

RON COX

AVIATION SERVICES

TURBOPROP AIRCRAFT TRAINING PROGRAMS

Pilatus PC-12

TBM 700/850

Meridian

JetProp DLX

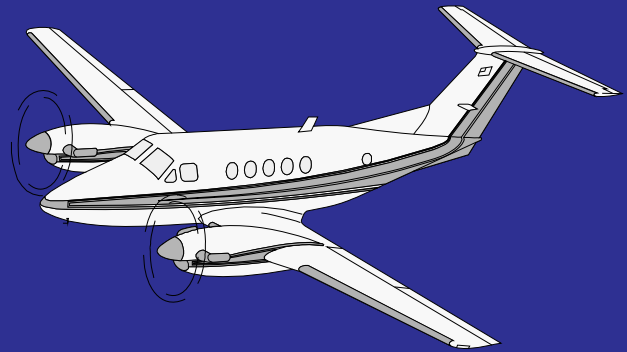


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SINGLE & MULTI-ENGINE TURBOPROP TRAINING¹

PC-12
TBM 700/850
Meridian
JetProp DLX

Ron Cox Aviation Services offers Initial, Refresher, and Supplemental Training

¹ - Ron Cox Aviation Services is qualified to instruct in a wide variety of aircraft.
If your aircraft is not listed, please contact us for information.

PISTON TRAINING PROGRAMS OFFERED:

Ron Cox Aviation Services offers Initial and Refresher Training in the following Piston Aircraft:

A-36
PA-32
C-310
Aztec
Seneca
Baron 55 & 58
P-210
P-337
Aerostar
58P
C-340
PA-31
C-414
C-421
Duke
Mojave
Malibu/Mirage

**FIVE DAY TURBOPROP
INITIAL TRAINING SYLLABUS
SINGLE-ENGINE**

**Meridian
JetProp DLX
TBM 700/850
Pilatus PC-12**

**Ground Training
25 HOURS TOTAL**

SUBJECT (Time)

AIRCRAFT GENERAL (1 hour)

- A. General Description
- B. Airframe and Engines

ENGINES (4 hours)

- A. Engine Description
 - a. Temperature Limitations
 - b. Torque Limitations
 - c. Fuel Control Unit
 - d. Power and Compressor Modules
 - e. Free Turbine Reverse Flow Principle
 - f. Accessory Section
- B. Engine Controls
 - a. Power Levers
 - b. Propeller Control Levers
 - c. Fuel Condition Levers
- C. Engine Instruments
 - a. Torque Meters
 - b. ITT Gauges
 - c. Propeller Tachometers (Np)
 - d. Compressor Turbine Tachometer (Ng)
 - e. Fuel Flow Gauge
 - f. Oil Pressure Gauge
 - g. Oil Temperature Gauge
- D. Starting Procedures and Limitations
 - a. Hot Starts
 - b. Hung Starts

- c. Starter Limitations
 - d. Engine Clearing Procedures
- E. Ignition System
 - a. Auto Ignition System
 - i. Arming System
 - ii. Recommended Use of System
 - b. ITT Probes
 - c. Fuel Nozzles
- F. Air Inductions System
 - a. Ice Protection System
 - b. Air Flow
- G. Engine Fuel System
 - a. Oil-to-Fuel Heater
- H. Engine Oil System
 - a. Quantity
 - b. Tank and Location
 - c. Oil Reading Hot/Cold
- I. Fire Detection & Extinguishing System

PROPELLERS (1 hour)

- A. Propellers and Synchronizers
- B. Primary Propeller Governors
 - a. Power Lever Linkage
 - b. Fuel Control Linkage
 - c. Beta and Reverse Linkage
 - d. Cam Box Assembly
- C. Propeller Over speed Governor
- D. Fuel Topping Governor
- E. Propellers Auto Feathering System
 - a. Arming and Testing System

PREFLIGHT & NORMAL PROCEDURES (2 hours)

- A. Preflight
- B. Before Starting Engines
- C. Starting Engines
- D. Before Taxiing
- E. Taxiing
- F. Engine Run-up and Systems Testing
- G. Before Takeoff
- H. Line-up and Takeoff
- I. After Takeoff
- J. Climb Power Set Limitations
- K. Cruise Power Set
- L. Descent Checklist

- M. Before Landing Checklist
- N. After Landing
- O. Shutdown Checklist

LANDING GEAR & BRAKES (1 hour)

- A. Landing Gear Hydraulic System or Electrical System
 - a. Components
 - b. Normal Operation and Safety Features
 - c. Emergency Systems and Operations
- B. Brake System
 - a. Components
 - b. Parking Brake
 - c. Limitations

FUEL SYSTEM (1 hour 30 minutes)

- A. Tanks
 - a. Location & Type
 - b. Vent System
- B. Indicating System
 - a. Fuel Quantity and Weight
 - b. Fuel Low
 - c. Low Fuel Level Warning
- C. Pumps
 - a. High Pressure Pump Operation
 - b. Boost Pumps and Standby Pumps Operation
 - c. Normal and Crossfeed Operation
 - d. Fuel Additives Cold Weather Operations

ELECTRICAL SYSTEM (1 hour 30 minutes)

- A. Battery
 - a. Lead Acid or Nicad Description
 - b. Maintenance and Precautions
 - c. Hot Battery Bus
- B. Starter / Generators
 - a. Description and Limitations
 - b. Power Distribution and Control
 - c. Cross Generator Start Assist Procedures
- C. Normal Operations
- D. Emergency Operations
- E. External Power Procedures
- F. Monitoring System
 - a. Annunciator Lights
 - b. Volt / Ammeter

- G. Avionics Emergency Busses
- H. Lighting
 - a. Internal
 - b. External
 - c. Annunciator Panel

ENVIRONMENTAL SYSTEMS (1 hour)

- A. Air Distribution, Heating & Ventilation Systems
 - a. Heating Electrical
 - b. Heating Bleed Air
 - c. Heating Combustion Heaters
 - d. Operation and Limitations Heating System
- B. Pressurization System
 - a. Safety Valve Control
 - b. Outflow Valve Operation and Tests
 - c. High Altitude Physiological Operation
 - d. Air Conditioning System
 - e. Oxygen System and Operation

EMERGENCY PROCEDURES (2 hours)

- A. Loss of Power Procedures
- B. Electrical System Malfunctions
- C. Fuel System Control and Crossfeed Procedures
- D. Avionics Bus Failure
- E. Flight Instrument Failure and Procedure
- F. Landing Gear System Failure
- G. Pressurization System Emergency Procedures
- H. Split Flap Systems and Checks
- I. Spins
- J. Alternate Static System Operations and Procedures

FLIGHT CONTROLS (1 hour)

- A. Ailerons
- B. Aileron Trim
- C. Elevator and Elevator Trim (Emergency)
- D. Rudder and Rudder Trim
- E. Flap System and Limitations
- F. Nosewheel Steering
- G. Stall Warning System
- H. Limitations

FLIGHT INSTRUMENTS (1 hour)

- A. Pitot / Static System
- B. Vacuum / Pressure System
- C. Engine Instruments
- D. Flight

ANTI-ICE / DEICE SYSTEMS (1 hour)

- A. Anti-ice
 - a. Pitot Heat
 - b. Stall / Vent Heat
 - c. Ice Vanes / Lip-Ice Boots
 - d. Windshield Heat
- B. Deice
 - a. Surface Deice System
 - b. Propeller System

WEIGHT & BALANCE / PERFORMANCE (3 hours)

- A. Weight & Balance
 - a. Effects of Weight & Balance on Center of Gravity
 - b. Aircraft Forms
 - c. Determining Weight & Balance
 - d. Sample Problems
- B. Performance
 - a. Explanation of Tables
 - b. Interpreting Charts
 - c. Practical Exercise
 - d. Single Engine Performance Charts
 - e. Review FAR 23.149

AUTOPILOT / EFIS / GPS (4 hours)

- A. Autopilot
 - a. Preflight
 - b. Normal Operation
 - c. Emergencies
- B. EFIS
 - a. Programming
 - b. Normal Operations
 - c. Emergencies
- C. GPS
 - a. Specific Operations
 - b. Flight Planning
 - c. Approaches

Flight Training
10 HOURS TOTAL

FLIGHT #1 (3 hours)

- A. Pre-flight Planning
- B. High Altitude Climb above FL 250
- C. Power Settings
- D. Flight Director / Autopilot Procedures (Climb & Descent)
 - a. Engagement Procedures
 - b. Disengagement Procedures
- E. Normal Descent
 - a. Power Settings
 - b. Flap Positions
 - c. Drag Devices
- F. Slow Flight
- G. Steep Turns
- H. Stalls (Visual & Hooded)
 - a. Clean
 - b. Dirty
 - c. Power On
- I. Unusual Attitudes
 - a. Nose Low (Pitch 10 degrees down, roll 35 degrees, airspeed increasing)
 - b. Nose High (Pitch 10 degrees up, roll 40 degrees, airspeed decreasing)
- J. Emergency Descent
 - a. Turbulent Air
 - b. Smooth Air
- K. Emergency Procedures
 - a. Electrical Failure
 - b. Depressurization / Emergency Descent
 - c. Emergency Landing Gear Extension (if applicable)
 - d. Engine Failure (Simulated for Single)
 - e. Power Off Landing
 - f. Balked Landing

FLIGHT #2 (3 hours)

- A. Flight Planning / Pre-Flight
- B. Normal Take-off
- C. IFR Climb 1,000' AGL to 8,000' AGL (All flight maneuvers above 1000' AGL for Flight #2 will be under the hood)
- D. Steep Turns
- E. Slow Flights
- F. Stalls
 - a. Clean
 - b. Dirty
 - c. Power-On
- G. Unusual Attitudes
 - a. Nose Low (Pitch 10 degrees down, roll 35 degrees, airspeed increasing)
 - b. Nose High (Pitch 10 degrees up, roll 40 degrees, airspeed decreasing)
- H. Descents
 - a. Normal
 - i. Power
 - ii. Flaps
 - iii. Gear
 - b. Rough Air Penetration
- I. Instrument Approaches
 - a. ILS
 - b. VOR
 - c. NDB
 - d. GPS
- J. Instrument Approaches (Flight Director engaged only)
- K. Normal, Short Field, No Flap, Take-off and Landings

FLIGHT #3 (4 hours)

- A. Flight Planning / Pre-Flight
- B. Normal Take-Off
- C. IFR Cross Country (Actual or Simulated)
 - a. Cross Country 300 Miles Minimum
 - b. Multiple Approaches at Two Different Airports
 - c. Pressurized Flight above 15,000' MSL on at least one leg of the cross country.
- D. Instrument Procedures
 - a. Partial Panel
 - b. Holding
 - c. Minimum Equipment Flight (i.e. Single Radio, CDI, Stand-by Compass, etc.)
 - d. Simulated Electrical and Gear Failure / Decompression
- E. Instrument Approaches (Flight Director / Autopilot Coupled)
 - a. ILS
 - b. VOR
 - c. NDB
 - d. BC
 - e. DME ARC
 - f. GPS

**THREE DAY TURBOPROP
REFRESHER TRAINING SYLLABUS
SINGLE ENGINE**

**Meridian
JetProp DLX
TBM 700/850
Pilatus PC-12**

**Ground Training
16 HOURS TOTAL**

SUBJECT (Time)

AIRCRAFT GENERAL (1 hour)

- A. General Description
- B. Airframe and Engines

ENGINES (1 hour)

- A. Engine Description
 - a. Temperature Limitations
 - b. Torque Limitations
 - c. Fuel Control Unit
 - d. Power and Compressor Modules
 - e. Free Turbine Reverse Flow Principle
 - f. Accessory Section
- B. Engine Controls
 - a. Power Levers
 - b. Propeller Control Levers
 - c. Fuel Condition Levers
- C. Engine Instruments
 - a. Torque Meters
 - b. ITT Gauges
 - c. Propeller Tachometers (Np)
 - d. Compressor Turbine Tachometer (Ng)
 - e. Fuel Flow Gauge
 - f. Oil Pressure Gauge
 - g. Oil Temperature Gauge

- D. Starting Procedures and Limitations
 - a. Hot Starts
 - b. Hung Starts
 - c. Starter Limitations
 - d. Engine Clearing Procedures
- E. Engine Operating Margins
- F. Ignition System
 - a. Auto Ignition Systems
 - i. Arming System
 - ii. Recommended Use of System
 - b. ITT Probes
 - c. Fuel Nozzles
- G. Air Induction System
 - a. Ice Protection System
 - b. Air Flow
- H. Engine Fuel System
 - a. Oil-to-Fuel Heater
- I. Engine Oil System
 - a. Quantity
 - b. Tank and Location
 - c. Oil Reading Hot/Cold
- J. Fire Detection & Extinguishing System

PROPELLERS (1 hour)

- A. Propellers and Synchronizers
- B. Primary Propeller Governors
 - a. Power Lever Linkage
 - b. Fuel Control Linkage
 - c. Beta and Reverse Linkage
 - d. Cam Box Assembly
- C. Propeller Over speed Governor
- D. Fuel Topping Governor
- E. Propellers Auto Feathering System
 - a. Arming and Testing System

PREFLIGHT & NORMAL PROCEDURES (1 hour)

- A. Preflight
- B. Before Starting Engines
- C. Starting Engines
- D. Before Taxiing
- E. Taxiing
- F. Engine Run-up and Systems Testing
- G. Before Takeoff

- H. Line-up and Takeoff
- I. After Takeoff
- J. Climb Power Set Limitations
- K. Cruise Power Set
- L. Descent Checklist
- M. Before Landing Checklist
- N. After Landing
- O. Shutdown Checklist

LANDING GEAR & BRAKES (1 hour)

- A. Landing Gear Hydraulic System or Electrical System
 - a. Components
 - b. Normal Operation and Safety Features
 - c. Emergency Systems and Operations
- B. Brake System
 - a. Components
 - b. Parking Brake
 - c. Limitations

FUEL SYSTEM (1 hour 30 minutes)

- A. Tanks
 - a. Location & Type
 - b. Vent System
- B. Indicating System
 - a. Fuel Quantity and Weight
 - b. Fuel Low
 - c. Low Fuel Level Warning
- C. Pumps
 - a. High Pressure Pump Operation
 - b. Boost Pumps and Standby Pumps Operation
 - c. Normal and Crossfeed Operation
 - d. Fuel Additives Cold Weather Operations

ELECTRICAL SYSTEM (1 hour 30 minutes)

- A. Battery
 - a. Lead Acid or Nicad Description
 - b. Maintenance and Precautions
 - c. Hot Battery Bus
- B. Starter / Generators
 - a. Description and Limitations
 - b. Power Distribution and Control
 - c. Cross Generator Start Assist Procedures
- C. Normal Operations

- D. Emergency Operations
- E. External Power Procedures
- F. Monitoring System
 - a. Annunciator Lights
 - b. Volt / Ammeter
- G. Avionics Emergency Busses
- H. Lighting
 - a. Internal
 - b. External
 - c. Annunciator Panel

ENVIRONMENTAL SYSTEMS (1 hour)

- A. Air Distribution, Heating & Ventilation Systems
 - a. Heating Electrical
 - b. Heating Bleed Air
 - c. Heating Combustion Heaters
 - d. Operation and Limitations Heating System
- B. Pressurization System
 - a. Safety Valve Control
 - b. Outflow Valve Operation and Tests
 - c. High Altitude Physiological Operation
 - d. Air Conditioning System
 - e. Oxygen System and Operation

EMERGENCY PROCEDURES (2 hours)

- A. Loss of Power Procedures
- B. Electrical System Malfunctions
- C. Fuel System Control and Crossfeed Procedures
- D. Avionics Bus Failure
- E. Flight Instrument Failure and Procedure
- F. Landing Gear System Failure
- G. Pressurization System Emergency Procedures
- H. Split Flap Systems and Checks
- I. Spins
- J. Alternate Static System Operations and Procedures

FLIGHT CONTROLS (1 hour)

- A. Ailerons
- B. Aileron Trim
- C. Elevator and Elevator Trim (Emergency)
- D. Rudder and Rudder Trim
- E. Flap System and Limitations
- F. Nosewheel Steering

- G. Stall Warning System
- H. Limitations

FLIGHT INSTRUMENTS (1 hour)

- A. Pitot / Static System
- B. Vacuum / Pressure System
- C. Engine Instruments
- D. Flight

ANTI-ICE / DEICE SYSTEMS (1 hour)

- A. Anti-ice
 - a. Pitot Heat
 - b. Stall / Vent Heat
 - c. Ice Vanes / Lip-Ice Boots
 - d. Windshield Heat
- B. Deice
 - a. Surface Deice System
 - b. Propeller System

WEIGHT & BALANCE / PERFORMANCE (2 hours)

- A. Weight & Balance
 - a. Effects of Weight & Balance on Center of Gravity
 - b. Aircraft Forms
 - c. Determining Weight & Balance
 - d. Sample Problems
- B. Performance
 - a. Explanation of Tables
 - b. Interpreting Charts
 - c. Practical Exercise
 - d. Single Engine Performance Charts
 - e. Review FAR 23.149

AUTOPILOT / EFIS / GPS (2 hours)

- A. Autopilot
 - a. Preflight
 - b. Normal Operation
 - c. Emergencies
- B. EFIS
 - a. Programming
 - b. Normal Operations
 - c. Emergencies

C. GPS

- a. Specific Operation
- b. Flight Planning
- c. Approaches

Flight Training
5 HOURS TOTAL

FLIGHT #1 (3 hours)

- A. Pre-flight Planning
- B. High Altitude Climb above FL 240 (if applicable)
- C. Leaning Procedures
- D. Flight Director / Autopilot Procedures (Climb & Descent)
 - a. Engagement Procedures
 - b. Disengagement Procedures
- E. Normal Descent
 - a. Power Settings
 - b. Flap Positions
 - c. Drag Devices
 - d. Rough Air Penetration
- F. Emergency Descent (Below 12,000')
 - a. Turbulent Air
 - b. Smooth Air
- G. Steep Turns
- H. Slow Flights
- I. Stalls
 - a. Slow Flight Configuration
 - b. Clean Configuration
 - c. Landing Configuration
 - d. Power On
 - e. Accelerated
- J. Unusual Attitudes
 - a. Nose Low (Pitch 10 degrees down, roll 35 degrees, airspeed increasing)
 - b. Nose High (Pitch 10 degrees up, roll 40 degrees, airspeed decreasing)
- K. Emergency Procedures
 - a. Electrical Failure
 - b. Depressurization (if applicable) / Emergency Descent
 - c. Emergency Landing Gear Extension (if applicable)
 - d. Engine Failure (Simulated)
 - e. Power Off Landing
 - f. Balked Landing
- L. IFR Climb 1,000' AGL to 8,000' AGL (All flight maneuvers above 1000' AGL for this section will be under the hood)

M. Instrument Approaches

- a. ILS
- b. VOR
- c. NDB
- d. GPS

N. Instrument Approaches (Flight Director engaged only)

O. Normal, Short Field, No Flap, Take-off and Landings

FLIGHT #2 (2 hours)

- A. Flight Planning / Pre-Flight
- B. Normal Take-Off
- C. IFR Cross Country (Actual or Simulated)
 - a. Cross Country 150 Miles Minimum
 - b. Multiple Approaches at Two Different Airports
 - c. Pressurized Flight Above 15,000' MSL (if applicable) on at least one leg of the cross country.
- D. Instrument Procedures
 - a. Partial Panel
 - b. Holding
 - c. Minimum Equipment Flight (i.e. Single Radio, CDI, Stand-by Compass, etc.)
 - d. Simulated Electrical and Gear Failure / Decompression (if applicable)
- E. Instrument Approaches (Flight Director / Autopilot Coupled)
 - a. ILS
 - b. VOR
 - c. NDB
 - d. BC
 - e. DME ARC
 - f. GPS

THREE DAY TURBOPROP SUPPLEMENTAL TRAINING SYLLABUS

**Meridian
JetProp DLX
TBM 700/850
Pilatus PC-12**

**Flight Training
10 HOURS TOTAL**

FLIGHT #1 (3 hours)

- A. Pre-flight Planning
- B. High Altitude Climb above FL 250
- C. Power Settings
- D. Flight Director / Autopilot Procedures (Climb & Descent)
 - a. Engagement Procedures
 - b. Disengagement Procedures
- E. Normal Descent
 - a. Power Settings
 - b. Flap Positions
 - c. Drag Devices
- F. Slow Flight
- G. Steep Turns
- H. Stalls (Visual & Hooded)
 - a. Clean
 - b. Dirty
 - c. Power On
- I. Unusual Attitudes
 - a. Nose Low (Pitch 10 degrees down, roll 35 degrees, airspeed increasing)
 - b. Nose High (Pitch 10 degrees up, roll 40 degrees, airspeed decreasing)
- J. Emergency Descent
 - a. Turbulent Air
 - b. Smooth Air
- K. Emergency Procedures
 - a. Electrical Failure
 - b. Depressurization / Emergency Descent
 - c. Emergency Landing Gear Extension (if applicable)
 - d. Engine Failure (Simulated for Single)
 - e. Power Off Landing
 - f. Balked Landing

FLIGHT #2 (3 hours)

- A. Flight Planning / Pre-Flight
- B. Normal Take-off
- C. IFR Climb 1,000' AGL to 8,000' AGL (All flight maneuvers above 1000' AGL for Flight #2 will be under the hood)
- D. Steep Turns
- E. Slow Flights
- F. Stalls
 - a. Clean
 - b. Dirty
 - c. Power-On
- G. Unusual Attitudes
 - a. Nose Low (Pitch 10 degrees down, roll 35 degrees, airspeed increasing)
 - b. Nose High (Pitch 10 degrees up, roll 40 degrees, airspeed decreasing)
- H. Descents
 - a. Normal
 - i. Power
 - ii. Flaps
 - iii. Gear
 - b. Rough Air Penetration
- I. Instrument Approaches
 - a. ILS
 - b. VOR
 - c. NDB
 - d. GPS
- J. Instrument Approaches (Flight Director engaged only)
- K. Normal, Short Field, No Flap, Take-off and Landings

FLIGHT #3 (4 hours)

- A. Flight Planning / Pre-Flight
- B. Normal Take-Off
- C. IFR Cross Country (Actual or Simulated)
 - a. Cross Country 300 Miles Minimum
 - b. Multiple Approaches at Two Different Airports
 - c. Pressurized Flight above 15,000' MSL on at least one leg of the cross country.
- D. Instrument Procedures
 - a. Partial Panel
 - b. Holding
 - c. Minimum Equipment Flight (i.e. Single Radio, CDI, Stand-by Compass, etc.)
 - d. Simulated Electrical and Gear Failure / Decompression
- E. Instrument Approaches (Flight Director / Autopilot Coupled)
 - a. ILS
 - b. VOR
 - c. NDB
 - d. BC
 - e. DME ARC
 - f. GPS

**Ground Training
12 HOURS TOTAL**

SUBJECT (Time)

ENGINES (2 hours)

- A. Engine Description
 - a. Temperature Limitations
 - b. Torque Limitations
 - c. Fuel Control Unit
 - d. Power and Compressor Modules
 - e. Free Turbine Reverse Flow Principle
 - f. Accessory Section
- B. Engine Instruments
 - a. Torque Meters
 - b. ITT Gauges
 - c. Propeller Tachometers (Np)
 - d. Compressor Turbine Tachometer (Ng)
 - e. Fuel Flow Gauge
 - f. Oil Pressure Gauge
 - g. Oil Temperature Gauge
- C. Starting Procedures and Limitations
 - a. Hot Starts
 - b. Hung Starts
 - c. Starter Limitations
 - d. Engine Clearing Procedures
- D. Engine Operating Margins
- E. Ignition System
 - a. Auto Ignition Systems
 - i. Arming System
 - ii. Recommended Use of System
 - b. ITT Probes
 - c. Fuel Nozzles
- F. Air Induction System
 - a. Ice Protection System
 - b. Air Flow
- G. Engine Fuel System
 - a. Oil-to-Fuel Heater
- H. Engine Oil System
 - a. Quantity
 - b. Tank and Location
 - c. Oil Reading Hot/Cold
- I. Fire Detection & Extinguishing System

PROPELLERS (30 minutes)

- A. Propellers and Synchronizers
- B. Primary Propeller Governors
 - a. Power Lever Linkage
 - b. Fuel Control Linkage
 - c. Beta and Reverse Linkage
 - d. Cam Box Assembly
- C. Propeller Over speed Governor
- D. Fuel Topping Governor
- E. Propellers Auto Feathering System
 - a. Arming and Testing System

LANDING GEAR & BRAKES (1 hour)

- A. Landing Gear Hydraulic System or Electrical System
 - a. Components
 - b. Normal Operation and Safety Features
 - c. Emergency Systems and Operations
- B. Brake System
 - a. Components
 - b. Parking Brake
 - c. Limitations

FUEL SYSTEM (1 hour)

- A. Tanks
 - a. Location & Type
 - b. Vent System
- B. Indicating System
 - a. Fuel Quantity and Weight
 - b. Fuel Low
 - c. Low Fuel Level Warning
- C. Pumps
 - a. High Pressure Pump Operation
 - b. Boost Pumps and Standby Pumps Operation
 - c. Normal and Crossfeed Operation
 - d. Fuel Additives Cold Weather Operations

ELECTRICAL SYSTEM (1 hour)

- A. Battery
 - a. Lead Acid or Nicad Description
 - b. Maintenance and Precautions
 - c. Hot Battery Bus

- B. Starter / Generators
 - a. Description and Limitations
 - b. Power Distribution and Control
 - c. Cross Generator Start Assist Procedures
- C. Normal Operations
- D. Emergency Operations
- E. External Power Procedures
- F. Monitoring System
 - a. Annunciator Lights
 - b. Volt / Ammeter
- G. Avionics Emergency Busses
- H. Lighting
 - a. Internal
 - b. External
 - c. Annunciator Panel

ENVIRONMENTAL SYSTEMS (1 hour)

- A. Air Distribution, Heating & Ventilation Systems
 - a. Heating Electrical
 - b. Heating Bleed Air
 - c. Heating Combustion Heaters
 - d. Operation and Limitations Heating System
- B. Pressurization System
 - a. Safety Valve Control
 - b. Outflow Valve Operation and Tests
 - c. High Altitude Physiological Operation
 - d. Air Conditioning System
 - e. Oxygen System and Operation

EMERGENCY PROCEDURES (1 hour)

- A. Loss of Power Procedures
- B. Electrical System Malfunctions
- C. Fuel System Control and Crossfeed Procedures
- D. Avionics Bus Failure
- E. Flight Instrument Failure and Procedure
- F. Landing Gear System Failure
- G. Pressurization System Emergency Procedures
- H. Split Flap Systems and Checks
- I. Spins
- J. Alternate Static System Operations and Procedures

FLIGHT INSTRUMENTS (30 minutes)

- A. Pitot / Static System
- B. Vacuum / Pressure System
- C. Engine Instruments
- D. Flight

ANTI-ICE / DEICE SYSTEMS (1 hour)

- A. Anti-ice
 - a. Pitot Heat
 - b. Stall / Vent Heat
 - c. Ice Vanes / Lip-Ice Boots
 - d. Windshield Heat
- B. Deice
 - a. Surface Deice System
 - b. Propeller System

WEIGHT & BALANCE / PERFORMANCE (1 hour)

- A. Weight & Balance
 - a. Effects of Weight & Balance on Center of Gravity
 - b. Aircraft Forms
 - c. Determining Weight & Balance
 - d. Sample Problems
- B. Performance
 - a. Explanation of Tables
 - b. Interpreting Charts
 - c. Practical Exercise
 - d. Single Engine Performance Charts
 - e. Review FAR 23.149

AUTOPILOT / EFIS / GPS (2 hours)

- A. Autopilot
 - a. Preflight
 - b. Normal Operation
 - c. Emergencies
- B. EFIS
 - a. Programming
 - b. Normal Operation
 - c. Emergencies
- C. GPS
 - a. Specific Operation
 - b. Flight Planning
 - c. Approaches

EFIS/FMS/GPS TRAINING

GPS and FMS guidance integrated into panel mounted glass cockpits with autopilot integration is the core of this instruction. General Aviation aircraft are becoming more complex in programming and execution of electronic commands, thus putting additional pressures on the pilot to fly and program while conducting single pilot operations. RCAS courses are designed to ease this transition to these class of aircraft.

Historical GPS Problems

- The ability of the pilot to get information he needs when he needs it.
- The majority of pilots are able to use only a small fraction of the capability of their receivers (i.e. the direct button)
- Poor understanding of the software prevents pilots from using many capabilities.
- There is a large dollar expenditure for approach approval, but a limited ability of the use of the function.
- Terminology and documentation can't be understood in simple terms.
- Frustration and lack of capable instructors qualified to teach other pilots how to get 100% use of their expensive equipment.

How can Ron Cox Aviation Services help?

Ron Cox Aviation Services can offer you solutions to your many GPS problems. The course teaches you the keystrokes necessary for your GPS to provide instantaneous "flight plans", navigation, in-flight TAS, DA, PA, winds aloft, approaches and fuel planning.

Ron Cox Aviation Services teaches all your GPS functions and features in a concise and simplified manner. Graduates of our course will be able to select GPS approach or navigational functions with ease in the cockpit environment in the heaviest of IFR conditions.

Learn Precision Navigation

- Flight Plans
- Waypoints
- Approach Segments
- Navigation
- Integration of the autopilot and flight director as a total flight management system
- Fuel computation
- PA, DA, V_{NAV} , Winds aloft

Ron Cox Aviation Services Programs

All GPS courses are "hands on" and make and model specific. The course material is computer generated to simplify the complex GPS functions. Instructors are well versed in the dynamics of the GPS system and conduct training in the classroom and the aircraft.

Ron Cox Aviation Services offers training in the following systems¹:

GPS Systems: Garmin 1000, 530, and 430

EFIS Systems: Avidyne 5000, Aspen, and Honeywell 40/50

FMS Systems: Honeywell Apex and Garmin 1000

¹ - Ron Cox Aviation Services is qualified to instruct in a wide variety of GPS makes and models. If your GPS is not listed, please contact us for information.