P.O. Box 516
St. Louis, MO 63166
www.boeing.com

Advanced Super Hornet

Description and Purpose:

The Advanced Super Hornet offers the U.S. Navy and international customers a menu of next-generation capabilities, allowing Super Hornets to outpace future threats. The upgrades can be retrofitted onto existing Super Hornets or can be included on new build aircraft. The modular approach offers customers an affordable, low-risk option as they select the capabilities needed for their future mission and cost requirements.

While Boeing demonstrated the Advanced Super Hornet in the summer of 2013, the aircraft has evolved to meet the U.S. Navy's needs in the mid 2020s. Ongoing analysis indicates a future air superiority challenge but with greater range, the right sensors and the right number of missiles, the Super Hornet is very effective. Boeing is working with the U.S. Navy to be able to provide these capabilities quickly and affordably.

Advanced options include:

- Advanced Cockpit System
- Air-to-Air Weapons Capacity
- Conformal Fuel Tanks (CFTs)
- Enhanced Engine
- Infrared Search & Track
- Signature Enhancements
- Weapons pod

The advanced capabilities provide the following benefits to the warfighter:

- *Enhanced situational awareness* with Advanced Cockpit System
- *Long-range targeting* with air-to-air weapons capacity
- *Longer range* with low-drag, stealthy conformal fuel tanks
- *Significant acceleration increase* with enhanced engine
- *Long-range detection* with Infrared Search & Track
- *Low observability* with flexible and adaptable pod concept and next generation radar cross section

Advanced Super Hornet Test Flights

In August 2013, Boeing and Northrop Grumman flew an Advanced Super Hornet configured with conformal fuel tanks, an enclosed weapons pod and signature enhancements. The first flight was on Aug. 5, 2013. In total, 24 flights took place at both the Boeing St. Louis site and Naval Air Station Patuxent River, Md. The form-fit CFTs and EWP were configured to collect necessary flight and signature data needed to validate projected performance data.

The following findings resulted from the test flights:

- The CFTs increase the Block II Super Hornet's combat radius by up to 130 nautical miles for a total combat radius of more than 700 nautical miles.
- The signature enhancements showed a 50 percent signature reduction over the current U.S. Navy specification for stealth on the Block II Super Hornet.
- The CFTs and EWP are modular in design allowing for flexibility in first day of the war versus second day of the war operations and beyond mission requirements
- The enhanced capabilities can be retrofitted to existing Block II Super Hornets or forward fitted on new build aircraft.
- The CFTs will contain 3,500 pounds of fuel in a more aerodynamic configuration than under-wing tanks, offering more range through efficiency and more flexibility in stores configuration.

Like the Super Hornet, the Growler offers a modular design that allows it to be quickly outfitted with evolving capabilities as defined by mission requirements. Many of the advanced capabilities defined by the Advanced Super Hornet also will become part of the Advanced Growler. While the "Advanced Super Hornet" is an industry designation, the "Advanced Growler" is how the Navy refers to the Growler of the future.

The Hornet Industry Team

The Hornet Industry Team (HIT), comprised of Boeing, Northrop Grumman, GE Aviation and Raytheon, continues to invest in capabilities to ensure the Super Hornet continues to evolve to outpace advanced threats. The world's most experienced tactical aircraft provider, the HIT employs more than 60,000 people in 44 states with more than 800 suppliers. They have a reputation of delivering quality aircraft on time and on schedule – all while adding capabilities to the aircraft in an efficient and cost-effective manner.

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Contact:

Lisa Maull
F/A-18 Communications
+1 314-233-5004
lisa.a.maull@boeing.com

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