



## COMPUTER TRAINING SYSTEMS



HELICOPTER  
**TRAINING**

### IFR HELICOPTER INDOCTRINATION TRAINING SYLLABUS

Each Part 135 training program consists of customer-selected subjects from the list below. Each course is a comprehensive learning program covering the listed topics in each area with individual course examinations drawn from all assigned material testing student retention. Subjects include a mixture of interactive tutorials and text-based lessons, culminating in a final exam. Each course also includes administrator access to online record keeping in order to track and monitor individual pilot progress. All subjects are designed to satisfy the initial and recurrent training requirements of 14 CFR 135.293 as well as other aviation-related topics.

#### 14 CFR PART 1-97 AND 49 CFR, PART 830 - RW IFR

##### Lessons

- 14 CFR Part 91, Subpart A
- 14 CFR Part 91, Subparts C, D, and E
- 14 CFR Part 91.105-153, Subpart B
- 14 CFR Part 91.155-187, Subpart B
- 14 CFR Parts 1, 39, 43, and 47
- 14 CFR Parts 61 and 67
- 14 CFR Parts 95 and 97
- 49 CFR Part 830

#### 14 CFR PART 110

##### Lessons

- Definitions

#### 14 CFR PART 119

##### Lessons

- Subparts A and B
- Subpart C - 119.33-53
- Subpart C - 119.55-69

#### 14 CFR PART 135 - RW IFR

##### Lessons

- Eligible On-Demand Operations
- Subpart A - General
- Subpart B 135.63-87 - Flight Operations
- Subpart B 135.89-129 - Flight Operations
- Subpart C - Aircraft and Equipment
- Subpart D - Operating Limitations and Weather Requirements
- Subpart E-H - Crew Requirements and Training
- Subpart L - Helicopter Air Ambulance Requirements

#### ADS-B OVERVIEW

##### Tutorial - ADS-B

- Overview and System Description
- ADS-B Operations
- ADS-B Procedures
- ADS-B In Services
- ADS-B In-Trail Procedures
- CAVS
- Human Factors in ADS-B

##### Lessons

- Overview and System Description
- ADS-B Operations
- ADS-B Procedures
- ADS-B In Services
- ADS-B In-Trail Procedures
- CAVS Using ADS-B IN

#### AERONAUTICAL INFORMATION MANUAL - RW IFR

##### Lessons

- Chapter 1.1 - Navigational Aids
- Chapter 1.2 - Performance Based Navigation
- Chapter 2 - Aeronautical Lighting and Visual Aids
- Chapter 3 - Airspace
- Chapter 4.1 - ATC Services Available to Pilots and Radio Phraseology
- Chapter 4.2 - Radio Communications
- Chapter 4.3 - Airport Operations
- Chapter 4.4 - ATC Clearances and Aircraft Separation
- Chapter 5.1-5.2 - Air Traffic Procedures
- Chapter 5.3-5.4 - ATC En route and Arrival Procedures
- Chapter 5.6 - National Security
- Chapter 6 - Emergency Procedures
- Chapter 7.1 - Meteorology
- Chapter 7.3-7.6 - Turbulence and Flight Hazards
- Chapter 8 - Medical Facts for Pilots
- Chapter 10 - Helicopter Operations

#### AERONAV CHARTS

##### Lessons

- Area Charts
- Departure and Arrival Charts
- Enroute Low Altitude Charts
- Enroute High Altitude Charts
- Approach Charts

#### AIRSPACE OVERVIEW

##### Tutorial - Airspace

- Overview
- Class A
- Class B
- Class C
- Class D
- Class E
- Class G
- Special Use Areas
- Other Airspace Areas
- Air Defense Identification Zones
- Charting

##### Lessons

- Controlled and Uncontrolled Airspace
- Special Use Airspace
- Other Types of Airspace

**AVIATION SAFETY ACTION PROGRAM (ASAP) OVERVIEW**

**Tutorial - Aviation Safety Action Program**

ASAP Overview  
ASAP Process  
How to Submit a Report

**Lessons**

Aviation Safety Action Program (ASAP)  
Overview

**AVIATION WEATHER THEORY**

**Tutorial - Aviation Weather Theory**

The Standard Atmosphere  
Moisture  
States of Water  
Cloud Types  
Air Masses  
Fronts  
Turbulence  
Adverse Weather  
Aviation Weather Services

**Lessons**

The Standard Atmosphere  
Moisture  
Cloud Types  
Air Masses and Fronts  
Turbulence and Wind Shear  
Adverse Weather – Icing  
Adverse Weather – Thunderstorms  
Adverse Weather – Fog  
Aviation Weather Services

**CANADIAN AIM**

**Lessons**

GEN 1-3, 6 - General Information  
GEN 5 - Terms and Definitions  
AGA 1-5 - Aerodromes  
AGA 6-9 - Aerodromes  
COM 1-3 - Communications  
COM 4-7 - Communications  
MET 1 - Meteorology  
MET 2-5 - Meteorology  
MET 6-12 - Meteorology  
NAT - North Atlantic (NAT) Operations  
SAR - Search and Rescue  
MAP - Aeronautical Charts and Publications  
LRA - Licensing, Registration, and Airworthiness  
AIR 1-2.11 - Airmanship  
AIR 2.12-3.8 - Airmanship  
AIR 3.9-4 - Airmanship

**CANADIAN RULES OF THE AIR AND AIR TRAFFIC SERVICES (RACs)**

**Lessons**

Section 1 - General  
Section 2 - Airspace  
Section 3 - Flight Planning  
Section 4.1-4.2 - Airport Operations  
Section 4.3-4.6 - Airport Operations  
Section 5 - VFR Enroute Procedures  
Section 6 - IFR General  
Section 7 - IFR Departure Procedures  
Section 8 - IFR Enroute Procedures  
Section 9.1-9.19 - IFR Arrival Procedures  
Section 9.20-9.28 - IFR Arrival Procedures  
Section 10 - IFR Holding Procedures  
Section 11 - ATC Special Procedures  
RAC Annex

**CLASSES OF FIRE AND PORTABLE FIRE EXTINGUISHERS**

**Tutorial - Portable Fire Extinguishers**

Overview and Classes of Fire  
Types of Fire Extinguishers  
Location and Use of Fire Extinguishers  
Risks and Hazards of Fire

**Tutorial - Lithium Battery Fires**

Lithium Battery Fires

**Lessons**

Classes of Fire and Types of Extinguishers  
Location, Use, Risks, and Hazards  
Lithium Battery Fires

**CONTROLLED FLIGHT INTO TERRAIN AVOIDANCE (CFIT, TAWS, AND ALAR) - (RW)**

**Tutorial - CFIT and ALAR**

Introduction to CFIT  
Combating CFIT  
Approach and Landing Accident Reduction (ALAR)

**Tutorial - TAWS**

Introduction to TAWS  
TAWS Equipment  
Cautions and Warnings  
Databases

**Tutorial - Case Study**

Case Study

**Lessons**

Controlled Flight into Terrain (CFIT)  
Approach and Landing Accident Reduction (ALAR)  
Terrain Awareness and Warning System (TAWS)

**CRM-ADM - Rotor Wing**

**Tutorial - CRM - Rotor Wing**

Crew Resource Management  
Authority of the PIC  
CRM Skills  
Communication Processes  
Building and Maintaining a Flight Team  
Workload and Time Management  
Situational Awareness  
Fatigue: Effects and Reduction Strategies  
Stress: Effects and Reduction Strategies

**Tutorial - ADM - Rotor Wing**

What is ADM?  
Risk Management  
Operational Pitfalls  
Applying ADM

**Tutorial - Case Study**

Case Study

**Lessons**

Authority of the Pilot-in-Command  
Communication  
Team Building  
Workload and Time Management  
Situational Awareness  
Fatigue - Effects and Reduction  
Stress - Effects and Reduction  
Aeronautical Decision Making  
Risk and Operational Pitfalls

**FLAT-LIGHT, WHITEOUT, AND BROWNOUT CONDITIONS**

**Tutorial - Flat-light, Whiteout, and Brownout Conditions**

Overview  
Avoiding and Responding

**Lessons**

Overview  
Avoiding and Responding

**ELECTRONIC FLIGHT BAG (EFB)**

**Tutorial - Electronic Flight Bag (EFB)**

Introduction to EFBs  
Operation of the EFB  
Abnormal and Emergency Procedures

**Lessons**

Electronic Flight Bag (EFB)

## **FUNDAMENTALS OF INSTRUCTION**

### **Tutorial - Duties, Functions, and Responsibilities**

- Duties, Functions, and Responsibilities
- Instruction and Evaluation
- Teaching Risk Management
- Aircraft Procedures and Corrective Actions

### **Tutorial - Fundamental Principles of Instruction**

- Human Behavior
- Teaching Methods
- Learning Process
- Assessment and Critique
- Risk Management

### **Tutorial - Case Study**

- Case Study

### **Lessons**

- Duties, Functions, and Responsibilities
- Fundamental Principles of Instruction

## **GPS (RW IFR-VFR)**

### **Tutorial - GPS Overview**

- GPS System Description
- Availability and Reliability
- GPS Errors
- WAAS and GBAS Augmentation
- GPS NOTAMs and Aeronautical Information
- GPS Operational Overview

### **Tutorial - GPS Operations**

- Inadvertent IMC
- IFR Operations
- Terminal Operations and Approaches
- WAAS Approaches
- Departure Procedures

### **Tutorial - Non-Part 97 Procedures**

- Non-Part 97 Procedures

### **Lessons**

- GPS Overview
- Terminal Operations
- WAAS
- Non-Part 97 Approaches

## **HAA OPERATIONS**

### **Lessons**

- HAA Operations

## **HAZMAT - WILL CARRY OR WILL NOT CARRY**

### **Tutorial - Label Identification**

- Introduction
- Class 1
- Class 2
- Class 3
- Class 4
- Class 5
- Class 6
- Class 7
- Class 8
- Class 9
- Miscellaneous Labels, Placards, and Markings

### **Tutorial - Security Awareness**

- Introduction and Regulatory Requirements
- Recognizing Security Threats
- Responding to Security Threats

### **Lessons**

- General Philosophy
- Limitations
- List of Hazardous Materials
- Labeling and Marking
- Recognition of Undeclared Hazardous Materials
- Storage and Loading Procedures
- Pilot's Notification
- Provisions for Passenger and Crew
- Emergency Procedures
- Security Awareness

## **HELICOPTER AERODYNAMICS**

### **Lessons**

- Aerodynamics Lessons
- Hazards of Helicopter Flight

## **HELICOPTER EXTERNAL LIGHTING**

### **Lessons**

- Helicopter External Lighting Lessons

## **INTRODUCTION TO SAFETY MANAGEMENT SYSTEM (SMS)**

### **Tutorial - SMS**

- SMS Fundamentals
- Safety Culture: Theory and Practice
- Safety Policy and Objectives
- Safety Risk Management
- Safety Assurance
- Safety Training and Promotion

### **Lessons**

- SMS Fundamentals

## **JEPPESEN CHARTS**

### **Lessons**

- Area Charts
- Departure and Arrival Charts
- Enroute Low Altitude Charts
- Enroute High Altitude Charts
- Approach Charts

## **METAR and TAF**

### **Tutorial - METAR and TAF**

- What is a METAR?
- METAR Elements
- METAR Remarks
- The TAF - Significant Differences

### **Lessons**

- Introduction
- METAR Body Elements
- METAR Remarks
- TAF
- Abbreviations and their Meanings

## **MINIMUM EQUIPMENT LIST (MEL) Tutorial - Minimum Equipment List (MEL)**

- MEL Overview
- MEL Contents
- MEL Procedures

### **Lessons**

- Minimum Equipment List (MEL)

## **PHYSIOLOGY AND FIRST AID (RW)**

### **Lessons**

- CPR
- AED
- First Aid - Bleeding, Wounds, and Burns
- First Aid - Poison, Bites, and Stings
- First Aid - Serious Illnesses and Injuries
- Hyperventilation
- Spatial Disorientation
- Trapped Gases

## **PILOT'S GLOSSARY - RW IFR**

### **Lessons**

- Pilot's Glossary A-C
- Pilot's Glossary D-N
- Pilot's Glossary O-W
- IFR Only
- Helicopter Only

## **RUNWAY INCURSION**

### **Tutorial - Runway Incursion**

- Introduction
- Flight Planning
- Ground Operation
- Standard Operating Procedures
- Airport Lighting
- Airport Pavement Markings and Signs
- Equipment and Technology

### **Lessons**

- Runway Incursion

## **SINGLE-PILOT RESOURCE MANAGEMENT**

### **Tutorial - Single-Pilot Resource Management**

- What is SRM?
- Risk Management for Single-Pilot Operations
- Applying SRM

#### **Lessons**

- Communications
- Aeronautical Decision Making
- Risk Management
- Situational Awareness
- Task Management
- Fatigue - Effects and Reduction
- Stress - Effects and Reduction
- Automation Management
- CFIT Awareness

## **SURVIVAL**

### **Lessons**

- General
- Food
- Water
- Making Fires
- Signaling
- Desert Survival
- Arctic Survival
- Survival at Sea
- Navigation

## **TCAS II**

### **Tutorial - TCAS II**

- History and Development
- Basic Concept
- System and Traffic Display
- Types of RAs
- Flight Crew Response
- Problem Encounters
- Operations
- Communication and Reporting Requirements

#### **Lessons**

- Communication and Reporting
- General Information
- Operations
- System and Displays
- TAs and RAs

## **TRAFFIC ADVISORY SYSTEM (TAS)**

### **Tutorial - Traffic Advisory System**

- Introduction to TAS
- Systems and Equipment Description
- Traffic Advisories
- Recommended Actions

#### **Lessons**

- TAS Basics
- Multi-Function Display Symbols and Use
- Pilot Actions

## **WINTER OPERATIONS (RW)**

### **Tutorial - Cold Temperature Airports**

- Cold Temperature Airports

### **Tutorial - Winter Operations**

- Background and Regulations
- Types of Aircraft Icing
- Helicopters and Winter Operations
- Ground Icing Conditions and Deicing Procedures

#### **Lessons**

- Regulations and Definitions
- Effects of Icing on Flights
- Cold Temperature Airports
- Rotor Wing Operations in a Winter Environment

## **WINDSHEAR (RW)**

### **Lessons**

- Windshear Weather
- Windshear Encounters

## **WIRE STRIKE PREVENTION**

### **Tutorial - Wire Strike Prevention**

- Wire Strike Prevention Overview
- Utility Infrastructure Charting
- Wire Detection and Strike Prevention

#### **Lessons**

- Wire Strike Prevention