

All the information in this section is provided by the Florida Department of Education's website provided by the Bridges' Corporation and can be found at <http://florida.echoices.com>.

Aircraft Pilot ... (Goldstar)

Description

Flies airplanes and helicopters to carry out a wide variety of tasks, such as transporting passengers and cargo, dusting crops, spreading seed for reforestation, testing aircraft, tracking criminals, monitoring traffic, and rescuing and evacuating injured persons. Often relies on computerized controls.

Typical Tasks

- Starts engines, operates controls, and pilots aircraft, following established regulations.
- Obtains and reviews data, such as load weight, fuel supply, weather conditions, and flight schedules.
- Plots flight patterns, and files flight plans with appropriate officials.
- Orders changes in the fuel supply, flight plan, or schedule to ensure the safety of the flight.
- Conducts preflight checks to verify that fluids and pressure are at prescribed levels.
- Operates radio equipment to contact control towers for clearance for takeoff, approach instructions, and other information.
- Coordinates flight activities with ground-crew and air-traffic control, and informs crew members of flight procedures.
- Trains for, achieves, and maintains a current commercial pilot's license issued by the Federal Aviation Administration.
- Logs information such as flight activities, weather, flight time, altitude, and fuel consumption.

Field of Work

A field of work represents a broad, general area of work activity. Occupations that have similar types of work are assigned to the same field.

• Transportation and Material Moving Occupations

Occupations that involve operating equipment such as aircraft, trains, ships, trucks, buses, cranes, and power shovels to move freight and passengers.

Career Pathways

Occupations have been organized into Career Pathways to help students with high school course planning.

• Engineering and Industrial Technologies

Occupations related to the technologies necessary to design, develop, install, or maintain physical systems. These may include engineering, manufacturing, construction, service and related technologies.

Career Clusters

The U.S. Department of Education has established 16 broad Career Clusters that contain all entry-level through professional-level occupations in a broad industry area. Clusters consist of grouped career areas with similar skill and education requirements.

• Transportation, Distribution & Logistics Services

Occupations that include activities such as planning, management, and movement of people, materials, and goods by road, pipeline, air, rail and water and related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Specialties and Similar Occupations

Other occupations that are more detailed or similar to this broad occupation. DOT codes are from the Dictionary of Occupational Titles.

• Airplane Pilot, Commercial (DOT 196.263-014)

Pilots airplane to transport passengers, mail, or freight, or for other commercial purposes.

For More Information

The following organization(s) may provide additional information about this occupation.

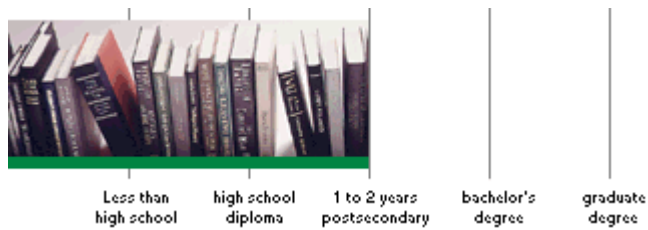
Air Line Pilots Association
535 Herndon Parkway
P.O. Box 1169
Herndon, VA 20172-1169

Related Resources

- O*NET-SOC occupation: 53-2011.00 Airline Pilots, Copilots, and Flight Engineers
- SOC occupation: 53-2011 Airline Pilots, Copilots, and Flight Engineers
- Occupational Outlook Handbook (2002/2003) page 562
- Military Careers (2001 edition) page 173

Education, Training and Work Experience

Education, training, and experience are required at different levels for success in different occupations. The education level for this occupation:



- **Post-secondary certificate, plus work experience**

National information:

All pilots who are paid to transport passengers or cargo must have a commercial pilot's license with an instrument rating issued by the FAA. Although some small airlines will hire high school graduates, most airlines require at least 2 years of college and prefer to hire college graduates. Pilots must have an airline transport pilot's license. Persons without Armed Forces training may become pilots by attending flight schools. The FAA has certified about 600 civilian flying schools, including some colleges and universities that offer degree credit for pilot training. Initial training for airline pilots includes a week of company indoctrination, 3 to 6 weeks of ground school and simulator training, and 25 hours of initial operating experience, including a check-ride with an FAA aviation safety inspector.

Related Education Programs and Notes (CIP codes shown with programs):

- Aircraft Pilot and Navigator (Professional) (49.0102)
- Aircraft Pilot (Private) (49.0107)
- military

Licensure/Certification Information:

Licensure from the Federal Aviation Administration (FAA) is required. For additional information, you may visit the following Web sites.

www.faa.gov/avr/afs/acs/61-65d.pdf

Transferable Work Content Skills

Skills used in this occupation that are used in other occupations:

- **Operating radar equipment (high level)**
- **Operating communications equipment (high level)**
- **Navigating ships or aircraft to transport people or freight (high level)**
- **Following navigation instructions (high level)**

Basic Skills / Basic SCANS Skills

Basic Skills information comes from O*NET. Basic skills provide the foundation for learning other types of material. Many of these skills are related to SCANS Skills. For each skill, the level needed to perform the occupation is shown. Skills important to the occupation are checked.

Important Skills	Skill level		
	low	medium	high
• Reading comprehension	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Active listening	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Writing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Speaking	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Mathematics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Science	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Critical thinking	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Active learning	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Learning strategies	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

General Workplace Skills

Information for General Workplace Skills comes from O*NET (Cross Functional Skills). General Workplace Skills are practiced activities that help workers achieve success in various occupations. The significant skills for this occupation are:

Social Skills

- Coordination ... (medium level)

Adjusting actions in relation to others' actions.

- Instructing ... (medium level)

Teaching others how to do something.

Complex Problem Solving Skills

- Problem identification ... (medium level)

Identifying the nature of problems.

- Information gathering ... (medium level)

Knowing how to find information and identify essential information.

- Implementation planning ... (medium level)

Developing approaches for implementing an idea.

- Solution appraisal ... (medium level)

Checking the results of a solution to see what needs to be done next.

Technical Skills

- Testing ... (medium level)

Conducting tests to determine whether equipment, software, or procedures are operating as expected.

- Operation monitoring ... (medium level)

Watching gauges, dials, or other indicators to make sure a machine is working properly.

- Operation and control ... (high level)

Controlling operations of equipment or systems.

Systems Skills

- Systems perception ... (medium level)

Determining when important changes have occurred in a system or are likely to occur.

- Identifying downstream consequences ... (medium level)

Determining the long-term outcomes of a change in operations.

- Identification of key causes ... (medium level)

Identifying the things that must be changed to achieve a goal.

Here workers use tools and machines, or apply the ideas and principles of machines and tools in their work. Their jobs are in many settings, but not factories. People with this interest are in a wide range of occupations. They range from highly skilled engineers to operators of simple machines.

- **Air and Water Transportation ... (GOE 05.04)**

Air and Water Transportation includes the moving of passengers or cargo by plane or ship. The workers included in this group pilot airplanes or ships or supervise others who do.

Work Values

Work values may be thought of as aspects of work that are satisfying to you. It is important to remember that a specific job with a particular employer may not support the work value to the same degree as for the occupation in general. Work value information is obtained from O*NET.

- **Achievement ... (usually characteristic of this occupation)**

Occupations with this work value satisfy the need to use your best abilities, see the results of your work, and get a feeling of accomplishment.

- **Recognition ... (often characteristic of this occupation)**

Occupations with this work value satisfy the need for prestige and leadership opportunities, as well as opportunities for advancement.

Interests

O*NET uses six categories to describe work environments and interests (compatible with Holland's Model). The following codes reflect the categories which best describe this occupation:

- **Realistic**

You are a "doer". You usually prefer physical activities, games and projects rather than socializing. You like to find concrete solutions to problems by trying out various possibilities. You often avoid situations that involve a lot of discussion with other people, and you usually want to go further than working out a problem in theory - you want to see how your solutions work.

- **Enterprising**

You are a "persuader". You like to sell products and ideas and manage other people. You enjoy having power, prestige, and high status. You have good language skills and you like to use them to control and influence other people.

- **Investigative**

You are a "thinker". You like to analyze situations and work with ideas to find creative solutions. You prefer to work on your own and usually don't like having to persuade other people to accept your ideas.

Myers-Briggs Types

The MBTI uses four letters to represent how people like to look at things and how they like to go about deciding things. **E** Extraversion or **I** Introversion, **S** Sensing or **N** Intuition, **T** Thinking or **F** Feeling, and **J** Judging or **P** Perceiving. This occupation is part of the career field:

• Transportation Operations -- Airway

in which the type assessment was done. Types commonly found in this field are:

• ESTP

Characteristics frequently associated with ESTP (Extraversion/Sensing/Thinking/Perceptive): Flexible and tolerant, they take a pragmatic approach focused on immediate results. Theories and conceptual explanations bore them -- they want to act energetically to solve the problem. Focus on the here-and-now, spontaneous, enjoy each moment that they can be active with others. Enjoy material comfort and style. Learn best through doing.

• ENFP

Characteristics frequently associated with ENFP (Extraversion/Intuition/Feeling/Perceptive): Warmly enthusiastic and imaginative. See life as full of possibilities. Make connections between events and information very quickly, and confidently proceed based on the patterns they see. Want a lot of affirmation from others, and readily give appreciation and support. Spontaneous and flexible, often rely on their ability to improvise and their verbal fluency.

• ENTP

Characteristics frequently associated with ENTP (Extraversion/Intuition/Thinking/Perceptive): Quick, ingenious, stimulating, alert, and outspoken. Resourceful in solving new and challenging problems. Adept at generating conceptual possibilities and then analyzing them strategically. Good at reading other people. Bored by routine, will seldom do the same thing the same way, apt to turn to one new interest after another.

• ENTJ

Characteristics frequently associated with ENTJ (Extraversion/Intuition/Thinking/Judging): Frank, decisive, assume leadership readily. Quickly see illogical and inefficient procedures and policies, develop and implement comprehensive systems to solve organizational problems. Enjoy long-term planning and goal setting. Usually well informed, well read, enjoy expanding their knowledge and passing it on to others. Forceful in presenting their ideas.

National Employment and Outlook

Annual number of job openings (2000 to 2010): Very small.

Job Openings	very small number	A total of 3,000 average annual job openings is expected for this occupation between 2000 and 2010. (The National average for all occupations is 8,371 openings.)
Outlook	stable	The employment change from 2000 to 2010 is estimated to be +6.4%. (The National average for all occupations is +13.6%.)
Employment	small occupation	This was a small occupation in the United States, employing 98,080 workers in 2000. (The National average for all occupations is 209,487 workers.)
Industries	A large concentration of this occupation is found in this industry: • Air carriers (SIC 451) (91%)	
Non-traditional occupation	This is a non-traditional occupation for women. In 2000, 4% of the people employed in this occupation were women.	
OES Occupation	5320111072 Airline pilots, copilots, and flight engineers	

Average growth. Keen competition is expected because many qualified persons are attracted to the high earnings, prestige, and travel benefits of this occupation. Those with the best prospects are pilots who have logged the most flying hours, which often gives military pilots an advantage.

Florida Employment and Outlook

	2002 to 2010 Outlook	2002 Employment	Average Annual Growth Rate	Average Annual Openings due to Growth	Average Annual Openings due to Separations
Florida Statewide	• Stable	4,557	1.62%	74	101

In Florida, large concentrations of this occupation are found in these industries:

- Air Transportation, Scheduled (71.44%)
- Air Transportation, Nonscheduled (13.00%)
- Airports, Flying Fields, & Services (4.31%)

Military Career Opportunities

Airplane Pilots (Officer)

Opportunities: The services have about 16,000 airplane pilots. Each year they need new pilots due to changes in personnel and the demands of the field. After initial and advanced training, most pilots are assigned to flying squadrons to fly the types of aircraft for which they were trained. In time, pilots train for different aircraft and missions. Eventually, they may advance to senior management or command positions. To inquire about opportunities with the National Guard and Reserves, click on the hyperlink below.

Training Provided: A 4-year college degree is normally required to enter this occupation. Although the military has many women pilots, some specialties involving duty in combat airplanes are open only to men. Pilot training is a 2-year program covering 1 year each in initial and advanced training. Initial training includes time spent in flight simulators, classroom training, officer training, and basic flight training. Course content typically includes:

- Aircraft aerodynamics
- Jet and propeller engine operation
- Operation of aircraft navigation systems
- Foul weather flying
- Federal Aviation Administration (FAA) regulations

This is among the most challenging training given by the services; not everyone who attempts this training can meet the strict requirements for completion. Advanced training begins when pilots successfully complete initial training and are awarded their wings. Advanced training consists of instruction in flying a particular type of aircraft.

Earnings: Officers in the military can progress through ten officer pay grades during their careers. Pay grade and length of service determine an officer's pay. Most newly commissioned officers begin at pay grade O-1 (\$23,118/year basic pay in 2000). With certain professional qualifications, officers may enter at a higher pay grade. After two years, officers generally move up to O-2 (\$29,077/year basic pay in 2000). After an additional two years, the military generally promotes officers to O-3 (\$40,378/year basic pay in 2000) if job performance and other requirements are met. Cost-of-living increases usually occur once a year. Many officers and their families live free of charge in military housing on the base where they are assigned. Those living off base receive a housing allowance in addition to their basic pay. Officers also receive a monthly food allowance. These allowances, and associated tax savings, are substantial additions to basic pay. Other employment benefits for military officers include free health care, 30 days paid vacation each year, legal assistance, education assistance, military store privileges, and an excellent retirement program.

Services offering this occupation

- Army
- Air Force
- Coast Guard
- Marines

- Navy

Helicopter Pilots (Officer)

Opportunities: The military has about 6,500 helicopter pilots. Each year they need new pilots due to changes in personnel and the demands of the field. After receiving their pilot rating, helicopter pilots are assigned to flying units. With experience, they may become group leaders or flight instructors. Helicopter pilots may advance to senior management and command positions. To inquire about opportunities with the National Guard and Reserves, click on the hyperlink below.

Training Provided: A 4-year college degree is normally required to enter this occupation. Some specialties in the Army do not require a 4-year college degree, but are only open to personnel who have been in the service for several years and who are selected for a special pilot training program. Although there are women helicopter pilots, some specialties are open only to men. Job training consists of 1 to 2 years of academic and flight instruction. Flight training consists of at least 80 hours of flying time. Training length varies depending on specialty. Course content typically includes:

- Principles of helicopter operation
- Principles of helicopter inspection
- Flying techniques and emergency procedures
- Combat skills and tactics

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Services offering this occupation

- Army
- Air Force
- Coast Guard
- Marines
- Navy

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Services offering this occupation

- Air Force
- Coast Guard
- Marines
- Navy

Flight Engineers (Enlisted)

Opportunities: The services have about 3,000 flight engineers. Each year they need new flight engineers due to changes in personnel and the demands of the field. After receiving their "air crew qualified" rating, they are assigned to an airplane or helicopter flying unit. With experience, they work more independently and may supervise or train others. They have the opportunity to become flight engineer chiefs or air crew chiefs. To inquire about opportunities with the National Guard and Reserves, click on the hyperlink below.

Training Provided: Job training consists of 17 to 24 weeks of classroom instruction and practical experience in aircraft inspection. Course content typically includes:

- Operation of aircraft systems
- Inspection of aircraft engines, structures, and systems
- Preparation of records and logs

Further training occurs on the job during flight operations.

Earnings: Military pay and benefits are set by Congress, which normally grants a cost-of-living pay increase once each year. Enlisted members can progress through nine enlisted pay grades during their careers. In 2000, most enlisted personnel started as recruits at Grade E-1 (\$12,067/year basic pay); however, those with special skills or above average education started as high as Grade E-4 (\$14,915/year basic pay). In addition to pay, the military provides many of life's necessities, such as food, clothing, and housing, or pays allowances for them. Other benefits include health care, 30 days paid vacation, legal assistance, recreational programs, education assistance, and military store privileges.

Services offering this occupation

- Air Force

- Marines
- Navy

The National Guard and Reserves may have opportunities in this career field as well. Click on the hyperlink below to connect to their web sites for further information.

Military Career Opportunities Web Sites www.bridges.com/mcows/military.htm

Other military websites: <http://www.todaysmilitary.com> or <http://www.careersinthemilitary.com> .

National Earnings : \$60,000 - \$150,000+

Annual earnings range for middle 50% of all workers in this occupation ... (all information from 2001 OES survey)	\$57,699 to \$145,600
Average annual earnings	\$99,400

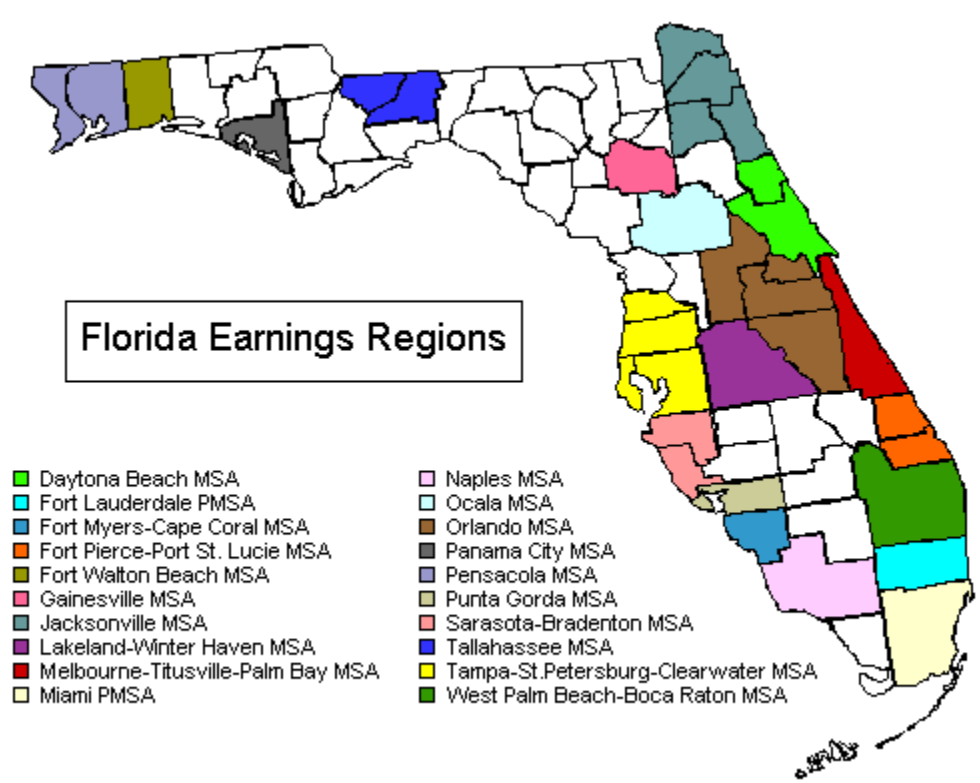
Earnings of aircraft pilots vary greatly depending whether they work as airline or commercial pilots. Earnings of airline pilots are among the highest in the Nation, and depend on factors such as the type, size, and maximum speed of the plane and the number of hours and miles flown. For example, pilots who fly jet aircraft usually earn higher salaries than do pilots who fly turboprops. Airline pilots and flight engineers may earn extra pay for night and international flights. Airline pilots usually are eligible for life and health insurance plans financed by the airlines. They also receive retirement benefits and, if they fail the FAA physical examination at some point in their careers, they get disability payments. In addition, pilots receive an expense allowance, or "per diem," for every hour they are away from home. Per diem can represent up to \$500 each month in addition to their salary. Some airlines also provide allowances to pilots for purchasing and cleaning their uniforms. As an additional benefit, pilots and their immediate families usually are entitled to free or reduced fare transportation on their own and other airlines.

Florida Earnings

(2003) Statewide average annual earnings	\$102,671
(2003) Statewide entry level annual earnings	\$42,417
(2003) Statewide experienced level annual earnings	not available

Major Florida City Pay By the Year	2003 Average Annual Earnings	2003 Entry Level Annual Earnings	2003 Experienced Level Annual Earnings
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Daytona Beach MSA	\$44,023	\$27,748	\$52,355
Fort Lauderdale PMSA	\$72,447	\$29,572	\$110,006
Fort Walton Beach MSA	\$68,866	\$59,363	\$75,506
Jacksonville MSA	\$58,374	\$29,062	\$80,597
Miami PMSA	\$117,990	\$65,185	not available
Orlando MSA	\$94,506	\$36,997	not available
Pensacola MSA	\$45,497	\$31,360	\$45,131
Tampa - St. Petersburg - Clearwater MSA	\$46,129	\$34,583	\$59,043



Physical Demands

Physical Demands reflect the overall strength generally needed to work in this occupation.

- **Light (10 lbs to 20 lbs)**

You would often handle loads up to 10 lbs., sometimes up to 20 lbs. You might do a lot of walking or standing or you might sit but use your arms and legs to control machines, equipment or tools.

Physical Abilities

Physical Abilities information comes from O*NET. Only those factors that are a significant part of the occupation are listed.

- **Near vision ... (medium level)**

Seeing clearly up close.

- **Far vision ... (medium level)**

Seeing clearly at a distance.

- **Color discrimination ... (medium level)**

Identifying colors and seeing differences in color, including shades and brightness.

- **Night vision ... (medium level)**

Seeing clearly in low light conditions.

- **Peripheral vision ... (medium level)**

Seeing objects or movement to one's side when looking forward.

- **Depth perception ... (medium level)**

Judging how far away an object is, or which of several objects is closer or farther away.

- **Glare sensitivity ... (medium level)**

Seeing objects clearly in glaring conditions or bright lighting.

- **Auditory attention ... (medium level)**

Picking out a particular sound in the presence of other sounds.

- **Speech clarity ... (medium level)**

Speaking clearly enough to be able to be understood by others.

Work Conditions

Work conditions are taken from O*NET and refer to characteristics of the physical environment for an occupation. The following factors are frequently found in the work setting for this occupation:

- **Sitting**

Work in this occupation involves sitting more than one-third of the time.

- **Handling**

Work in this occupation involves using your hands to hold, control, and feel objects more than one-third of the time.

- **Special uniform**

Work in this occupation involves wearing a special uniform, such as that of an airplane pilot, a nurse, police officer, or military personnel.

Work Hours and Travel

- Irregular hours

Work hours change from day to day. You may start earlier or finish later than others.

- Weekend work

Saturdays or Sundays are work days. On your days off others are working.

- Overnight travel

Overnight travel is part of the job.

The following information is a list of Florida and other US Post-Secondary Schools that offer Aircraft Pilot educational programs.

[Click a school to see its report.](#)

[Broward Community College - Ft. Lauderdale \(2YR\) Ft. Lauderdale, FL](#)
[Embry Riddle Aeronautical University \(4YR\) Daytona Beach, FL](#)
[Everglades College \(2YR\) Fort Lauderdale, FL](#)
[Flightsafety Academy, A Division of Flightsafety International, Inc. \(T&T\) Vero Beach, FL](#)
[Florida Community College - Downtown \(2YR\) Jacksonville, FL](#)
[Florida Memorial College \(4YR\) Miami, FL](#)
[Jacksonville University \(4YR\) Jacksonville, FL](#)
[Miami-Dade College - Wolfson Campus \(2YR\) Miami, FL](#)

[Palm Beach Community College - Central Campus \(2YR\) Lake Worth, FL](#)
[Webster University, Merritt Island \(4YR\) Merritt Island, FL](#)
[Delta Connection Academy, Sanford, FL](#)

MILITARY PILOT CAREER PATH

Command Pilot 15–18 years

Command pilots lead a squadron, flight operations group, or command an air facility. They direct flight operations of a major flying unit and advise headquarters commanders on squadron operations. They continue to fly missions to maintain expert flying skills.

Flight Leader 9–11 years

Flight leaders command several airplanes on flying missions, such as air strikes, patrols, or transporting cargo. They manage combat missions, planning target selections and personnel utilization as well as a squadron department, such as maintenance, training, or safety. They also instruct pilots in squadron missions and tactics and evaluate pilots' flying, leadership, and management skills.

Senior Pilot 4 years

Senior pilots plan and fly operational missions, fly as first pilot in large airplanes, and lead flights of two or more aircraft on missions. They also instruct new pilots and explain mission plans and assignments to flight crews.

Pilot

Pilots plan flights, considering weather, fuel, and aircraft loading. They also participate in planning missions and tactics. They may fly missions alone, as part of a group of airplanes, or as copilot in a large airplane.