



Marines heat-up F-35B Hot Loads training with AIM-120's

By Pfc. Ethan Pumphret, Marine Corps Air Station Yuma

MARINE CORPS AIR STATION YUMA, Ariz. — Hot-loading is when an aircraft lands and has ordnance loaded while the engine is still running. Marines from Marine Fighter Attack Squadron 121 conducted a hot-load in F-35B Lightning II's at Marine Corps Air Station Yuma, Ariz. on Sept. 21, 2017. This hot-load was conducted using AMRAMM AIM-120 missiles. VMFA-121 is a part of Marine Aircraft Group 12, 1st Marine Aircraft Wing.

The exercise was a validation/verification conducted during Weapons and Tactics Instructors course 1-18. WTI is an exercise that takes service members from all over the world in a joint training exercise for mission readiness. WTI is hosted by Marine Aviation Weapons and Tactics Squadron one.

"They will now have a publication to use," said Cpl. Matthew Donovan an aviation ordnance technician with VMFA-121. "We took it out there and we validated it. We know it works so now in the future they will have it in writing."

The hot-load exercise was conducted to ensure both pilots and ground crew have a real example of operations should those units deploy. The F-35B's were loaded with the AIM-120 missile and took off horizontally immediately after.

The AMRAMM AIM-120 is an air-to-air missile that will be used in conjunction with a Tactical Air Launch Decoy. The TALD was loaded onto an AV-8B Harrier II to be launched and used as a target for the AIM-120. The TALD is an expendable glide vehicle that can mimic the heat and radar signatures of a full-sized aircraft.

"You can't shoot an air-to-air missile unless you have something to shoot at," said Donovan. "The TALD is just a glider that comes off of the Harrier and then it glides straight and the Harrier moves out of the way."



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U.S. Marines with Marine Fighter Attack Squadron (VMFA) 121 load ordnance on an F-35B Lightning II aircraft during hot-reload training using AMRAMM AIM-120 missiles at Marine Corps Air Station Yuma, Arizona Sept. 25, 2017.

The exercise was a validation/verification conducted during Weapons and Tactics Instructors course 1-18. (Photo courtesy of U.S. Marine Corps)

Donovan said the AIM-120 is the only missile currently in the F-35's arsenal for the U.S. Marine Corps.

This hot-load exercise is to verify theory and validate publication and give the Marines involved a chance to load live ordnance while the aircraft is still hot. While the F-35B has been loaded hot before, this is the first time it has been conducted with these air-to-air missiles. Earlier this year, Marines with VMFA 121 loaded ordnance on the F-35B during hot-reload training at Marine Corps Air Station Iwakuni, Japan in order to be prepared for real-world scenarios.

"Decreasing aircraft turnaround time and increasing sortie generation due to the aircraft not having to power down, receive maintenance and start up again," said Staff Sgt. Kevin Knight an Aviation Ordnance Technician with VMFA-121. "It's critical in developing our expeditionary capabilities."

During WTI, VMFA-121 will also use GBU-12 and GBU-32, laser and GPS guided 500 lbs bombs in their F-35B's. This combat themed-training will provide the training and practical application to project Marine Corps air power on the battlefield.



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U.S. Marines with Marine Fighter Attack Squadron (VMFA) 121 load ordnance on an F-35B Lightning II aircraft during hot-reload training at Marine Corps Air Station Iwakuni, Japan, April 6, 2017.

This signified the first time the squadron loaded ordnance onto a running F-35B Lightning II aircraft at the air station in order to prepare for real-world scenarios. (U.S. Marine Corps photo by Lance Cpl. Joseph Abrego)