The Hornet Buzz

News from the Nest

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F/A-18 Celebrates 25 years of Unmatched Air Power

Nicolette Cormier

The F/A-18 Program celebrated 25 years of service on November 20, at NAVAIR Patuxent River, Md. Alumni and current members of the team met for a day packed with, festivity, activity and memories.

The day began at 7:45 a.m. with breakfast and a panel discussion with former program managers. NAVAIR F/A-18 Program Manager Capt. "BD" Gaddis introduced the panel consisting of Rear Adm. (Ret) Glen Lenox, Rear Adm. (Ret) George Strohsahl, Capt. (Ret) Henry Halleland, Rear Adm. James B. Godwin III, and Rear Adm. (Sel) Jeff Wieringa.

A packed house listened as Gaddis gave a brief overview of the F/A-18 program. Turning to panel members he said, "When I think back to 1974-1975 I was just a junior in high school, here in St Mary's County, at that time some of you guys were struggling to get this aircraft off the ground. Twenty-five years later we have the F/A-18E/F, an amazing aircraft, which is soon to be equipped with AESA (Active Electronically Scanned Array), ATFLIR (Advanced Targeting Forward Looking Infrared) and MIDS (Multifunction Information Distribution System), enhancements that will give the Super Hornet phenomenal warfighting capabilities."

The panel spent the next two hours answering questions. The audience was keen to know how the F/A-18 went from the drawing board to reality. There was lots of reminiscing about how hard it was to get approval and acceptance for brand new technology such as digital fly-by-wire controls.

Commenting on the future of the program, panel member, Rear Adm. Godwin said, "The F/A-18 is truly a great aircraft and it still has another 25 years of potential still on the drawing board with the development of the EA-18G."

Photo by Richard Gaskin

Getting ready to cut the cake are (from left to right) Rear Adm. (Ret) Glen Lenox, Rear Adm. (Ret) George Strohsahl, Rear Adm. James B. Godwin III, Rear Adm. (Sel) Jeff Wieringa, Capt. BD Gaddis and Capt. (Ret) Henry Halleland.

The next stop on the day's agenda was at the Hazelrigg Hanger where VX-23 test pilots' Maj. Cody Allee (USMC) and Lt. Cmdr. Eric Mitchell were on hand to answer questions at a static display of an F/A-18E and an F/A-18A.

"We're offering something mature and something new today," said Mitchell referring to the display.

Not surprisingly the first stop for most of the alumni was the Super Hornet. Everyone wanted to sit in the cockpit with its expanded forward fuselage, all set to be fitted with the AESA Radar system.

"Surprisingly enough," said Allee, "almost all of the former pilots and

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program managers say the cockpit really hasn't changed much in appearance. However, after explaining the new technology that had been incorporated, Allee remarked, " There wasn't one person that didn't want to take the airplane out of here."

The Hazelrigg visit was follow by lunch at the Patuxent River Officers' Club. Father John Pagett, a former lead test pilot for the F/A-18, gave the invocation. Guest speaker Rear Adm. (Ret) Lenox spoke about some of the criteria required while developing the aircraft.

"From the beginning, reliability and maintainability along with costs were driving factors in the aircraft design," Lenox said. "It took a long time for industry to realize how serious we were about reliability and maintainability. We had some pretty strong requirements for the engine. One of the provisions was it would never stall. That's when G.E came up with the F404. One of the other major issues was life cycle cost. It was very interesting to go to the hill and explain all the different cost involved in life cycle during our quest for funding."

Afternoon celebrations continued in the atrium of the Moffett Building at Patuxent River where F/A-18 program industry representatives filled the atrium with displays and hands-on interactive simulations. Invitations brought back former employees from the Navy and industry as well as the first person to fly the aircraft, former Boeing Test Pilot, Mr. Jack Krings.

Jack Krings, then a test pilot for then McDonnell Douglas Corporation, took the new fighter on a 50-minute flight from St. Louis, Missouri over Southern Illinois. As a featured speaker, Krings commented, "At the end of the day, flying is what it is all about - and fortunately for Naval Aviation that is what Patuxent River is all about. Flight test is more progress than process here; the test culture is very good ... don't ever let it change."

Capt. Gaddis also introduced Tony Parasida, Boeing vice president for the F/A-18 Program, as someone who has been a friend to the entire Hornet community. Parisida is responsible for the technical, cost, test and schedule performance of the F/A-18.

"Although I am here as a representative of the Boeing company, I feel that I represent all industry who have worked for a lot of years to make the Hornet program successful," said Parasida. "When people ask me, 'do you enjoy your job?' I answer how can I not enjoy a job like this? It's the best job anyone could have in the entire Boeing Company. There is such a legacy of great performance on this program and it's been happening for 25 years, and it's going to continue to be successful for many years to come."

Closing the ceremony, Gaddis remarked, "It's been a tremendous celebration. This year is the 100th Anniversary of the first flight and to think today we are celebrating the first flight of the F/A-18 and 25 years of Hornet History - it's remarkable. I am fortunate to be the beneficiary of a lot of hard work by my predecessors. The last 25 years of flight by F/A-18 Hornets and Super Hornets have established an unmatched record of performance, survivability, reliability, maintainability, and affordability for the U.S. Navy, Marine Corps, and our allied partners."

Gaddis continued, "The men and women who have designed, developed, produced, maintained and flown these remarkable aircraft can be very proud. They have set the chinning bar pretty high. The future of the F/A-18 is very bright. With upgrades and modification programs ongoing on the A/B and C/D models, the rolling out of more E/Fs every week and the development of the "G", the aircraft is due to be a mainstay of aviation for many years to come."

VFA-2 Receives Safe for Flight Certification in F/A-18F

Congratulations to the VFA-2 "Bounty Hunters" who have received a Safe for Flight certification in the F/A-18F aircraft. The squadron is forward deployed with CVW 2 and have transitioned from the F-14.

Out and About With The Fleet

NAF Atsugi Welcomes First Super Hornets

Edited from an article By Lt. j.g. Nicole Kratzer, Carrier Air Wing 5 Public Affairs

The sound of jet engines returned to Naval Air Facility Atsugi, Japan, Nov. 13, when the first four F/A-18F Super Hornets to be permanently forward-deployed outside the United States arrived at approximately 4 p.m. JST.

The entire Atsugi community gathered to welcome the aircrews and families from the "Diamondbacks" of Strike Fighter Squadron (VFA) 102, the newest member of the Carrier Air Wing (CVW) 5 team. VFA-102 replaced the "Black Knights" of Fighter Squadron (VF) 154 as part of the U.S. Navy's only permanently forward-deployed air wing.

Rear Adm. James Kelly, the commander of the Kitty Hawk Strike Group, noted that replacing the F-14A with the F/A-18F signifies continuing U.S. commitment to the defense of Japan in support of the treaty of mutual cooperation and security. "By bringing the Diamondbacks to Atsugi, we are demonstrating our steadfast dedication to peace and regional security through strengthened capabilities," said Kelly.

The squadron will begin flying in the local vicinity focusing on learning the operational area and awaiting the arrival of the remaining nine aircraft. All aircraft and personnel are expected to be in place at Atsugi by mid-December.

A plane captain assigned to VFA-102 goes through the shutdown procedures prior to the pilot exiting an F/A-18F Super Hornet at Naval Air Facility Atsugi Japan. U.S. Navy photo by Photographer's Mate 3rd Class John E. Woods.

Marine Hornets Participate in Carrier Strike

An F/A 18 Hornet from Marine Fighter Attack Squadron (VMFA) 312, flying from the nuclear-powered aircraft carrier USS *Enterprise* (CVN 65) in the North Arabian Gulf, attacked enemy targets near Kirkuk, Iraq, assigned to VFA-82 patrols airspace near the North Arabian Sea in support of Operation Enduring Freedom. VFA-82 is deployed with Carrier Air Wing One (CVW-1) aboard USS *Enterprise* (CVN 65) in the North Arabian Sea. U.S. Navy photo by Lt. j.g. Perry Solomon.

Story edited from USS Enterprise Public Affairs

Two VMFA-312 F/A-18 Hornet Strike fighter aircraft from Marine Fighter Attack Squadron (VMFA) 312, flying from the nuclear-powered aircraft carrier USS *Enterprise* (CVN 65) in the North Arabian Gulf, attacked enemy targets near Kirkuk, Iraq, November 19 in support of "Operation Iron Hammer." Each dropped a 1,000-pound Joint Direct Attack Munition (JDAM) in the attack, destroying an enemy position. Ground troops operating in the area had taken fire from that enemy position in recent days.

After flying complex missions over both Afghanistan and Iraq in recent weeks, this strike was the carrier's first use of precision-guided ammunition in the Kirkuk region.

"The systems worked as advertised," said Marine Capt. James W. Smith, one of the two aviators involved in the mission. "It went very well, very methodically – from 'talk on,' to delivery to the egress." Marine Capt. Wade E. Wiegel, flew the other Hornet.

Enterprise deployed with three Hornet squadrons, one of which is the "Checkerboards" of VMFA-312, based at Marine Corps Air Station Beaufort, S.C.

* All Photos Available for Download at http://www.news.navy.mil

Marine Corps General Praises Hornet's Reliability

Story courtesy of Northrop Grumman Integrated Systems Communications

The Hornet team at Northrop Grumman's Integrated Systems facility in El Segundo, Calif., hosted U.S. Marine Corps Major General James F. Amos on November 18, 2003, the 25th Anniversary of the F/A-18 Hornet's first flight. After touring the facility and listening to briefings about the Hornet's future, Maj. Gen. Amos, who commands the 3rd Marine Aircraft Wing, talked to several hundred engineers, assembly technicians, logisticians and others on the assembly line floor.

"I'll tell you a little about the reliability of what you've done," Maj. Gen. Amos said. "You built an airplane that, for me, started the war [in Iraq] with 93 percent availability."

In the following twenty-eight and a half days, the Marine Corps defeated eight Iraqi divisions while Navy Hornet squadrons supported the Army's success to the conclusion of major combat in the region.

Maj. Gen. Amos called the Hornet, "the finest fighter built anywhere in the world," adding that the F/A-18s in the war flew over 10,000 hours in that period and ended with 83-84 percent availability.

Maj. Gen. Amos had first seen the Hornet when he was a maintenance officer supporting earlier generation jets. "The F/A-18 has been a phenomenal change in the way we go about building airplanes," he said. In 1983, he was impressed by a maintenance crew's ability to pull an engine out of the Hornet in one hour and five minutes. More recently, as a commander in Operations Enduring Freedom and Iraqi Freedom, he became further convinced of the Hornet's ability to perform.

"I will say on behalf of the Navy/Marine Corps team, thank God for people like you who are out there building airplanes like you build. We took all that you gave us and did pretty damn good."

Photo courtesy of Northrop Grumman

USMC Major General James F. Amos added his signature to a banner when he visited the F/A-18 program at Northrop Grumman on the 25th Anniversary of the Hornet's first flight. Looking on are (from left right) Corey Moore, Northrop Grumman Integrated Systems Air Combat Systems vice president and F/A-18 Integrated Product Team leader, and Gary Ervin, Northrop Grumman Integrated Systems vice president, Air Combat Systems.

To create a memento of the 25th Anniversary of the first flight for all the Hornet team members in El Segundo, the general signed a banner that will be displayed near the end of the F/A-18 center/aft section final assembly line. Special 25th Anniversary pens were also distributed.

As principal subcontractor to The Boeing Company, Northrop Grumman has produced the center/aft fuselage section and twin vertical tails and integrated all associated subsystems for each version of the F/A-18 including the current production model, the Super Hornet.

Happy Holidays!

Boeing Sells F-18 Software Test Facility To Finland

Story courtesy of Boeing Company Communications

A Finnish F-18C in Flight.

Boeing Integrated Defense Systems has officially sold a Software Test and Integration Center in Finland to the Finnish Air Force. The center's Integrated Product Team, comprising U.S. Navy, Boeing, Finnish Air Force and Patria Aviation engineers and technicians, designed and built the facility to enable the Finnish Air Force to test and maintain avionics software on Finnish F-18 Hornets.

"This was a near-perfect program," said, Randy Powell, NAVAIR F/A-18 program manager for Finland. Powell awarded each member of the Integrated Product Team a Letter of Appreciation from the Department of the Navy.

"This program was a complete success, because we satisfied our customer, we delivered the product on time and the product meets all customer requirements," said Jeff Higgins, Boeing IDS program manager for the center, during a ceremony earlier this month in Finland.

The program required that Finnish industry, specifically Patria Aviation, participate in the design and that components be fabricated in Finland. To meet the requirement, seven Patria Aviation engineers were integrated into the Boeing team for 18 months to complete the center's design. The Patria Aviation engineers returned to Finland to fabricate the facility components, and Boeing engineers spent the past year working in Finland testing components and integrating them to form the Software Test and Integration Center.

The center enables the Finnish Air Force to fully automate System Integration Testing of the F-18 Avionics Operational Flight Programs. Finland has both the F-18C and F-18D models. Finland is performing a Mid-Life Upgrade program to add increased capability and upgrade the Operational Flight Programs.

F/A-18 Hornet Community Conference Deemed a Success

Nicolette Cormier

The Hornet International Conference, an annual event organized and co-sponsored by The Boeing Company, was held recently at The Sutton Place Hotel, Vancouver, British Columbia. The three day conference brought together F/A-18 Hornet personnel from around the world to discuss issues and topics relevant to the operation of the F/A-18. This event is co-sponsored in turn by the foreign customers each fall.

"Each year an international Hornet customer serves as the co-sponsor for this important event." said F/A-18 Capt. (Sel) Greg Wallace, Foreign Military Sales Program Manager.

"The Program Office presented the current status of issues affecting the Hornet community, and the International users presented the status of their operational and program developments. Through this cooperative exchange of ideas and collaborative participation in system enhancements, we plan to keep the Hornet as cost effective, operationally relevant and capable as possible."

The program office briefed major systems such as: ATFLIR, SHARP, and AESA, as well as Network Centric Operations. During the three-day event, topics such as Version 10.7 Flight Control Software Update/Envelope Expansion and Advanced Weapons Air-to-Air were also discussed. Highlights included briefings from USN, USMC and the Royal Australian Air Force on their experiences in "Operation Iraqi Freedom."

Seven allied nations operate the F/A-18 Hornet. Canada was the first international customer for the F/A-18, and co-hosted the first Hornet International Conference in Canada in 1995.

Kitty Hawk Receives New Engine Test Cell

Edited from a story by Journalist Seaman Christopher Koons, USS Kitty Hawk Public Affairs

Aviation Machinist's ready an F-414 jet engine for performance testing in the AIMD jet shop on board the USS *Kitty Hawk* (CV 63) U.S. Navy photo by Photographer's Mate Airman Jason D. Landon.

Since the F/A-18E/F Super Hornet has replaced the F-14 Tomcat as the primary fighter interceptor aboard USS *Kitty Hawk* (CV 63), a new, highly advanced engine test cell has been installed in the ship's jet shop to facilitate the transition.

"The new jet engine test instrumentation (JETI) system is capable of running every engine in here," said Aviation Machinist's Mate 1st Class (AW) Angelo Tijam of aircraft intermediate maintenance department (AIMD). "Specifically, it can run the F-414, which is the engine the Super Hornets use."

As the Navy gradually phases out the Tomcats and replaces them with Super Hornets, carriers such as the *Kitty Hawk* have installed the JETI to deal with the new engine's complexity, said Tijam.

The *Kitty Hawk's* AIMD is still in the process of certifying its JETI and is running tests on it using engines such as the F-414. "It's kind of like certifying a car before releasing it to be sold," said Tijam. "We have very high expectations, since the JETI is far more advanced than the old cell."

Tijam said the ship's sea trials were the most important time in the testing of the new cell and the process will continue until at least the end of the current cruise.

"We're certifying our new system to make sure we're putting out the best engines possible," said Tijam. "The new system makes testing much easier than the old system did."

Brian Force, Naval Aeronautical Technical Engineering Command representative aboard the *Kitty Hawk*, also characterizes the new cell as being highly advanced. Force said the JETI utilizes the latest in computer technology. "It has a dual-battery backup system, self-contained power system," said Force. "It is also capable of running the F-404, which is used by the older F/A-18 Hornet; the J-52, which is used by the EA-6B Prowler; and the F-110, which is used by the Tomcat." The older system was antiquated, using dials and gauges, and not equipped to test the newer, more sophisticated engine models, according to Force. This new system knows how to communicate with the new engines.

"It's composed of three separate computers, each with its own purpose," Force said. "JETI 1 is for data acquisition, JETI 2 is a total package system, and JETI 3 is a throttle computer. It takes a computer to interface a computer and that's why we have it," he said.

Advances in test cell engine technology are allowing jet shops such as the one aboard the *Kitty Hawk* to test increasingly advanced engines.

"In the future, we'll be able to run gas turbine auxiliary power units," Force said.

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