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NEWSLETTER



Improving Fleet Readiness and Lowering Cost: The Aviation Rapid Action Team (ARAT) at Commander, Fleet Readiness Centers (COMFRC)

In the dynamic world of naval aviation, where readiness and cost-efficiency are paramount, the Aviation Rapid Action Team (ARAT), supported by Andromeda Systems Inc. (ASI), stands as a beacon of innovation and operational excellence. Working under the auspices of Commander, Fleet Readiness Centers (COMFRC), ARAT has consistently delivered on its mission to improve fleet readiness and enable cost savings by providing triage engineering and logistics solutions to resolve complex maintenance challenges.

ARAT's Mission and Impact

ARAT is dedicated to providing rapid and effective solutions to pressing issues within the Navy Aviation Enterprise (NAE). Its mission aligns closely with ASI's goals of improving operational efficiency and readiness while simultaneously reducing costs. ARAT achieves this through a comprehensive approach that includes addressing obsolescence, investing in new capabilities, performing requirement analyses, technical evaluations, and offering support for various repair needs.

In fiscal year 2023 alone, ARAT's initiatives resulted in an impressive cost avoidance of over \$21 million. The team addressed 791 components, returned 578 to Ready for Issue (RFI) condition, and achieved a return on investment (ROI) of approximately 7:1. This significant impact underscores ARAT's role as a crucial partner in the NAE's efforts to maintain and enhance operational readiness.

Major Breakthrough in Legacy VXI 1553 Card Repairs

One of ARAT's standout achievements involved a critical project in support of PMA-260's Propulsion Team. The challenge was to address an issue with obsolete VXI 1553 communication cards used in the Jet Engine Test Instrumentation (JETI) system. These cards, which are essential for running the Engine Test Cell afloat, faced obsolescence that would have led to a costly \$1 million Engineering Change Proposal (ECP).

ARAT engineers, in collaboration with Lakehurst and COMFRC, embarked on a mission to resolve this issue. Their concerted effort resulted in the successful repair and validation of eleven cards within a remarkable four-week period. This not only met current demands but also set the stage for future repairs. Besides avoiding the hefty ECP, these cards ensured the continued readiness of engine repairs to the fleet, while eliminating the cross-decking burden. This achievement exemplifies ARAT's commitment to leveraging available resources to sustain operational capabilities.

Enhanced Component Removal Throughput with AirVac DRS-27

In a bid to tackle the rising costs and shrinking budgets, Fleet Readiness Center West (FRCW), supported by ARAT, introduced the AirVac DRS-27 soldering bench. This state-of-the-art equipment significantly increased the throughput for complex component removal by 400 percent. The DRS-27 allows for the precise removal and replacement of surface-mounted and ball joint gate array (BGA) components, dramatically reducing the time required for these processes from an average of 55 minutes to just 10 minutes. Within two days of becoming operational, the DRS-27 enabled the repair of four Generator Control Unit (GCU) circuit cards, leading to a cost avoidance of \$27,753. The unit's efficiency not only recouped its cost in less than a week but also achieved an average monthly cost avoidance of \$297,440. Additionally, it addressed a backlog of 26 circuit cards previously considered Beyond Capable Maintenance (BCM), realizing a cost avoidance of \$193,336. The DRS-27's advanced technology reduces thermal shock damage and accelerates technician training, further enhancing its value and utility.

ARAT's Broader Contributions and Collaborations

ARAT's contributions extend beyond individual projects to encompass a wide array of support services and collaborations. The team has been instrumental in developing and improving capabilities, acquiring new support equipment, and introducing new procedures. By providing supporting data for logistics tails, incorporating modifications and technical directives, and offering reclamation services, ARAT addresses obsolescence and fills short-term maintenance gaps until permanent solutions are established.

Partnerships with various entities—including PMAs, FSTs, NAVSUP, DLA, OEMs, and industry partners—have been pivotal in achieving NAE goals. ARAT's approach is grounded in a deep understanding of maintainers' perspectives, leveraging available resources to address current needs effectively. Recent projects have involved collaborations with multiple PMAs, such as PMA-209 (Common Electronics), PMA-231, and PMA-275 (V-22), among others. These efforts showcase ARAT's capability to handle diverse challenges and contribute to the overall success of the NAE.

Looking Ahead

As ARAT continues to explore new opportunities to enhance I-Level capabilities and increase fleet readiness, it remains committed to the mission of minimizing cost while improving readiness. ARAT's proactive approach and strategic partnerships across the NAE has positioned it well to address the challenges of today and tomorrow. ARAT's focus on rapid action, cost efficiency, and readiness exemplify ASI's commitment to providing top-notch supportability across the NAE.



The More You Know -

Building Better Sleep Habits

National Wellness Month took place in August and was founded in 2018 by Live Love Spa to foster connection and commerce in the Wellness industry. There are many different ways to celebrate National Wellness Month, one of which is focusing on building better sleep habits. By prioritizing your sleeping habits, you can improve your overall health and wellness.

Did you know that when you fall asleep nearly every system in your body transforms? Your breathing slows, muscles gradually relax, and your brain neurons switch to a sleeping state. This is just the beginning of your body's nightly process to rejuvenate and renew.

Why Should You Build Better Sleep Habits?

There are many positive effects that a good night's sleep has on the body such as strengthening your immune system, increasing attention span, and promoting heart health. Poor sleep has been proven to contribute to increased cravings for sweet and fatty foods, which could lead to weight gain. This is because a lack of sleep causes your body to create an increased amount of ghrelin, the hunger-stimulating hormone. Not being well-rested can also impair a person's cognitive and motor performance which can lead to slowed reaction time, accidents, and a decrease in productivity and work performance.

How Do You Build Better Sleep Habits?

If you struggle to get good quality sleep at night, you're not alone! According to the American Sleep Apnea Association, 1 in 3 American adults regularly get less than the recommended amount of uninterrupted sleep per night. If you're unsure of the optimal amount of sleep you should be getting, try the [Bedtime Calculator](#) to determine the recommended hours of sleep you need each night.

There are several attributes to getting quality sleep each night, which include how much sleep you get, how long it takes you to fall asleep, and the ratio of the time spent sleeping versus being in bed. There are many things that you can do throughout your day to set you up for a successful night of rest.

- Create a consistent schedule. Wake up and go to bed at the same time every day, including weekends.
- Set an early bedtime to ensure you get your optimal amount of sleep
- Listen to your body. Only go to bed when you're sleepy. If you're not asleep after 20 minutes, engage in a calming activity such as reading, meditation/guided breathing, or gentle stretching.
- Ensure you're in a restful environment by keeping it quiet, relaxing, and dark, with a cool temperature ranging between 65 to 68 degrees Fahrenheit.
- Limit electronic devices. Turn them off at least 30 minutes before bedtime.
- If you're hungry, opt for a light, healthy snack.
- Avoid caffeine and alcohol, especially in the afternoon and evening
- Hydrate mindfully and reduce fluid intake before bedtime.

Prioritizing sleep is essential for maintaining optimal health and wellness. By ensuring adequate rest, you contribute to improving your brain's performance, alertness, and mood, ultimately enhancing your overall quality of life.



BENEFITS OPEN ENROLLMENT - Coming in November

Benefits Open Enrollment for 2025 is coming in November. This is the time when you can make changes to your insurance coverage or sign up for new options. Open Enrollment will take place in **UKG, our payroll and benefits system.**

You will receive information about the 2025 benefits in November, however, it is helpful to start thinking about it early. You can consider your current situation and any possible upcoming life changes as well as budgets, interests, or requirements you may have in the year to come.

To prepare for Open Enrollment, ensure your system access is current.

- 1.) Ensure you can log into your **UKG account.**
 - You must complete the registration steps to access and use your account, if you have not already. Follow the prompts to update your password and log in.
 - **Address:** asi2005.ukg.net
 - **Username:** ASI email address
 - **Default Password:** Date of birth in format: MMDDYYYY
 - **Company Access Code:** asi2005
- 2.) Know where your **benefits profile** is in UKG. From your UKG Summary page, click on **Benefits > Manage My Benefits.**
 - This will display your benefit profile including your current benefit elections, beneficiaries, and plan documents.
- 3.) Ensure you have access to the UKG Benefit Document library.
 - From your UKG benefits profile, click **Documents > Benefit Documents.**
 - The benefit document section has current plan documents. Documents for 2025 will be added when available.

Human Resources is available to review and discuss benefits with you throughout the year as well as at Open Enrollment. Don't hesitate to reach out with questions at HR@androsysinc.com.

ASI CELEBRATES NATIONAL BASEBALL DAY!

We hope you were able to enjoy National Baseball Day this year on April 22. Baseball is a great way to get outdoors and experience new memories with friends and family! Enjoy some of our employees' favorite baseball memories they shared with us over the years!



Jessica Oberg and Friend
Opening night for the Jacksonville Jumbo Shrimp



Taylor Cashen and Husband
Taylor's first Major League Baseball Game, Tampa Bay Rays vs. New York Yankees



Tommy Tucker, Albert Wilkerson, Kimmer Phillipi, John Henson, and Carl Sawyer Cardinals vs. Cubs game



Kimmer Phillipi, Albert Wilkerson, Jim Bearden, and John Henson Cardinals vs. Cubs game

ASI CELEBRATES AVIATION DAY

When someone says the word “aviation,” a lot might come to mind such as kites, hot air balloons, The 1903 Flyer, wing design, aircraft control, fighter jets, passenger jet planes, and so much more!

National Aviation Day was first observed in 1939, after the proclamation by U.S. President Franklin D. Roosevelt. This day also happens to be Orville Wright’s birthday. It is an annual national observance that honors the development of aviation. The purpose of this day is to encourage individuals to participate in activities that promote interest in aviation.

The Wright Flyer

We can’t talk about aviation without mentioning the Wright Brothers. The Wright Brothers, Wilbur and Orville, are given credit for building the world’s first successful airplane with aircraft controls that enabled them to steer the plane. On December 17, 1903, Orville flew the plane for 12 seconds at an altitude of 120 feet near to what is now known as the Wright Brothers’ National Memorial. The plane was named the Wright Flyer (also known as the Kitty Hawk, Flyer I, or the 1903 Flyer). The Wright Brothers were not the first to build and fly experimental aircraft, but they are the first to invent aircraft controls that made fixed wing flight possible.

Early Aviation and Military Usage

Aircrafts became militarized as soon as they were invented. The Wright brothers were called to design an aircraft capable of carrying two people at a speed of at least 40 miles per hour for 125 miles. The aircraft they delivered in June 1909 was listed as “Airplane No. 1, Heavier-than-air Division, United States aerial fleet.”

During World War I, aircrafts were used primarily for reconnaissance or scouting missions to obtain information about enemy forces, but their use in combat developed quickly. By 1912, not only were aircraft taking off and landing on decks of military ships, but they were also beginning to be used to carry missiles for combat.

Jet Planes and Passenger Jets

Once the wars were over, the development of jet engines and sleeker airplanes came to the forefront. Propeller airplanes were enhanced to provide a more comfortable passenger experience. Boeing’s 307 Stratoliner – nicknamed the Flying Whale – began flying 33 passengers in pressurized cabins at 20,000 feet in the mid-1940s. It was the first in-service pressurized airplane and airliner in history. The Lockheed XC-35 was the second passenger airplane with a pressurized cabin.

Another major advancement was the Bell X-1, which was the first aircraft to exceed the speed of sound. The aircraft was nicknamed the Glamorous Glennis as a tribute to the U.S. Air Force Capt. Charles E. “Chuck” Yeager’s wife. The design of the Bell X-1 was unique, featuring a bullet-shaped fuselage and rocket engine and was later used to drop from a B-29 Bomber.

It is amazing to think of all the milestones aviation has reached over the years! From the Wright Brothers’ first flight to the present-day jet fighters, aviation has undergone a remarkable evolution. We are proud to say ASI helps make a difference every day with the work and support we give to our clients!

If you are ever in the ASI Jacksonville Office, be sure to visit the Conference Center to see the display case of model aircraft that ASI has supported.

ASI CAPTURES THE SUNSET

During the third week of July, we encouraged you to get out each evening to enjoy the sunset. We were amazed at the beautiful photo submissions that we received! This was a great way to see and learn about the beautiful places that our employees get to experience. We hope that you enjoyed taking this time to witness one of nature’s greatest gifts.

Thank you to everyone who participated and submitted these photos!



NEW HIRES

Abraham Tolbert Product Implementation Manager
 Alan Escuro Senior Logistics Analyst
 Alysia Rodgers Training Manager
 Andres Rios Logistics Analyst
 Anthony Giangaspro Structures Engineer
 Ashton Barnes Project Accountant
 Bill Brockman Senior Logistics Analyst
 Britney Baker Contracts Accounting Analyst
 Curtis Chew Senior Logistics Analyst
 Dot Shuster Senior Acquisition Logistics Manager
 Elizabeth Boyett Reliability Engineer
 Erin Ownby Controller
 Heather Miller Managing Director Contract Accounting
 Heather Pesante Senior Logistics Analyst
 Jason Piper Logistics Analyst
 Jenna Bemis Contracts Accounting Manager
 Jim Austin Department Head
 Joseph Cordova Senior Logistics Analyst
 JR Rodriguez Director of Corporate Growth and Business Development
 Karolyn Fox Logistics Analyst, Journeyman
 Kenneth Nieves Logistics Analyst
 Lindsey Bonnette Journeyman Logistician
 Mateus Feitosa Senior Systems Engineer
 Michael Dugger Acquisitions Logistics Manager
 Michael Hoffman Software Developer
 Michael Robinson Help Desk Technician
 Naomi Dunlap Senior Logistics Analyst
 Nicholas Mellon Junior Logistics Analyst
 Pamela Phillips Payroll Accounting Manager
 Paul Jacobs Journeyman Logistician
 Rachel Boydston Reliability Engineer
 Rafael Custodio Logistics Manager
 Richard Raber Senior Acquisition Logistics Manager
 Robert Charlesworth Senior Logistics Analyst
 Ron Taylor Senior Logistician
 Scott Fick Logistics Analyst
 Stephen Adamczyk Logistics Manager
 Stephen Toloczko Sr. Director Contracts
 Stephen O'Neal Senior Logistics Analyst
 Tommy Tucker Senior Logistics Analyst
 Victor Craven Senior Acquisition Logistics Manager

Alejandro Androuin	Software Development Intern	IS&S
Andreas Periclos	Senior Software Developer	IS&S
Anthony Broom	Senior Software Developer	IS&S
Bryson Viehweg	Systems Engineer	Engineering
Gregory Baxter	Senior Stress Engineer	Engineering
Ivan Pennington	F-35 Senior Management Analyst	A&PM
Jason Badia	Senior Software Developer	IS&S
Jeffrey Heron	Director, Foreign Military Sales	FMS
Joseph Nichols	Logistician	A&PM
Lance Ralston	Acquisition Logistics Manager, Journeyman	RM&S
Margaret Aaron	R&M Engineer	RM&S
Marshall Warren	Senior Stress Engineer	Engineering
Maui Ong Ante	Stress Engineer	Engineering
Mirielle Page	Human Resources Coordinator	HR
Nathaniel Bujarski	Junior Database Developer	IS&S
Nicolas Piacente	Reliability Analyst	RM&S
Paul Goldenberg	Senior Software Developer	IS&S
Stephen McPherson	Senior Structures Engineer	Engineering
Todd Price	Senior Structures Engineer	Engineering

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HAPPY ANNIVERSARY

5 YEARS

Alex Wilson
 Arved Grass
 Brian Beaman
 Bruce Hamilton
 Denise Boyd
 Eric Wood
 Leslie Harris
 Tommy Tucker

15 YEARS

Kevin O'Shaughnessy



ASI Employee Spotlight **BRAVO ZULU!!!!**

“I wanted to let you know that I was so happy to be able to share all your hard work on the LOB and Tableau during today’s meeting with the Production IPT. I just knew everyone would love it! I know it’s tedious work, but the PMA will come to rely on it now that we can show them consistent data. It will also help rebuild credibility since the disconnect w/ BB created confusion and uncertainty. Great job! Thank you! ”

Stephanie L. Moore
V-22 DMSMS Manager/PMA-275



Jason and Jabari combined various spreadsheets which the Government Operations Management Team (OMT) was utilizing for analysis and tracking into a singular workbook. The result was access to a combined list of tracked NIIN’s with their current demand and stock data. By combining the demand data and the quarterly CDRL’s received from Bell/Boeing, they created a very accurate projection model. With over 70 systems that have purchased government bonded stores, they formulated each tab to display its perspective quantities and data. The Government OMT team can now gather and display current stock, demand, and accurate projections for briefs or meetings.

Dashboards were also created within Tableau for the IPT’s to access and view their systems demand and stock data whenever they needed. Currently, they are formulating a way to streamline the V-22 case log in Power BI, to create an interactive and quick way to view obsolescence cases.



It is with great sadness, but with a near lifetime of fond memories, that we at ASI acknowledge the passing of our great friend and partner, Ron Wagner. Ron passed away June 7 while in Key West on a vacation celebrating his 50th Anniversary with his wife Mimi.

Mimi graciously provided the following Obituary:

“Ron” was born on the Ides of March in Arizona in 1952. He spent his youth with his parents, Bob and Edna, and twin sisters, Sherri and Terri, in Roswell, New Mexico. He was appointed to the U.S. Naval Academy class of ’74, where he received a Bachelor of Science. Ron married Mimi the day after graduation at the Naval Academy Chapel.

Upon graduation, he attended the Aviation Maintenance School in Memphis, TN. He then served with the VA105 “Gunslingers” in Jacksonville, FL, where he was awarded Sailor of the Year. He went on to attend the Naval Postgraduate School, where he earned a Master of Science in Management in 1979.

Upon graduation, Ron was appointed Aide to Admiral Fred Baughman in Point Mugu, CA. He then reported to the USS Enterprise. Ron served on the USS John F. Kennedy, USS Frank D. Roosevelt, and USS Saratoga throughout his career. Most notably, Ron served as the Aviation Maintenance Officer aboard the Saratoga during Operation Desert Storm/Shield. He was the Assistant Program Manager for Logistics for the T-45 Goshawk jet trainer, still used to train the Navy and Marine Corps Pilots today. Captain Wagner retired as Director of Industrial Operations of Naval Air Systems Command in 1996.

Ron was the first recipient of the distinguished Captain Virgil Lemon Award for Naval Aviation Maintenance Excellence.

Ron was a gifted storyteller who often crafted the most entertaining tales of his fantastic Naval exploits, which could neither be “confirmed nor denied.” He loved sharing sea stories, playing pool with his family, and listening to the music of his youth. He is survived by his wife Mimi, daughter Brienne and husband Bill, daughter Jillian and husband Lee, and daughter Megan and husband Manak, as well as four beloved grandchildren, Noelle, Greyson, Willa, and Diana.

A memorial service will be held for Captain Wagner at the Naval Academy Chapel followed by inurnment at USNA Columbarium on November 4th, 2024.

For those of us who called him a friend and partner at ASI, Ron was a true visionary who led us into many new things, including managing one of our first contracts supporting PMA-273 and the T-45 aircraft. He played a primary role in bringing us into the F-35 Program, a relationship that continues flourishing and is a cornerstone of work today. He was a selfless and loyal friend to all of us at ASI and would come to our aid at a moment’s notice. He was extremely proud of his US Navy Service and, as noted above, a great storyteller, with many of those stories providing great “lessons learned” for our work today. Many of us at ASI have known and worked with Ron for decades.

Along with his many stories to tell, he had many words of wisdom that could be summed up in a short saying. A couple of those include one of Ron’s favorite sayings when he didn’t quite agree with you, or sometimes just joking around, would say, “I’m behind you 30%”. Other times, when he perceived someone may not be looking out for everyone or not addressing every angle of a problem, he might mockingly say, “Pull the ladder up. I’m aboard!” Lastly, he would often refer to the old days when “ships were wood and men were iron.” He probably wouldn’t admit it, but he was one of those “iron men.” Although the body was a bit rusty at the end, Ron’s vision and drive to do great things continued to be as sharp as finely honed steel.

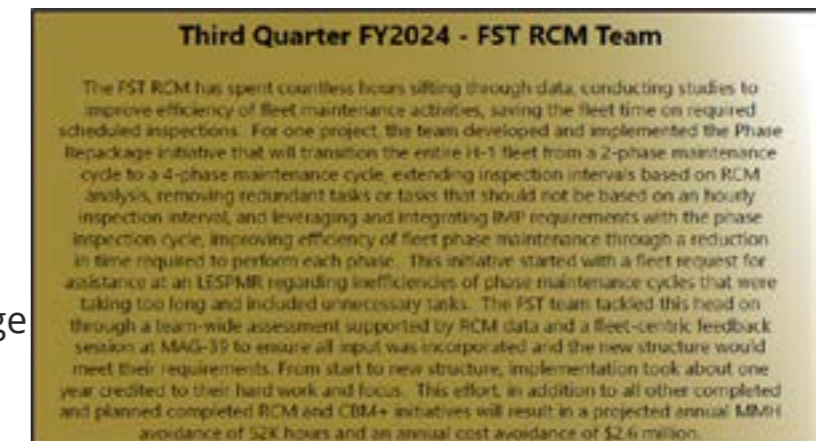
Ron, we are always one hundred percent behind you! Rest in peace, Friend and Shipmate. We have the watch.

ASI has been supporting the H-1 program in many facets throughout our existence. These efforts have included Manpower studies, using Modeling and Simulation to optimize retirement and long-term preservation schedules, and improving spares predictions to increase readiness. These efforts have undoubtedly achieved tangible benefits for the H-1 community and the warfighter. However, our longest running effort has been performing Failure Modes Effects and Criticality Analysis (FMECA) and Reliability Centered Maintenance (RCM). ASI has been performing FMECA and RCM on the new UH-1Y and AH-1Z helicopters since 2007 without interruption as part of a continuous improvement methodology. The results of our analyses have enabled the program to ensure that the right maintenance is performed at the right time, streamline maintenance by removing unnecessary and redundant tasks, all while ensuring that safety risks are mitigated to an acceptable level.

Recently, the H-1 Fleet Support Team (FST) RCM team was awarded the PMA-276 Gunfighter of the Quarter award specifically for their efforts of changing the maintenance concept from a 2-phase (200/400 FH) cycle to a 4 phase (200/400/600/800 FH) cycle. ASI was a driving force behind this fundamental change and this accomplishment will lead to a significant reduction in maintenance man-hours and downtime for the fleet.

This was the culmination of many years of hard work by our H-1 RCM team and the work continues as we are in the process of implementing those changes across the fleet. The team consists of Reggie Northcote (H-1 RCM Project Manager), Bob Hudson, Trevor Sanderson, Barbara Ketchum, Sebastian Bracisiewicz, Randy Swartz, Alisha Saylor, and Bob Wilkins. Rightly so, they have received lots of positive reception from the H-1 community, specifically from their leadership. Their excellent work deserves a debt of gratitude and is a testament of the great work we do at ASI.

From the PMA-276 “SKID Report”:



ASI's F/A-18 E/F Super Hornet Blue Angel Conversion Support Written by: Grant Waltz

Andromeda Systems Incorporated (ASI) is currently supporting the U.S. Navy F/A-18 Fleet Support Team (FST) in drafting, reviewing, and approving the release version Airframe Change (AFC), Accessory Change (AYC), and Installation Technical Data Package (TDP) for the future conversion of fleet F/A-18 E/F Super Hornet aircraft to U.S. Navy Flight Demonstration aircraft, Blue Angels. The primary task is to review the AFC, AYC, Installation Instructions, Installation Drawings, and to provide technical support for the installation of the Blue Angels primary systems. These include Airshow Smoke Oil Distribution, Very High-Frequency Omni-Directional Range/Instrument Landing System (VOR/ILS), Inverted Fuel, and Cockpit Modification. The Blue Angels modifications are based on Original Equipment Manufacturer (OEM) designs and are being documented as the U.S. Navy's officially released documents. A brief description of the main Blue Angels systems is provided below.



Figure 1 The U.S. Navy Flight Demonstration Squadron, the Blue Angels, diamond pilots perform the low break cross maneuver.

Airshow Smoke Oil Distribution

During airshow demonstrations, the smoke produced by a U.S. Navy Super Hornet Blue Angels aircraft is generated by injecting environmentally friendly oil into the exhaust stream of the Super Hornet's left-hand General Electric F414-400 jet engine. The oil system includes a 90-gallon oil tank mounted in the gun bay (where the M61A2 Vulcan rotary cannon is typically housed), two nitrogen bottles mounted on the Y204 bulkhead to pressurize the system, oil lines running from the oil tank to the left-hand engine bay, and switches mounted on the left-hand cockpit glare shield to control the system's operation.

VOR/ILS

The Very High Frequency Omni-Directional Range (VOR) and Instrument Landing System (ILS) installed in U.S. Navy Super Hornet Blue Angels allows the aircraft to utilize Civilian Aviation systems. An ILS antenna is mounted on the interior surface of the nose radome, a VOR antenna is installed on the gun bay door, and a VOR/ILS receiver is located in the right-hand avionics bay, all connected by coaxial cables. The system interfaces with the mission computers through a software update.

Inverted Fuel

Inverted fuel pumps are installed on U.S. Navy Super Hornet Blue Angels to enable the aircraft to safely execute inverted flight for extended periods, such as during the Blue Angel airshow's FORTUS maneuver. The system involves the installation of specialized fuel tank access covers on tank 2 and tank 3, each with a fuel pump mounted on the cover's top side. A toggle switch on the left-hand cockpit glare shield controls the pumps. Fuel pressure lights on the right-hand cockpit glare shield indicate the aircraft's fuel pressure status. These lights are connected to fuel pressure switches, which are in turn connected to each fuel pump and the main fuel lines in the left-hand and right-hand main landing gear wheel wells.

Cockpit Modifications:

The cockpits of the U.S. Navy Super Hornet Blue Angels undergo modifications that include an artificial feel spring system connected to the aircraft's flight control yoke. Additionally, the cockpits feature switches for the smoke system and inverted fuel system mounted on the left-hand cockpit glare shield, fuel flow indicator lights on the right-hand cockpit, and a stopwatch on the heads-up display control. In two-seater aircraft, a rear-facing camera is mounted on the center glare shield.

Andromeda Systems Incorporated's crucial support is evident in the meticulous modifications made to the U.S. Navy Super Hornet Blue Angels aircraft. These enhancements enable the stunning aerial maneuvers that define the Blue Angels' performances. Our support to the F/A-18 FST ensures that the Blue Angels not only perform with breathtaking skill but also with the utmost safety and reliability, embodying the pinnacle of aerial demonstration.

F414 Engine Readiness Goals Achievement

Written by: Martin Breen

In July 2024, the F414 engine FST was recognized by PMA 265 with a Program Manager's Superior Achievement Award for helping the engine program team exceed and sustain Engine Readiness Goals (ERG) for the first time in many years.

Engine Readiness Goals are established by COMFRC and the program team in support of peacetime, surge and wartime operations. Their intent is to ensure that there are enough engines to support any usage need that arises. These established goals are used to drive depot repair funding and workload planning for future years. ERG metrics are used by fleet operational commanders and managers to assess the health of engine readiness as well.



Figure 1 The F414 engine. The engine is used in several U.S. military aircraft including the Navy's F/A-18E/F Super Hornet and EA-18G Growler.

In January 2023, F414 engine readiness had been below these goals for some time. The engine operations pool at the time was hovering around 75 percent full and the surge pool was empty, meaning there were no resources with which to ramp up for a conflict. The program was short a total of 74 engines to the ERG goal at this point in time.

To help the F414 program achieve its goals, the FST (assisted by Martin Breen, ASI senior propulsion engineer) addressed scheduled maintenance requirements, module and engine builds and engine removals from aircraft. The team took swift action on several beneficial projects that reduced engine removals by increasing life limits on several components along with removing scheduled maintenance requirements on three bearings and the combustion liner via the RCM process. The FST also assessed I level maintenance tasks on the fan and compressor modules, identifying several capability enhancements that were easy to implement. These changes allowed additional harvesting and retention of modules at the I-level for local engine builds to support fleet requirements.

Fewer modules returned to the depot eased production pressure at the depot, leading to increased depot production, improved module readiness and improved engine readiness. These were manpower and time intensive FST efforts, but they showed the potential to provide significant benefits.

The initial projection was for these changes to save 400 engine removals over a ten-year period, equating to savings of 400 million dollars in repair cost alone. In the months following the implementation, scheduled removals dropped by one-third providing immediate relief and indicating that these savings are on schedule to be fully realized.

Since these initiatives were implemented, the program has remained above ERG goals for approximately six months. This is the longest sustained period above ERG for the program since 2018. Surge pools are currently meeting their requirement. Engine time between removals has increased approximately 10 percent during this timeframe as well. This represents not only a cost savings but an enhancement in availability and readiness.

ASI is proud and honored to have played a part in this significant achievement for the F414 engine program. We look forward to continuing our strong partnership with the F18 FST and the F414 engine team in the future.