NAVRIIP AIRSpeed

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NAS Brunswick P-3 Team commits to NAVRIIP/AIR*Speed*

By Betsy Haley
NAVRIIP Communications Team and NAVAIR Public Affairs

A recent visit by Naval Aviation Enterprise (NAE) leaders to NAS Brunswick, Maine, demonstrated commitment to the cost-wise readiness journey and the improvement of long-standing processes for the P-3 aircraft. The leaders also expressed their continued encouragement of Sailors and Marines to implement the NAVRIIP and AIR*Speed* process improvement tools.

Cmdr. Dan Lafond, Commander Patrol and Reconnaissance Wing Five (CPRW-5) maintenance officer, noted: "In order to manage personnel and assets for optimizing ready-for-tasking aircraft (A-RFT), we've developed close cooperation within the CPRW-5 triad. The triad consists of the wing maintenance officer (wing MO),

AD1 Greg Plunkett, AIMD power plants division, demonstrates the operation of the pump housing test unit. The unit tests the hydraulic pumps of the propeller. Photo by PH2 Johnathan Roark

AM2 William Price, VP-92 reattaches a flap asymmetry chain. The chain belongs on the under side of the wing on a P-3 air craft. Photo by PH2 Johnathan Roark

aircraft intermediate maintenance detachment (AIMD), officer in charge (OIC) and aviation support detachment (ASD).

"We are open to new ideas and innovative business practices. We welcome and are ready for NAVRIIP and AIR*Speed* training for our Sailors and Marines. Our team understands the benefits associated with implementing the process improvement tools," said Lafond.

The P-3 squadron is actively involved in process improvement initiatives throughout the squadron and AIMD/ASD. Such initiatives include active reserve integration (ARI), AIRPLAN and consolidated isochronal scheduled inspection system for maintenance (C-ISIS). These improvements contribute to increasing A-RFT during a period of flightline gaps by increasing the number of available aircraft and decreasing the number of aircraft in the depot for structural service inspections (SSI) and enhanced structural inspections (ESSI).

"CPRW-5 improvement activities are aligned to NAVRIIP," said Lafond. "Our Sailors are enthusiastic about C-ISIS, and they see the need for AIRPLAN in our operations and training departments. Also, AIMD participates in the P-3C barrier removal teams. Our people are

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MALS-31 AIR*Speed* Success

By MGySgt. Billy Stewart
Aviation Supply Chief, Headquarters Marine Corps and NAVRIIP Communications Team

The initiatives of NAVRIIP and AIR*Speed*—particularly as embodied in Relevant Information For Leadership (RIFLe) and the Basic Theory of Constraints (BTOC)—are steadily making progress throughout the Navy and Marine Corps F/A-18 community. The result has been an alteration in legacy behavior for both Navy and Marine Corps leaders. RIFLe and BTOC have motivated Marines to embrace NAVRIIP and AIR*Speed*, and senior Marine leadership has taken notice.

One impressive staff non-commissioned officer from Marine Aviation Logistics Squadron 31 (MALS-31), Marine Corps Air Station (MCAS) Beaufort, South Carolina, has gotten the attention of his superiors. Although he works primarily in the consumable management division as non-commissioned officer in charge (NCOIC), GySgt. Richard Charron also serves as the AIR*Speed* coordinator for the MALS-31 supply department. Charron is convinced that the AIR*Speed* building blocks will ensure success, no matter what the obstacle. I located and interviewed Charron to find out what he thought about these basic building blocks of AIR*Speed*.

For starters, give the readers a little background on your mission as the AIR*Speed* coordinator for the MALS-31 supply department.

My assignment is to incorporate Theory of Constraints (TOC) into an overarching Naval Aviation Enterprise design. We will accomplish this by deploying improved logistics flows at the site level, integrating TOC, Lean,

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Importance of Blended Process Improvement

Interview with Capt. Mike Hardee - NAVRIIP Chief of Staff and AIRSpeed Project Manager - August 2004

What is Blended Process Improvement (BPI)?

Blended process improvement uses combinations or sequences of process improvement tools—Theory of Constraints (TOC), Lean and Six Sigma. When it comes to process improvements in the Naval Aviation Enterprise (NAE) with regard to maintenance and supply chain management, blended process improvement avoids the use of one single tool exclusively at the expense of other initiatives. It is not a monochromatic approach to change management.

Retired Vice Adm. Mike Malone and Vice Adm. Wally Massenburg, Commander, Naval Air Systems Command, have talked about a philosophy of blending the process improvement tools. Meaning, you take the tools and you make them work together, while making sure they are sequenced appropriately.

What is the history and background behind BPI?

Blended process improvement is a formal approach established by Commander, Naval Air Forces (CNAF) policy. Remember, in the recent past, metrics were unreliable, inconsistent and had no common language, such as sorties, dollars or parts. The Navy had limited predictability in parts requirements. "Full mission capable" and "mission capable" were the readiness metrics, and their focus supported near-term solutions, i.e., buying as opposed to fully and consistently integrating all support elements. Additionally, many local process improvement initiatives were ongoing before being formally implemented. We had NAVRIIP type-model-series (T/M/S) barrier removal teams (BRTs) working readiness and production issues. Naval Aviation had Lean, Six Sigma and TOC initiatives being worked around the enterprise repair facilities. While well intended and progressive, the initiatives were uncoordinated, which meant they had the potential of being unaligned or perhaps competing. Vice Adm. Massenburg and Vice Adm. Malone made the decision to coordinate the efforts in a consistent approach that encompassed the tools being used in industry—TOC, Lean and Six Sigma.

So blended process improvement is a policy that took efforts, which were narrowly focused, unconnected to the Enterprise, with narrowed efficiencies, and improved the conditions for their best implementation. Instead of making local decisions not globally aligned, now we are starting to implement Enterprise AIR*Speed* in such a way that we are aware of the interdependencies. We are reducing the unintended consequences. And we are moving gradually from a "push" to a "pull" system to replenish, repair and maintain aircraft.

Advanced Theory of Constraints (ATOC) is the overarching architecture for the process improvement tools. How do the other process improvement tools fit under ATOC?

Commander, Naval Air Forces policy (through the Executive Steering Committee) created the overarching architecture of ATOC to illuminate the constraints and coordinate the intervention strategies for those constraints. What ATOC does is look at all the interdependencies and their variability, both locally and globally. The processes in ATOC provide the ability, or potential, to illuminate the constraints. Once the constraints are found, we have many options. We can look at the constraint from the standpoint of reducing all of the waste, and then apply Lean principles to it. If it has variability, we can reduce that by using Six Sigma.

If it has cost parameters or inappropriate cost behaviors associated with it, we can use the aviation financial analyst tool (AFAST) to illuminate what we are spending a lot of our money on relevant to this constraint, and then determine how we can mitigate that. We try to implement ATOC to offer new opportunities to lean out constraints and reduce variability. AFAST is important in determining if the money being spent on the flight line and in the flying hour program is relevant to achieving ready-for-tasking aircraft. It provides consumption behavior information at the flight line.

A lot of this will end up changing policy. If we are going to change behavior, then we need to change how people are measured. The only way to change how people are measured is by changing policy. So, one follows the other. It's the next step in the NAVRIIP process.

How effectively is the Enterprise AIRSpeed implementation process achieving BPI?

It is clear from our implementations at Naval Air Station, Oceana, Va., and Naval Air Station, Lemoore, Calif., that local efforts in Lean and Six Sigma were not in optimum alignment and therefore were being applied in areas that would not give the best return on investment. Now that ATOC is in place, the constraints with the biggest cost and readiness impacts (typically measured by the Kelly Index) are now being consistently illuminated for waste and cycle time reductions in a systematic protocol through the best practices of Lean and Six Sigma. We are now illuminating the right constraints to give the most return on investment.

The nice thing is that since ATOC is in place, the constraints with the biggest cost and readiness impacts are now being consistently identified. They are being tackled systematically through either Lean or Six Sigma. One of our supporting contractors, Lockheed Martin, is also poised to do that in concert with our ATOC implementation. This is happening now at Naval Air Station Lemoore, Calif., and at MALS 31, Marine Corps Air Station, Beaufort, S.C.

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What improvements to the deployment and implementation process need to be made to achieve BPI?

We need to continue to educate the workforce at every possible level. I can't stress education enough. We need to educate the workforce both tactically and strategically. What I mean by tactically is the folks in the aircraft intermediate maintenance departments, on the flight lines and in the aviation supply departments, need as much education on this process improvement toolbox as possible. But, the rest of the NAE needs to be educated on this as well. The more we learn, the better we will get at this business of developing more efficiency in the workforce.

We need to remind ourselves that ATOC and TOC, as a rule, are based on applying rigorous cause and effect thinking. We are dealing with systems and not just individual parts, resources and processes. One of the very interesting characteristics of Lean and Six Sigma is that they are very tactically focused. Both are very immediate—*here and now* and *in this place*. The independent or single application does not always take into account the interdependencies and their subsequent variability. These may be outside the fence of an organization with other participating providers of resources, and that is why we need to blend the tools.

Why are interdependancies so crucial to effective implementation of Enterprise AIRSpeed?

Enterprise AIR*Speed* views organizations as systems that must work interdependently to achieve a common goal. Otherwise these efforts are neither aligned nor focused on the efficient and effective activities that bring the best return on investment. The supply system must work with the maintenance system. The maintenance system—made up of the organizational, intermediate, and depot levels—must work together with supply material management systems. The supply system relies on responsive transportation systems. The Enterprise as a whole relies on statusing systems to know where the parts are, and when they are going to get where we need them, in order to align our replenishment resources most effectively. Otherwise, these efforts become misaligned, or not focused on bringing the best return on investment. Most important, they are not focused on providing cost-wise ready-for-tasking aircraft.

If TOC, Lean and Six Sigma are not implemented as an integrated package, what are the consequences to the NAE?

If we can identify where an organization's constraint is—whether it is local, or eventually global—then we can determine precisely where to focus our waste reduction and cycle time reduction efforts in order to maximize the performance of that local process and the organization, especially in its role in the NAE. This is the nice thing about implementing Enterprise AIR*Speed* tools in an integrated package. If we don't, then we are going to risk having a lot of unfocused and misaligned steps. I'm not saying all of the efforts will be unfocused, but a lot will be unfocused. I'm not saying Lean by itself is a bad thing. It is one of the first tools I learned in the implementation business and I'm partial to it. It is a wonderful intervention strategy to eliminate waste and improve efficiency. But we have to ask ourselves constantly whether the tool we use takes into account the processes and policies of other organizations.

Please explain, what is the supply chain enterprise management perspective?

When I talk about the supply chain enterprise management perspective, I am visualizing the entire spectrum of packaging, handling, storage/warehousing and transportation. It is material management, both local and global. All of it must work together as a system with the ability to get status, track individual elements—even by serial number. There are many touch-points and handoffs in such a system, and therefore many interdependencies which must work not only well, but right the first time, every time, in order to fully support the NAE.

What are the differences between ATOC and Basic Theory of Constraints (BTOC)?

Both initiatives employ TOC and are based on the premise that every organization or system has at least one constraint; otherwise it would have unlimited capacity. ATOC and BTOC both are based on understanding the cause and effect of systems and their operational flows, their individual variations, and their existing interdependencies.

BTOC is focused on getting the leadership to focus on the main goal, achieving the main goal, and all of the sufficiencies required to meet the main goal. BTOC is locally focused at a Naval Air Station or Marine Corps Air Station with both the ASD and the intermediate maintenance activity teaming together towards a common goal.

ATOC is the same thing, but spreads larger across the NAE. Now, in the case of ATOC, we are encompassing Naval Aviation Inventory Control Point, Defense Logistics Agency and the global perspective. With ATOC you deal with a lot more agencies, organizations and systems than with BTOC.

How is Enterprise AIRSpeed implementation going since we last talked a few months ago?

Implementation now is moving faster than in the first pilot phase because of learning curves. We are gaining efficiencies with the implementation teams and the sites as well. Word is getting out and it's catching on a lot faster. There is more information out there, and the top leadership is providing clarity of purpose in their message for cost-wise readiness. There is a much higher level of enthusiasm because the word is getting to the troops. Not to say there wasn't enthusiasm before, but now it's gaining popularity with the Fleet.

For more information on AIRSpeed, link to https://logistics.navair.navy.mil/airspeed/.

excited to begin applying Lean to the intermediate maintenance activity (IMA) production processes."

AIRPLAN, C-ISIS and ARI

Established in June 2004, AIRPLAN is a management tool used to prioritize aircraft assignments. Operations officers manage it with full participation from all P-3 squadrons at Brunswick. All events are prioritized, and a pooled resource concept is utilized. The program helps maximize aircraft use and readiness; it also helps in training aircrews with limited A-RFT to execute the flying hour program (FHP). AIRPLAN effectively maintains readiness.

C-ISIS is the scheduled maintenance plan for the P-3, which combines several work center maintenance areas into one. The wing MO coordinates the schedule, and all maintenance procedures are conducted in a dedicated hangar bay, work center and office space.

"We will continue with C-ISIS and we hope to improve it," said Lafond. "The schedule is a challenge because P-3 aircraft do not have ISIS non-aging in all their Depot periods, which may include SSI and ESSI. Phased Depot Maintenance does have non-aging and is much easier to schedule when it comes out of the Depot."

After C-ISIS implementation, maintenance cycle time was reduced from an average of 21 days to 10 days, and aircraft availability was improved. "We changed the cultural mindset of the Sailors," said Lafond. "Now, through the new practices, cross training and work load planning, we are working toward the operational requirement."

Through ARI, the active and reserve squadrons have been working closely together, borrowing aircraft and sharing a maintenance hangar. The maintenance officers and maintainers are consolidating resources in an effort to support the need for A-RFT. Capt. Dan Lynch, CPRW-5 commodore, commented on these new initiatives: "By instituting C-ISIS, AIRPLAN and ARI, we are increasing our fiscal awareness, making informed decisions and enhancing teamwork in support of cost-wise readiness."

Vice Adm. Wally Massenburg, commander of the Naval Air Systems Command and NAVRIIP chief operating officer, reinforced the point. "Coming from the culture of near-term thinking, we have to manage more effectively. You must be empowered to decide what you need. We are in a tough position where we must focus on balancing cost and readiness."

New Fixes, New Processes

During the AIMD and squadron leadership tour, maintainers presented other recent improvements and technological advances to old equipment and processes.

AD1 (AW) Stanley Johnson, 400 division production, lead petty officer, submitted a design for a test cell hydraulic fluid recycler, which is now being successfully used in the T-56 engine test cell. A pump filters the fluid, and then cleans it for reuse. The process is now saving NAS Brunswick over $5000 annually, and the amount of hazardous waste has diminished.

Lt. Michael Hoerr, AIMD power plants division describes the new and improved shipping container for P-3 propellers. The new container is used to ship propellers to Pacific Propeller International for repairs. The container ensures safer shipment and less rework at the facility when the propeller arrives. The container was purchased by NAVICP for AIMD and squadron use.
Photo by PH2 Johnathan Roark

"This is one great example of how the Fleet provided ideas and suggestions on ways to improve," said Cmdr. Craig Munson, AIMD, officer in charge. "We instituted a new process which improved the overall work environment."

AD2 (AW) Gregg Plunkett presented a new shipping container for P-3 propellers that ensures safer shipment and less rework at the facility when the propeller arrives. The container was purchased by NAVICP for AIMD and squadron use.

Plunkett also commented on the new C-130 and P-3 pump housing test bench. "We now have a safer means to install the pump housing, as well as reducing man-hours and repair costs." Besides improving processes and parts, the squadron and AIMD also design new tools and facilities to improve their quality of work, reduce maintenance man-hours and cost.

A reduction gearbox (RGB) ring puller and procedure is a new tool and process designed to provide access to the reverse spring assembly. In the past, the squadron lacked the proper tool to access the spring assembly and clean the RGB thoroughly. The new cleaning process reduces the amount of metal contamination which resulted in premature failures of the RGB. By using the ring puller tool, beyond capability of maintenance status and failure rates are reduced, while reliability is increased.

Munson noted, "As the NAVRIIP and cost-wise readiness evolution unfolded, every Sailor began to understand the positive impact the cultural change would have on their man-hours, cost savings and quality of work-life. The impact on squadron readiness is seen throughout our day-to-day operations."

Quality of work has also been helped by the new hangar facility built to consolidate two inefficient, wooden and outdated hangars. The new facility has an unobstructed entry width of 378 feet and is equipped with fabric hangar doors. These allow for better lighting and insulation; they can be

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AIR*Speed* Tools

Theory of Constraints (TOC) is the Enterprise AIR*Speed* architecture process improvement and systems thinking skill based on the belief that any organization has at least one constraint and that any improvements on non-constraints may not yield as significant return on investment as working on the constraint.

Advanced Theory of Constraints (ATOC) is the application of market-demand pull supply-chain management based on Enterprise level TOC. In the current system, components and parts are "pushed" to the end users. In the aircraft intermediate maintenance activity's, components are inducted regardless of whether they are required. In the "pull" system, actual flight-line demand (operational requirements) and the time it takes to reliably replenish dictates inventory buffer levels and times to induct components into the repair process.

Basic Theory of Constraints (BTOC) is a process improvement tool under Enterprise AIR*Speed* based on TOC principles that is applied at aircraft intermediate maintenance departments, aviation supply departments and Marine air logistics squadrons. It represents a change of mindset from a focus on fixing everything to focusing on those things that increase readiness now and in the future.

Lean is a process improvement strategy that focuses on the ability to make everything, everyday in the exact quantity required, with no defects. The goal is to achieve perfection through the total elimination of waste in the value stream of the process. Lean uses incremental improvement to constantly expose waste to balance operational and standard workflows. Most notable examples are the supply chains established by Toyota and Honda.

Six Sigma (6s) is a process improvement strategy that is based on the assumption that the outcome of the entire process will be improved by reducing the variation of multiple elements. 6s is uniquely driven by a close understanding of customer needs, a disciplined use of facts, data, statistical analysis, and diligent attention to managing, improving, and reinventing business processes. 6s focuses on variation reduction to produce highly repeatable processes that create customer satisfaction. 6s is a measure of variability in relation to a total population of numbers.

NAS Brunswick P-3 team *(Continued from page 4)*

completely rolled up into the hangar for invisibility. The doors withstand the same amount of wind as traditional doors, while allowing entry/exit for larger aircraft. The building will accommodate the Boeing 737 replacement for the P-3C.

Said Lafond, "The P-3 community and CPRW-5 at NAS Brunswick will continue to evolve with NAVRIIP and AIR*Speed* as we continue to improve maintenance processes, component reliability and reduce cost."

NAVRIIP leadership discussed whether the new hangar design should become the hangar of naval aviation's future. The benefits of the new design and the versatility of the doors allow for flexibility and space which is not currently an option at other bases. "As we make improvements and find success, we need to share this with the entire NAE," said Massenburg. "It's important to communicate with others in Naval Aviation to avoid stovepipes of activity and to share lessons learned."

The Brunswick team is also employing the aviation financial analysis tool (AFAST), utilized NAVRIIP-wide to manage resources. "AFAST data helps make us all smarter on what we need to spend money on," said Cmdr. Jim Buckley, VP-8 commanding officer. "The maintenance department is smarter when trouble-shooting because of available AFAST data. We have to balance this with requirements from the commanding officers. We are more aware when troubleshooting because we work closer with the AIMD and spend money together."

Massenburg reiterated the need for the Navy and Marines to share the same path to reach cost-wise readiness. "In the beginning, NAVRIIP was solving the readiness problem," said Massenburg. "We got it about right. Now, we are moving toward getting the cost-wise piece right. We need to afford the Naval Aviation of the future. We will do this by cultural change,

AD2 Christian Mesina, VP-26, AIMD power plants division, demonstrates the proper use of a ring gear box compressor puller to Vice Adm. Wally Massenburg, NAVRIIP COO, and other NAVRIIP leadership. The RGB procedure uses a new tool designed to provide access to the reverse spring assembly. In the past, the squadron lacked the proper tool to access the spring assembly and clean the RGB thoroughly. The new cleaning process reduces the amount of metal contamination which resulted in premature failures of the RGB. By using the ring puller tool, beyond capability of maintenance status and failure rates are reduced, while reliability is increased. Photo by PH2 Johnathan Roark

commitment by our Sailors and Marines, and by using the NAVRIIP and AIR*Speed* tools."

NAS Brunswick is scheduled to receive full AIR*Speed* training in June 2005. "We will continue to look for improvements and work with the P-3 type-model-series community to improve operational and intermediate-level maintenance," said Lafond. "We look forward to receiving AIR*Speed* training at NAS Brunswick.

AIR*Speed* Journey: North Island, Calif. and Oceana, Va.

By Lt. Matt Carrasco
NAVAIR Deputy Program Manager Components
and Naval Air Station North Island Depot, Deputy AIRSpeed Officer

NAVAIR Depot North Island, Calif., continues to integrate leading industry productivity tools in an effort to drive continuous process improvement (CPI). These tools are aimed at balancing current and future readiness, reducing the cost of on-going operations, improving agility and alignment, and establishing enterprise-driven performance measures. The new business process that is being added to the Depot's list of actionable tools is the Theory of Constraints (TOC).

The Navy and Marine Corps began the AIR*Speed* journey more than four years ago, when the idea was only a concept. Today, across the Fleet more than 16 Navy and Marine Corps aviation maintenance commands have employed one or more of the business process tools enabled by AIR*Speed* initiatives. In the future, all Navy and Marine Corps aviation maintenance commands will employ Lean, TOC, and Six Sigma to streamline business operations and improve quality in a cost-wise manner. NAVAIR Depot North Island has been given the honor to lead the way, with the task of integrating and implementing Advanced TOC processes into Depot operations, first within the F/A-18 programs and then in additional programs over the coming months and years.

The AIR*Speed* effort at North Island integrates the existing Lean and Six Sigma efforts with the TOC toolset. Moving forward is a four-month design phase where the operational flow of parts, material and repair is documented; various targets for CPI are identified; and the future state system is designed. Two sub-teams are working on this design phase—a production team and a supply team (buffer team). Both teams work together to determine the best design for the Naval Aviation Enterprise (NAE).

Below are some abbreviated examples of where NAVAIR Depot North Island is in the design phase and what AIR*Speed* brings to an organization:

On-going design at NAVAIR Depot North Island:

•Buffer Design Team mapped the processes involved in the time to reliably replenish (TRR) and determined the initial buffer sizes for selected top readiness / cost drivers group of F/A-18 components based on Naval Aviation Inventory Control Point (NAVICP) turn around time (TAT)

•Buffer Design Team documented the "as-is" state for each buffer type

•Site Design Team began the process of verifying the AIR*Speed* buffer sizing tool against the NAVICP asset visibility database using selected national item identification number (NIINs)

•Buffer Design Team began defining the "as-is" and proposed "to-be" "level schedule" process for repairables

•Production Design Team documented the drum choice, rationale for the drum choice, and identified the buffers as appropriate for fuel cells (93206)

•Production Design Team completed "as-is" condition of shop generator control unit (GCU) test cell (93503)

•Production Design Team completed the "to be" operational flow for the canopies and windscreens shop (93207)

•Production Design Team reviewed scheduling process for the paint shop (98106) as it relates to the canopies and windscreens shop (93207)

What kinds of success do these tools bring to the organization?

Aircraft intermediate maintenance detachment (AIMD) North Island employed Basic TOC in late 2002, and by the summer of 2003, they noted the following results:

•Over-aged Awaiting Parts (AWP), G condition, decreased from 2.49 percent of total by month to less than .25 percent

•Expedited Repairs (EXREPs) per month decreased from 62 to 16

•Multiple EXREPS per month decreased from 14 to 1

AIMD Oceana employed Advanced TOC beginning in February 2004. Following are some of the takeaways from their efforts:

•Potential 404 engine inventory reduction of $67 million due to over-production, "over-Leaning" activities, and underproduction during surge operations. Now that throughput has improved, inventory and production management is employing TOC to ensure the right sized buffers of engines and modules are in place, ensuring smooth production and less inventory

•Reductions in Aviation Depot-Level Repair (AVDLR) charges related to high Beyond-Capable Maintenance (BCM) rates on flight surfaces by enhancing intermediate level capability. This resulted in projected savings of $2- $4 million per AIMD (depending on work load)

•Avionics decreased AWP (G condition) by 15 percent while simultaneously reducing the total number of parts by 35 percent (incorrect orders, over-ordering, etc.), which resulted in $2 million savings in the first four months of 2004

•Labor hour reductions of more than 50 percent

•Reallocation of pre-expended bin (PEB) consumables from the warehouse to AIMD resulted in $3.5 million in savings and elimination of 98 percent of material delay

Additionally, AIMD Oceana has applied Lean and Six Sigma to its operations. Following are some of the takeaways from their efforts:

•BRU-32 bomb rack shop, the Navy's center of excellence, reduced back-orders by 61 percent

•BRU-32 inductions were reduced from 80 percent to 7 percent, due to better build quality identified by Lean and Six Sigma

•404 Engine area reduced backlog by 67 percent

•404 Engine area reduced turnaround time (TAT) from 78 to 14 days

•Reduced F/A-18 hydraulic cylinder cycle time by 47 percent

How Do We Get Better?

Currently, there is significant cultural, policy, procedural, and physical constraints in the Depot, but all can be broken with persistence. The challenge now is not only to integrate these tools in the production environment but to incorporate them in the supporting organizations, such as NAVAIR, Fleet and Industrial Supply Center, Naval Aviation Inventory Control Point, Defense Logistics Agency, and more.

For more information, contact james.carrasco@navy.mil.

Six Sigma and RIFLe methodologies for sustained readiness at reduced costs.

At this point, where is your department in the training process?

Our design team has received weekly training over the past four weeks. We are currently moving into week five of a nine-week process. At this point we are in the design phase of AIR*Speed* for MALS-31. This entails looking at supply and maintenance processes and procedures, collecting demand data, and studying allowance sizes in order to improve logistical support to the flying squadrons. Utilizing the methodologies previously mentioned will do this.

Gunny, you mentioned supply and maintenance. One of the rumored obstacles to implementing AIR*Speed* has been the supply and maintenance discrepancy on basic principles. What is the relational climate at MALS-31 in this regard?

Overall, the supply and maintenance relationship at MALS-31 has been outstanding. AIR*Speed* has opened the door for better communications between the two departments. AIR*Speed* has illuminated the measurements imposed upon maintenance and supply that pit them against each other, setting the tone for frequently adverse working environments. The result has been new processes and procedures that will help supply and maintenance work towards a global good, rather than the good of each individual work section within the MALS.

That is great to hear. It all starts at the top and filters to the junior Marines and Sailors. It boils down to accountability and ownership. How are the young Marines responding to the "ownership" aspect of MALS-31 aircraft readiness?

The younger Marines and Sailors within the MALS have not really had a taste of ownership yet. They are given BTOC classes here at the MALS level, and have seen the design team compiling data and asking questions about their specific areas of expertise. Since we are still in the design phase, ownership will become evident as we move into implementation of the new policies and procedures.

Normally, the younger Marines adapt to change much more easily than the more seasoned Marines. There are always some skeptics out there. Was there any scuttlebutt before the implementation team came in? If so, are the skeptics turned into believers? AIMD North Island, CA, has certainly proven what these principles can do.

The attitude at first was the normal devil dog response, which is "prove it to me. It sounds great in theory, but we want evidence." Slowly, Marines and Sailors have started to realize the impact these changes will have on their work sections, and they are excited to see them come into view. The more seasoned Marines and Sailors are a bit harder to persuade since they have weathered many new procedures and policies, all with promises and high hopes.

I think back to the days of Total Quality Leadership and the suggestion forms that would be posted around the squadron. We were told they would bring about better procedures and policies. We have also heard the stories of AIMDs North Island and Oceana, and how they have achieved great results. However, Marines and Sailors here at MALS-31 view those commands differently, since MALS is 100-percent deployable, unlike AIMD North Island and other Navy AIMDs. As Marines, we are always thinking in a warrior mindset. When looking at our data and researching our current policies and procedures, our design team has taken this into consideration as to how they will change in the future.

As the coordinator for the supply department, what do you see as the your biggest asset to making this concept successful?

I would have to say the key to success for the supply department would be increased communication with the Defense Logistics Agency (DLA) and Naval Inventory Control Point (NAVICP) on how the new allowances will be calculated. We have to ensure that all parties understand how AIR*Speed* will affect allowance sizing and everyday supply policies and procedures. Currently on our design team at MALS-31, we have representatives from both DLA and NAVICP, who have been instrumental in providing guidance on the views of their perspective departments.

As Marines, I would expect no less in the communication arena. Finally Gunny, Marines are known for overcoming and adapting to obstacles. What will the biggest internal obstacle during AIR*Speed* implementation in MALS-31?

Good Question. I can sum it up in one word—sustainment. We have to sustain the policies and procedures after implementation. This process is a never-ending cycle. We must continually revise policies and procedures utilizing the AIR*Speed* tools.

In your opinion, what support and assistance outside of the MALS, both directly and indirectly, will be required to ensure sustainment is successful?

To maintain sustainment within the MALS both directly and indirectly, you must have continual training at the site, and schoolhouse-level training on the theories of *AIRSpeed.* Our commanding officer believes we need an onsite *AIRSpeed* coordinator within the MALS to maintain a sustained level of training for both supply and maintenance, as well as to direct their efforts on AIR*Speed* initiatives.

Gunny, with old-fashioned Marine leadership, sustainment will continue to be our bread and butter. We can sleep well knowing that Marines like you are leading the charge into the future of aviation logistics. I want to personally thank you and the Marines of the MALS-31 aviation supply department for engaging these concepts with true leatherneck zeal. We will plan on hearing great things from the "low country." Many thanks for your time and dedication. Semper Fi.

For more information on MALS-31 or the Marines Corps AIR*Speed* effort, contact MGySgt. Billy Stewart by email: stewartbd@hqmc.usmc.mil

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Enterprise AIR*Speed* Project Officer

NAVRIIP Web site:

http://www.airpac.navy.mil/navriip

Enterprise AIR*Speed* Web site:

https://logistics.navair.navy.mil/airspeed

MyNAVAIR Web site:

mynavair.navair.navy.mil (Portal for NAVRIIP documents)

For more information on NAVRIIP and AIR*Speed,* link to www.airpac.navy.mil/navriip or call 301.757.1487. Contact Betsy Haley for distribution list information, or for content suggestions.
Email: betsy.haley@navy.mil - Telephone: 301.757.5695

NAVRIIP University Schedule Updates

The following NAVRIIP University training sessions are available throughout 2004*.

28 Sept 2004 Office, Chief of Naval Operations Wash D.C.

04 Oct 2004 Tinker Air Force Base Tinker, Okla.

*The 2005 dates will be available soon.

For registration and course information, contact the Thomas Group by email at dbeachum@thomasgroup.com, or by calling 972.401.4276. Additional sessions will be added if demand exceeds the current schedule.

The NAVRIIP 101 basic overview course is a one-day training session, which focuses on the processes, tools and applications available in the NAVRIIP and AIR*Speed* toolkits. By providing exposure to NAVRIIP history, processes and tools, any employee assigned to units participating in NAVRIIP and AIR*Speed* activities will learn how to quickly become an effective member of the team in support of the initiative. Members of the NAVRIIP management team and the Thomas Group, a consulting company with expertise in process management, will teach the course. The training will introduce NAVRIIP and AIR*Speed* history, the charter and organization, an overview of the processes, tools, teams and success stories.

In addition, employees will learn about process value management tools, which address dynamic cycle time, and best business practices including a focus on Theory of Constraints, Lean and Six Sigma. The training will also explain the aviation financial analysis tool (AFAST), and cross-functional team and type/model/series team participation.

For schedule updates, link to www.airpac.navy.mil/navriip/navu.asp.

Type-Model-Series Schedule

SEPT	Thu 23	CFT 1	VTC	HM -TRW
	Thu 16	CFT 2	VTC	VAQ, VRC-PAR, 1300-1500 EST
	Thu 23	CFT 3	VTC	1000-1130 EST
	Thu 30	RIT	VTC	HSL, HS, HC, 1200-1400 EST
OCT	Wed 13	CFT 2	VTC	VFA, VF-PAR
	Thu 14	CFT 1	VTC	VAW, VS, VP, VMGR,VMA-TRW
	Wed 20	CFT 3	VTC	1300-1430 EST
	27th-28th	Flag Brief	Whidbey Is.	Whidbey Island
	Thu 28	RIT	VTC	VAQ, VRC
NOV	Thu 18	CFT 1	VTC	HSL, HS, HC - TRW
		CFT 2		No CFT2 meeting
	Wed 17	CFT 3	VTC	1300-1430 EST
		RIT		No RIT meeting
DEC	Thu 2	CFT 2	VTC	HM - PAR
	8th-9th	Flag Brief	Miramar	MCAS Miramar
	Thu 9	RIT	VTC	VFA, VF
	Tues 14	CFT 1	VTC	VAQ, VMAQ, VRC-TRW

The **Type Commander (TYCOM) Readiness Workshop** (TRW) consists of two elements:

Readiness and Aircraft/Systems.

During the readiness portion, the Lead Commodore/Marine Air Group Commanding Officer and program manager (PMA) will review readiness gaps and provide/develop gap closure planning using top-level chart analysis. This is also the forum for readiness barrier escalation to the TYCOMs.

Hosted by TYCOM N42s, the aircraft and systems workshop allows O-6 and below staffs to work with the Wing Maintenance Officers/Marine Air Logistics Squadrons Commanding Officers and Assistant Program Manager for Logistics on cockpit chart interpretation, degrader rank ordering, and root cause analysis.

During the ***Program Assessment Review*** (PAR), the PMA and Lead Commodore provide a detailed aircraft and systems barrier escalation brief to provider organizations (CFT-2).

During the ***Readiness Improvement Team (RIT)*** meeting, the Lead Commodore and PMA provide a summary readiness and aircraft systems barrier escalation brief.

For schedule updates, link to www.airpac.navy.mil/navriip.