FRCSW Change of Command
Capt. Owen Takes the Helm
Skipper’s Corner: Providing Readiness and the NAE

One of the main topics I touched on during my Change of Command speech was the importance and the impact that Fleet Readiness Center Southwest plays in our role as one of the main readiness providers to the fleet.

The value of the work completed every day by each of you is readily seen and heard on our flight line. It is seen on the runway as the pilot and flight crews run their ground checks, it is seen when our aircraft take flight and the sound of the pilot’s test maneuvers remind us that what we hear is truly the sound of freedom.

These aircraft are the tools of the warfighter. It is their job to defend our nation and our way of life. It is a responsibility they have chosen, and they depend on you to provide them mission-ready equipment in top condition. It is what you do. It is what we do, and what FRCSW has been doing for almost 100 years.

Just as we partner with the fleet, all of us are partners of the Naval Aviation Enterprise (NAE). The NAE’s mission is not unlike our own: to sustain and improve readiness while advancing warfighting capabilities in the most efficient manner possible.

Fortunately, the formula to achieve the NAE mission is already in place. It is the 12 Integrated Product Support Elements (IPS) which are divided into three categories each:

Life Cycle Sustainment Management
- Product Support Management
- Supply Support
- Packaging, Handling, Storage and Transportation
- Maintenance Planning and Management

Technical Management
- Design Interface
- Sustaining Engineering
- Technical Data
- Computer Resources

Infrastructure Management
- Facilities and Infrastructure
- Manpower and Personnel
- Support Equipment
- Training and Training Support

Together, the IPS categories target production support in a manner that delivers readiness and availability while optimizing life cycle costs.

These concepts apply throughout the NAE, and in particular, to FRCSW. They serve as an outline to sustain legacy airframes; to develop new engineering solutions unique to the challenges inherent to naval aviation; to maintain and improve our facilities; and to recruit and train a diverse workforce that delivers warfighter readiness unlike any other in the world.

Our importance to the fleet and the NAE cannot be understated. Simply put, Maintenance, Repair and Overhaul is the backbone of naval aviation.

I implore you to keep up the good work already being accomplished at FRCSW and to take heart in knowing that the efforts you put forth in your job will allow the men and women of the United States Navy to continue to doing theirs.

God bless you, your families and the United States Navy.

CRAIG OWEN Captain, U.S. Navy Commanding Officer
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Capt. Craig Owen’s name is revealed on the Fleet Readiness Center Southwest (FRCSW) static display F/A-18A Hornet. Capt. Owen took command of FRCSW on August 11, 2016. Photo by Chuck Arnold

About the Cover
Capt. Craig Owen, commanding officer of Fleet Readiness Center Southwest (FRCSW), addresses the audience during the FRCSW Change of Command ceremony on August 11, 2016. Photo by Chuck Arnold
Capt. Craig Owen relieved Capt. Timothy Pfannenstein as Fleet Readiness Center Southwest (FRCSW) commanding officer Aug. 11 in ceremonies held at the new FRCSW helicopter maintenance facility in Building 325 on Naval Air Station North Island. Capt. Owen previously served as the command’s executive officer.

Following the arrival of the official party and national anthem, Capt. Pfannenstein opened the ceremony with welcoming remarks and introduced the presiding officer Rear Adm. Michael Zarkowski, commander, Fleet Readiness Centers and guest speaker, Rear Adm. Paul Sohl, commander, Operational Test and Evaluation Force.
During his remarks, Rear Adm. Zarkowski spoke of the continued demand upon naval aviation forces and the crucial role the Fleet Readiness Centers play in providing assets to the warfighters.

"Across naval aviation the goal remains the same: Improving readiness of aircraft currently in the fleet by becoming more predictive, less reactive; improving the affordability and speed of delivery of these capabilities to our Sailors and Marines," he said.

Zarkowski turned his focus to Pfannenstein's tenure as FRCSW's commanding officer and efforts to improve readiness and service to the fleet.

"Capt. Pfannenstein achieved breakthrough results in plant operations and overall throughput of depot repair modifications," he said. "He leveraged intra-service logistic support to expand the scope of FRCSW's support to the fleet, and led efforts to expand maintenance, repair and overhaul (MRO) services with joint international agencies, and to identify new partnership opportunities within the Navy and Marine Corps and Air Force."

Addressing the command's employees, Zarkowski said: "The lines of effort you are pursuing here provide critical support to our warfighters, you extend the service life our platforms, you perform in-service repairs forward deployed and you are our back force multiplier."

"Capt. Pfannenstein made workforce development a priority," Sohl said. "He began or jumpstarted numerous professional training and development initiatives including reinvigorating the command apprenticeship program in partnership with Puget Sound Naval Shipyard."

Addressing Level Two achievements during Pfannenstein's leadership at North Island and
Guest speaker Rear Adm. Paul Sohl, commander, Operational Test and Evaluation Force, gives his remarks at the FRCSW change of command on August 11, 2016.

Photo by Scott Janes

FRCSW Site Point Mugu, Sohl noted their selections as the CNO’s nominee for the Secretary of Defense’s Phoenix Award for field-level maintenance performed by a medium-sized organization.

He pointed out that the Level Two shops repaired 37,500 components worth $442 million, and achieved an overall ready-for-issue (RFI) rate of 91 percent, and a 100 percent RFI rate for T-56 and T-700 engines and auxillary power units.

“The Sailors in our Level Twos are the ones who support the flight line directly at North Island and Point Mugu,” Sohl said. “Like their Level Three counterparts, the Level Two at FRCSW provides a continuing presence around the world each and every day.”

Following Sohl’s remarks, Zarkowski presented Pfannenstein with the Legion of Merit Award for outstanding achievement as FRCSW commanding officer.

In his farewell remarks, Pfannenstein referenced the hosting site of the ceremony – the command’s 100,000 square-foot helicopter maintenance facility that was completed on January 21.

“This building represents the future of naval aviation. It is an impressive facility and it is where our vision of 2020 and beyond will take us in the FRC and NAE enterprise,” he said.

Afterward, he thanked the command’s artisans and support staff for not only their steadfast work during his tenure, but also for their support in creating a successful safety program which has pervaded the workplace culture.

He also noted the professionalism and personal conduct of the Sailors who served under his command.

“Your wardroom and chiefs mess set a standard that could not be matched in professional performance and personal behavior. Because of your leadership over the last three years, I can count on less than two hands the number of mast cases that came to my office. That’s about one mast case every four months. That is remarkable.”

After the reading of orders and the exchanges of salutes and during his opening remarks, Owen pointed out the rarity of civilian FRC workers in the nation’s workforce.
"In the United States the entire labor force is approximately 160 million people," he said. "Compare that 160 million to the less than 4,000 civilian employees of the FRC. The FRC employees make up .007 percent of that total labor force of our country."

"Our employees are masters and doctors of their trades, and what these professionals do every day for the Naval and Marine Corps aviation is truly remarkable," he added.

Owen then turned his attention to the Naval Aviation Enterprise (NAE) and said that continuing successful NAE operations must rely upon the application of the existing 12 Integrated Product Support Elements (IPS).

The IPS is divided into three categories with four subcategories each:

**Life Cycle Sustainment Management**
- Product Support Management
- Supply Support
- Packaging, Handling, Storage and Transportation
- Maintenance Planning and Management

**Technical Management**
- Design Interface
- Sustaining Engineering
- Technical Data
- Computer Resources

**Infrastructure Management**
- Facilities and Infrastructure
- Manpower and Personnel
- Support Equipment
- Training and Training Support

"We must understand all 12 elements and execute them in our everyday business," he said. "And by following the 12 elements, we will solve many of our challenges."

Also contributing to the ceremony were the FRCSW Color Guard and the Navy Region Southwest Band.

Pfannenstein assumed command of FRCSW on August 8, 2014. His next assignment will be as the 6.0B logistics head for Naval Air Systems Command.

Capt. Anthony “Tony” Jaramillo entered the Navy in July 1984 and completed basic training in San Diego, Calif. Designated as an Airman he transferred to Naval Air Technical Training Center (NATTC) Millington, Tenn. for Aviation Structural Mechanic (AMS) “A” school. His enlisted operational tours were with Patrol Squadrons (VP) 50, VP-31 and VP-1. His highest enlisted rank was Petty Officer First Class.

In 1993 he was selected to participate in the Enlisted Commissioning Program. He completed Naval Science Institute (NSI) Officer Candidate training at Naval Station Rhode Island and then reported as a student to Jacksonville University, Jacksonville, Fla. Upon completion of his studies he received a bachelor’s degree in Political Science and International Studies. Following his Commission in June 1995, he attended Surface Warfare Division Officer and Engineering Watch Officer training at Naval Station Rhode Island. He subsequently lateraled to the Aerospace Maintenance Duty Officer Community in 1998 and was designated an Acquisition Professional Community member in 2006.

Operational tours include USS Lake Champlain (CG 57); USS John C. Stennis (CVN 74) AIMD; Naval Air Station North Island (NASNI); Helicopter Anti-Submarine Squadron (HS) 6; and USS Nimitz (CVN 68) AIMD.

Shore tours and acquisition commands include AIMD Sigonella, Sicily; Naval Air Technical Data and Engineering Service Command (NATEC) at NASNI; Naval Air Systems Command (NAVAIR) AMDO Community Manager, Patuxent River, Md; Officer-In-Charge at Fleet Readiness Center Southwest Detachment North Island; Director, Naval Air Technical Data and Engineering Service Center at NASNI; Secretary of Defense Corporate Fellow assigned to Raytheon Space and Airborne Systems, McKinney, Texas; Program Manager for Specialized and Proven Aircraft Program Office (PMA-226) at MCAS Cherry Point, N.C.

Capt. Jaramillo’s qualifications and advance education include Professional Aviation Maintenance Officer, Surface Warfare Officer, Officer of the Deck (Underway & In Port), Engineering Officer of the Watch, Helicopter Control Officer, Enlisted Aviation Warfare Specialist, and Master Training Specialist. He is a member of the Defense Acquisition Corps and is Defense Acquisition Workforce Improvement Act (DAWIA) Level III Certified in three areas: Program Management, Life Cycle Logistics, and Production Quality and Manufacturing. Additionally, he holds a Masters of Aeronautical Science from Embry-Riddle Aeronautical University and is Federal Aviation Administration Airframe and Power Plant certified.

His personal awards include the Meritorious Service Medal (3 awards), Navy Commendation Medal (4 awards), Navy Achievement Medal (4 awards), and various service and campaign awards.
Fleet Readiness Center Southwest (FRCSW) reached another milestone in its history of naval aviation maintenance by completing its first Planned Maintenance Interval-One (PMI-1) event on an MV-22 Osprey tilt-rotor aircraft May 13.

The work took place at FRCSW’s Site Miramar in Hangar 6 aboard Marine Corps Air Station (MCAS) Miramar.

PMI-1, along with PMI-2, comprises the Navy’s Integrated Maintenance Program (IMP) which targets the structural integrity of the airframe. The IMP model is also applied to other naval aircraft including the F/A-18 Hornet fighter and the H-60 multi-purpose Seahawk helicopter.

FRCSW Site Miramar’s 16 artisans take an in-depth look at the aircraft and replace or repair areas and components as identified by the PMI specifications.

“The specification tells us what we can and can’t repair on the aircraft. In the case of out-of-scope repairs, we have to request funding for them. We have the aircraft taken apart and have the tools to do it, we just need the squadron to provide the parts and initiate a Planner and Estimator (P&E) request to route us the funding to complete the work,” said V-22 site manager Rogan McIntyre.

PMI specifications were developed by engineers and the IMP lead from FRC East at MCAS Cherry Point.

FRC East has been maintaining V-22s since it opened a designated repair facility in January 2009. McIntyre said that FRCSW artisans visited FRC East for about three weeks of hands-on training to help establish the program at Miramar.

“The difference is they (FRC East) do all of the work — organizational (O)-level as well, where we don’t,” McIntyre said. “Ours is an integrated maintenance program where the Marines support us by providing completing work. They disassemble and reassemble the aircraft on the bookends of the PMI process.”

Marine squadrons also defuel the aircraft and remove the V-22’s massive three-bladed, 38-feet propellers.

“The nacelles, that are the structural portions around the motors and transmission, get worn down rather easily because of all the vibrations caused by these huge props when they are spinning. And often to facilitate repairs, the motors have to come out as well,” McIntyre noted.

As the first PMI-1 progressed, artisans found a variety of repair and maintenance issues that were unidentified in the specification.
“Those issues still get repaired but they’re squadron funded while we’re doing the work. And the program management activity may be looking at integrating some of that discrepancy work so its in-scope and we can take care of it without a P&E request,” McIntyre said.

Discrepancy damage can include cracks, corrosion, and repairs that are not done at the depot level, but by the airframe shops and squadrons like patch-up composite work done in the fleet.

McIntyre said that first repairs are disassembled and many have so far required submitting a request for engineering instruction (REI). He noted that REIs were a contributing factor for the first PMI-1 to run 306 days.

“We had 75 REIs, which meant we had to wait on engineering for a significant amount of time. And the aircraft was transferred between squadrons and we had some availability issues with parts,” McIntyre said.

“For out-of-scope repairs and instructions, the squadrons are responsible for the parts and put them on order. For discrepancies that are PMI in our spec, we have to wait for those parts to come in to do the work. We just can’t return the aircraft to the squadron for contracting reasons.”

The projected turn-around time (TAT) for PMI-1 is 74 days and 92 days for PMI-2. The primary difference between the two is that PMI-2 includes painting the aircraft, which is done at FRCSW North Island.

McIntyre said that procedures in meeting the TAT are evolving since the completion of the first PMI-1 aircraft.

“We want to make this process as Lean as possible to keep it within our scope. We still do a little (O-level) maintenance. I have a four-man mechanic crew that removes components to facilitate other maintenance, like fuel and drive system components, for example,” he said.

“They (Marines) still have RIMPAC’s and other deployments that they need to support. This was our first aircraft, so we’re working out those kinks in terms of support. We had similar issues on the H-1 PMI line at Camp Pendleton about 10 or 15 years ago.”

Since inducting its first Osprey in July 2015, Site Miramar has added three more aircraft for PMI-1. Overall, three aircraft will be completed in fiscal year 2016.

Site Miramar is funded for five aircraft this year and five next year.
WOC STEM Conference to Recognize FRCSW Employee

A Fleet Readiness Center Southwest (FRCSW) employee will be honored during the 2016 Women of Color (WOC) Sciences, Technologies, Engineering, and Mathematics (STEM) conference Oct. 13-15 in Detroit.

Bethany Harris, an FRCSW engineering technician, is one of six STEM “Technology Rising Star” winners. She will receive the award for her work within the command’s facilities organization.

The WOC STEM conference is designed to help and provide women with methods to improve their career and educational goals.

Harris began her career at FRCSW in 2004 as a wage grade (WG) entry level aircraft mechanic helper.

“Shortly after 9/11, the company I was working for began downsizing, so I started applying to the website that is now USAJOBS. I had welding experience from a previous job I had at National Steel and Ship Building Company (NASSCO) and that was the experience that got me the helper position,” she said.

Her determination to contribute to the command led her to enroll in classes to earn certifications as a collateral duty as an entry authority, where she verified the air and environment of confined spaces, like aircraft fuel cells, were suitable for artisans to occupy.

Eight years later, Harris transitioned to her current general services (GS) position via a 120-day detail that eventually became permanent.

She is assigned to the Production Planning Division where her work targets the management of FRCSW’s facilities and the development of the command’s Facilities Master Plan which strives to efficiently manage, reconfigure and upgrade office spaces, furniture and equipment.

To that end, it was decided to standardize the command’s office spaces for budgetary advantages. Harris was initially assigned as the procurement project manager.

She said she arrived to a program that was lacking established processes, and in need of “…checks and balances.”

“When I got here, I was asked to procure furniture for the XO. But then it became bigger, so now I’m in the process of establishing a purchase agreement (with the General Services Administration (GSA)) for furniture not only for our FRC, but for all of the FRCs,” she said.

“In doing this I had to create and standardize the process. Last year, we established the contract for the first procurement; there was no support, so I had to define the requirements for that and come up with a standard process.”

Harris said that the first Broad Purchase Agreement (BPA) for furniture was about $976,000 for one year. After installation, the usable life of furniture is roughly 10 years, depending upon work space requirements.

Harris screens all furniture and appliance requirements to ensure that requests are within standards, energy conscious where applicable and avoid higher-end purchases in order to save the government money.

“The agreement is for one year with a four-year option. As Harris works to fine tune the BPA and improve the command’s Facilities Master Plan, she also targets her own professional improvement and that of those around her.

Having earned a bachelor’s degree in business management from National University last year, she continued her educational achievements by completing a master’s degree in organizational leadership just 16 months later, graduating with honors.

Since 2012, Harris has been a member of Naval Air Systems Command’s (NAVAIR) African-American Pipelines Advisory Team which focuses on career planning, recruitment and retention of members from NAVAIR’s African-American workforce through mentorship and lessons-learned programs.

“We try to identify barriers; including promotion and pay barriers,” she said. “I champion that because a lot of people have problems transitioning from a WG to a GS like I did. There’s no track you can take to get from a WG to a GS --- that’s one of the things we’re working on.”
While others drove on by, Lt. Jordan Walma had to stop.

“I could tell he was distraught as he was crying as he was walking and I thought, ‘I can’t let this guy go. I need to try something.’” I was in the number one lane and said, ‘Hey, just get on my bike and I’ll give you a ride across the bridge,’” Walma recounted.

Walma, the Level II Legal Officer and 400 Division Officer at Fleet Readiness Center Southwest (FRCSW), knew something wasn’t right the morning of June 28 as he rode his motorcycle to work crossing the Coronado Bridge to North Island and he saw someone running from the number two lane toward the bridge’s edge.

Believing there was an accident he slowed down to anticipate a stopping point of vehicles. That’s when he found the lone pedestrian walking toward the mid-span of the bridge.

The man acted erratically and moved from lane to lane in front of traffic, and then to the side of the bridge where he paused to look down at the water; then slowly made his way toward the bridge’s high point.

At about 6 a.m. Walma called 9-11 via his motorcycle helmet’s Bluetooth to notify authorities.

“I trailed him on the bike just trying to get him to talk to me. Every time we got higher and higher on the bridge span, his pause would get a little bit longer like he was trying to decide if he was going to jump from there, so I just kept following him trying to get closer and closer so in case he jumped, that I might be able to stop him,” Walma said.

Cars continued to maneuver past before help from two other Sailors arrived. The female petty officers stopped their car in front of the man, and all traffic came to a stop.

“The driver stayed in the car and the passenger got out. She suggested he get in the car, so I stopped my bike and put my arm around him and told him that things would be okay, and that he should get in the car,” Walma said.

“We were in the number two lane, and I was coaxing him away from the bridge when the police arrived. As soon as he saw them, he spun around like he was going to make a run toward the water. He was a slight guy, maybe 5’8” 150 pounds and I didn’t see a weapon on him, so I wrapped him up and held on to him until the police could get there.”

At 6 feet 3 inches tall, the 44-year-old Walma said he never felt that he was in danger during the almost 10 minute ordeal.

“He fought a bit and said he would hit me, but I had my helmet on and (motorcycle) padding. When the police arrived, they told me to let him go. So I did. I pointed him toward the middle of the bridge but he spun around and walked to the edge of the bridge where he sat for about a half an hour,” Walma said.

“He sat with his hands behind him, to keep him from falling if he leaned too far forward. I was thinking it was more of a cry for help than anything. If you’re going to jump, you’d put your hands in front of you so you can push off. There was 15 to 20 feet between him and anybody else. After I let him go I couldn’t look anymore. Had he jumped, I would’ve been the last person he was in contact with.”

But he didn’t jump, and was eventually coaxed into police custody for the help he desperately needed.

Maybe that’s because someone cared enough to stop.

And throughout the chaotic pressure to prevent a potential deadly tragedy, Walma never got the name of the man whose life he very well may have saved.

Editor’s Note: Since it opened in 1969, more than 250 people have taken their lives from the Coronado Bridge. If you or someone you know needs help, call the National Suicide Prevention Lifeline at 800-273-8255, or the American Foundation for Suicide Prevention – San Diego Chapter at 760-459-9959.
Actuator Shop Improves PEB Availability

Story and photo by Ben Lee

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ebuilding aircraft actuators and fans requires disassembly, inspection, reassembly and test. Without the needed parts, reassembly comes to a stop.

Two years ago, the actuator shop in Building 472 suffered from a lack of items in its pre-expended bins (PEB). Some items had been removed for unknown reasons, while others indicated that they had not been used in years.

Artisan frustration with the lack of PEB items was high. Artisans were traveling outside of the shop in search of the supplies they needed. The actuator shop and the Continuous Process Improvement staff convened an AIRSpeed project to resolve the issue.

The project's goal was to properly stock the shop's bins with the needed items. To that end, a process to keep the material in the rack up-to-date had to be created.

A team was formed with four artisans and a project lead that was challenged to learn the Navy process improvement methodology. Understanding they had authority to make changes, they realized they could make a difference in shop operations.

The first step was to define the problem. The key indicator was, “What percentage of what you need do you have?” Another metric was, “How many change requests are initiated by the shop in a month?”

After assessing the problem, it was worse than originally imagined. Defense Logistics Agency contractor will meet twice a year, in accordance with the PEB Coordinator, DLA, and the PEB support contractor to focus on PEB items.

The cause of the poor PEB support was traced to two primary factors: No one really knew what items were needed, and no training related to bins procedures was ever provided to artisans.

The team decided they had to identify what items, by part number, were currently needed.

They reviewed the bill of materials for each component by Family Identity Code (FIC) and Item Identity Code (IIC) on the master schedule for the shop. From this, they developed a list of items needed and a list of items that were no longer needed: 185 items were added and 215 items were deleted.

The PEB support contractor agreed to process the item change requests. As new items were added to the rack, interest in the project increased among artisans.

The team tried to set the low bin level and refill quantity to minimize the stock on hand, but discovered a constraint called “minimum order quantity.” For many common hardware items, such as nuts, screws, etc., the contractor had a minimum order quantity of 100 and a maximum bin level equal to the minimum order quantity.

A refill action is initiated when the quantity of items in the bin drops to half of the high limit. When bin levels exceed the desired maximum, a refill action isn't triggered for many months, erroneously indicating lack of use.

Initial training about the PEB process was provided to all of the artisans. In addition, an annual recurrent training requirement was established. A record of PEB training, like other artisan training, is maintained by the shop training coordinator.

Further, a PEB coordinator position (Czar) was established as a shop collateral duty to coordinate item change requests. At part of monitoring change efforts, the PEB Coordinator, DLA, and the PEB support contractor will meet twice a year, in accordance with the FRCSCW Instruction 4480.1.

The team and the shop learned that the AIRSpeed process is not quick, but it is effective.

The pilot project was a success. Assembling components became easier. For example, all 15 items needed to assemble a bleed air door actuator are now in the rack. Sixty-one of 68 components had all of their PEB items needed for assembly.

Artisans indicated that time spent searching outside of the shop for PEB items was reduced at least 50 percent.

A shop work instruction was created to make the process permanent. A process trouble shooting guide, or a control plan, was also created.

The guide offers suggestions about where to focus if the process does not produce the desired output.

In May 2016, the project lead reviewed the process data. The process was working as intended. The items in the rack remain current. In the last four months the PEB coordinator received two to four requests for new items per month.

Having the parts needed to assemble components, including PEB items, improves production which increases readiness.

The team and the shop learned that the AIRSpeed process is not quick, but it is effective.
ENGINEER OF THE YEAR

By Keith Glassman
F/A-18 Fleet Support Team, Structures

Our Naval Air Systems Command (NAVAIR) engineers were honored for their contributions to the Navy Feb. 26 during the San Diego National Engineers Week banquet at the San Diego Air and Space Museum.

Aerospace engineer Sean Alexander was selected as “Engineer of the Year,” while mechanical systems engineer Conrad Macy and materials engineers Luc Doan and Matt Minnick won the “Engineering Project of the Year” award.

Innovations for Creativity, Recognized

NAVAIR engineers who were honored during the San Diego National Engineers Week banquet. Pictured are (from left) XO, Engineering Project of the Year winners Luc Doan, Conrad Macy, Matt Minnick, Engineer of the Year Sean Alexander and award nominator Keith Glassman.

Engineer of the Year

Alexander earned his award for solving a critical safety issue of the EA-18G Growler airframe.

In November 2010, Tactical Electronic Warfare Squadron One Three Two (VAQ-132), the first EA-18G squadron deployed ashore in Iraq, began experiencing repeated cabin pressurization issues with all of the squadron’s Growlers.

After providing extensive assistance to the squadron remotely, Sean and another teammate flew to Iraq to troubleshoot the issue.

They were able to identify a list of potential causes; clarify some of the environmental control systems (ECS) questions that the squadron had; and shore up the required maintenance procedures, all of which allowed the squadron to keep the aircraft performing its mission.

Upon returning from Iraq, Alexander and the ECS team began working with their counterparts at Boeing and Northrop Grumman to resolve the issue and develop a solution for the fleet.

The general consensus among most project members was that flight testing should be used to determine the root cause.

Alexander did not believe that flight testing was the best nor most efficient option. Instead, he felt that a laboratory test stand could be developed to find the root cause and test possible solutions.

Sean convinced the team to construct a lab in parallel with limited flight testing. Working with two other teammates, he constructed the lab, ensuring compliance with all applicable specs.

He was able to duplicate the failure being experienced on the aircraft.

However, the initial lab had focused on a subset of the overall system where Sean believed the problem existed. Even after demonstrating duplication of the failure, the team decided that the lab needed to fully replicate the aircraft system. This added several more requirements to the lab.

Sean had to design reliable systems for controlling the environmental conditions. Full instrumentation was required to capture all of the critical data points and software had to be developed, not only to control all of the valves and capture all the data, but to do so in a flight simulation style and timing.

Throughout this process, Sean not only planned and carried out all of the tasks; he also mentored two other engineers who were assigned to the project.

With the lab fully functional by late July 2011, Sean and his team ran “flights” using the data from the test flights to validate the lab. They were able to completely duplicate the limited data and failures that had been gleaned from the flight testing, as well as the data from the flights in Iraq.

Once the validation was complete, the team began testing various solutions. They were able to derive a solution that not only addressed the original issues that had been experienced on the aircraft in Iraq, but also provided assurance the cabin pressurization issues would not occur beyond the outer limits of the aircraft’s flight envelope.

Engineering Project of the Year

Macy, Doan and Minnick won the “Engineering Project of the Year” award for their introduction of Cold Spray technology as a remedy to the timely expedition of crucial aircraft components.

Cold Spray is a solid-state thermal spray process that restores dimensions to components that have been rejected due to corrosion, wear, or mechanical damage.

The technology uses compressed helium gas to propel a fine metal powder through a hand-held or robotic gun to kinetically impact the powder onto the surface to be restored.

Developing Cold Spray technology to repair aircraft parts required a couple of years of development work. Testing was performed to evaluate the technology and build confidence in its implementation, and prototype repairs required rigorous testing and review before flight approval was granted.

The team’s first successful application of Cold Spray was the dimensional restoration of an F/A-18 Super Hornet aircraft mounted accessory drive (AMAD) main gearbox housing. The housing experienced fretting damage to its hydraulic pad surface.

Nine severely damaged AMAD gearboxes (costing $169,000 each) have been repaired and returned to the fleet using Cold Spray. They have accumulated over 6,100 flight hours to date, without failure.

Since, several other aircraft components have been authorized for Cold Spray repair.

The team repaired and returned to service seven AMAD gears (costing $12,500 each) with mechanical damage and five brake carriers (costing $8,000 each) for the F/A-18 Super Hornet.

Additionally, the team refurbished six AMAD housings (costing $32,000 each) for the F/A-18 Hornet, as well as seven Hornet radar racks (costing $220,000 each).

Repair of structural members and components is currently being investigated. Comprehensive mechanical testing is being performed to quantify the strength and fatigue properties of Cold Spray repairs.

So far, the team has saved taxpayers more than $3,300,000; drastically decreased production repair cycle times; extended the service life of numerous components; improved operational readiness and reduced the need to purchase Original Equipment Manufacturer replacement parts.

Cold Spray is still in its infancy for military applications and our sister depots are looking to incorporate the technology, as well.
Civilian Awards

Length of Service

10 years

ADKINS, RONALD M.
ALLISON, JACOB
ANGLE, BRADLEY K.
AQUINO, WILFREDO L.
BALLESTER, ZOLITO R.
CASTELAN, DANIEL
DAVIS, JERRY N.
DIELMAN, DAVID H.
Foster, Joseph
GOMES, NORMAN J.
GROHOWSKI, SCOTT J.
HALL, DAWN M.
GUTIERREZ, ERIN P.
GROVES, NORMAN J.
HUG, KEVIN
HOFF, ANTHONY
JORDAN, JOANNE B.
JESTES, ROBERT D.
JACOBSEN, GAIL A.
HALL, DAWN M.
GUTIERREZ, ERIN P.
GROHOWSKI, SCOTT J.
GOMES, NORMAN J.
HUG, KEVIN
HOFF, ANTHONY
JORDAN, JOANNE B.
JESTES, ROBERT D.
JACOBSEN, GAIL A.
HALL, DAWN M.
GUTIERREZ, ERIN P.
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A double frocking ceremony to master chief for a husband and wife recently occurred aboard Naval Base Ventura County.

Senior Chief Navy Avionics Technician (AVSC) Jeffrey Wicker, an administration officer for Fleet Readiness Center Southwest (FRCSW) detachment Point Mugu, was frocked on April 28, while his wife, Senior Chief Aviation Machinists Mate (ADSC) Gwendolyn Wicker, an aircraft division Leading Chief Petty Officer for Carrier Airborne Early Warning Squadron 116 (VAW-116), was frocked the following day.

ADCM Gwendolyn Wicker was attending college in Houston prior to joining the Navy in 1993. While working at a local mall, she decided to enlist after talking to a naval recruiter. The recruiter, unknown to Wicker, was sent to her by her father (retired) Chief Avionics Electrician Merle M. Walline, to remind her that the Navy was still a viable career option.

Prior to VAW-116, where she supervises 40 Sailors, ADCM Wicker was assigned to Patrol and Reconnaissance Wing 10 (CPRW-10) Naval Air Station Whidbey Island.

She said that her favorite command was Executive Transport Detachment (ETD) Kaneohe Bay, Hawaii.

AVCM Jeffrey Wicker joined the Navy in Dallas in 1998.

AVCM Wicker came to FRCSW Point Mugu from Patrol Squadron ONE (VP-1) Whidbey Island. He earned an associate degree from Troy University and is pursuing a bachelor degree in political science. He enjoys spending time on home improvements and being with his family.

“‘We work hard for our son who helps drive us to do our best. As a military child, he has it a lot harder than we do. But overall, he is the backbone of our story,’” AVCM Wicker said.

The Wickers are awaiting orders to their next duty stations.
Fair Winds and Following Seas

Captain Pfannenstein!