

Falcon 900EX w/ TFE731-60 Engines

Aircraft Maintenance Initial (15 Day)

Course Outline and Syllabus

Objective

This program is designed to give aircraft technicians an in-depth understanding and skills necessary to maintain the Falcon 900EX safely, efficiently and cost effectively. This course will also introduce technicians to the latest developments to the aircraft such as Airworthiness Directive's, Service Bulletins and Service Letters. The end result should be safer aircraft operations, lowered maintenance costs and greater dispatch reliability.

Accreditation

AccuJet's technical training courses meets the Air Transport Association Specification 104 recommended guidelines at Level III - Line and Base Maintenance Training and also meets the FAA requirements contained in FAR 65.93(A)(4) for Inspection Authorization Renewal.

Enrollment Prerequisites

Each student should be a licensed aircraft technician/engineer, and/or currently employed by a certified repair station or aircraft operator.

Classroom Size

20 students or less is preferred per class.

Course Duration

The course is a total of fifteen days Monday thru Friday (120 hours training completion time includes a minimum of 5% live systems training with an actual Falcon 900EX aircraft supplied by the customer).

Training Location

Classes are held in a well-lit comfortable training environment either at or near customer's facility.

Training Aids/Publications

AccuJet training manuals along with manufacturer's maintenance manuals and other vendor publications are used throughout the course.

Training Equipment

AccuJet's technical training courses are delivered to its clients by using state of the art multimedia presentations. Field trips to an actual aircraft are also used to enhance training in order to meet or surpass the 5% minimum live systems training required by Transport Canada.

Instruction Method

Instructor lead classroom discussion (lectures) along with classroom participation (questions, comments). Students are certainly encouraged to participate throughout each session.

Completion Standard

120 hours of training plus passing all three weekly test with a minimum of a 70% score will result in a Falcon 900EX Maintenance Initial Course Completion Certificate and Course Summary Sheet.

Course Outline/Schedule

The Falcon 900EX Maintenance Initial Course outline is shown below. Class times will be from 8:00am to 5:00pm with an hour for lunch Monday thru Friday. Please make your travel arrangements to correspond with these times.

Live Systems and Practical Training

This part of program is designed to give aircraft technicians/engineers an in-depth understanding and the skills necessary to safely and satisfactorily conduct the TFE731-60 engine performance runs and other ground operations, including taxiing, parking and towing of the Dassault Falcon 900EX aircraft. The live systems training will include a “hands on” approach to the items listed below throughout the entire course as an aircraft is available and after sufficient classroom training has been accomplished. This training portion of the course complies with Transport Canada approval criteria with a curriculum that takes, at least, 5% of the total course time.

The live systems training will be accomplished during and after classroom hours as availability of aircraft permits.

LIVE SYSTEMS and PRACTICAL TRAINING TOTAL TIME = 6.0 hours

- Walk-A-Round And Cockpit Pre-Flight Check **(1.0 hr)**
- Towing **(0.25 hr)**
- Fueling **(0.25 hr)**
- Hydraulic Stand-By Pump Test Procedure **(0.25 hr)**
- Engine Start Procedures: **(0.5 hr)**
 - Normal Self Starting
 - Cold Weather Self Starting
 - Starting with External Power
 - Starting with Fuel Computers in Manual Mode
- Emergency Engine Shutdown Procedures For: **(0.5 hr)**
 - Hot Start
 - Hung Start
 - No or Low Oil Pressure
 - No Hydraulic Pressure
 - Starter Sheared Shaft or Stripped Gearbox Insert
 - Engine Fire Indication
- Abnormal Procedures: **(1.0 hr)**
 - Hot Battery Indication
 - Fuel Computer Failure
 - Engine Surge Bleed Valve Failure
 - Loss of Hydraulic Pressure on #1 System
 - Loss of Hydraulic Pressure on #2 System
 - Generator Failure Indication
 - Normal Brake System Failure
 - Low Fuel Pressure Indication
 - AC Inverter Failure Indication
 - Engine Bleed Air Leak Indication
 - HP and PRV Valve Failure
- Normal Operational Procedures: **(0.5 hr)**
 - Flap/Slat
 - Airbrake
 - Thrust Reverser
 - Normal Brakes With and Without Anti-Skid
 - Emergency/Parking Brakes
 - Horizontal Stabilizer Trim
 - Slat Anti-Ice
 - Engine Anti-Ice
 - Steering
 - Taxiing
- Aircraft Parking and Mooring **(0.25 hr)**
- Engine Shut-Down Procedure **(0.5 hr)**
- Cockpit And Walk-A-Round Post-Flight Check **(0.5 hr)**
- Servicing **(0.5 hr)**
 - Engine Oil
 - Hydraulic Fluid
 - Accumulators

DAY 1 (8 hrs)

Course Introduction (0.5 hr.)

Training Manual Review (0.25 hr.)

Maintenance Manual Review (1.0 hr.)

General (ATA 00) (0.25 hr)

- 00-00-00 General
- 00-00-10 Glossary
- 00-10-00 Record of Modifications

Time Limits/Maintenance Checks (ATA 05) (1.5 hrs)

- 05-00 General
- 05-10 Aircraft Maintenance Operations
- 05-20 Maintenance of Components, Time Between Overhauls and Life Limits
- 05-40 Airworthiness Limitations
- 05-50 Special Unscheduled Operations
- 05-102 Basic Inspection
- 05-500 Aircraft Check Flight

Dimensions and Areas (ATA 06) (0.5 hr)

- 06-10-00 Dimensions and Areas
- 06-20-00 Main Areas and Inspection Doors

Lifting and Shoring (ATA 07) (0.5 hr)

- 07-100 Jacking the Aircraft
- 07-200 Jacking the Aircraft by One Landing Gear Leg
- 07-201 Hoisting the Complete Aircraft
- 07-202 Jacking the Aircraft by One Landing Gear Leg with a Wheel Ramp

Leveling and Weighing (ATA 08) (0.25 hr)

- 08-200 Leveling of Aircraft

Towing and Taxiing (ATA 09) (0.5 hr)

- 09-100 Aircraft Towing With a Towbar
- 09-101 Checking Aircraft Following Towing Incident
- 09-102 Aircraft Towing With a Towbarless Vehicle
- 09-300 Debogging the Aircraft

Parking and Mooring (ATA 10) (0.25 hr)

- 10-100 Parking the Aircraft
- 10-101 Measures to be Taken for Mooring the Aircraft In Case of Snowfall
- 10-200 Mooring the Aircraft
- 10-201 Inspection After Parking the Aircraft in High Wind Conditions

Placards and Markings (ATA 11) (0.25 hr)

- 11-00-00 General
- 11-20-00 Markings and Inscriptions on the Outside of the Aircraft
- 11-30-00 Markings and Inscriptions Inside the Aircraft

Ingredients and Consumable Products (ATA 12) (0.5 hr)

- 12-00 Introduction

Standard Practices (ATA 20) (1.75 hr.)

- 20-000 Summary of Mandatory Precautions to be Taken During Aircraft Maintenance Operations
- 20-005 Conversion of Units of Measure
- Plus Many Other Miscellaneous Sections

DAY 2 (8 hrs)

Structures (ATA 51) (0.25 hrs.)

- 51-00-00 General

Doors (ATA 52) (1.75 hrs.)

- 52-00-00 General
- 52-10-00 Passenger
- 52-20-00 Emergency Exit
- 52-30-00 Baggage Compartment Door
- 52-40-00 Inspection Doors
- 52-50-00 Cabin/Baggage Compartment Communicating Door
- 52-70-00 Door Indication
- 52-80-00 Landing Gear Doors

Fuselage (ATA 53) (0.5 hrs.)

- 53-00-00 General
- 53-10-00 Wing to Fuselage Attachment
- 53-20-00 Empennages-To-Fuselage Attachment
- 53-40-00 Nose Cone
- 53-50-00 Aerodynamic Fairings

Nacelles and Pylons (ATA 54) (0.5 hr.)

- 54-00-00 General
- 54-10-00 Engines No. 1 and No. 3 Cowlings
- 54-20-00 Engine No.2 Cowlings
- 54-50-00 Engines No. 1 and No. 3 Pylons

Stabilizers (ATA 55) (0.5 hrs.)

- 55-00-00 General
- 55-10-00 Horizontal Stabilizer
- 55-20-00 Elevators
- 55-30-00 Vertical Stabilizer
- 55-40-00 Rudder
- 55-50-00 Stabilizer/Fin Stub Junction

Windows (ATA 56) (1.5 hrs.)

- 56-00-00 General
- 56-10-00 Cockpit
- 56-20-00 Passenger Cabin

Wings (ATA 57) (1.0 hrs.)

- 57-00-00 General
- 57-10-00 Structure
- 57-40-00 Wing to Main Landing Gear Attachment
- 57-50-00 Leading Edges and Slats
- 57-60-00 Flaps
- 57-70-00 Ailerons
- 57-80-00 Airbrakes

Electrical Power (ATA 24) (2.0 hrs.)

- 24-00-00 General
- 24-30-00 DC Power Generation
- 24-40-00 Aircraft Systems Energization Through External Power Receptacle

DAY 3 (8 hrs)

Electrical Power (ATA 24) Continued... (2.0 hrs.)

- 24-60-00 DC Load Distribution

Lights (ATA 33) (3.0 hrs.)

- 33-00-00 General
- 33-10-00 Cockpit Lighting
- 33-20-00 Passenger Cabin Lighting
- 33-30-00 Baggage and Service Compartment Lighting
- 33-40-00 Exterior Lighting
- 33-50-00 Emergency Lighting

Indicating-Recording Systems (ATA 31) (3.0 hrs.)

- 31-00-00 General
- 31-10-00 Warnings
- 31-11-00 Warning Panel
- 31-12-00 System Specific Panel Warnings
- 31-20-00 Audio Warning Unit
- 31-30-00 Take Off Warnings
- 31-40-00 Landing Safeties
- 31-50-00 General
- 31-51-00 EID Display System

DAY 4 (8 hrs)

Pneumatic (ATA 36) (2.0 hrs.)

- 36-00-00 General
- 36-10-00 Distribution

Air Conditioning (ATA 21) (6.0 hrs.)

- 21-00-00 General
- 21-20-00 Distribution
- 21-30-00 Pressurization
- 21-50-00 Cooling
- 21-60-00 Temperature Control
- 21-70-00 Ozone Level Monitoring

DAY 5 (8 hrs)

Ice and Rain Protection (ATA 30) (7.0 hrs.)

- 30-00-00 General
- 30-10-00 Wing Anti-Icing
- 30-20-00 Engine Air Intake Anti-Icing
- 30-30-00 Pitot And Static Line Anti-Icing
- 30-41-00 Window Heating
- 30-42-00 Windshield and Cabin Window Demisting
- 30-43-00 Windshield Wipers
- 30-70-00 Water Lines
- 30-96-00 Main Landing Gear Brake Heating System

Water-Waste (ATA 38) (1.0 hr.)

- 38-00-00 General
- 38-10-00 Drinking Water
- 38-30-00 Draining
- 38-91-01 Water/Waste

WEEKLY TEST (50 questions)

DAY 6 (8 hrs)

Hydraulic Power (ATA 29) (2.0 hrs.)

- 29-00-00 General
- 29-10-00 Main Hydraulic Power Supply
- 29-20-00 Auxiliary Hydraulic Power Supply

Landing Gear (ATA 32) (6.0 hrs.)

- 32-00-00 General
- 32-10-00 Main Landing Gear and Doors
- 32-20-00 Nose Landing Gear and Doors
- 32-30-00 Landing Gear Extension and Retraction
- 32-40-00 General
- 32-41-00 Wheels and Wheel Brakes

DAY 7 (8 hrs)

Landing Gear (ATA 32) Continued...(2.0 hrs.)

- 32-42-00 Braking Control
- 32-50-00 Nose Wheel Steering Control (NWS)
- 32-60-00 Ground/Flight Detection

Flight Controls (ATA 27) (6.0 hrs.)

- 27-00-00 General
- 27-10-00 Aileron Control
- 27-20-00 Rudder Control
- 27-30-00 Elevator Control
- 27-40-00 Horizontal Stabilizer
- 27-50-00 Flaps
- 27-60-00 Airbrakes

DAY 8 (8 hrs)

Flight Controls (ATA 27) Continued...(2.0 hrs.)

- 27-80-00 Slats

Fuel System (ATA 28) (6.0 hrs.)

- 28-00-00 General
- 28-10-00 Tanks
- 28-20-00 Pressurization System
- 28-30-00 Supply and Transfer
- 28-50-00 Fuel Quantity Indicating System
- 28-60-00 Refueling System
- 28-70-00 Bleeding, Draining and Defueling

DAY 9 (8 hrs)

Oxygen (ATA 35) (2.0 hrs.)

- 35-00-00 General
- 35-10-00 Crew Oxygen System
- 35-20-00 Passenger Oxygen System
- 35-30-00 Emergency Escape Breathing Device

Fire Protection (ATA 26) (2.0 hrs.)

- 26-00-00 General
- 26-10-00 Detection
- 26-20-00 Extinguishing

Exhaust (ATA 78) (4.0 hrs.)

- 78-00-00 General
- 78-30-00 Thrust Reverser

DAY 10 (8 hrs)

Central Maintenance Systems (ATA 45) (4.0 Hrs.)

- 45-00-00 General
- 45-20-00 Maintenance Panel
- 45-30-00 Maintenance Computer

Auxiliary Power Unit (ATA 49) (4.0 Hrs.)

- 49-00-00 Aircraft Auxiliary Power

WEEKLY TEST (50 questions)

DAY 11 (8 hrs)

Starting and Ignition (ATA 80) (2.0 hrs.)

- 80-00-00 Starting

Powerplant (ATA 71) (2.0 hrs.)

- 71-00-00 General
- 71-10-00 Engines
- 71-30-00 Engine Installation on Aircraft

Engine Fuel and Control (ATA 73) (1.0 hr.)

- 73-00-00 General
- 73-10-00 Fuel Supply
- 73-20-00 Engine Fuel Control
- 73-30-00 Fuel Filter Clogging Detection

Ignition (ATA 74) (0.5 hr.)

- 74-00-00 Ignition

Engine Controls (ATA 76) (0.5 hr.)

- 76-00-00 General
- 76-10-00 Engine Power Controls
- 76-20-00 Emergency Shutdown

Engine Indicating (ATA 77) (0.5 hr.)

- 77-00-00 Engine Indicating

Oil (ATA 79) (1.5 hr.)

- 79-00-00 General
- 79-30-00 Indications

DAY 12 (8 hrs)

Communications (ATA 23) (8.0 hrs.)

- 23-00-00 General
- 23-01-00 Radio Tuning Units (RTU)
- 23-11-00 VHF 1/VHF 2 Systems
- 23-12-00 HF 1/HF 2 System (A/C < 45)
- 23-12-01 HF 9000 Installation (A/C >= 45)
- 23-20-00 SELCAL System
- 23-40-00 Interphone
- 23-50-00 Radio Communications
- 23-60-00 Static Dischargers
- 23-91-01 Passenger Telephone Handset (M 1862)
- 23-92-01 SELCAL System (M 1825)
- 23-93-01 Public Address (M 1839)
- 23-93-02 Cabin Entertainment System (M 1670)
- 23-93-03 Video Display System (M 1733)
- 23-93-04 CD 2000 Display System (M 1673)
- 23-94-01 Third Member Interphone (M1838)

DAY 13 (8 hrs)

Navigation (ATA 34) (8.0 hrs.)

- 34-00-00 General
- 34-01-00 EFIS System
- 34-10-00 Environment - Pitot/Static Lines
- 34-11-00 Pitot/Static Systems
- 34-12-00 Air Data Indicators
- 34-14-00 Total and Static Temperature Measurement System
- 34-15-00 Speed, Mach and Altitude Warning
- 34-20-00 General
- 34-21-00 Inertial Reference System
- 34-22-00 Standby Horizon
- 34-23-00 Standby Compass
- 34-40-00 General
- 34-41-00 Weather Radar
- 34-42-00 Radio-Altitude
- 34-43-00 TCAS II System
- 34-44-00 TCAS 4000 (A/C 76, 78, 83 and >= 89)
- 34-50-00 Radio-Navigation
- 34-51-00 VOR/ILS/Marker
- 34-52-00 DME
- 34-53-00 ADF
- 34-54-00 ATC
- 34-55-00 Global Positioning System (GPS)
- 34-60-00 Flight Management System (FMS)
- 34-94-01 Second Radio-Altitude (M 1875)
- 34-96-01 Third Flight Management System (M 3013)
- 34-98-01 Head-Up Guidance System (HGS) (M 2912)

DAY 14 (8 hrs)

Auto Flight (ATA 22) (8.0 hrs.)

- 22-00-00 General
- 22-10-00 Autopilot
- 22-20-00 Auto-Throttle

DAY 15 (8 hrs)

Indicating and Recording Systems (ATA 31) (6.0 hrs.)

- 31-52-00 Ground Proximity Warning System
- 31-53-00 EGWPS (A/C >= 23 or with SB F900EX-65)
- 31-60-00 General
- 31-61-00 Cockpit Voice Recorder
- 31-62-00 Flight Data Recorder (ED-55)
- 31-70-00 Clocks
- 31-96-01 Cockpit Voice Recorder (M 1827)

RVSM Inspection Requirements and Maintenance Practices (2.0 hrs.)

WEEKLY TEST (50 questions)