



# F-35 Lightning II Program

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## **SURVIVAL INSTRUCTOR KEEPS F-35 TRAINING AFLOAT**

**EGLIN AIR FORCE BASE, Fla. (AFNS)** -- Within the 33rd Fighter Wing, innovation doesn't end at the flightline, but finds its way into a 12-foot swimming pool where new F-35 Lightning II pilots are now able to seamlessly complete their water survival training.

During the F-35 aircrew flight equipment shop water survival training here, pilots are required to swim under the parachute and follow the seams to find their way out -- this worked with the C-9 parachute since it would stay afloat. With the new IRVIN-GQ 6000 parachute, a different design and thicker material at the center of the canopy caused the parachute to quickly sink to the bottom of a 12-foot pool, creating a difficult scenario for students.

"Previously, we would spread the lines of the parachute to the sides of the pool," said Staff Sgt. Edwin Portan, an F-35 AFE continuation training instructor with the 33rd Operations Support Squadron. "The canopy would then sink all the way down to the bottom of the pool, making it impossible for the second student to complete their evaluation because they would be pulling about 100 pounds of parachute canopy from underneath the water."

This proved to be detrimental to the program since students were unable to successfully complete that portion of the training.

"This was not a good simulation of the situation that would be experienced after a fully inflated parachute landed on top of the pilot," said Col. Christopher Niemi, the 33rd Operations Group commander. "The pilot would typically end up doing a 180 degree turn and then exit from under the parachute exactly where they entered."

Recognizing the issue, Portan, with some ingenuity and innovation, took a trip to a hardware store and came back with a solution.

"The concept started with thinking of something that floats," Portan said. "We got some PVC pipe, created the design, tested it and it worked out very well."

Portan's new device has since been implemented into the training and pilots are now able to complete their required tasks.

"With the parachute being spread out with this octagon-shaped PVC pipe floatation device, it sinks to a more realistic depth," said Portan. "It's just enough to get that heavy parachute canopy on them for the training, but not enough to where it becomes a safety hazard, and ultimately makes the training more effective."



An F-35A Lightning II piloted by Maj. Brad Matherne, 59th Test and Evaluation Squadron F-35 test director, leads an F-22 Raptor in flight during the opening ceremony of the open house at Nellis Air Force Base, Nev., Nov. 8, 2014. The inclusion of the Joint Strike Fighter in the open house marked the first public display of the aircraft at Nellis AFB.)



Maj. Brad Matherne, 59th Test and Evaluation Squadron F-35 test director, gives a thumbs-up during the Nellis Open House at Nellis Air Force Base, Nev., Nov. 8, 2014. Matherne piloted an F-35A Lightning II during the open house, which also marked the first public display of the aircraft at Nellis AFB.