THE STORY OF TRUTH

VERITAS

June 2016

PATENT POWER

at the Pentagon

Bravo Zulu: JERRY HAYES AWARD

Vinny Capobianco

Battle of MIDWAY
The Turning Point

Welcome Aboard
New Hires!

Gary Lunt

From the Editor **The Story of Truth**

We've received a tremendous response to the premiere issue of our monthly periodical and greatly appreciate the feedback our readers have provided.

This issue, we're introducing a new element where we'll highlight exceptional quotes characterizing the nature of truth, the foundation for our mission. Point of Truth will be an interactive feature, encouraging you to do some research to find out who's the source. The first source will be given to illustrate some interesting analogies outlined below.

POINT OF TRUTH:

"We hold these truths to be self-evident.... To prove this, let Facts be submitted to a candid world."

-The Declaration of Independence

As our Founding Fathers gave birth to our nation with the Declaration of Independence, they later established our country with the Constitution. Article 1, Section 8 of that masterpiece provides the foundation for our Navy, as well the weights and measures standards our Measurement Science Department uses every day. So it is entirely fitting that the Declaration be our first Point of Truth since it parallels our command's birth of independence. When the Secretary of the Navy established us in 1964, we became independent of the programs and systems we assess – and I think you'll find remarkable similarities between our nation's founding and that of our command.

While we didn't need a revolution to separate us *from* the Navy, we did need revolutionary thinking to separate us *within* the Navy. We owe our first technical director Aaron Powers and Vice Adm. Eli T. Reich for their wisdom and courage in establishing us as the Navy's independent assessment agent. If you've read Chief of Naval Operations Adm. John Richardson's Design for Maintaining Maritime Superiority, you'll see how much future Naval strategy relies on assessment to advance our Navy's capability to maintain our dominance in the maritime domain. It's amazing to see how the vision of independent assessment remains more relevant than ever, much like the vision our Founding Fathers had 240 years ago.

Photo by Peter Hurley

Speaking of Founding Fathers, be sure to check out the story on the very first award that pays tribute to the Founding Father of the Navy's measurement science and calibration program, Jerry Hayes. Interestingly, it was Aaron Powers – a Founding Father of independent assessment – who hired Jerry Hayes almost a decade before our command was established. Both visionaries have impacted the Navy in amazing ways that continue to this day.

I certainly hope you enjoy the story that follows. Please continue providing us your feedback to improve future editions.

We are Corona. This is our story.

THE STORY OF TRUTH

VERITAS

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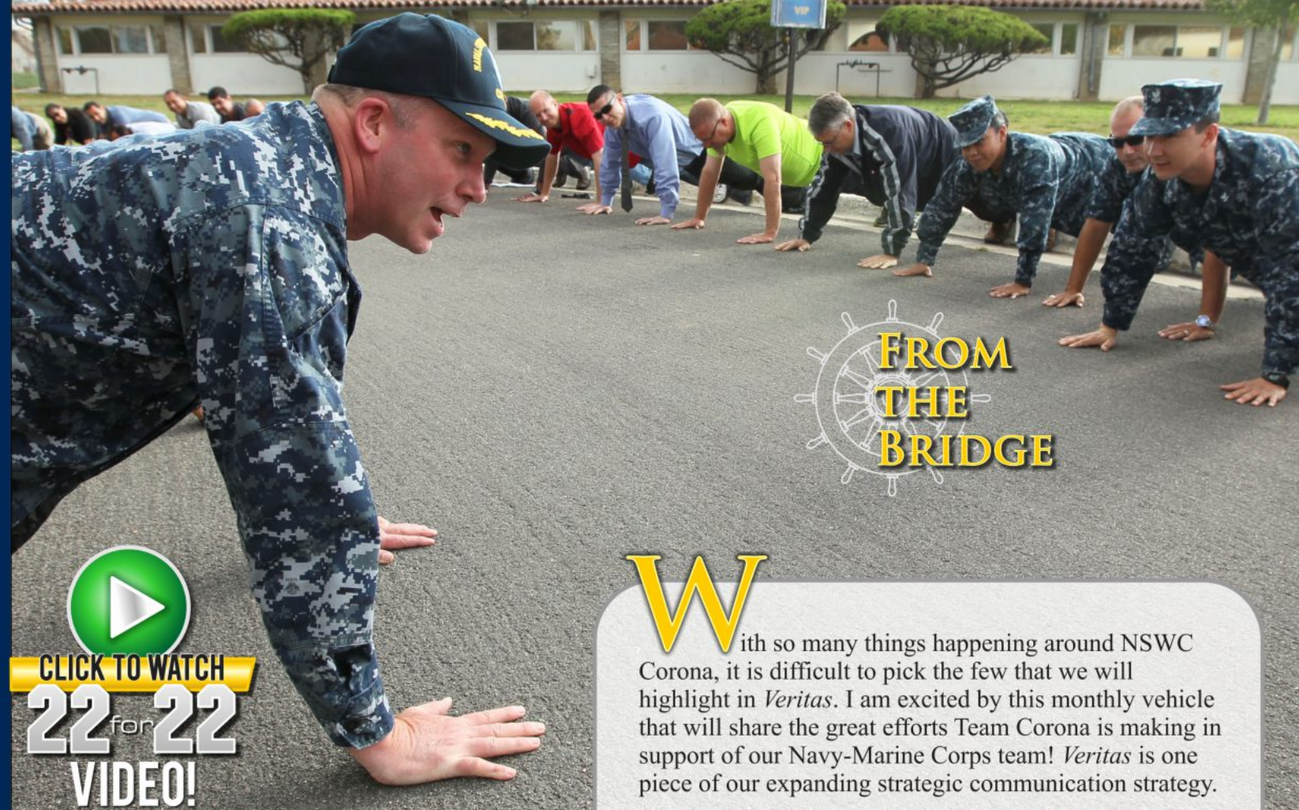


NORCO, Calif. (May 16, 2016) Capt. Steve Murray leads the workforce in 22 push-ups following morning colors. Murray is leading the effort for the next 22 work days, symbolic of the 22 veterans and active duty military personnel who fall victim to suicide each day, to raise awareness of the high incidence of depression and suicidal ideation among service members.

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

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

FROM THE BRIDGE

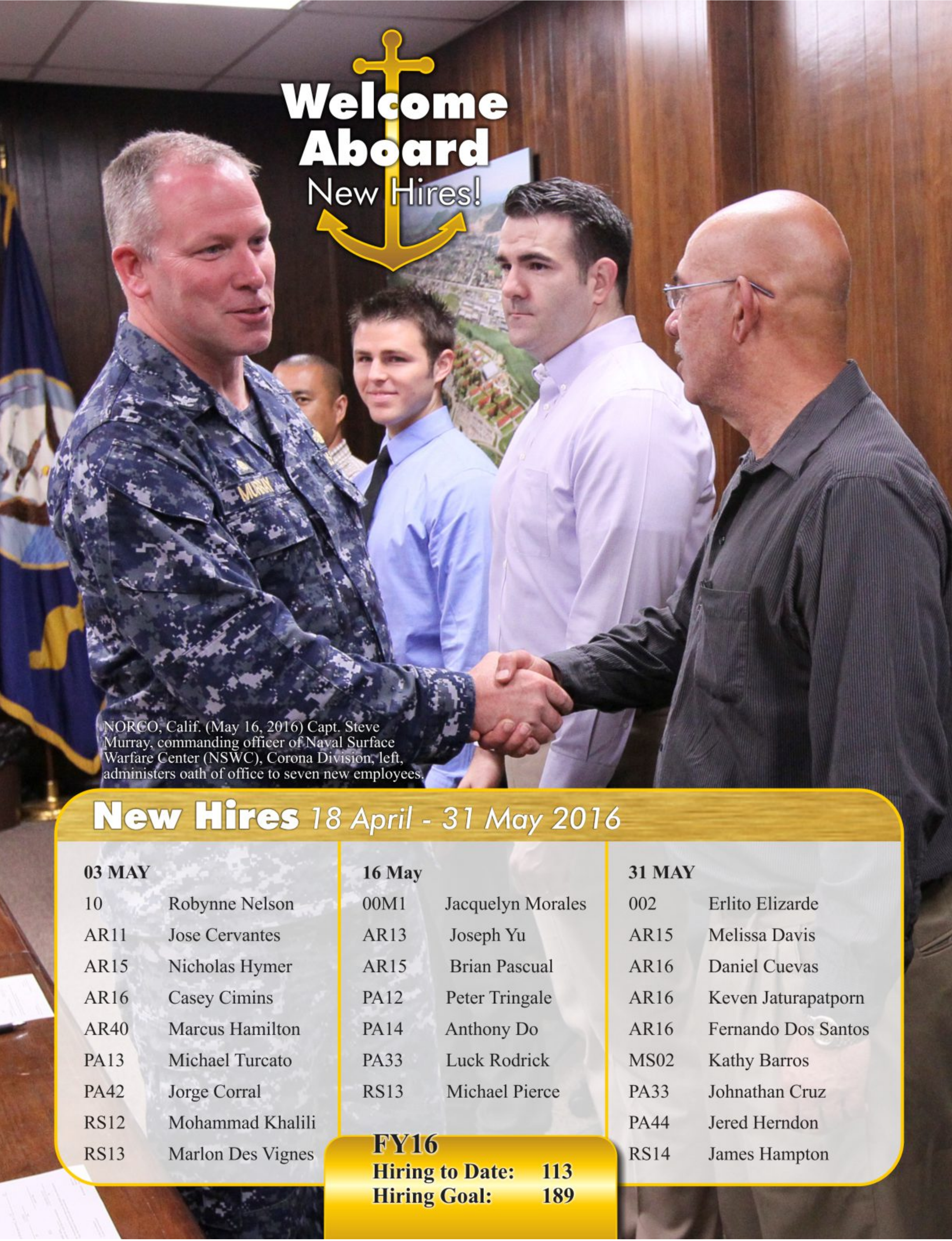
With so many things happening around NSWC Corona, it is difficult to pick the few that we will highlight in *Veritas*. I am excited by this monthly vehicle that will share the great efforts Team Corona is making in support of our Navy-Marine Corps team! *Veritas* is one piece of our expanding strategic communication strategy.

The reputation for excellence that you all build every day through your work for our sponsors is becoming more and more evident as I engage with our very broad sponsor base. The Fleet N7 and N43 are both looking to expand the support Corona provides to them. SEA 21 wants us to do more in MRDB. SEA 05H and PEO IWS want more from us in metrics-based cyber warfare assessment. I can go on and on. It is an exciting time to be at Corona!

We get to show off our capabilities at the Washington Navy Yard to the leadership at NAVSEA on June 30. With SSP, CNIC and NAVFAC also headquartered there, we hope they'll attend as well. Most people I visit understand one small piece of Corona, and this is another opportunity to tell our whole story.

It was an honor to host Jerry Hayes for a visit and to have him present as I presented Dr, Jackson with the first Jerry Hayes Award for Excellence in Measurement Science. Like all alumni I've spoken with, Jerry remains proud of Corona and was excited to hear about the wonderful work Measurement Science Department is doing in support of the entire Department of Navy.

I hope that you enjoy this month's edition, and I look forward to suggestions on future topics and feedback to make the product more effective. Keep up the great work!



Welcome Aboard New Hires!

NORCO, Calif. (May 16, 2016) Capt. Steve Murray, commanding officer of Naval Surface Warfare Center (NSWC), Corona Division, left, administers oath of office to seven new employees.

New Hires *18 April - 31 May 2016*

03 MAY		16 May		31 MAY	
10	Robynne Nelson	00M1	Jacquelyn Morales	002	Erlito Elizarde
AR11	Jose Cervantes	AR13	Joseph Yu	AR15	Melissa Davis
AR15	Nicholas Hymer	AR15	Brian Pascual	AR16	Daniel Cuevas
AR16	Casey Cimins	PA12	Peter Tringale	AR16	Keven Jaturapatporn
AR40	Marcus Hamilton	PA14	Anthony Do	AR16	Fernando Dos Santos
PA13	Michael Turcato	PA33	Luck Rodrick	MS02	Kathy Barros
PA42	Jorge Corral	RS13	Michael Pierce	PA33	Johnathan Cruz
RS12	Mohammad Khalili			PA44	Jered Herndon
RS13	Marlon Des Vignes			RS14	James Hampton

FY16
Hiring to Date: 113
Hiring Goal: 189

Jerry Hayes Award

Created in honor of Jerry Hayes

The Jerry L. Hayes dedicated his career to advancing the quality and technical assessment of measurements within the Navy, the Department of Defense and the nation. Award recipients embody his spirit and vision that enable NSWC Corona to execute this critical mission for the Navy.

NORCO, Calif. (May 9, 2016) Capt. Steve Murray, commanding officer of Naval Surface Warfare Center (NSWC), Corona Division, left, presents Jerry Hayes with an award named in his honor. Often referred to as the "Father of Navy Metrology," Hayes' efforts to resolve discrepancies between missile manufacturers and Navy repair depots, as well as his role in establishing Navy-wide measurement assurance, became the foundation for today's Navy Metrology and Calibration (METCAL) Program. Dr. Dennis Jackson (pictured below) is the first recipient of the Jerry Hayes Award.

Presented to Dr. Dennis Jackson

Dr. Dennis Jackson has continued Jerry Hayes's legacy of excellence through his decades of service to NSWC Corona. An innovator, teacher, and motivator throughout his career, he has earned the respect of countless program managers, fleet customers, and peers because of his deep analytical knowledge and expertise, his professional demeanor his unwavering dedication to the Navy, and his ability to find and articulate innovative solutions for the Measurement Science community. His dedication and commitment have contributed to America remaining the preeminent maritime force in the world.

State of the Command

Brief to community leaders

Will Martinez, field representative to Assembly member Eric Linder, left, and Jason Farin, legislative assistant to Riverside County Supervisor John Tavaglione, listen to Captain Murray.

NORCO, Calif. (May 6, 2016) Capt. Steve Murray briefs elected officials and their representatives during the annual State of the Command briefing. The event updated local government officials and business community members on current and future demand for Corona's independent assessment, metrology/calibration and range systems engineering expertise.

William "Rusty" Bailey, Riverside mayor, left, and U.S. Representative Ken Calvert (R-Corona), confer before annual State of the Command briefing at Corona.


Bob Fritzsche


Steve Douglas


Dr. Dennis Jackson


Eric Grothues


Kevin Van Den Oever


Erik Van Fleet


Ray Ward


Tom Potochny


Lance McBride

High Grade Hookup


Mitch Fischer


Rudy Brillon

Connecting with technical high grades who share their tips for success

When Corona released the command's Strategic Plan framework at the beginning of the year, one of the strategic goals focused on developing its people – building technical experts and inspirational leaders. A critical element of employee development is for the technical experts and leaders to pass down their knowledge. Command leadership wanted Corona's workforce to have a broader understanding of – and be able to further connect – technical capabilities across departments. To reach its strategic goal, Corona launched the monthly Technical High Grade Forums, providing an avenue for technical leaders to share their secrets of success and provide insight into the programs they lead.

Deputy Technical Director Dianne Costlow says it's a great way for junior scientists and engineers to gain insights from senior colleagues. "You can come to these forums to learn from those who are at the top of their game to jump start your technical career at Corona, or just gain a better understanding of what other departments do," she said.

The command has held five forums so far, and field locations have routinely dialed in for remote listening. Four more are scheduled through September, with the next being held on June 22 at 10 a.m. in Building 511 auditorium. All prior sessions are available for online viewing on the intranet to archive the body of knowledge unveiled at each presentation.

While still in its infancy, the command has already learned it is a two-way sharing experience up and down the chain of command, delivering more than expected.

Capt. Murray said it's an inspiring time to absorb ideas and brainstorm on future collaborations to address technical challenges. "Every time I sit and talk to you, I learn something," he told attendees at the May forum. "I really enjoy these."

Forums to Date:

Forum 1 *(January 21)*	
Steve Douglas	(RS10)
Bob Fritzsche	(MS01)
Mitch Fischer	(AR10)
Forum 2 *(March 2)*	
Eric Grothues	(AR20)
Kevin Van Den Oever	(PA01)
Forum 3 *(March 16)*	
Erik Van Fleet	(PA10)
Ray Ward	(AR10)
Forum 4 *(April 4)*	
Dennis Jackson	(MS02)
Lance McBride	(RS10)
Forum 5 *(May 18)*	
Rudy Brillon	(GIDEP)
Tom Potochny	

NORCO, Calif. (April 28, 2016) Erik Van Fleet, right, applauds during Technical High Grade Sharing Forum at Corona.

PATENT POWER

at the Pentagon

Pentagon VIPs Get an Eye on CYCLOPSS

by Marlowe Churchill

NORCO, Calif. (May 6, 2016) Michael Yeh pilots CYCLOPPS training flight as Gary Lunt looks on.

WASHINGTON (April 21, 2016) Gary Lunt presents at the NISE Expo at the Pentagon. *Photo by MC2 George M. Bell*

An innovative idea making naval gunnery ranges more efficient almost got torpedoed at the door of the Pentagon when Naval Surface Warfare Center, Corona Division engineers Gary Lunt and Michael Yeh encountered some skeptical security guards who thought they could be carrying something sinister.

The conversation at the checkpoint went something like this: A drone? Here at the Pentagon? Listen buddy, that propeller blade could hurt somebody.

The 9/11 attack has made entry more complicated into the complex where good ideas sometimes find sources of funding and a place in the DoD inventory.

Performance Assessment Department's Lunt and Yeh at the Pentagon explained they were attending the Naval Innovative Science and Engineering Expo and were invited along with many other Navy engineers and scientists to showcase the latest naval technology and research April 21. The suspicious-looking display, when assembled, was Lunt's Aerial Based Cycloptic Scoring System – CYCLOPSS – that uses an unmanned drone to hover over a large ball-like target floating in the ocean. Now awaiting a patent, the system uses the drone to record hits and misses and relays the information back for assessment and analysis. It could be a game changer for gunnery ranges where Corona engineers provide the analysis for the Fleet.

Navy Secretary Ray Mabus, along with Marine Corps Commandant Gen. Robert B. Neller and Vice Chief of Naval Operations Adm. Michelle Howard, were among the notables walking up and down the corridors checking out the displays.

A key part of the display was a video created by PA programmer Eric Morales who went back to college to learn how to make a realistic color video that, within minutes, easily conveys the entire drone gunnery concept in a gaming environment.

“We stood there for six hours giving a 30-second overview,” Lunt said. “We met a lot of contacts,” said the veteran engineer and analyst who already has another patent. A California State Polytechnic Institute, Pomona, graduate, Lunt got a law degree before joining PA in 1994.

Lunt said Yeh's contributions to the project are invaluable. “For example, the customized telemetry stream that forms the basis of our scoring calculations was designed and built by him. Moreover, the laser altimeter and its interface to the telemetry stream is his software and design.” And he built the large drone being tested.

For Yeh, the experience was almost overwhelming for a young engineer who began working at Corona two years ago and continues work on his Ph.D. Yeh is Lunt's robotics assistant who developed the software for the drone that controls telemetry, communications and navigation, and sends out positioning data for analysis. The electrical engineer, an award-winning collegiate robotics coach, is also a pretty proficient drone pilot

SAN DIEGO, Calif. (Feb. 17, 2015) Eric Morales shows a virtual demonstration of CYCLOPPS to Kushan Patel, of Georgia Tech Research Institute, during WEST 2016, a three-day conference co-sponsored by Armed Forces Communications and Electronics Association (AFCEA) and U.S. Naval Institute (USNI).

who plays around in his garage with his own aerial creations.

"I feel really privileged. I feel so privileged to showcase our products," said Yeh. "Standing next to me was a Ph.D from Berkeley. This was pretty overwhelming. I'll probably never see the Secretary of the Navy again," he said. He is thankful that his Branch Head Sakina Marvi was patient and supportive as he prepared for the NISE Expo, and fellow engineers who picked up the slack as he worked.

Yeh said CYCLOPSS, for which Lunt created the acronym of the mythological one-eyed monster, provides a tremendous collaboration of three Corona departments: PA, Range Systems Engineering and Measurement Science and Engineering Department.

Morales said he also was privileged to participate although he could not attend the NISE Expo. However, his video was a big hit.

"It's a little game simulation," said Morales, a University of California, Riverside graduate who has worked at Corona 10 years. "When you explain something, sometimes it's easier to actually see it in a video. 'Oh, OK, that's how it works.' It's like a game."

Morales, who says he could be described as a "gamer," took courses on game development and believes what he learned could be used for creating similar videos that may help explain future Corona inventions and innovations.

"For me, this was a career first," said Lunt. "To see the SECNAV, not many people do that. It was a tremendous feeling showing our project. Just unparalleled in my career. For Corona, I think it gave us exposure. This was good for our credibility."

Lunt credits many engineers and scientists who have bolstered his research and helped from the outset.

CYCLOPSS Collaborators

Peter Solis	RS31	Michael Jauregui	RS11
Don Trunnelle	RS31	Thomas Sheppard	RS14
Robert Montano	RS31	Dan King	MS32
Neal Nakafuji	RS31	Tam Vo	MS32
Joe Lukacsffi	RS10		

For CYCLOPSS, Lunt said he got a lot of interest among key people who thought it was a good idea. "I know the concept will work," he said. The key for the Navy is that CYCLOPSS can be designed to be a portable unit that will save the Navy money it now spends on infrastructure to operate gunnery ranges.

He is optimistic that CYCLOPSS can be operational soon. "It works. And it's going to be cheap."

Those are the words that people in Pentagon love to hear.

Within the Pentagon and here at Corona, there are those who are thankful those suspicious security guards decided to let Lunt and Yeh inside.

PATENT POWER at the Pentagon

Changing the world of 3D Printing - 14 Dimensions at a Time

by Marlowe Churchill

Vincent Capobianco of Measurement Science and Engineering Department first anticipated the potential of 3D printers over three years ago, sending him on a laborious but rewarding process to calibrate the printers.

"I was intrigued and went out and bought a 3D printer," said Capobianco, an engineer who was hired at NSWC Corona in 2010. "It just blew my mind. It's a new way of manufacturing."

What he ended up creating has now caught the eye of Navy innovators and private industry, plus netted him a top Navy innovation recognition as he awaits a patent.

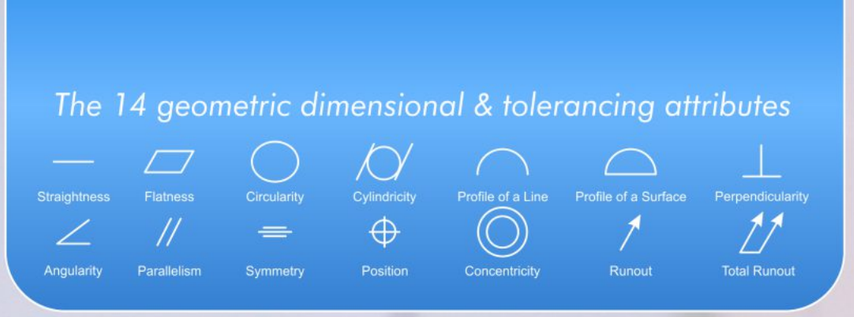
But as with any new technology, 3D printers have flaws that show when creating 3D items. Some printers can do certain tasks better than others, and some cannot duplicate what they are designed to do and must be fine-tuned through calibration. As a measurement scientist, Capobianco knew he needed to find a way to calibrate them to perform as designed.

"How do you assess 3D printers?" he first asked himself. Geometry, he said, was the simple answer that led him to his unique calibration test.

Through painstaking efforts, he created four odd-looking items, called artifacts, that must be duplicated by the 3D printer to verify 14 criteria: straightness, flatness, circularity, cylindricity, profile of line, profile of surface, concentricity, position, symmetry, parallelism, perpendicity, angularity, run-out and total run-out.

"These were very difficult to design," he said of the four artifacts that are precisely measured. "How flat should it be? How circular?"

- Vincent Capobianco



"These were very difficult to design," he said of the four artifacts that are precisely measured. "How flat should it be? How circular?"

Capobianco found a great deal of encouragement from fellow scientists and engineers who could see the new 3D printing technology beset with issues – all pointing toward a uniform way to calibrate it. He found scientists at sister warfare centers, plus at Lockheed, Northrop and other industries, enthusiastic about testing his calibration method by re-creating Capobianco's four artifacts on their own 3D printers. He discovered that no 3D printer is perfect. Some of the artifacts came back hilariously misshapen.

But with the Navy's ambitious goal of putting a 3D-printed metal part on flight-ready naval aircraft within the next two years, a 3D typo on an F/A-18 Hornet going Mach 1 would be no laughing matter.

Capobianco's says his idea "demonstrates the power of Corona" by showcasing the caliber of engineering available at the warfare center.

His reward for innovation was an honorable mention in the Secretary of Navy Innovative Award Additive Manufacturing Technologies category, and showcasing his invention at the April 21 Naval Innovative Science and Engineering Expo at the Pentagon with other top Navy innovators – including Corona's Gary Lunt and Michael Yeh.

Capobianco, who has a Bachelor of Science in aerospace engineering at California State Polytechnic University, Pomona, received NISE Program funding grants the past three years to continue and finance his research of the fledgling technology that holds such bold potential for military and civilian application.

"Everybody needs standards" for operating precise technologies, he concluded.

His visit to the Pentagon and the positive feedback he has so far received has dazed and amazed him. He said he is overwhelmed with thoughts that "I can change the world" of 3D with this new invention. "It works," he said.

Capobianco credits his late grandfather Ray Sparks, a World War II aircraft mechanic who became an engineer and pilot, with constantly inspiring him to find new solutions to engineering problems. Sparks was a founder of the Condor Squadron, a non-profit organization in Van Nuys that flies World War II fighter aircraft, and died in October 2015.

NORCO, Calif. (May 2, 2016) Vincent Capobianco places artifact to be measured on a coordinate measurement machine.

How We Roll

Strategic Communication Capability

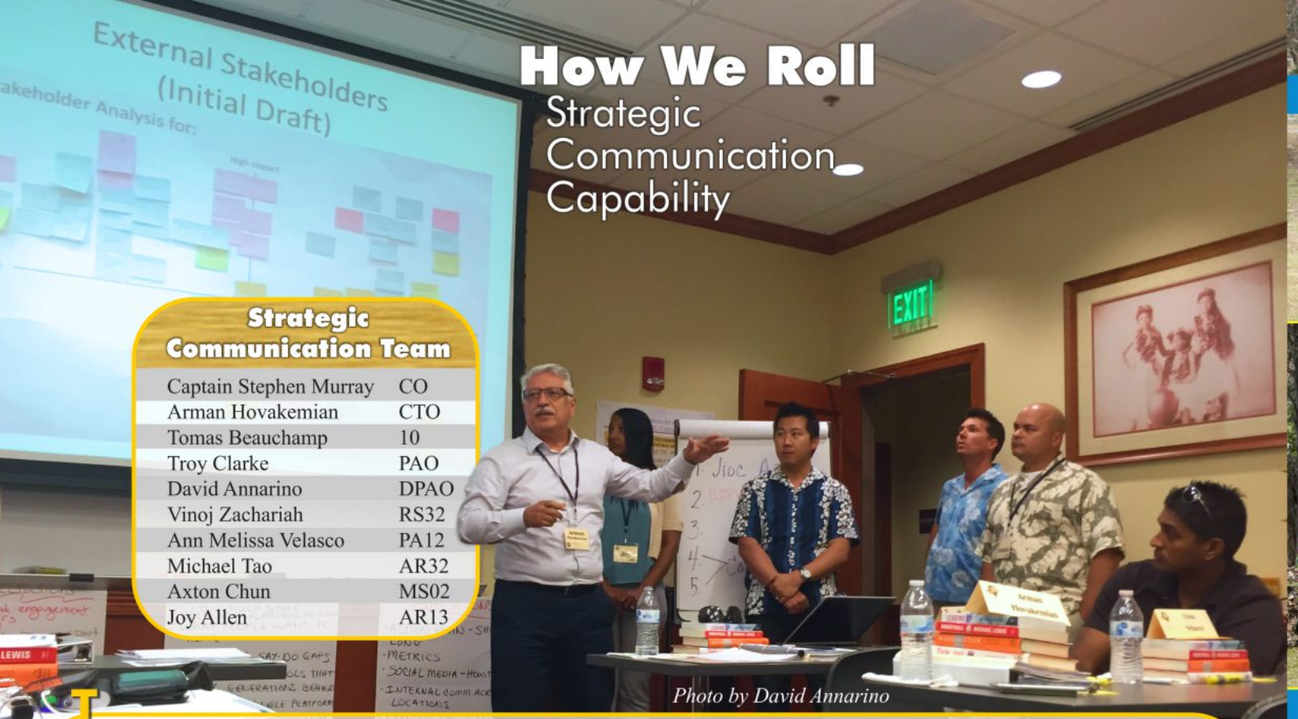


Photo by David Annarino

Strategic Communication Team	
Captain Stephen Murray	CO
Arman Hovakemian	CTO
Tomas Beauchamp	10
Troy Clarke	PAO
David Annarino	DPAO
Vinoj Zachariah	RS32
Ann Melissa Velasco	PA12
Michael Tao	AR32
Axton Chun	MS02
Joy Allen	AR13

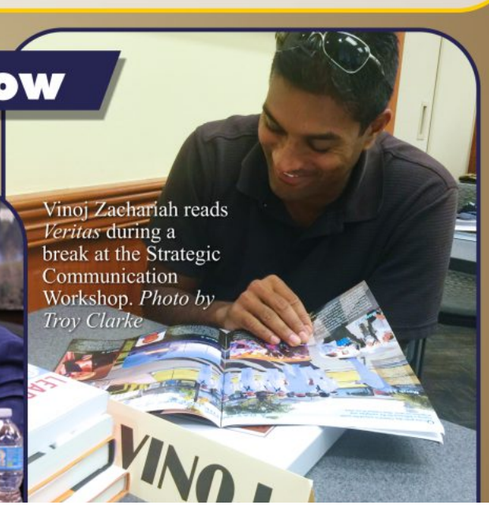
In 2011, the Navy's top officer, then-Chief of Naval Operations Gary Roughead said, "We are leading a workforce of communicators."

Leveraging that insight and to support Corona's new Strategic Plan framework, a diverse team from the command attended the Naval Postgraduate School's three-day Strategic Communication Workshop to receive training in establishing strategic communication capability for Corona. Faculty from both NPS and the USC Annenberg School of Communication led the training of more than 25 people across the Navy, including nine from Corona's technical and operational departments.

Led by public affairs, Corona's strategic communication team is working diligently to draft the initial version of Corona's plan and will brief the progress at upcoming town halls. The process involves deep analysis of internal and external stakeholders and assessments of their attitudes and opinions of our strategic goals. The result will be a focused strategy for communicating the important future direction outlined in our strategic framework Capt. Murray unveiled at the beginning of the year. Measurement, analysis and assessment is Corona's expertise, so we stand to bring a technical rigor unlike most communication programs. But, that's how we roll.

Look who's reading us now

William "Rusty" Baily, Riverside mayor, left, and U.S. Representative Ken Calvert (R-Corona), read *Veritas* during annual State of the Command Briefing at Corona.



Vinoj Zachariah reads *Veritas* during a break at the Strategic Communication Workshop. *Photo by Troy Clarke*

Creating Resiliency Afloat and Ashore

NAVSEA Earth Day 2016

Earth Day Cleanup

Group photo of participants who gathered debris from the picnic areas and removed palm fronds from the ponds beside Lake Drive during 14th annual Corona Division Earth Day Cleanup were treated to a Civilian Morale, Welfare and Recreation-sponsored lunch for their efforts.

NORCO, Calif. (April 28, 2016) Information Systems Technician Chief Petty Officer (ITC) Christian Joson piles debris during 14th annual Corona Division Earth Day Cleanup.

Earth Day Celebration

NORCO, Calif. (April 26, 2016) Volunteers Bob Beauregard, right, Larry Lutsky and Janna Noyes serve lunch Chris Bjerke during the 14th annual Earth Day celebration.

Chief Warrant Two Steve Vargas, center, adds soil amendments as a sycamore is planted during 14th annual Earth Day celebration at Corona. The event included a Civilian Morale, Welfare and Recreation-sponsored lunch, games, music and a tree planting ceremony.

Matt Grossman, left, Brad Goolsby, Thomas McBride and Mitch Sweetman share lunch during 14th annual Earth Day celebration.

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

A DAY IN THE LIFE OF

CORONA

Around the World *Wednesday, May 18, 2016*

Lihue, Hawaii
Aberdeen, Maryland
Jacksonville, Florida
Las Cruces, New Mexico
Honolulu, Hawaii
Camp Pendleton, California
Fallon, Nevada
Orlando, Florida
Philadelphia, Pennsylvania
Tucson, Arizona
Salt Lake City, Utah
Huntsville, Alabama
Linthicum, Maryland
San Diego, California
Key West, Florida
Washington, DC
Bremerton, Washington
Charleston, South Carolina
Patuxent River, Maryland
Boulder, Colorado
Cairo, Egypt

May 19

NORCO, Calif. Capt. Steven Murray, commanding officer of Corona Division, left, speaks as James Lofgren (SES), Naval Sea Systems Command (NAVSEA) Surface Systems Contract Division director, looks on during outbrief following Procurement Surveillance Program (PSP) inspection. NSWC Corona received an overall satisfactory rating after being awarded its own contracting warrant three years ago.

Go Senior Chief!

May 2

NORCO, Calif. (May 2, 2016) Senior Chief Yeoman Ramona Plascensia gets her cover placed on her head by Logistics Specialist 3rd Class Larcorsha Lett during a promotion ceremony at Corona Division.

May 3

NORCO, Calif. Kathleen Buckner, left, responds to a question as Robert Nickey looks on during Mentoring Program Kickoff at Corona. Using a Naval Sea Systems Command (NAVSEA) template, Corona is providing military and civilian employees with the opportunity and resources to establish or enhance a mentoring relationship, critical to developing personnel and maintaining continuity of knowledge necessary to achieve the command's mission.

May 16

NORCO, Calif. Michael Tao, left, and Jonathan Chung listen as Capt. Steve Murray speaks during a meeting with Acquisition and Readiness Assessment Department Information Management Division (AR30). Murray is holding regular "Division in the Spotlight" meetings to stay abreast of the work performed and the challenges faced by the workforce.

May 20

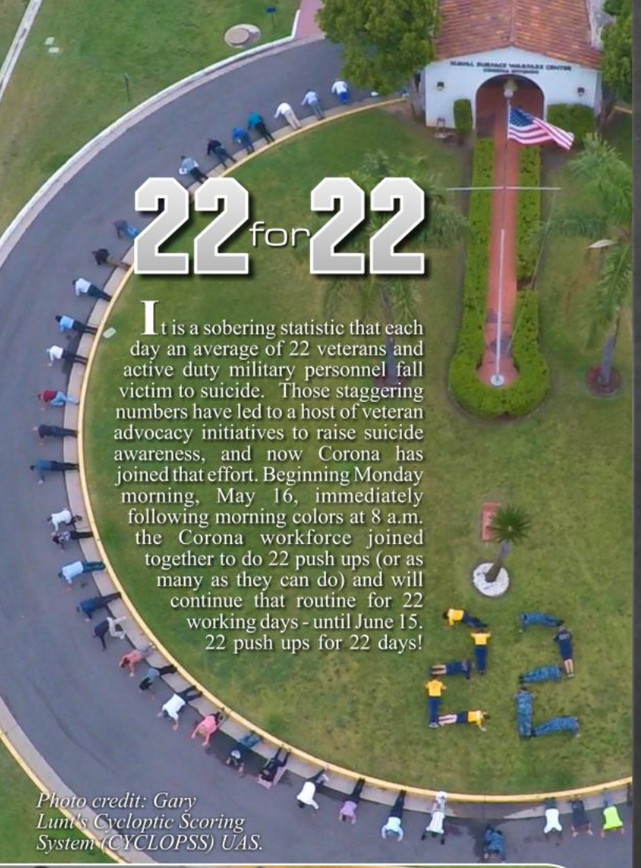
CORONA, Calif. Carolyn Martinez, a retired Navy chief, left, chats with Machinist's Mate Fireman Danielle Lukosus, Equipment Operator 2nd Class Alexia Gallardo and Yeoman 3rd Class Garrett Luna, assigned to Corona Division, during Corona Chamber of Commerce "Salute to the Military" luncheon. The event, marking Armed Forces Day, included a complimentary lunch and program recognizing veterans and active duty service members.

22 for 22

It is a sobering statistic that each day an average of 22 veterans and active duty military personnel fall victim to suicide. Those staggering numbers have led to a host of veteran advocacy initiatives to raise suicide awareness, and now Corona has joined that effort. Beginning Monday morning, May 16, immediately following morning colors at 8 a.m. the Corona workforce joined together to do 22 push ups (or as many as they can do) and will continue that routine for 22 working days - until June 15. 22 push ups for 22 days!

Photo credit: Gary Lund's Cyclopic Scoring System (CYCLOPSS) UAS.

Capt. Murray leading the workforce in 22 push ups following morning colors.



BATTLE OF MIDWAY

history.navy.mil

U.S. Involvement in World War II

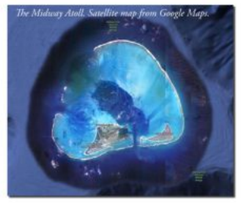

The attack on Pearl Harbor

World War II began on September 1, 1939, when Nazi Germany invaded Poland. The U.S. remained neutral until December 7, 1941, when the Japanese attacked Pearl Harbor. The Japanese employed six carriers to destroy the U.S. Pacific Fleet at Pearl Harbor; however, none of the U.S. carriers were present at Pearl Harbor during the assault.

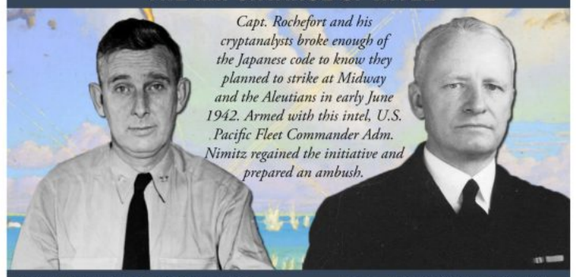
PEARL HARBOR: BY THE NUMBERS

KILLED IN ACTION	TOTAL LOSS SHIPS	RETURNED TO SERVICE	CARRIERS LOST
2,008 U.S. NAVY 218 U.S. ARMY 109 U.S. MARINES 68 CIVILIANS	3 USS ARIZONA (BB 39) USS OKLAHOMA (BB 37) USS UTAH (AG 16)	17 5 SHIPS SUNK, RAISED, AND REPAIRED 12 SHIPS DAMAGED AND REPAIRED OR REBUILT	0 NONE OF THE SEVEN U.S. AIRCRAFT CARRIERS WERE AT PEARL HARBOR DURING THE ASSAULT.

The U.S. declared war against Japan on December 8, 1941. After several months of expansion, the Japanese Combined Fleet turned its sights on Midway, a small Pacific-based atoll, which then served as a U.S. sentry to Hawaii, refueling station, and landing point. The Japanese plan assumed the Pacific Fleet would arrive too late to defend Midway, but U.S. forces were waiting for them at "Point Luck."


The Midway Atoll. Satellite map from Google Maps.

THE IMPORTANCE OF INTEL


Capt. Rochefort and his cryptanalysts broke enough of the Japanese code to know they planned to strike at Midway and the Aleutians in early June 1942. Armed with this intel, U.S. Pacific Fleet Commander Adm. Nimitz regained the initiative and prepared an ambush.

CAPT. JOSEPH J. ROCHEFORT
U.S. CRYPTANALYST

ADM. CHESTER W. NIMITZ
PACIFIC FLEET COMMANDER

Battle of Midway: The Turning Point

TIMELINE OF SIGNIFICANT EVENTS JUNE 4, 1942

- 0700 *Enterprise* and *Hornet* begin launching
- 0838 *Yorktown* launches
- 1020 *Enterprise* and *Yorktown* torpedo squadrons attack.
- ★ 1022-1026 *Enterprise* and *Yorktown* dive bombers attack and hit *Akagi*, *Kaga*, and *Soryu*.
- 1208 Japanese dive bombers attack *Yorktown*.
- 1441 Torpedo planes attack *Yorktown*.
- 1445 *Yorktown* hit.
- 1455 *Yorktown* abandons ship.
- 1500 B-17s take off from Midway.
- 1810 Two B-17s attack BB and damaged CV.
- 1830 Six B-17s attack damaged CV and DD.


SBD Dauntless Dive Bombers from USS Hornet

U.S. and Japanese armed forces fought during the Battle of Midway, June 3-7, 1942 at and near the Midway Atoll in the central Pacific Ocean.


Painting by Griffith Baily Coale, 1942

The victory at Midway represents a strategic turning point for the U.S. in Japan's war in the Pacific. Before the battle, Japan possessed naval superiority over the U.S. Afterward, opposing fleets were balanced and the U.S. soon took the offensive.

As a result of the battle on June 4th, the Japanese carriers Akagi, Kaga, and Soryu were hit and sank. The Japanese carrier Hiryu escaped the initial attack, but U.S. dive bombers found, bombed, and sank her.


A representation by Bel Geddes showing the U.S. attack on Hiryu.

BATTLE OF MIDWAY: SUMMARY OF LOSSES

	U.S.	Japan
CARRIERS	1	4
AIRCRAFT	150	256
MEN	307	2,204

Midway was a great success in U.S. Navy history. The only strategic regret might have been failing to locate and attack Hiryu before its aircraft struck Yorktown.

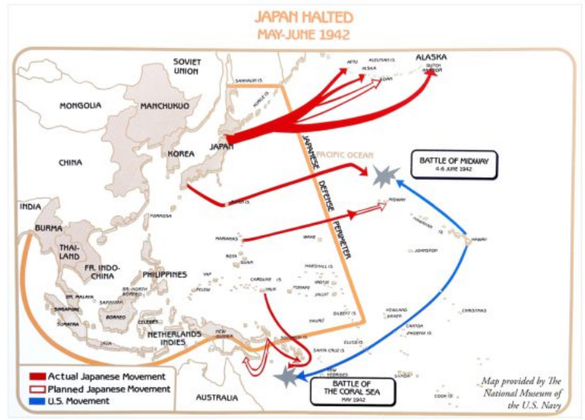

USS Yorktown sinking during the Battle of Midway

Victory at Midway: Impact on World War II


A representation by Bel Geddes showing action during the Battle of Midway.

The Battle of Midway marked a technical revolution in displacing gunnery with naval carrier airpower as a primary means of delivering ordnance.

Prior to the Battle of Midway, the Japanese conquered several territories and expanded their resources in the Far East and South Pacific. By early May, the Japanese had an extensive defensive perimeter.



Map provided by The National Museum of the U.S. Navy

RESULTS OF THE VICTORY AT MIDWAY

- Japanese expansion halted, securing a central-Pacific guard post for Allied forces.
- Japanese losses at Midway made it possible for America's Navy to eventually reclaim maritime superiority in the Pacific theater.
- Naval Aviation proved to be a viable and necessary capability to win wars.
- Our Sailors' strength and resilience at Midway were a perfect illustration of the fighting spirit of America's Navy today.

Finding your **MENTOR**

As Corona institutes a culture of mentoring – especially with the hundreds of recent new hires – the command launched a new mentoring program last month as an extremely effect tool for transferring knowledge to others and providing career development to employees with less experience. The first mentor and mentee training courses held May 3 drew more than 30 attendees attending each class, generating 15 active mentors, 17 active mentees and 10 established mentor/mentee agreements in the Navy's Total Workforce Management System, or TWMS, pronounced "twims."

Employees who missed training opportunities can attend additional classes in the future. TWMS also has a training module for both mentors and mentees that provides foundational information and expectations for each role in the mentoring relationship. Those interested in becoming a mentor or mentee can sign up online by selecting the digital extra link below.

NORCO, Calif. (May 3, 2016) Laura Jarnat, senior instuctor with Creative Solutions, asks for show of hands during Mentoring Program Kickoff at Corona.

DIGITAL EXTRA:

Corona is strongly encouraging its workforce to develop meaningful mentoring relationships to maintain a strategic focus on its greatest asset – its people.

On Watch *for upcoming Events*

June 9	Good Morning Riverside, UCR Chancellor Wilcox, 7 a.m., Mission Inn
June 11	Lake Norconian Club Foundation 5K Run, Walk and Ride, 8 a.m., Aboard Det. Norco
June 15	Command Industry Day, 7 a.m. to 3:30 p.m., Norco College
June 20	Mexican Navy Midshipman Visit
June 22	Technical High Grade Forum #6, 10 to 11:30 a.m., Bldg. 511 Auditorium
June 24	Good Morning Corona, 6:30 a.m., Eagle Glen Golf Club
June 30	Corona Technology Demo, Washington Navy Yard, 10 a.m. to 2 p.m.
June 30	CMWR Monthly Mixer, Lake Norconian Conference Center, 4 to 9 p.m.
July 7	Blood Drive, 11 a.m. to 4 p.m., Bldg. 511 Auditorium
July 16	Command Family Picnic, 10 a.m. to 3 p.m., Picnic Grounds
July 20	Technical High Grade Forum #7, 10 to 11:30 a.m., Bldg. 511 Auditorium
July 21	Town Halls, 9 a.m. and 1 p.m., Bldg. 511 Auditorium
July 28	CMWR Monthly Mixer, Lake Norconian Conference Center, 4 to 9 p.m.

NEXT ISSUE

Daring Designer
Corona's winged engineer leads UCR teams into ocean desalination

Bringing Contracts to Life
The standouts who stood it up

Laser Focused
The strategic plan for technical direction

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Got feedback ?

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