

# *FAR/AIM Study Guide*



The following FAR/AIM chapters and sections cover all the topics you will need to know to become a Private Pilot and most of what you will need to know to become a Commercial Pilot. For the sake of simplicity, this guide was not broken down further past each subsection listed below which means that while each subsection does have pertinent information with regards to your training, there may be some subsections that contain parcels of information that you will not need to know. Using this guide to study along with the FAA's Pilot's Handbook of Aeronautical Knowledge (PHAK) and Airplane Flying Handbook (AFH) will help prepare you for 90% of what you will need to know as a VFR pilot. Enjoy!

## *Federal Aviation Regulations (FARs)*

### *Part 21*

- 21.181 Duration of Airworthiness Certificates
- 21.197 Special Flight Permits
- 21.199 Issue of Special Flight Permits

### *Part 39*

- 39.5 When Does FAA Issue Airworthiness Directives?

### *Part 43*

- 43.3 Persons Authorized to Perform Maintenance, Preventive Maintenance, Rebuilding, and Alterations
- Appendix A to Part 43 – Major Alterations, Major Repairs, and Preventive Maintenance

### *Part 61*

- 61.3 Requirement for Certificates, Ratings, and Authorizations
- 61.23 Medical Certificates: Requirement and Duration
- 61.56 Flight Review
- 61.57 Recent Flight Experience: Pilot in Command
- 61.83 Eligibility Requirements for Student Pilots

- 61.87 Solo Requirements for Student Pilots
- 61.89 General Limitations for Student Pilots
- 61.95 Operations in Class B Airspace and at Airports Located Within Class B Airspace
- 61.103 Eligibility Requirements: General
- 61.105 Aeronautical Knowledge
- 61.107 Flight Proficiency
- 61.109 Aeronautical Experience
- 61.113 Private Pilot Privileges and Limitations: Pilot in Command

## ***Part 91***

- 91.3 Responsibility and Authority of the Pilot in Command
- 91.7 Civil Aircraft Airworthiness
- 91.9 Civil Aircraft Flight Manual, Marking, and Placard Requirements
- 91.13 Careless or Reckless Operation
- 91.15 Dropping Objects
- 91.17 Alcohol or Drugs
- 91.103 Preflight Action
- 91.105 Flight Crewmembers at Stations
- 91.107 Use of Safety Belts, Shoulder Harnesses, and Child Restraint Systems
- 91.111 Operating Near Other Aircraft
- 91.113 Right-Of-Way Rules: Except Water Operations
- 91.117 Aircraft Speed
- 91.119 Minimum Safe Altitudes: General
- 91.121 Altimeter Settings
- 91.123 Compliance with ATC Clearances and Instructions
- 91.125 ATC Light Signals
- 91.129 Operations in Class D Airspace
- 91.130 Operations in Class C Airspace
- 91.131 Operations in Class B Airspace
- 91.135 Operations in Class A Airspace
- 91.151 Fuel Requirements for Flight in VFR Conditions
- 91.155 Basic VFR Weather Minimums
- 91.157 Special VFR Weather Minimums
- 91.159 VFR Cruising Altitude or Flight Level
- 91.203 Civil Aircraft: Certifications Required
- 91.205 Powered Civil Aircraft with Standard Category U.S. Airworthiness Certificates: Instrument and Equipment Requirements
- 91.207 Emergency Locator Transmitters
- 91.209 Aircraft Lights
- 91.211 Supplemental Oxygen

- 91.213 Inoperative Instruments and Equipment
- 91.215 ATC Transponder and Altitude Reporting Equipment and Use
- 91.225 Automatic Dependent Surveillance-Broadcast (ADS-B) Out Equipment and Use
- 91.403 General
- 91.407 Operation After Maintenance, Preventive Maintenance, Rebuilding, or Alteration
- 91.409 Inspections
- 91.413 ATC Transponder Tests and Inspections
- 91.519 Passenger Briefing

## ***Part 830***

- 830.5 Immediate Notification
- 830.10 Preservation of Aircraft Wreckage, Mail, Cargo, and Records

# ***Aeronautical Information Manual (AIM)***

## ***Chapter 1 (Air Navigation)***

### **Section 1 (Navigation Aids)**

- 1-1-1 General
- 1-1-3 VHF Omni-Directional Range (VOR)
- 1-1-8 Navigational Aid (NAVAID) Service Volume
- 1-1-11 NAVAID Identifier Removal During Maintenance
- 1-1-12 NAVAIDs with Voice

## ***Chapter 2 (Aeronautical Lighting and Other Airport Visual Aids)***

### **Section 1 (Airport Lighting Aids)**

- 2-1-2 Visual Glideslope Indicators
- 2-1-3 Runway End Identifier Lights (REIL)
- 2-1-4 Runway Edge Light Systems

- 2-1-5 In-Runway Lighting
- 2-1-8 Control of Lighting Systems
- 2-1-9 Pilot Control of Airport Lighting
- 2-1-10 Airport/Heliport Beacons
- 2-1-11 Taxiway Lights

### Section 3 (Airport Marking Aids and Signs)

- 2-3-3 Runway Markings
- 2-3-4 Taxiway Markings
- 2-3-5 Holding Position Markings
- 2-3-6 Other Markings
- 2-3-7 Airport Signs
- 2-3-8 Mandatory Instruction Signs
- 2-3-9 Location Signs
- 2-3-10 Direction Signs
- 2-3-11 Destination Signs
- 2-3-12 Information Signs
- 2-3-13 Runway Distance Remaining Signs

## *Chapter 3 (Airspace)*

### Section 1 (General)

- 3-1-1 General
- 3-1-2 General Dimensions of Airspace Segments
- 3-1-4 Basic VFR Weather Minimums
- 3-1-5 VFR Cruising Altitudes and Flight Levels

### Section 2 (Controlled Airspace)

- 3-2-2 Class A Airspace
- 3-2-3 Class B Airspace
- 3-2-4 Class C Airspace
- 3-2-5 Class D Airspace
- 3-2-6 Class E Airspace

### Section 3 (Class G Airspace)

- 3-3-1 General
- 3-3-2 VFR Requirements

### Section 4 (Special Use Airspace)

- 3-4-1 General

- 3-4-2 Prohibited Areas
- 3-4-3 Restricted Areas
- 3-4-4 Warning Areas
- 3-4-5 Military Operations Areas
- 3-4-6 Alert Areas
- 3-4-7 Controlled Firing Areas
- 3-4-8 National Security Areas
- 3-4-9 Obtaining Special Use Airspace Status

## Section 5 (Other Airspace Areas)

- 3-5-2 Military Training Routes
- 3-5-3 Temporary Flight Restrictions
- 3-5-5 Published VFR Routes
- 3-5-6 Terminal Radar Service Area (TRSA)
- 3-5-7 Special Air Traffic Rules (SATR) and Special Flight Rules Area (SFRA)

# *Chapter 4 (Air Traffic Control)*

## Section 1 (Services Available to Pilots)

- 4-1-3 Flight Service Stations
- 4-1-9 Traffic Advisory Practices at Airports Without Operating Control Towers
- 4-1-13 Automatic Terminal Information Service (ATIS)
- 4-1-15 Radar Traffic Information Service
- 4-1-18 Terminal Radar Services for VFR Aircraft
- 4-1-20 Transponder Operation

## Section 2 (Radio Communications Phraseology and Techniques)

- 4-2-1 General
- 4-2-2 Radio Technique
- 4-2-3 Contact Procedures
- 4-2-4 Aircraft Call Signs
- 4-2-6 Ground Station Call Signs
- 4-2-7 Phonetic Alphabet
- 4-2-8 Figures
- 4-2-9 Altitudes and Flight Levels
- 4-2-10 Directions
- 4-2-11 Speeds
- 4-2-12 Time
- 4-2-13 Communications with Tower when Aircraft Transmitter or Receiver or Both are Inoperative

### Section 3 (Airport Operations)

- 4-3-1 General
- 4-3-2 Airports with an Operating Control Tower
- 4-3-3 Traffic Patterns
- 4-3-4 Visual Indicators at Airports Without an Operating Control Tower
- 4-3-5 Unexpected Maneuvers in the Airport Traffic Pattern
- 4-3-6 Use of Runways/Declared Distances
- 4-3-10 Intersection Takeoffs
- 4-3-11 Pilot Responsibilities When Conducting Land and Hold Short Operations (LAHSO)
- 4-3-13 Traffic Control Light Signals
- 4-3-14 Communications
- 4-3-18 Taxiing
- 4-3-20 Exiting the Runway After Landing
- 4-3-23 Use of Aircraft Lights

### Section 4 (ATC Clearances and Aircraft Separation)

- 4-4-6 Special VFR Clearances
- 4-4-14 Visual Separation

## ***Chapter 5 (Air Traffic Procedures)***

### Section 1 (Preflight)

- 5-1-3 Notice to Airmen (NOTAM) System
- 5-1-4 Flight Plan – VFR Flights
- 5-1-6 Flight Plan – Defense VFR (DVFR) Flights
- 5-1-14 Closing VFR/DVFR Flight Plans

### Section 2 (Departure Procedures)

- 5-2-5 Line Up and Wait (LUAW)

### Section 6 (National Security and Interception Procedures)

- 5-6-13 Interception Procedures
- 5-6-15 Interception Signals

## ***Chapter 6 (Emergency Procedures)***

### Section 1 (General)

- 6-1-1 Pilot Responsibility and Authority
- 6-1-2 Emergency Condition – Request Assistance Immediately

## Section 2 (Emergency Services Available to Pilots)

- 6-2-1 Radar Service for VFR Aircraft in Difficulty
- 6-2-2 Transponder Emergency Operation
- 6-2-4 Emergency Locator Transmitter (ELT)

## Section 3 (Distress and Urgency Procedures)

- 6-3-2 Obtaining Emergency Assistance
- 6-3-3 Ditching Procedures
- 6-3-4 Special Emergency (Air Piracy)

## Section 4 (Two-Way Radio Communications Failure)

- 6-4-2 Transponder Operation During Two-Way Communications Failure

# *Chapter 7 (Safety of Flight)*

## Section 1 (Meteorology)

- 7-1-5 Preflight Briefing
- 7-1-6 Inflight Aviation Weather Advisories
- 7-1-7 Categorical Outlooks
- 7-1-10 Inflight Weather Broadcasts
- 7-1-12 Weather Observing Programs
- 7-1-18 Estimating Intensity of Rain and Ice Pellets
- 7-1-20 Pilot Weather Reports (PIREPs)
- 7-1-21 PIREPs Relating to Airframe Icing
- 7-1-22 Definitions of Inflight Icing Terms
- 7-1-23 PIREPs Relating to Turbulence
- 7-1-26 Microbursts
- 7-1-29 Thunderstorm Flying
- 7-1-30 Key to Aerodrome Forecast (TAF) and Aviation Routine Weather Report (METAR)
- 7-1-31 International Civil Aviation Organization (ICAO) Weather Formats

## Section 2 (Altimeter Setting Procedures)

- 7-2-1 General
- 7-2-3 Altimeter Errors

## Section 3 (Wake Turbulence)

- 7-3-1 General
- 7-3-2 Vortex Generation
- 7-3-3 Vortex Strength
- 7-3-4 Vortex Behavior

- 7-3-5 Operations Problem Areas
- 7-3-6 Vortex Avoidance Procedures
- 7-3-8 Pilot Responsibility
- 7-3-9 Air Traffic Wake Turbulence Separations

#### Section 4 (Bird Hazards and Flight Over National Refuges, Parks, and Forests)

- 7-4-3 Reporting Bird Strikes

#### Section 5 (Potential Flight Hazards)

- 7-5-1 Accident Cause Factors
- 7-5-2 VFR in Congested Areas
- 7-5-3 Obstructions to Flight
- 7-5-6 Mountain Flying

#### Section 6 (Safety, Accident, and Hazard Reports)

- 7-6-1 Aviation Safety Reporting Program
- 7-6-2 Aircraft Accident and Incident Reporting
- 7-6-3 Near Midair Collision Reporting

## ***Chapter 8 (Medical Facts for Pilots)***

#### Section 1 (Fitness for Flight)

- 8-1-1 Fitness for Flight
- 8-1-2 Effects of Altitude
- 8-1-3 Hyperventilation in Flight
- 8-1-4 Carbon Monoxide Poisoning
- 8-1-5 Illusions in Flight
- 8-1-6 Vision in Flight
- 8-1-8 Judgement Aspects of Collision Avoidance