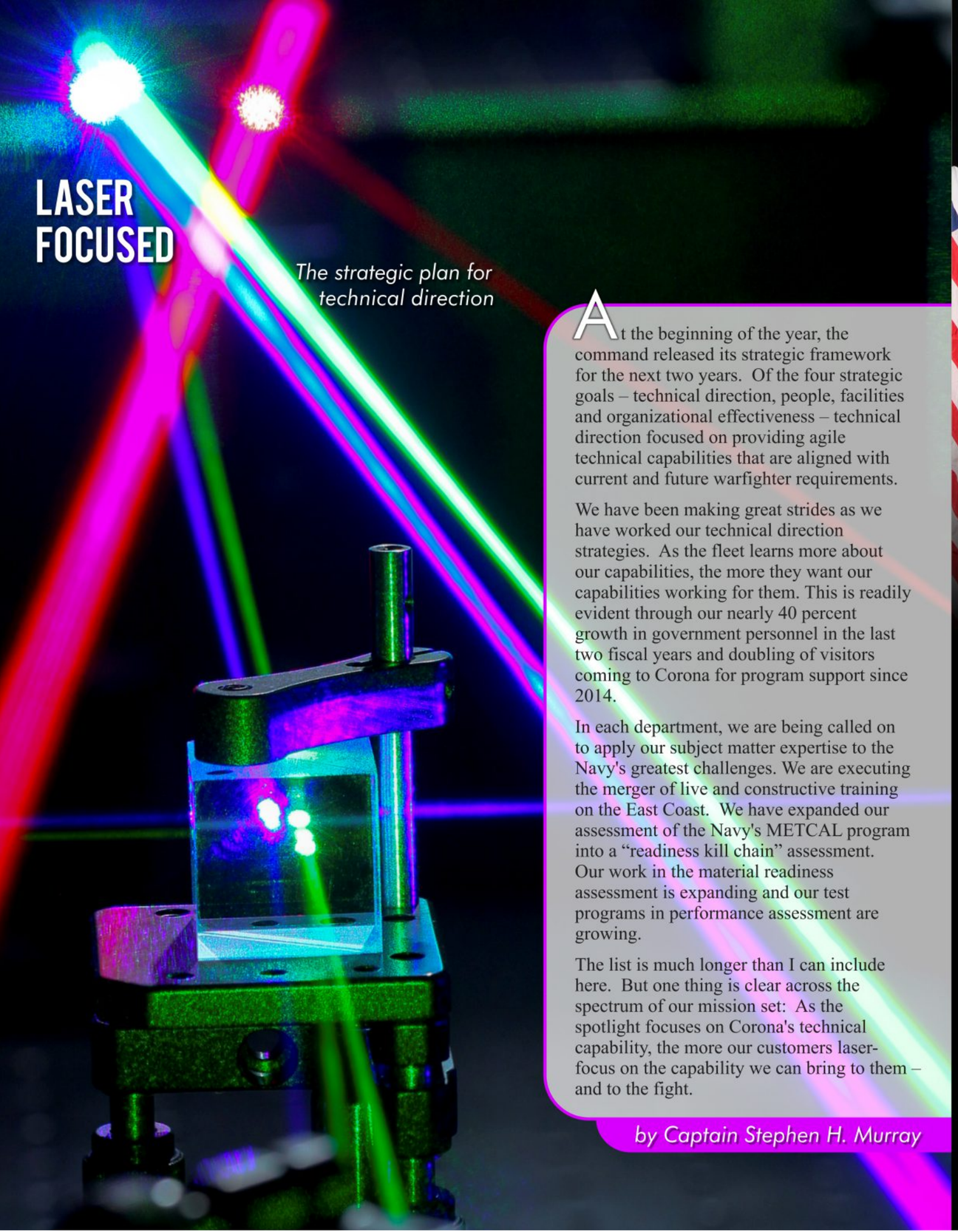
If the sky truly is the limit, how high must Taylor fly to reach his?

"You can see so much more beauty in the world than what's inside your cubicle," he says.

Stay daring, Taylor Cole.

"A person is not a widget," says Taylor. "They don't simply fill the old gap in an organization because of what's on their resume. A person is everything that person does, everything they are passionate about, everything they dream about."

NORCO, Calif. (July 14, 2016) Taylor Cole wearing his USA Parachute Team gear and medals he earned as a team member.



LASER FOCUSED

The strategic plan for technical direction

At the beginning of the year, the command released its strategic framework for the next two years. Of the four strategic goals – technical direction, people, facilities and organizational effectiveness – technical direction focused on providing agile technical capabilities that are aligned with current and future warfighter requirements.

We have been making great strides as we have worked our technical direction strategies. As the fleet learns more about our capabilities, the more they want our capabilities working for them. This is readily evident through our nearly 40 percent growth in government personnel in the last two fiscal years and doubling of visitors coming to Corona for program support since 2014.

In each department, we are being called on to apply our subject matter expertise to the Navy's greatest challenges. We are executing the merger of live and constructive training on the East Coast. We have expanded our assessment of the Navy's METCAL program into a "readiness kill chain" assessment. Our work in the material readiness assessment is expanding and our test programs in performance assessment are growing.

The list is much longer than I can include here. But one thing is clear across the spectrum of our mission set: As the spotlight focuses on Corona's technical capability, the more our customers laser-focus on the capability we can bring to them – and to the fight.

by Captain Stephen H. Murray

A DAY IN THE LIFE OF CORONA

Any given day, Corona is around the world making a difference for the warfighter and programs we serve.

AROUND THE WORLD *Wednesday, June 22, 2016*

Yuma, Arizona
Coronado, California
Port Hueneme, California
San Diego, California
Washington, DC
Jacksonville, Florida
Honolulu, Hawaii
Kaneohe Bay, Hawaii
Scot AFB, Illinois
Bloomington, Indiana
Lihue, Kaui
Columbia, Maryland
Patuxent River, Maryland
Pittsfield, Massachusetts
Fallon, Nevada
Wharton, New Jersey
Philadelphia, Pennsylvania
Newport, Rhode Island
Charleston, South Carolina
Salt Lake City, Utah
Arlington, Virginia
Dahlgren, Virginia
Quantico, Virginia
Wallops Island, Virginia
Utrecht, Netherlands
Kaoshsiung, Taiwan

JUNE 14

NORCO, Calif. Machinist's Mate Fireman Danielle Lukosus, left, and Logistics Specialist 2nd Class Sade Webb, assigned to Naval Surface Warfare Center (NSWC), Corona Division, raise national ensign during morning colors. According to Library of Congress' website, each year Flag Day marks the approval of the stars-and-stripes design of the U.S. Flag by the Continental Congress in 1777. Flag was lowered to half mast in remembrance of victims of the Orlando, Fla. nightclub attack.

JUNE 15

NORCO, Calif. (June 15, 2016) Payal Kamdar, VSolvit CEO, Melissa Huyck, Corona Division Measurement Science Department contracts/acquisition lead, and Eduardo Corpuz, Measurement Science Department operations manager, chat during Industry Partnership Forum at Norco College. The event included a forecast of Corona future contracting/subcontracting opportunities as well as a series of meet-and-greet sessions for suppliers to network with technical department personnel.

JUNE 16

NORCO, Calif. Louis Otero, Anti-Terrorism and Force Protection officer, left, briefs participants in the Facility Command Center as Emergency Management Continuity of Operations tabletop exercise gets under way at Corona Division. Command leadership participated in an earthquake drill to ensure they are able to continue to perform essential functions in the event of a disaster. (Badges edited for security purposes.)

JUNE 30

WASHINGTON Corona Division engineers Ray Ward, right, and Victor Garcia chat with Brian Liska, a chemical biological and radiological (CBR) defense engineer, during a Tech Demo event at Naval Sea Systems Command (NAVSEA) headquarters. The Tech Demo provided an opportunity for NSWC Corona to showcase its full spectrum of capabilities to NAVSEA program offices and directorates.

JULY 12

NORCO, Calif. A student examines a headspace gage for a M-16/M-4 rifle during tour at Corona Division for participants in the Materials Connection Research Experience for Undergraduate (MACREU) summer program at University of California, Riverside. Corona's support of student enrichment programs aligns with the Navy's strategy to inspire, engage and educate the next generation of scientists and engineers.

PROFILE OF TRUTH *Legal Eagle*

Sam Frazer serving an eight-month deployment to Afghanistan in 2013.

At NSWC Corona, Sam Frazer and his legal team are prepared for any challenge that awaits.

"Any issue that walks in the door. Labor law, any security issue," says Frazer, a retired Army colonel who has been legal counsel since 2012 and began work at Corona in 2005.

A graduate of St. Mary's College in Moraga, Calif., Frazer was commissioned into the Army in 1976 and served on active duty as a helicopter pilot, then changed careers to law after getting his degree from the University of Houston's School of Law. He retired from the military after 37 years of service, including an eight-month deployment to Kabul, Afghanistan, in 2013.

Frazer often thinks about his last deployment to Kabul. Not all was deadly serious there, despite his mission to root out corruption and deal with the threat of the Taliban. He found the city fascinating in its rich historical background, as well as its cuisine and culture.

As a senior officer, Frazer was entitled to a car and driver. But he said the thought having a driver was a waste of valuable resources, so he drove himself and even helped shuttle around soldiers. "It was just like picking up the kids as an O-6," he laughed. "I loved Kabul. It was an eccentric city."

Frazer and his wife have four children – two of them followed in his footsteps. In 2015, he administered the oath during the commissioning of his son, Brent, now an ensign serving in the Navy, and his daughter, Elizabeth, is an Army combat medic. "I did not push them into their military careers," he says.

Today, Frazer and his legal team provide guidance and service to Corona's nearly 1,500 employees. "We keep an open door policy," he says.

He also follows a very simple but effective rule, "It's much easier to prevent than to fix."

POINT OF TRUTH:

"The truth is incontrovertible. Panic may resent it, ignorance may deride it, malice may distort it, but there it is."

WHO SAID IT?

ON WATCH *for Upcoming Events*

August 25	CMWR Monthly Mixer, Lake Norconian Club Conference Center, 4 to 9 p.m.
September 15	Hispanic Heritage Month, Honoring Our Heritage, Building Our Future
September 16	POW/MIA Recognition Day, Fulfilling Our Nation's Promise
September 17	Constitution Day, Life, Liberty, Freedom, Prosperity
October 5-6	STEP Conference, Bourns Technology Center, 9 a.m. to 3 p.m.
October 6	Riverside College and Career Fair, 5 to 8 p.m., The Galleria at Tyler
October 14	Inland Empire Navy Birthday Ball, Riverside Convention Center, 6 to 11 p.m.
November 5	Public Visitation Day, NSWC Corona, 10 a.m. to 2 p.m.
December 7	Pearl Harbor Remembrance Day, 10 a.m. to 12 p.m.
December 16	75th Anniversary Celebration, Lake Norconian Club Conference Center, 2 to 3:30 p.m.

GOT FEED BACK ?

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Please tell us what you liked in this issue or what you would like to see in upcoming editions
email Troy Clarke: troy.clarke@navy.mil or David Annarino: david.annarino@navy.mil