NAS PENSACOLA HOMECOMING AIRSHOW 2014 NAVAL AIR STATION PENSACOLA



## WELCOME MESSAGE FROM COMMANDING OFFICER

#### NAVAL AIR STATION PENSACOLA



On behalf of all the men and women of NAS Pensacola, "The Cradle of Naval Aviation". it is my distinct pleasure to welcome you to our 2014 NAS Pensacola Blue Angels Homecoming Air Show. It is indeed an honor to share our base with you where you will experience the highest levels of pride and professionalism in the execution of our spectacular airshow and open house event. This event is our way of thanking you for your continued support throughout the year and offers an excellent opportunity for you to tour the flight line and get a close-up look at some of the people, aircraft and capabilities of the most powerful military in the world.

This year, NAS Pensacola is celebrating our 100th anniversary. Established in 1914, NAS Pensacola was the first air station commissioned by the U.S. Navy for the training of aviators in the infancy of naval aviation. The 2014 Blue Angels Homecoming Air Show is the culmination of this year-long celebration. Featuring a variety of performers showcasing the best in both military and civilian aviation, of course highlighted by the final 2014 performances by the Navy's Flight Demonstration Squadron, the Blue Angels, home based right here at NAS Pensacola. We are honored to have the privilege of providing you the chance to meet and interact with the best and the brightest young men and women that our country has to offer.

I hope you enjoy our show and have a great Navy day!

Captain Keith Hoskins Commanding Officer NAS Pensacola

#### SATURDAY AND SUNDAY AIR SHOW DOORS OPEN AT 8:00<sup>AM</sup>

Otto the Helicopter
Stearman Team
Gene Soucy
Kevin Coleman
John Klatt - Air National Guard
Air National Guard with Shockwave Jet Truck
Mike Rambo - Beechcraft

#### **OPENING CEREMONY**

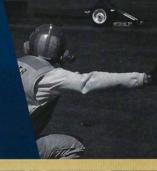
United States Air Force Academy
Wings of Blue Skydiving Team with the National Anthem
Matt Younkin

Bob Carlton - Vertigo Airshows
Air National Guard with Shockwave Jet Truck
Budweiser Clydesdales (Saturday only)
Gene Soucy with Teresa Stokes Wing Walker

Team AeroDynamix Mike Goulian - Goodyear Screamin Sasquatch David Martin - Breitling Fat Albert Demonstration - 2:00<sup>PM</sup> USN Blue Angels

## STATIC DISPLAYS

While you are at the air show enjoy impressive military and civilian aircraft displays located along the flight line at Naval Air Station Pensacola.



- AgustaWestland AW 119Kx
- Beechcraft C-12 Huron
- · Bell AH-1 Cobra
- Beil UH-1 (Huey) Iroquois
- Cessna 172
- Cessna 182
- Cessna Bird Dog
- Diamond DA-40
- Glider
- Grumman C-1 Trader
- Grumman F-14 Tomcat
- Grumman HU-16 Albatross
- · Grumman MQ-8 Fire Scout
- Grumman S-2 Tracker
- Hummingbird A-160
- Kolb Firestar
- McDonnell Douglas A-26 Invader
- McDonnell Douglas A-3 Skywarrior
- McDonnell Douglas F-4 Phantom
- McDonnell Douglas F/A-18 Hornet
- MD500E Helicopter

- Nanchang CJ-6
- Naval Aircraft Factory N3N
- Northrop T-38 Talon
- · Piper Cub
- Piper PA-30 Twin Comanche
- Pilates PC-12
- Sikorsky SH-3 Sea King
- Sikorsky CH-53 Sea Stallion
- Super Decathlon ARF
- Stearman PT-27
- T-1 Jayhawk Trainer
- T-6 Texan
- T-28 Trojan
- T-34 Mentor Trainer
- T-34C Turbomentor
- T-45 Goshawk
- TH-57 Sea Ranger
- Tornado GR4
- Vought F6U Pirate
- Yakovlev Yak-52

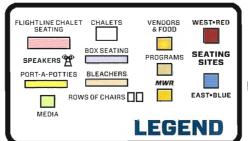








## SHOW LAYOUT









GATE 2





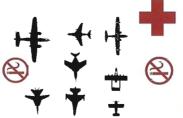
THE BLUE ANGEL **HOMECOMING AIR SHOW** IS A SMOKE FREE ENVIRONMENT **EXCEPT FOR THE DESIGNATED AREA** 



GATE 1

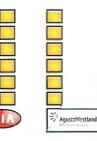








FOOD, BEVERAGE, SOUVENIR & VENDOR TENT'S





FOOD, BEVERAGE, SOUVENIR & VENDOR TENTS

SATM 5







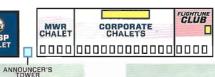




B1-B9 BLUE BOX SEATING











OPEN VIEWING AREA



**MAP NOT TO SCALE** (SUBJECT TO CHANGE)







## BOB CARLTON • VERTIGO AIR SHOWS PHOTO COURTESY OF ALLAN BALL



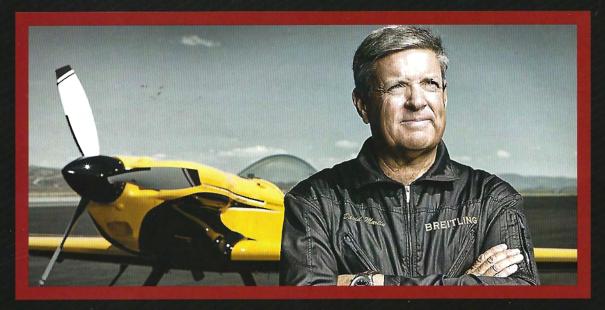
**NEAL DARNELL • SHOCKWAVE JET TRUCK** 



## GENE SOUCY AIRSHOWS PHOTO COURTESY OF ROBERT SKYSELA



**TEAM AERODYNAMIX** 



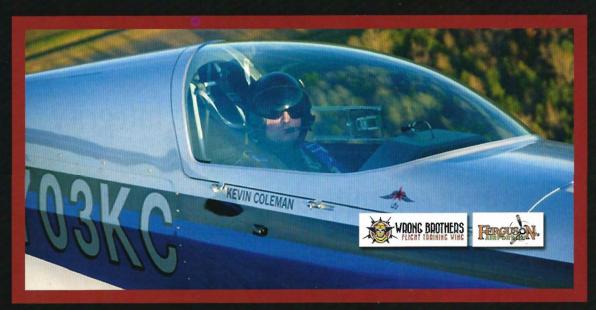
DAVID MARTIN AIRSHOWS (SPONSORED BY BREITLING)



**MIKE GOULIAN • GOODYEAR** 



JOHN KLATT • SCREAMIN' SASQUATCH



KEVIN COLEMAN AEROSPORTS
PHOTO COURTESY OF TODD HOLDER



**JOHN KLATT • AIR NATIONAL GUARD** 



**ROGER BUIS • OTTO THE HELICOPTER CLOWN** 



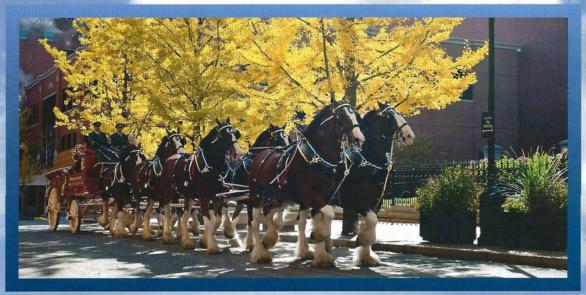
**MIKE RAMBO • BEECHCRAFT** 



**UNITED STATES MARINE CORPS • V-22 OSPREY** 



#### **MATT YOUNKIN**



THE WORLD FAMOUS CLYDESDALE'S OF BUDWEISER

#### WHAT DOES IT TAKE TO PUT ON AN AIR SHOW?

- 4320 HAMBURGERS
- 3,300 HOT DOGS
- 8.640 BOTTLES OF SODA
- 4,800 BOTTLES OF WATER
- 6,400 CANS OF BEER
- 33 KEGS OF BEER
- · 60,000 POUNDS OF ICE.
- 45-50 BLEACHER CHAIRS

- 4,800 CHAIRS
- 365 TABLES
- 77 TENTS
- 75 CARS ON LOAN FROM KIA AUTOSPORTS
- 78,000 GALLONS OF AVIATION FUEL
- 450 SECURITY OFFICERS
- OVER 700 VOLUNTEER T-SHIRTS
- A "GAZILLION" SIGNS AND BANNERS

Planning for a show begins a year in advance and without the assistance of volunteers, vendors and sponsorship the Homecoming Air Show would be a much smaller event! **Thanks to all who make it possible**, including all of you who buy the corn dogs!





t the end of World War II, the Chief of Naval Operations, Chester W. Nimitz, ordered the formation of a flight demonstration team to keep the public interested inNaval Aviation. The Blue Angels performed their first flight demonstration less than a year later in June 1946 at their home base, Naval Air Station (NAS) Jacksonville, Florida. LCDR Roy "Butch" Voris led the team, flying the Grumman F6F Hellcat.

Two months later, on August 25, 1946, the Blue Angels transitioned to the Grumman F8F Bearcat. The 1947 team, led by LCDR Robert Clarke, introduced the now-famous "Diamond Formation."

By the end of the 1940s, the Blue Angels were flying their first jet aircraft, the Grumman F9F-2 Panther. In response to the demands placed on Naval Aviation in the Korean Conflict, the team reported to the aircraft carrier USS Princeton as the nucleus of Fighter Squadron 191 (VF-191), "Satan's Kittens," in 1950.

The team reorganized the next year and reported to NAS Corpus Christi, Texas, where they began flying the newer and faster version of the Panther, the F9F-5. The Blue Angels remained in Corpus Christi until the winter of 1954 when they relocated to their present home base at NAS Pensacola, Florida. Here they progressed to the swept wing Grumman F9F-8 Cougar.

The ensuing 20 years saw the Blue Angels transition to two more aircraft, the Grumman F11F-1 Tiger (1957) and the McDonnell Douglas F-4J Phantom II (1969).

In December 1974, the Navy Flight Demonstration Team began flying the McDonnell Douglas A-4F Skyhawk II and was reorganized into the Navy Flight Demonstration Squadron. This reorganization permitted the establishment of the first commanding officer (CDR Tony Less) instead of a flight leader, added support officers and further redefined the squadron's mission, to enhance the recruiting effort.

On November 8, 1986, the Blue Angels completed their 40th anniversary year when they unveiled their present aircraft, the McDonnell Douglas F/A-18 Hornet, the first dual-role fighter/attack aircraft, which is still serving on the nation's front lines of defense.

The 2012 show season brought out more than 11 million spectators and since 1946, the Blue Angels have performed for more than 495 million fans.







## **OFFICERS**

total of 16 officers voluntarily serve with the Blue Angels. Each year the team typically selects three tactical (fighter or fighter/attack) jet pilots, two support officers and one Marine Corps C-130 pilot to relieve departing members.

The Chief of Naval Air Training selects "Boss," the Blue Angels Commanding Officer. Boss must have at least 3,000 tactical jet flight-hours and have commanded a tactical jet squadron. The Commanding Officer flies the Number 1 jet...

Career-oriented Navy and Marine Corps jet pilots with aircraft carrier qualifications and a minimum of 1,250 tactical jet flight-hours are eligible for positions flying jets Number 2 through 7. The Events Coordinator, Number 8, is a Naval Flight Officer (NFO) who meets the same criteria as Numbers 2 through 7. The Marine Corps pilots flying the C-130 Hercules aircraft, affectionately known as "Fat Albert," must be aircraft commander qualified with at least 1,200 flight hours.

Career-oriented officers specializing in maintenance, administration, aviation medicine, public affairs and supply fill support positions. The Blue Angels base their selection of officers on professional ability, military bearing and communication skills. Blue Angels officers are well-rounded representatives of their fleet counterparts.

Demonstration pilots, the Events Coordinator, Maintenance Officer, Flight Surgeon, Administrative Officer, Supply Officer, and the Public Affairs Officer serve two years with the squadron. The other officers serve three years with the team. Blue Angels officers return to the fleet after their tours of duty.

# Blue Angels MAINTENANCE AND SUPPORT TEAM

he Blue Angels' support team consists of the Events Coordinator, Maintenance Officer, Flight Surgeon, Administrative Officer, Public Affairs Officer, Supply Officer and approximately 110 enlisted Navy and Marine Corps volunteers. Alternating crews of approximately 45 team members travel to each show site. All career-oriented enlisted Sailor and Marine applicants come recommended for Blue Angels duty by their current commanding officer. Applicants go through extensive screening, including interviewing with the members of each of the 15 squadron work centers. The intense selection process secures the squadron's tradition of excellence, ensuring every Blue Angel is a direct reflection of the professionalism of today's Sailors and Marines.

Selected enlisted personnel volunteer for a three-year tour with the squadron. After completing their Blue Angels tour, individuals return to the fleet to continue their naval careers. Though every team member brings the skills of a distinct job specialty, each is expected to work beyond that specialty, contributing to the overall effectiveness of the Blue Angels. The squadron consists of seven departments, jointly responsible for guaranteeing command readiness. A tribute to this dedicated team is the fact that the Blue Angels have never cancelled an air show due to a maintenance problem.

Administration: The Administration Department is responsible for executive and official correspondence, squadron records, pay and travel orders. Administration maintains instructions and notices, handles promotions and awards, and controls legal and security concerns.

Aviation Medicine: The Aviation Medicine Department is responsible for the health and wellness of each team member. The medical team

performs annual physical examinations and emergency medical procedures, keeps medical and dental readiness up to date, and acts as a liaison for advanced medical care.

Events Coordination: The Events Coordination Department schedules preseason visits with show site sponsors and secures accommodations and ground support for each demonstration show.

Fat Albert Airlines: The all-Marine flight crew assigned to the squadron's Lockheed-Martin C-130 Hercules is responsible for transporting personnel, supplies, and equipment to and from each show site throughout the season.

Maintenance: The Maintenance Department consists of the Airframes, Avionics, Corrosion Control, Crew Chiefs, Life Support, Maintenance Control, Power Plants, Quality Assurance and Video shops. The maintenance team is responsible for aircraft upkeep.

Public Affairs Office: The Public Affairs Office documents and promotes the Blue Angels and the Navy and Marine Corps. It designs, writes, photographs, edits, publishes and distributes all news and promotional materials for the squadron. The Public Affairs Office also coordinates promotioinal coverage and interviews with local. national and international media, and manages the Blue Angels Key Influencer (KI) rider pro-

Supply: The Supply Department researches, procures, stores, and dispatches spare parts, tools, and uniforms. Supply also researches future squadron logistical needs, and initiates contracts for services required to support daily operations.





he Blue Angels maintenance and support crew travel aboard a Marine Corps C-130 Hercules aircraft, affectionately known as "Fat Albert." The C-130 is a tactical transport aircraft built by Lockheed Martin and is flown by an all-Marine crew consisting of three pilots and five enlisted aircrew.

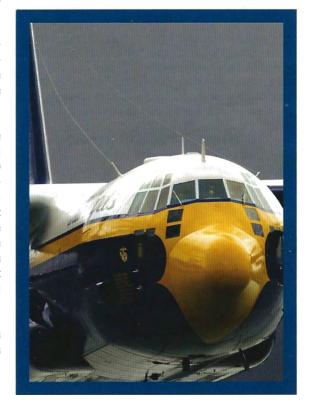
Integrated in 1970, Fat Albert now flies more than 100,000 miles each season, carrying approximately 45 maintenance and support personnel, along with the specialized equipment needed to complete a successful air show.

Every show week, Fat Albert departs Pensacola in advance of the demonstration jets to prepare for their arrival at each show site. The Blue Angels could not perform without this versatile aircraft.

In addition to providing logistical support for the team, Fat Albert opens the show by displaying the tactical flight characteristics of the C-130 aircraft. Fat Albert begins the flight demonstration with a low-transition takeoff maximum effort climb, sending the Hercules skyward at a 45-degree, nose-up attitude to an altitude of 1000 feet, simulating conditions in a hostile combat environment. The C-130 concludes its profile by demonstrating its maximum-effort braking capability, bringing the aircraft to a full stop in less than 1,000 feet.

Fat Albert weighs 155,000 pounds fully loaded, is powered by four Rolls-Royce turbo-propengines

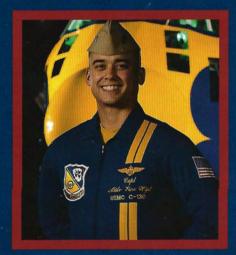
producing more than 18,000 shaft horsepower and cruises at speeds of more than 320 knots (approximately 370 miles per hour) at altitudes as high as 35,000 feet. Fat Albert was designed as a tactical transport aircraft capable of lifting heavy payloads into and out of unimproved airstrips as short as 2,500 feet long. Additionally, Marine Corps KC-130s provide aerial delivery and in-flight refueling of jet, helicopter and tilt rotor aircraft in support of worldwide military operations.



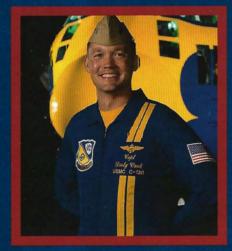




A.J. HARRELL Captain, USMC C-130 PILOT



MIKE VAN WYK CAPTAIN, USMC C-130 PILOT



DUSTY COOK CAPTAIN, USMC C-130 PILOT



## MISSION

he mission of the United States Navy Flight
Demonstration Squadron is to showcase
the pride and professionalism of the United
States Navy and Marine Corps by inspiring a culture of excellence and service to country through
flight demonstrations and community outreach.

A Blue Angels flight demonstration exhibits choreographed refinements of skills possessed by all naval aviators. The Blue Angels' C-130, affectionately known as Fat Albert, begins each demonstration by showcasing its maximum-performance capabilities during a ten-minute performance. Shortly thereafter, you will see the graceful aerobatic maneuvers of the four-jet Diamond Formation, in concert with the fast-paced, high-performance maneuvers of two Solo pilots. Finally, the teamillustrates the pinnacle of precision flying, performing maneuvers locked as a unit in the renowned six-jet Delta Formation.

The team is stationed at Forrest Sherman Field, Naval Air Station Pensacola, Fla., during the show season. The squadron spends January through March training at Naval Air Facility El Centro, California.

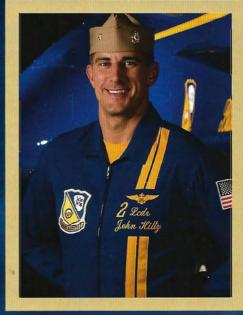
In April 2013, following sequestration, the Navy announced that the remaining air show season was cancelled as one of many steps to ensure resources would be in place for forces who were operating forward deployed. The Blue Angels remained committed to their mission, reaching out to the local community, and performing more than 500 squadron community outreach events, totaling in more than 5,000 hours of community service.

With a fully-funded 2014 season, the Blue Angels are scheduled to fly 68 performances at 35 locations in North America during the 2014 season, making this our 28th year of flying the F/A-18 Hornet.

# Blued



THOMAS FROSCH CAPTAIN, USN FLIGHT LEADER/ COMMANDING OFFICER



JOHN HILTZ LT. COMMANDER, USN RIGHT WING

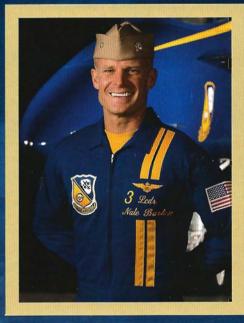


DAVID TICKLE LT. COMMANDER, USN LEAD SOLO



MARK TEDROW LIEUTENANT, USN OPPOSING SOLO

# Ingels



NATE BARTON LT. COMMANDER, USN LEFT WING



BRANDON CORDILL CAPTAIN, USMC SLOT



RYAN CHAMBERLAIN LIEUTENANT, USN NARRATOR



MICHAEL CHENG LT. COMMANDER, USN EVENTS COORDINATOR



DECLAN HARTNEY LT. COMMANDER, USN MAINTENANCE OFFICER



MARK R. DeBUSE LT. COMMANDER, USN MEDICAL OFFICER



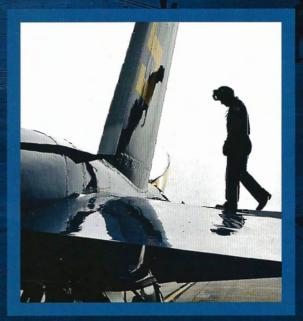
PHIL HARPER LIEUTENANT JG, USN ADMINISTRATIVE OFFICER



SCOTT ADAMS LIEUTENANT, USN SUPPLY OFFICER



AMBER LYNN DANIEL LIEUTENANT JG, USN PUBLIC AFFAIRS OFFICER





KARIM COLE COMMAND MASTER CHIEF



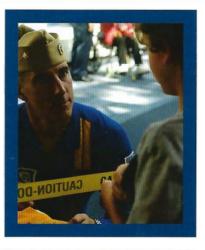
ROBBY BONANNO
MAINTENANCE MASTER CHIEF



## FREQUENTLY ASKED QUESTIONS

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

The mission of the United States Navy Flight Demonstration Squadron is to showcase the pride and professionalism of the United States Navy and Marine Corps by inspiring a culture of excellence and service to country through flight demonstrations and community outreach.



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

The *Blue Angels* typically provide three backseat flights at each show site for selected personnel. All three riders fly with the *Number 7* pilot in the two-seat jet. Two of those riders are selected from the Key Influencer (KI) program and one rider is a credentialed media representative. The KI program selects individuals who shape attitudes and opinions of youth in their communities. KI's may be experts in their field, public figures, leaders of youth organizations, teachers, guidance counselors or school administrators. They are not always the person at the top of an organization, but rather individuals that have an impact on recruiting youth and/or a specific target audience. Flying these candidates, in coordination with media presence, is intended to promote the Navy and Marine Corps as professional and exciting organizations in which to serve. To be selected as a Key Influencer, you must first be nominated by a commanding officer of a Navy or a Marine Corps recruiting district. For more information, contact your local recruiter or air show.



# FREQUENTLY ASKED QUESTIONS

#### Who authorized the 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" name originate?

The name was picked by the original team when they were 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.

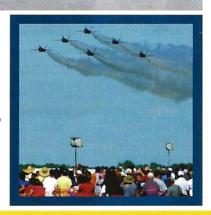
Why don't the Navy **Blue Angels** and the Air Force Thunderbirds fly together? Current Department of Defense policy states the use of military aviation demonstration teams is for recruiting purposes; therefore the teams usually do not fly within 150 miles of each other without special permission. Each 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 often 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 **11 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) during 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 2014 season, the Blue Angels have had 247 demonstration pilots, and 35 Flight Leaders/Commanding Officers.



## Do the **Blue Angels** pilots go through the Navy Fighter Weapons School (TOPGUN)?

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

#### 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.

## How many **Blue Angels** have made flag rank?

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. Moneymaker (ret.), #1, 1989-90

ADM Pat Walsh, #3/4, 1985-87

RADM David Anderson, #5/6/7, 1985-87

RADM Doug McClain, #3/4, 1988-90

BGEN Mark Bircher, #2, 1985-1987

RDML Patrick Driscoll, #1, 1999-2000



## 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.

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

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



# FREQUENTLY ASKED QUESTIONS

#### 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 one will be experiencing heavy gravitational forces. Anticipating the changes in gravitational forces allows the Blue Angels demonstration pilots to combat Gforces with muscle contractions. Additionally, G-suits would detrimentally impact flight safety. The Boeing F/A-18's control stick is mounted between the pilot's legs. The Blue Angels have a spring tensioned with 40 pounds of pressure installed on the control stick that gives the pilot a "false feel." This allows the pilot minimal room for un-commanded 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.



## 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 Angel team member is an ambassador and representative of their fleet counterparts.

## How many Marines serve in the squadron?

There are 14 Marines on the 2014 team. There are five enlisted aircrew and three C-130 pilots in Fat Albert Airlines. There are five enlisted on the jet maintenance team and a jet fighter pilot flying in the Number 4 position.

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

Each applicant is selected from a pool of applicants that can fill upcoming job vacancies. The team accepts applications from all aviation and support ratings. All applicants are interviewed and spend five days with the team either in Pensacola or at a show site. Exceptions to the above are made for applicants who are on deployment or overseas. For more information, please see the application message under "How to Apply."

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

Officers on the team generally serve two to three years, while the enlisted personnel serve three to four years. Each member, both officers and enlisted, return to the fleet after completing a tour with the Blue Angels.

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

The number of females varies each year. The 2014 team has 15 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 extreme 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, which the FAA can waive to 1,000 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 4,500 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 the maneuvers.



## What is the closest distance that the jets fly to each other?

The closest the diamond will fly to each other is 18 inches during the Diamond 360 maneuver.

## What are the lowest and highest maneuver heights performed during an air show?

This varies due to weather conditions. The highest is the vertical roll, performed by the Opposing Solo (up to 15,000 feet) and the lowest is the Sneak Pass (as low as 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 daily challenges met 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
- Additionally, in 1970 the Blue Angels integrated a Marine Corps C-130 Hercules aircraft, affectionately known as "Fat Albert", as the opener of the flight demonstration. The C-130 is a tactical transport aircraft built by Lockheed Martin.



# FREQUENTLY ASKED QUESTIONS

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

The Blue Angels currently have 13 jets: two single seat F/A-18 A models, one F/A-18 B model, eight single seat F/A-18 C models and two 2-seat F/A-18 D 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 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 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 showcase the official colors of 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 the 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. It is a reference to the popular children's cartoon of the same era.

#### What does "JATO" stand for?

"JATO" stands for Jet-Assisted Take-Off. JATO was used by the Lockheed-Martin C-130 to take off from short runways and gain high altitude in a short period of time, as required in combat situations. The first Blue Angels JATO performance took place at NAS Pensacola in November 1975. Eight solid fuel JATO rocket bottles, each producing 1,000 pounds of thrust, helped propel Fat Albert skyward and captivated millions of spectators each year.

#### Why doesn't Fat Albert use JATO any more?

JATO bottles were produced in the Vietnam era. The last known stockpiles of JATO bottles were expended during the Blue Angels' 2009 show season. The last JATO performance for Fat Albert was at the NAS Pensacola Air Show in November 2009.

## 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?

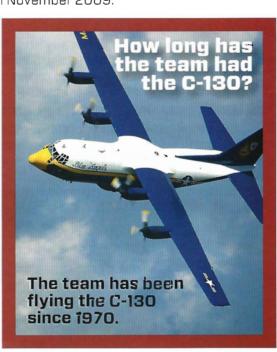
Fat Albert's cruising speed is 375 mph and shaft horsepower is about 4,500 per engine.

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

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

## 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.





# FREQUENTLY ASKED QUESTIONS

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

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

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

Unfortunately, no. Due to 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. Practices are usually held most Tuesday and Wednesday mornings; weather permitting, during the show season when the team is home. A tentative practice schedule may be viewed on the Blue Angels' website at www.blueangels.navy.mil.

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

While the Blue Angels do not have "VIP" seating, a small number of seats are set-aside for close personal friends and family members of the team. Air shows usually have general seating available to the public. Information may be found on individual air show websites. Some 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. While the Super Hornet has more recent technology, the Hornet is more suitable to the needs of the current team, due to its lightweight and slick maneuverability.

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

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

#### Do you ever fly the jets under bridges?

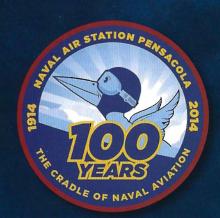
The Blue Angels do not fly under any structures during an air show. Some of the maneuvers have the appearance that the jets are flying under structures, but this is always an optical illusion from the perspective of the crowd. For safety reasons, the Blue Angels will never fly underneath bridges or any other structures.

#### Are there ever sonic booms at air shows?

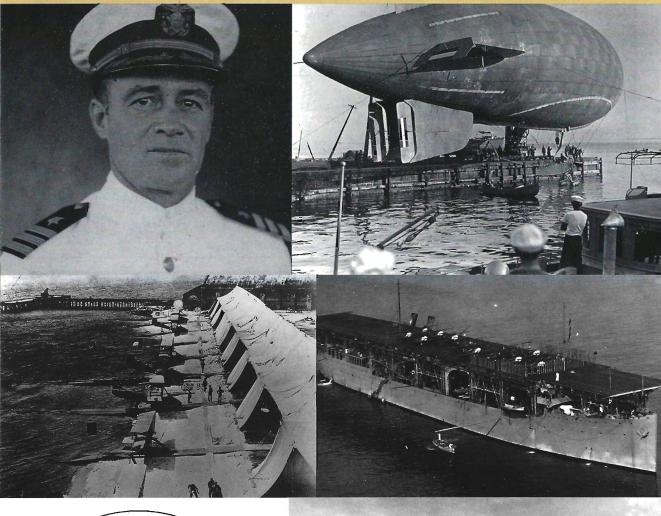
Sonic booms occur when an aircraft surpasses the speed of sound. At a Blue Angels air show, there should never be a sonic boom, as we are not authorized to exceed the speed of sound at a show. On occasion, spectators may have mistaken the sound of engines at a high-power setting approaching the speed of sound for a sonic boom.

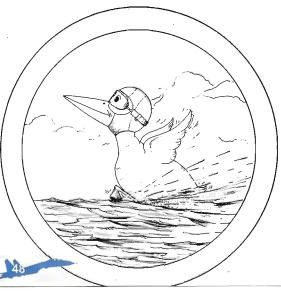
## I am in school right now. What should I be doing now if I want to be a **Blue Angel** one day?

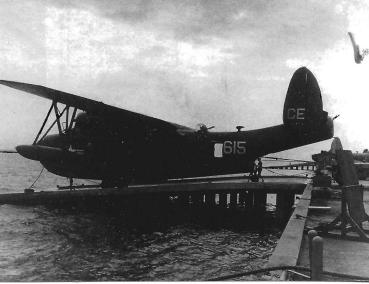
The best way to begin the road to a successful career is to work hard in school, stay physically active, and refrain from illegal drug use. Additionally, it is helpful to serve in leadership roles and extracurricular activities. These principles apply in attaining a successful career both inside and outside the military. For more information about a career in the Navy and Marine Corps, see your local recruiter or visit www.navy.com or www.marinecorps.com.



# CELEBRATING 1000 YEARS OF







## PENSACOLA NAVAL AVIATION





# CELEBRATING 100 YEARS

# THE NAVAL HISTORY OF PENSACOLA

he site now occupied by Naval Air Station Pensacola has a colorful background dating back to the 16th century when Spanish explorer Don Tristan De Luna founded a colony on the bluff where Fort Barrancas is now.

Realizing the advantages of the Pensacola harbor and the large timber reserves nearby for ship building, in 1825 President John Quincy Adams and Secretary of the Navy Samuel Southard made arrangements to build a Navy yard on the southern tip of Escambia County, where the air station is today.

Construction began in April 1826, and the Pensacola Navy Yard, also known as the Warrington Navy Yard became one of the best equipped naval stations in the country. In its early years, the base dealt mainly with the suppression of slave trade and piracy in the Gulf and Caribbean as the garrison of the West Indies Squadron.

On January 12, 1861, just prior to the commencement of the Civil War, the Warrington Navy Yard surrendered to secessionists. When Union forces captured New Orleans in 1862, Confederate troops, fearing attack from the west, retreated from the Navy Yard and reduced most of the facilities to rubble.

After the war, the ruins at the yard were cleared away and work was begun to rebuild the base. Many of the present structures on the air station were built during this period, including the stately two and three story houses on North Avenue. In 1906, many of these newly rebuilt structures were destroyed by a great hurricane and tidal wave.

Meanwhile, great strides were being made in aviation. The Wright Brothers and especially Glenn Curtiss were trying to prove to the Navy that aircraft had a place in the fleet. The first aircraft carrier was built in January 1911, and a few weeks later, the seaplane made its first appearance. Then, civilian pilot Eugene Ely landed a frail craft aboard the USS Pennsylvania (ACR-4) in San Francisco Bay, and the value of aircraft to the Navy had been demonstrated.

The Department of the Navy awakened to the possibilities of Naval Aviation through the efforts of Captain Washington I. Chambers, who prevailed upon Congress to include in the Naval Appropriation Act of 1911, a provision for aeronautical development. Chambers was ordered to devote all of his time to naval aviation.

In October 1913, Secretary of the Navy Josephus Daniels, appointed a board, with Captain Chambers as chairman, to make a survey of aeronautical needs and to establish a policy to guide future development. One of the board's most important recommendations was the establishment of an aviation training station in Pensacola.