

Reentry vehicles  
Sensory deprivation  
Space biology  
Spaceflight training  
Space medicine  
Space suits  
Technological projections  
Walk in space  
Weightlessness  
X-rays

### **Meteorology**

Air  
Air masses  
Atmosphere  
Barometric pressure  
Clouds  
Convection currents  
Earth science  
Evaporation and condensation  
Fog  
Humidity  
Precipitation  
Turbulence  
Weather maps and charts  
Weather satellites  
Wind

### **Physics**

Acoustics  
Aerodynamics  
Aircraft propulsion systems  
Airfoil  
Airplane  
Airspeed indicator  
Alloys  
Area rule  
Astronautics  
Attitude control  
Automatic landing  
Avionics  
Bank  
Bearing  
Bernoulli's principle  
Boyle's law

Carburetion  
Center of gravity  
Composites  
Computers  
Crystallography  
Doppler effect  
Dynamic soaring  
Electricity  
Electromagnetism  
Electronics  
Energy  
Engines  
Escape velocity  
Flight management  
Fluid mechanics  
Gas turbine engines  
Ground-effect machines  
Gyroscope  
Heat energy  
Heat shields  
High-lift devices  
Hydraulic systems  
Hypersonic flight  
Inertial guidance  
Infrared radiation  
Instrument panel  
Lasers  
Launching  
Lifting-body vehicles  
Maneuvers  
Matter  
Measurement of power  
Metals and metallurgy  
Newton's laws  
Noise  
Nuclear energy  
Nuclear propulsion  
Pilot-static system  
Plasma  
Power management  
Radar  
Radiation  
Radio  
Reciprocating engines  
Rendezvous and docking  
Robots

Rotating combustion engines  
Sailplanes  
Semiconductors  
Shock wave  
Solar wave  
Solid-state physics  
Space propulsion systems  
Supersonic flight  
Television  
Temperature scales  
V / STOL aircraft  
Wind tunnels  
Wings  
X-rays

### **Psychology**

Astronauts  
Aviation medicine  
Cosmonauts  
Flying safety  
Gemini  
Man in flight  
Pilot training  
Psychological factors of flight  
Space flight training  
Space medicine

### **Social Studies**

Air defense systems  
Air Force (U.S.)  
Air forces of the world  
Airmail  
Air taxis  
Apollo  
Army aviation  
Atlas missile  
Berlin airlift  
Biographies  
Blockhouse  
Bombs  
Careers  
Cargo aircraft  
Commercial airlines  
Crop dusting  
Cybernetics

Demonstration teams  
DEW line  
Economic implications  
Educational implications  
European aerospace activities  
Eurosace  
Fighter aircraft  
Fixed base operation  
Flight (as passenger)  
Flight test programs  
Forest fire control  
Gemini  
General aviation  
Gliders  
Gliding  
Government in aerospace  
Hangars  
Helicopters  
Heliports  
High-speed surface transportation  
History of aviation  
Homebuilt aircraft  
Instrument flight techniques  
Insurance  
Interplanetary travel  
Israeli-Arab Conflict – 1967  
Jet aircraft  
Jumbo jets  
Kamikaze  
Kennedy Space Center  
Korean War  
Launch facilities

Launch vehicles  
Luftwaffe  
Lunar bases  
Lunar exploration  
Manned Orbiting Laboratory  
Manned spaceflight  
Manufacturing  
Mercury program  
Military aircraft  
Military implications  
Military space program  
Missiles  
Mythology  
NASA  
Naval aviation  
NORAD  
Oceanographic research  
Peenemunde  
Polar flights  
Police and fire services  
Preflight training  
Production techniques  
Program management  
Radio communications  
Rescue and recovery service  
Rockets and rocketry  
Runways  
Safety statistics  
Sailplanes  
Satellites  
Saturn rockets  
Search and rescue  
Social implications

Space stations  
Sport flying  
Strategic Air Command  
Supersonic transports  
Systems engineering  
Technological projections  
Unidentified flying objects  
Utility aviation  
Weaponry  
Wind tunnels  
X-series aircraft

### **Speech and Communications**

Aerospace terminology  
Air traffic control  
Communications satellites  
Ground control approach  
Morse code  
Phonetic alphabet

### **Technology**

Aircraft electrical systems  
Advanced aircraft systems  
Applications Technology  
Satellites  
Aviation technology  
Composite technology  
High energy propulsion systems  
Hypersonics  
Technological projections



- How airplanes are built is **ENGINEERING**
- How airplanes fly is **SCIENCE**
- Distance, speed and time airplanes travel is **MATHEMATICS**
- Who controls airplanes is **GOVERNMENT**
- What airplanes cost is **ECONOMICS**
- Where airplanes land is **SOCIAL STUDIES**
- Who made airplanes fly is **HISTORY**
- Where airplanes fly is **GEOGRAPHY**



**Published by Aerospace Education Directorate  
Civil Air Patrol**

Maxwell Air Force Base, AL 36112-6332  
www.gocivilairpatrol.com/ae

# The Index

## Agriculture

Aerial photography  
Aerial Agricultural Association of Australia  
Agricultural aviation  
Crop dusting  
Cloud seeding  
Economic implications  
Food and nutrition  
Infrared radiation  
International flying  
Farmers  
Photosynthesis  
Weather  
Weather satellites

## Art

Balloons  
Commemorative stamps and medals  
Da Vinci, Leonardo  
History of aviation  
Insignia  
Interiors of aircraft  
Kites  
Medals and decorations  
Model aircraft  
Mythology  
Objects of art  
Photography  
Pilot and crew wings  
Science fiction  
Trophies and awards

## Astronomy

Asteroids  
Astronautics  
Astronomy  
Astrophysics  
Celestial mechanics  
Celestial sphere  
Comets  
Constellations  
Cosmic rays  
Eclipse  
Galaxies

International Years of the Quiet Sun  
International Heliophysical Year  
Interplanetary travel  
Kepler's law  
Light  
Mariner probes  
Meteors  
Moon  
Observatories  
Orbiting observatories  
Orbits and trajectories  
Planetariums  
Planets  
Quantum theory  
Quasar  
Radio astronomy  
Relativity theory  
Solar system  
Stars  
Sun  
Telescopes  
Universe  
X-rays

## Biology

Animals in space  
Aviation medicine  
Biosatellites  
Bird flight  
Circadian rhythm  
Closed ecological system  
Extraterrestrial life  
Hydroponics  
Photosynthesis  
Space biology

## Business Law

Airports  
Certification procedures  
Crash investigations  
Government contracts  
Insurance  
Legal implications  
Patents

Police and fire services  
Registration of aircraft

## Careers

Air Force  
Air traffic control  
Army aviation  
Astronauts  
Careers  
Charter flying  
Cryogenics  
Crystallography  
Cybernetics  
Flight attendants  
Flight instruction  
General aviation  
Government in aerospace  
Ground service and maintenance  
Manufacturing  
Occupations  
Pilots and pilot certificates  
Pilot training  
Spacecraft design  
Test pilots  
Women in aerospace

## Chemistry

Air  
Alloys  
Atoms  
Atmosphere  
Chemical energy  
Closed ecological system  
Cryogenics  
Elements  
Fuels  
Gases  
Lubricants  
Propellants  
Specific gravity

## Earth Science

Air masses  
Atmosphere

Aurora  
Aviation weather  
Boyle's law  
Charts  
Compasses  
Density altitude  
Earth  
Earth satellites  
Explorer satellites  
Geodetic satellites  
Gravity  
Greenhouse effect  
Latitude and longitude  
Lightning  
Lunar charts  
Magnetic course  
Maps and mapping  
Meteorology  
Oceanographic research  
Precipitation  
Sounding rockets  
Van Allen belts  
Weather  
Weather maps and charts  
Weather satellites

## Economics

Aerospace industry  
Airports  
Bush flying  
Business aviation  
Cargo aircraft  
Commercial airlines  
Commercial air transports  
Crop dusting  
Economic implications  
Fixed base operator  
Flight simulators  
General aviation  
Government contracts  
Government in aerospace  
Jet aircraft  
Jumbo jets  
Manufacturing  
Production techniques  
Program management

Supersonic transports  
Utility aviation

## Engineering

Aerial photography  
Aircraft propulsion system  
Avionics  
Electronics  
General aviation aircraft  
Generators and alternators  
Interiors of aircraft  
International Space Station  
Manufacturing  
Materials  
Metals and metallurgy  
Occupations  
Preventive maintenance  
Production techniques  
Refueling  
Spacecraft design

## General Science

Airplane  
Astronomy  
Atmosphere  
Atoms  
Barometric pressure  
Bernoulli's principle  
Bird flight  
Clouds  
Electricity  
Energy  
Engines  
Fog  
Galaxies  
Helicopters  
Jet aircraft  
Launch vehicles  
Man in flight  
Matter  
Mercury program  
Motion and forces  
Photography  
Planets  
Radio communications  
Satellites

Saturn rockets  
Space stations  
Stars  
Sun  
Walk in space  
Weather  
Weather satellites

## Geography

Bush flying  
Cartography  
Charts  
Compasses  
Course plotting  
European aerospace activities  
Latitude and longitude  
Magnetic course  
Maps and mapping  
Photography  
Photogrammetry  
International space activities

## Geology

Geodetic satellites  
Mars  
Moon  
Mountain, desert, and jungle flying  
Photogrammetry  
Planetary geology  
Ranger  
Rover *Spirit*  
Rover *Opportunity*  
Surveyor

## Government

Aerospace industry  
Air Commerce Act  
Air Force  
Air traffic control  
Apollo  
Army aviation  
Civil Aeronautics Board  
Coast Guard aviation  
Crash investigation  
FAA

Federal Aviation Regulations  
Flight service station  
Government contracts  
Instrument Flight Rules  
Marine Corps aviation  
Mercury program  
Military aviation  
Military space program  
NASA  
National Airspace System  
Naval aviation  
Pilots and pilot certificates  
Registration of aircraft  
Visual Flight Rules

## Health

Aerospace medicine  
Animals in space  
Astronauts  
Circadian rhythm  
Drug effects  
Environmental control systems  
Flight physical  
Food and nutrition  
Human engineering  
Hypoxia  
Life-support systems  
Man in flight  
Manned spaceflight  
Man-powered flight  
Pressurization  
Sensory deprivation  
Space suits  
Temperature control  
Weightlessness

## History

Ace  
Air Commerce Act  
Air raid  
Altitude records  
Autogiros  
Balloons  
Barnstormers  
Battle of Britain

Berlin Airlift  
Biographies  
Bomber aircraft  
Bush flying  
Commemorative stamps and medals  
Dirigibles  
Distance records  
Endurance records  
First World War aircraft  
Flying Circus  
Gliders  
History of aviation  
Korean War  
Luftwaffe  
Man-powered  
Mythology  
National Advisory Committee for Aeronautics

## International Relations

Rheims Air Meet  
Science fiction  
Second World War aircraft  
Speed records  
Women in aerospace  
World War I  
World War II

## International Relations

Air defense systems  
Air forces of the world  
Berlin airlift  
Commercial airlines  
DEW line  
Federation Aeronautique Internationale  
Five Freedoms  
International agreements  
International Geophysical Year  
International projects  
International Space Station  
Israeli-Arab Conflict 1967  
Missiles  
Political implications  
Reconnaissance  
Space law

Tracking systems and networks  
United Nations

## Mathematics

Binary numbers  
Celestial navigation  
Course plotting  
Cybernetics  
Distance, speed and time  
Dead reckoning  
Doppler navigation  
Escape velocity  
Informational systems  
Navigational techniques  
Orbits and trajectories  
Parabola  
Telemetry  
Weights and balances

## Medicine

Acceleration  
Aerospace medicine  
Animals in space  
Astronauts  
Aviation medicine  
Circadian rhythm  
Closed ecological system  
Decompression  
Drug effects  
Environmental control systems  
Environmental simulators  
Escape systems  
Flight physical  
High-altitude flight training  
Human engineering  
Hypoxia  
Life-support systems  
Man in flight  
Manned spaceflight  
Mercury program  
Parachutes  
Pressurization  
Psychological factors of flight