

Air Traffic Controllers

SOC: 53-2021 • Career Profile Report

■ Key Facts

\$144,580 Median Salary	24,100 Employment	+1.0% Growth Rate
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■ Requirements & Salary Range

Education: Associate's degree

■ Automation Risk Assessment

Low Risk - 8.0% probability of being automated in the next 10-20 years.
This job is relatively safe from automation due to its creative, social, or complex problem-solving requirements.

■ Work-Life Balance

8.0/10 - Excellent work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	8.6/10	Investigative	4.4/10
Artistic	3.4/10	Social	5.8/10
Enterprising	4.8/10	Conventional	7.4/10

■ Top Skills Required

Communication skills, Decision-making skills, Detail oriented, Math skills, Organizational skills, Problem-solving skills, Teamwork

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Air Traffic Controllers coordinate and manage **aircraft movement in airports and airspace to ensure safe and efficient flight operations**. They monitor radar, communicate with pilots, and direct takeoffs, landings, and flight paths. Their work is critical in aviation safety and transportation efficiency.

This career is well suited for individuals who enjoy high-stakes decision-making, attention to detail, and working in fast-paced environments.

What Do Air Traffic Controllers Do?

These professionals oversee air traffic and communicate instructions to pilots to prevent collisions and manage airspace efficiently.

Common responsibilities include:

- Monitoring aircraft positions using radar, computers, or visual references
- Providing instructions to pilots for takeoff, landing, and en route navigation
- Coordinating with other controllers and airport personnel
- Managing traffic in congested airspace and during emergencies
- Recording and reporting flight information and incidents
- Ensuring compliance with aviation regulations and safety protocols
- Advising pilots on weather, airspace restrictions, and traffic conditions

Key Areas of Air Traffic Control

Controllers may focus on specific airspace or functions:

- Tower Control: Managing arrivals and departures at airports
- Approach and Departure Control: Guiding aircraft near airports and transition zones
- En Route or Center Control: Monitoring aircraft during the majority of their flight
- Traffic Coordination: Preventing collisions and ensuring safe separation
- Emergency Management: Handling in-flight or airport emergencies

Skills and Abilities Needed

Air traffic controllers combine technical knowledge with rapid decision-making and communication skills.

Core Professional Skills

Personal Qualities That Matter

Education and Career Pathway

This role requires specialized training and certification:

- Bachelor's Degree or Equivalent: Aviation, air traffic management, or related field
- Completion of FAA-Approved Training Program: Practical and theoretical air traffic instruction
- On-the-Job Training: Supervised experience in control towers or radar centers
- Certification and Licensing: Federal Aviation Administration (FAA) certification
- Continuous Learning: Staying updated on aviation procedures, technology, and safety regulations

Where Do Air Traffic Controllers Work?

They are employed in facilities responsible for managing aircraft movement:

- Airport Control Towers
- En Route Traffic Control Centers
- Terminal Radar Approach Control Facilities
- Military and Government Aviation Operations

- Private or Contracted Air Traffic Services

Work environments include control towers, radar centers, and monitoring stations.

Is This Career Difficult?

This career requires focus, rapid decision-making, and the ability to handle high-stress situations. Controllers must maintain safety while coordinating multiple aircraft simultaneously.

Who Should Consider This Career?

This career may be a strong fit if you:

- Can work accurately under pressure
- Enjoy aviation and managing complex systems
- Have strong communication and decision-making skills
- Are detail-oriented and analytical
- Want a career ensuring safety and efficiency in air travel

How to Prepare Early

- Take courses in mathematics, physics, and aviation
- Gain experience in flight simulation or aviation-related programs
- Develop strong concentration, problem-solving, and communication skills
- Learn about air traffic control procedures and regulations
- Explore FAA-approved training programs and internships

Air traffic controllers ensure the safe and efficient movement of aircraft, coordinating complex airspace operations and protecting passengers and cargo.