

## **Frequently Asked Questions**

### **What is the mission of the Blue Angels?**

The mission of the Blue Angels is to enhance Navy recruiting, and credibly represent Navy and Marine Corps aviation to the United States and its Armed Forces to America and other countries as international ambassadors of good will.

### **What are the policies/requirements governing back seat flights in the number 7 jet?**

Orientation flights are given to three members of the local media at each show site. Individuals must be accredited members of the media and are recommended by Navy recruiters and air show sponsors, then reviewed and approved by the Blue Angels. A small number of VIP orientation flights are also offered each year to individuals from television, sports, music and the movie industry. These individuals are selected by the Blue Angels to generate national media coverage and convey a positive image of the squadron and the Navy/Marine Corps. These flights are in direct support of Navy and Marine Corps recruiting objectives.

### **Who authorized establishment of the Blue Angels?**

The Chief of Naval Operations, Admiral Chester W. Nimitz, ordered the establishment of the team on April 24, 1946.

### **Where did the name “Blue Angels” originate?**

The name was originated by the original team when planning a show in New York in 1946. One of them came across the name of the city’s famous Blue Angel nightclub in the New Yorker Magazine.

### **Where was the Blue Angels’ first air show?**

Craig Field, Jacksonville, Florida, on June 15, 1946.

### **Why don’t the Navy Blue Angels and the Air Force Thunderbirds fly together?**

Current Department of Defense policy states the use of military aviation demonstration teams is for recruiting purposes, therefore the teams cannot fly within 150 miles of each other without special permission. Each demonstration team showcases U. S. military aviation capabilities to the public separately to maximize Navy or Air Force recruiting efforts. However, the Blue Angels or Thunderbirds may perform with the U. S. Army Parachute Team, the Golden Knights, or the U.S. Navy Parachute Team, the Leapfrogs.

### **On average, how many people view the Blue Angels each year?**

An estimated 15 million spectators view the squadron during air shows each year. Additionally, the Blue Angels visit more than 50,000 people a show season (March through November) at school and hospital visits.

**What are the basic requirements for becoming a Blue Angel demonstration pilot?**

Each applicant must be career-oriented, carrier-qualified, active-duty Navy or Marine Corps tactical jet pilot with a minimum of 1,250 flight hours.

**How many Blue Angels demonstration pilots have there been?**

Including the 2009 season, the Blue Angels have had 238 demonstration pilots, and 33 Flight Leaders/Commanding Officers.

**Do the Blue Angels pilots go through Strike Fighter Wing Pacific's TOPGUN?**

Some current and former Blue Angels pilots have gone through TOPGUN, however it is not a prerequisite.

**How do you determine where to hold an air show?**

Each September the Department of Defense receives hundreds of requests to hold air shows featuring the Navy Blue Angels. After the Department of Defense screens requests for basic eligibility, requests are forwarded to the Blue Angels' Commanding Officer. The squadron reviews each air show request, considering input from the Chief of Naval Information and Navy Recruiting Command. In December, the Blue Angels' Events Coordinator, along with Navy and Department of Defense officials, meet at a scheduling conference in Washington, D.C. for final considerations and approval.

**How does someone become a Blue Angel demonstration pilot?**

Navy and Marine Corps pilots meeting the basic requirements submit an application directly to the team via the Applications Officer. Applicants visit the squadron at scheduled show sites early in the show season to observe the team firsthand. Finalists are selected mid-season and interviewed at the Blue Angels squadron in Pensacola, Florida. The new demonstration pilots and support officers are selected by unanimous vote. The Chief of Naval Air Training selects the Flight Leader/Commanding Officer.

**What happens if a Blue Angel demonstration pilot is ill or hurt?**

Safety is paramount for every demonstration. Each pilot is responsible for good health and safety; however, the Blue Angels Flight Surgeon will medically disqualify a pilot if one should become ill or injured. Should the Flight Leader/Commanding Officer be grounded for medical purposes, the demonstration will be canceled.

**Why don't the Blue Angels maintain a spare pilot?**

With the number of practice hours required to safely fly a demonstration a spare pilot could not be utilized effectively. Each pilot must complete 120 training flights during winter training in order to perform a public demonstration safely. The teamwork required for the high speed, low-altitude flying in the tight Blue

Angel formation takes hundreds of hours to develop. A substitute pilot would not have enough time in the formation to do this safely.

### **Why don't the pilots wear G-suits?**

G-suits are designed with air bladders (pockets) that inflate and deflate to keep a pilot's blood from pooling in the pilots' legs while executing sharp, unpredicted combat maneuvers. Unlike combat flying, the Blue Angels demonstration pilots know the maneuvers they will fly prior to execution, so each pilot knows when to expect heavy gravitational forces. Anticipating the changes in gravitational forces allows the Blue Angels demonstration pilots to combat the G-forces with muscle contractions. In addition, the Boeing F/A-18's control stick is mounted between the pilot's legs. The Blue Angels have a spring tensioned with 35 pounds of pressure installed on the control stick that gives the pilot a "false feel." This allows the pilot minimal room for uncommanded movement. The pilots rest their right arms on their thighs for support and stability while flying. Therefore, inflating and deflating air bladders in a G-suit would interrupt this support and stability, causing uncommanded aircraft movement. In this case, G-suits would detrimentally impact flight safety.

### **How many Blue Angels have achieved the rank of Admiral?**

Twelve former Blue Angels have made flag rank. The flag officers include: RADM E. L. Feightner (ret.), #5, 1952; RADM W. A. Gureck (ret.), #2,4, 1955-56; RADM W. Lewis Chatham (ret.), #5, 1952; RADM Ernest Christensen (ret.), #3, 4, 1969-70; RADM Jim Maslowski (ret.), #3/4, 1970-71; VADM Tony Less (ret.), #1, 1974-75; RADM William E. Newman (ret.), #1, 1978-79; RADM Dennis Wisely (ret.), #1, 1980-81; RADM P. D. Money maker (ret.), #1, 1989-90; VADM Pat Walsh, #3/4, 1985-87; RADM David Anderson, #5,6,7, 1985-87; RADM Doug McClain, #3/4, 1988-90, and BGEN Mark Bircher, #2, 1985-1987.

### **Have any Blue Angels become astronauts?**

CDR Chuck Brady, Flight Surgeon, 1989-90.

### **What is the average age of a Blue Angels pilot?**

The pilots' average age is 33 years old.

### **How is the enlisted, support and maintenance team selected?**

Each applicant is carefully screened and selected by current team members.

### **What is the average age of the enlisted, support and maintenance team?**

The average varies slightly, however, it is approximately 26 years old.

### **Are the Blue Angels the "best of the best?"**

The Blue Angels are representatives of the excellence and professionalism found throughout the fleet. Each Blue Angels team member is an ambassador and representative of fleet counterpart.

**How long is a Blue Angel tour of duty?**

The demonstration pilots, Maintenance Officer, Events Coordinator, and Flight Surgeon each serve a two-year tour. All other members, including the Narrator, serve a three-year tour. Each member returns to the fleet after completing a tour with the Blue Angels.

**How many Marines serve in the squadron?**

There are 19 Marines on the 2009 team. Eight in Fat Albert, 8 in maintenance, pilots #3 and #5 and the Public Affairs Officer.

**How many females are in the squadron?**

The number of females varies each year. The 2009 team has 21 females.

**How do team members deal with the time away from home?**

Individuals are made aware that they will be away from home a lot before they volunteer for duty with the team and are selected based on their ability to cope with, not only family separation, but with a strenuous practice and show schedule. Additionally, the Navy, Blue Angels, and civilian communities at Pensacola, Fla. and El Centro, Calif. provide a family-type support network.

**Do any of the Blue Angels get extra pay?**

No. Each member of the squadron volunteers for duty with the Blue Angels. Due to keen competition at all levels, each individual feels especially honored to be associated with the team.

**What is considered minimum visibility for a Blue Angel performance?**

To be able to perform, the Blue Angels must have at least three nautical miles of visibility horizontally from centerpoint, and a minimum cloud ceiling of 1,500 feet. At these minimums, the Blue Angels can perform a limited number of maneuvers in what is called a "flat" show. When the ceiling is at least 3,500 feet and visibility at least three nautical miles a "low" show can be performed, which includes some rolling maneuvers. With a minimum ceiling of 8,000 feet and visibility of three nautical miles, the Blue Angels can perform their "high" show, which includes all maneuvers.

**What is the lowest and highest maneuver heights performed during an air show?**

This varies due to weather conditions. The highest is the vertical rolls performed by the Opposing Solo (up to 15,000 feet) and the lowest is the Sneak Pass (50 feet) performed by the Lead Solo.

**What is the most demanding maneuver performed?**

All maneuvers are demanding, both mentally and physically, and reflect the challenges met daily by fleet Navy and Marine Corps aviators.

**What are the fastest and slowest speeds flown during an air show?**

The fastest speed is about 700 mph (just under Mach 1; Sneak Pass) and the slowest speed is about 120 mph (indicated speed; Section High Alpha), both flown by the solo pilots during the show.

### **How many and what types of aircraft have the Blue Angels flown?**

Since 1946, there have been eight types of aircraft:

- (1) Grumman F6F Hellcat, June-August 1946;
- (2) Grumman F8F Bearcat, August 1946-1949;
- (3) Grumman F9F-2 Panther (first jet), 1949-June 1950 and Grumman F9F-5 Panther 1951-Winter 1954/55;
- (4) Grumman F9F-8 Cougar, Winter 1954-55-mid-season 1957;
- (5) Grumman F11F-1 Tiger (first supersonic jet), mid-season 1957-1969;
- (6) McDonnell Douglas F-4J Phantom II, 1969-December 1974;
- (7) McDonnell Douglas A-4F Skyhawk II, December 1974-November 1986;
- (8) Boeing F/A-18 Hornet, November 1986-Present.

### **How many jets are in the Squadron?**

The Blue Angels currently have 10 jets: 7 single seat F/A-18 A models and three 2-seat F/A-18 B models.

### **What are the major differences between the fleet model and the Blue Angel F/A-18?**

The Blue Angel F/A-18s have the nose cannon removed, a smoke-oil tank installed and a spring installed on the stick which applies pressure for better formation and inverted flying. Otherwise, the aircraft that the squadron flies are the same as those in the fleet. Each Blue Angel aircraft is fleet capable of being returned to combat duty aboard an aircraft carrier within 72 hours.

### **Are Blue Angels' aircraft carrier-capable?**

All of the Blue Angels' jets are carrier-capable and can be made combat ready in about 72 hours. The squadron's C-130 ("Fat Albert") is a Marine Corps fleet aircraft manned by an all-Marine Corps crew and was not designed for carrier operations.

### **How do the jets get to each show site?**

The demonstration pilots fly the jets to each show site.

### **How much does an F/A-18 cost?**

The basic acquisition price of a single F/A-18 A Hornet is approximately \$21 million. The cost of additional weapons-related equipment varies according to the configuration and use of each aircraft can significantly increase the total price.

### **What is the top speed and rate of climb of an F/A-18?**

The F/A-18 can reach speeds just under Mach 2, almost twice the speed of sound or about 1,400 mph. The maximum rate of climb of the F/A-18 is 30,000 feet per minute.

**What is the weight of an F/A-18?**

An F/A-18 weighs about 24,500 pounds empty of all ordnance and aircrew.

**Why are the jets painted blue and gold?**

The jets bear the official colors for the U.S. Navy.

**How far can the F/A-18 fly on a full load of fuel or with external fuel tanks?**

The F/A-18 can travel approximately 1,000 miles on a full load of fuel without external tanks. Adding the external tanks extends the range to approximately 1,200 miles.

**How do you produce the smoke, and why do you use it?**

The smoke is produced by pumping biodegradable, paraffin-based oil directly into the exhaust nozzles of the aircraft where the oil is instantly vaporized into smoke. The smoke provides a traceable path for spectators to follow, so they can see the flight profile that has been flown. It also enhances safety of flight by providing a valuable means by which the solo pilots can see each other during opposing maneuvers and conditions of lowered visibility or haze. The smoke poses no hazard to the environment.

**Why can't the public listen to the pilots' conversation during the show?**

Since all maneuvers are preceded by radio communication broadcasting these radio calls or making the frequencies of their radios publicly available could interfere with pilot communication, thereby jeopardizing safety of flight.

**Why is the C-130 called "Fat Albert?"**

"Fat Albert" is a nickname given to the plane by Marine Corps Blue Angel pilots in the 1970s because of its size and shape and is a reference to the popular children's cartoon of the same era.

**What does "JATO" stand for?**

"JATO" means Jet Assisted Take Off and is used by the Lockheed-Martin C-130 to clear short runways and gain high altitude in a short period of time such as might be necessary in combat situations.

**How much fuel does Fat Albert hold?**

Fat Albert holds 46,000 pounds of fuel.

**What is the normal cruising speed and shaft horsepower per motor of Fat Albert?**

Fat Albert's cruising speed is 360 mph and shaft horsepower is about 4,500 per engine.

**What is the maximum takeoff weight of Fat Albert?**

The maximum takeoff weight of Fat Albert is 155,000 pounds.

**What is the distance under Fat Albert's propellers to the ground?**

The distance under Fat Albert's propellers to the ground is approximately six feet.

**How many crewmembers are assigned to fly Fat Albert, and what are their positions?**

Eight Marines are assigned to operate Fat Albert Airlines: three pilots, two flight engineers, a navigator, a flight mechanic and a loadmaster.

**How long has the team had the C-130?**

The team has been flying the C-130 since 1970.

**Have the Blue Angels ever performed overseas?**

Yes. Throughout the years, the Blue Angels have had a limited opportunity to perform overseas. Prior to the 2006 trip to the Netherlands, was in 1992 when the team completed a European tour performing in Sweden, Finland, Russia, Bulgaria, Italy, the United Kingdom, Romania, Spain and Germany.

**Is it possible to schedule a tour of the Blues home base?**

Unfortunately, no. Due to the hectic show and maintenance schedules, it is extremely difficult to schedule tours or photographic opportunities. People who desire to see the Blue Angels between shows are encouraged to view a practice demonstration at the National Museum of Naval Aviation at NAS Pensacola usually held most Tuesday and Wednesday mornings during the show season when the team is home. The practices weather permitting, and a tentative practice schedule may be viewed on the Blue Angels' website at [www.blueangels.navy.mil](http://www.blueangels.navy.mil).

**How can fans obtain a VIP pass for a show?**

Blue Angel reserved seating at an air show is extremely limited and reserved strictly for family and close, personal friends of current team members. Some air show sites reserve alternate seating areas for a nominal fee. Interested individuals should contact the local air show coordinator for additional information.

**What is the difference between a Blue Angel Hornet and the new F/A-18 E/F Super Hornet?**

The Super Hornet is 25% larger, can fly 40% further, remain on station 80% longer and carry more weapons than its predecessors. The Super Hornet F/A-18 E/F models have deployed with battle groups since 2001. This aircraft is the Navy's newest acquisition and its advanced technology will be used to carry the fleet into the 21st century.

**Will the Blue Angels fly the Super Hornet?**

The decision to transition to the Super Hornet has yet to be determined.