



Jim Brown "JB" served as the Chief Test Pilot for Lockheed Martin Aeronautical Company's F-117 Nighthawk and the F-22 Raptor where he amassed over 2,000 flight hours. JB will share his amazing experiences while flying Lockheed's stealth fighters and will provide his first-hand account of the origins of Stealth and Lockheed's involvement in this game-changing technology.

Following a short primer on the basic principles of Stealth, each aircraft is examined showing how these principles were put into application. Design details, performance capabilities and weapons employment will be discussed as well as comparisons between the two aircraft to show the evolution of stealth fighter aircraft design. Interspersed with the technical discussion are personal anecdotes providing entertaining insights into the experience of *Flying Lockheed's Stealth Fighters*.

From inception, the aircraft design objective for the world's first Stealth fighter, the F-117, was low observability. The need for secrecy and expedience from design to operational capability led Lockheed to use existing off-the-shelf aircraft systems. The F-117 Nighthawk first saw considerable combat use in the first Iraq War, Desert Storm, where its revolutionary capabilities were demonstrated. Two percent of the attack aircraft fleet was comprised of the F-117 force; and with a standard load of two 2,000 pound laser guided bombs, the F-117 destroyed 46% of the coalition targets, achieved tactical surprise every night of the war and no F-117s were shot down. The F-117 fleet was retired in 1998 but remains in flyable storage at Tonopah, NV.



The F-22 was conceived from the ground up to be a revolutionary air dominance fighter that would represent a quantum leap in combat capability. It was the first aircraft to incorporate the demanding, and sometimes contradictory, characteristics of Stealth, Integrated Avionics, Supersonic Cruise and Extreme Maneuverability. These capabilities allowed the F-22 "to operate with virtual impunity." during its initial operational trials. The F-22 is conducting combat operations at this time in the Middle East and provides a significant deterrent force in the Western Pacific.



Jim Brown graduated "With Distinction" from the Virginia Military Institute in 1976 with a BS Degree in Civil Engineering, earned a Master of Science in Management from Troy State University and completed graduate study in Mechanical Engineering with California State University, Fresno. Following two European tours flying the F-4 and F-5, he was selected to attend the USAF Test Pilot School where he graduated with Class 86A in December of 1986. Following graduation he tested the A-7, F-15 Eagle, F-117 and F-22.

In 1994, he joined the Lockheed Skunk Works® as an Experimental Test Pilot in the F-117 where he tested software, avionics and weapons improvements. These improvements saw service in Operation Joint Endeavor over Bosnia and Operation Iraqi Freedom, the second Gulf War. As the Chief Test Pilot with over 900 flight hours, JB went on to test the F-22 eventually becoming the Raptor Chief Test Pilot. In January 2016, he retired from Lockheed and joined National Test Pilot School (NTPS) as the Chief Operating Officer and Test Pilot Instructor. He is currently the President of NTPS and is responsible for the day to day and strategic operations of NTPS. JB is a Fellow and Past President of the Society of Experimental Test Pilots, a Fellow of the Royal Aeronautical Society and an Eagle of the Flight Test Historical Foundation. He has logged over 10,000 flight hours in 157 different models of aircraft and is the world's highest time Stealth Fighter pilot.

AIAA – ASME ZOOM Awards and Meeting
Thursday, May 4, 2023 at 0600 PM – 0730 PM PDT

Click the following link to attend this exciting ZOOM Meeting.
<https://aiaa.zoom.us/j/87315427644>

Meeting ID: 873 1542 7644

Dial In: 877 853 5257 US Toll-free, 888 475 4499 US Toll-free