CIVIL AVIATION

Embraer Phenom 100

Business Aircraft Maintenance Training

Confidence through
smarter training

Delivering the very BEST AVIATION MAINTENANCE TRAINING while RAISING INDUSTRY STANDARDS

Why you should choose CAE as your maintenance training provider

Proper aircraft and helicopter maintenance is vital to ensure the safety of business air travel. The daily challenges of operating a successful operation in aviation can only be met with adequate preparation and training to keep pace with the continual advancements of the complex technologies found in this constantly changing field.

Let us deliver on the investment of your most valued, strategic asset: your team. CAE can elevate the skillsets of your entire staff, regardless of experience level. We will help attract and prepare new talent with our accelerated learning systems.

With CAE's approach to complete flexibility on multiple fronts: course type, training site, and targeted solutions -we lower downtime, while increasing productivity.

- Realize increased technician potential with our precise and proven course materials and training methods
- Improve your aircraft dispatch rates by building technician confidence with CAE's highly effective, application-oriented, interactive instruction techniques
- Experience higher savings by targeting your training budget at programs which deliver unmatched quality, safety, and results

As a long-standing leader in the field of simulation and other advanced, digital training solutions, CAE is your best choice for improving safety and removing the obstacles which impede your progress. Offering superior maintenance training for over 20 years, we invite you to keep your technicians' skillsets current across a full suite of learning programs for most major OEMs, including Bombardier, Dassault, Embraer, Gulfstream.

With a global network of training centers, highly skilled instructors, and advanced training tools, look to CAE for flexible, relevant, and leading-edge business aircraft maintenance training solutions to enhance safety, efficiency, and readiness for your staff and fleet.

We are here to ensure your success.

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CAE Teaching Objectives

To provide the experienced aircraft technician with knowledge of major systems and major component description, location, and operation; servicing; safety precautions; and troubleshooting to support a typical through-flight maintenance and inspection schedule in accordance with the manufacturer's Aircraft Maintenance Manual.

Student Training Expectations

Each student should be a Part 66/Part 65 certified Airframe and Powerplant Mechanic or have equivalent experience on similar type aircraft.

Courses are conducted in English and attendees must have a good working knowledge of the language enabling them to speak, read, and write in this language.

The candidate is required to attend at least 95% of all course content in order to successfully complete the training. A mark of 75% or above is needed for any written exams.

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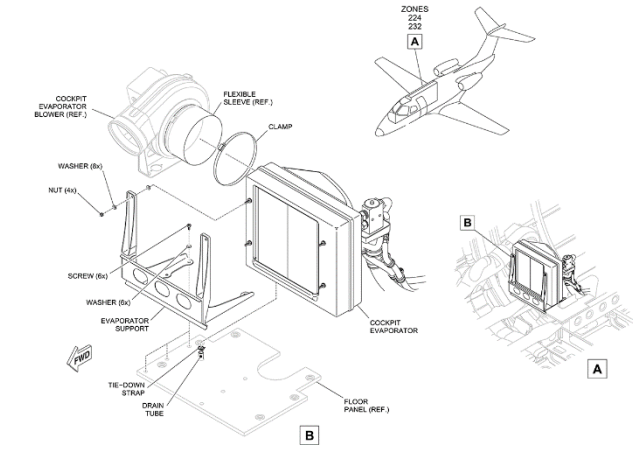

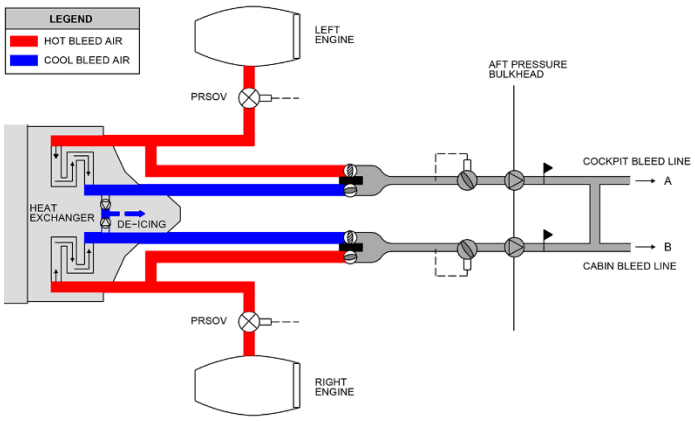

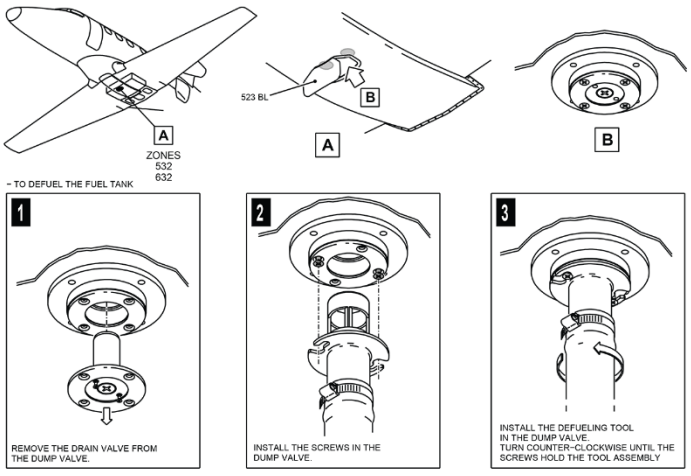

Classroom Discussion

As CAE employs an interactive, application-based learning approach (as opposed to a prepared, abstract lecture), this phase covers classroom discussions comprising:

- in-depth description of systems
- operation, identification, and location of principle components
- maintenance, inspection, and ground run procedures
- routing and theoretical troubleshooting
- preventive maintenance
- safety precautions

The students are encouraged to participate throughout these sessions, which are often interspersed with review questions. This phase may also include visits to the flight line facilities where students are exposed to the real aircraft, system components.

Applied Training Techniques

The practical phase is conducted by an experienced instructor using "hands on" training modules, Fixed Training Device (FTD) or Full Flight Simulator (FFS) and where applicable: real aircraft components. The students are involved in practical tasks associated with maintenance of the aircraft such as:

- Practical troubleshooting
- Servicing Procedures
- System start-up and shut-down procedures
- Normal, Abnormal and Emergency Procedures

This enables the students to apply knowledge gained during other learning phases of this course. A minimum of 5% of the course shall be conducted using possible combinations of a FTD, FFS, the aircraft, mock-ups, or actual aircraft components.

Total Training Environment Flexibility

Courses may be conducted at most of our global network of training centers (including CAE's hybrid classrooms) , at a customer's facility (off-site), or via distance learning / Live Remote Training (LRT).

Initial Maintenance Training Summary

Course Description

Our Initial-level maintenance training course covers all applicable ATA chapters, addressing aircraft systems' theory, operation, inspection, and servicing. The course examines LRU troubleshooting from a theoretical and practical perspective.

Hands-on sessions will be conducted on available aircraft to acquire an applied understanding of aircraft systems, and to participate in effective maintenance practices.

This comprehensive class is the ideal way to introduce technicians to transitions within the fleet.

Course Objectives

The Initial course furnishes the experienced technician with sufficient information to carry out the required maintenance, repair, and troubleshooting necessary to certify the continued airworthiness of the aircraft's mechanical and avionics systems.

Course Total Time ..... 60 Hrs / 10 Days

SUBJECT	ATA
Introduction	1
Flight Deck	2
Times and Limitations	5
Aircraft General	6-12
Standard Practices	20
Air Conditioning	21
Auto Flight	22
Communication	23
Electrical Power	24
Equipment Furnishings	25
Fire Protection	26
Flight Controls	27
Fuel	28
Hydraulic Power	29
Ice & Rain System	30
Indicating & Recording	31
Landing Gear	32
Lighting	33
Navigation / RVSM	34
Oxygen	35
Pneumatic	36
Water & Waste	38
Cabin Systems	44
Central Maintenance System	45
Structures	51-57
Power Plant	71-80

Regulatory Compliance

CAE is authorized to conduct this course under the following Regulatory Authority approvals:

- FAA [USA]
- EASA [European Union]
- CASA [Australia]
- GCAA [UAE]

Avionics Maintenance Training Summary

Course Description

The Avionics course furnishes the experienced aircraft technician with information pertaining to operation of the display, communication, navigation (short-range and long-range), and the automatic flight control (flight guidance) systems. It provides sufficient working knowledge of these systems to allow the technician to participate in troubleshooting at the line maintenance level.

All training is conducted to Level 3, according to ATA specification 104. A good understanding of basic avionics is suggested. (CAE also offers 40-hour classes in each of the following: Avionics Essentials Part I and Part II.)

Course Objectives

After completion of this Avionics course, the student should be able to:

- Use and interpret the appropriate technical publications.
- Describe the purpose and interfaces of each system and associated components
- Explain the operation of each main system and associated components
- Identify and locate the major components associated with each system
- Identify, locate and describe the system controls and indications
- Troubleshoot and isolate failures of specific systems or components

Course Total Time ..... 72 Hrs / 12 Days

SUBJECT	ATA
Time Limits/Maintenance Checks	5
Aircraft General	6-12
Standard Practices - Airframe	20
Air Conditioning	21
Autoflight	22
Communications	23
Electrical Power	24
Equipment and Furnishings	25
Fire Protection	26
Flight Controls	27
Fuel Systems	28
Hydraulic Power	29
Ice and Rain Protection	30
Indicating/Recording Systems	31
Landing Gear	32
Lights	33
Navigation	34
Oxygen	35
Pneumatic	36
Water and Waste	38
Cabin Systems	44
Onboard Maintenance System	45
Structures	51-57
Power Plant	71-80

Regulatory Compliance

CAE is authorized to conduct this course under the following Regulatory Authority approvals:

- FAA [USA]
- EASA [European Union]
- CASA [Australia]
- GCAA [UAE]

Garmin Avionics Scenario Based Troubleshooting Maintenance Training Summary

Course Description

This course describes and explains the OEM's recommended approach as it pertains to operational maintenance procedures and best practices pertaining to aircraft system troubleshooting. The student will learn how to identify and understand the maintenance fault isolation procedures and techniques utilized during aircraft troubleshooting activities and/or dispatch decision making.

Course Objectives

After completion of this Scenario-Based Troubleshooting Type Course, the student should be able to:

- Use and interpret the appropriate technical publications
- Describe the purpose and interfaces of each system and associated components
- Explain the operation of each main system and associated components
- Understand and apply the OEM's recommended approach as it pertains to operational maintenance procedures and best practices pertaining to aircraft system troubleshooting
- Identify and describe the maintenance fault isolation procedures and techniques utilized during aircraft troubleshooting activities and/or dispatch decision making
- Describe various aircraft troubleshooting analytical approaches
- Describe the operation of aircraft system maintenance and diagnostic systems
- Enact a plan of action during troubleshooting activities
- Apply troubleshooting concepts in an effort to solve simulated aircraft fault based scenarios

Course Total Time ..... 30 Hrs / 5 Days

SUBJECT	ATA
Introduction/Manuals/Troubleshooting Plan of Action	N/A
Software Load	31
Indicating/Recording Systems	31
Maintenance Systems and Diagnostics	45
Communication	22
Auto Pilot	23
Navigation	34
Practical Troubleshooting Scenarios	As applicable

Additional Recommendations/Expectations

- This is an aircraft type-specific training course, and the attendee should possess a basic maintenance license or have equivalent prerequisite knowledge.
- It is strongly recommended that the student should have successfully completed a Maintenance Initial, Avionics Initial or similar course; or should have equivalent experience on the aircraft prior to enrolling in this course.

Regulatory Compliance

CAE is authorized to conduct this course under the following Regulatory Authority approvals:

- FAA [USA]

REALcase Update Maintenance Training Summary

Course Description

The REALcase concept utilizes fleet operational data/information that is acquired from the manufacturer and/or operators, spanning the 12 to 18-month period preceding the course. Information relevant to the operation, maintenance and troubleshooting of the aircraft, is presented during the course for review, analysis, and discussion. Emphasis is placed on applicable maintenance considerations, manufacturer recommendations, troubleshooting and dispatch decisions.

Course Objectives

- Better understand the latest in-service difficulties and/or operational issues experienced by fleet operators and reported to the OEM
- Understand and apply the latest manufacturer's documentation, recommendations, and operational maintenance procedures
- (When applicable) be acquainted with recent engine Service Bulletins, Service Information Letters, Enhancements / Options, Services Advisories, etc. pertaining to this engine
- Have increased technical understanding of the aircraft's core systems (with additional emphasis on particular systems the student may wish to focus on)
- Better understand and troubleshoot and/or isolate failures of specific systems or components in accordance with maintenance procedures and applicable documentation

Course Total Time ..... 30 Hrs / 5 Days

SUBJECT	ATA
Times and Limitations	5
Aircraft General	6-12
Air Conditioning	21
Auto Flight	22
Communication	23
Electrical Power	24
Fire Protection	26
Flight Controls	27
Fuel	28
Hydraulic Power	29
Ice & Rain System	30
Indicating & Recording	31
Landing Gear	32
Lighting	33
Navigation / RVSM	34
Oxygen	35
Pneumatic	36
Central Maintenance System	45
Power Plant	71-80

Regulatory Compliance

CAE is authorized to conduct this course under the following Regulatory Authority approvals:

- FAA [USA]

Familiarization Maintenance Training Summary

Course Description

This maintenance course will help technicians understand the aircraft systems, servicing, and practical know-how to maintain the aircraft properly. The course is for the technician who has similar aircraft experience, yet also for the manager or scheduler who wants a better understanding of the aircraft.

If the aircraft is available, actual hands-on practices will be conducted to ensure a complete understanding of aircraft systems and "real-world" maintenance practices.

The Familiarization class offers an excellent way to extend technician productivity.

Course Objectives

The General Familiarization course provides the applicant with a general description of the aircraft capabilities, systems, avionics, power plant, maintenance, and support requirements.

Course Total Time ..... 24 Hrs / 4 Days

SUBJECT	ATA
Times and Limitations	5
Aircraft General	6-12
Air Conditioning	21
Auto Flight	22
Communication	23
Electrical Power	24
Fire Protection	26
Flight Controls	27
Fuel	28
Hydraulic Power	29
Ice & Rain System	30
Indicating & Recording	31
Landing Gear	32
Lighting	33
Navigation / RVSM	34
Oxygen	35
Pneumatic	36
Central Maintenance System	45
Power Plant	71-80

Regulatory Compliance

CAE is authorized to conduct this course under the following Regulatory Authority approvals:

- FAA [USA]
- EASA [European Union]
- CASA [Australia]
- GCAA [UAE]

Software Loading and Central Maintenance Computer Training Summary

Course Description

Presently, the industry does not have sufficient numbers of trained avionics experts to keep pace with the advancements in today's fly-by-wire, fully integrated flight control systems. CAE provides this 2-day Embraer authorized course to encourage A&P technicians to solve this talent shortage in the hangar. The MRO and other larger operators will benefit by keeping more aircraft up to date with the very latest programs designed for the Garmin avionics suite.

Course Total Time ..... 12 Hrs / 2 Days

SUBJECT	ATA
Introduction/Manuals/Troubleshooting Plan of Action	N/A
Software Load	31
Indicating/Recording Systems	31
Maintenance Systems and Diagnostics	45
Practical Troubleshooting Scenarios	As applicable

Additional Recommendations/Expectations

This is an aircraft type-specific training course, and the attendee should possess a basic maintenance license or have equivalent prerequisite knowledge.

Course Objectives

After completion of this Software Loading and Central Maintenance Computer Type Course, the student should be able to:

- Use and interpret the appropriate technical publications
- Describe the purpose and interfaces of each system and associated components
- Explain the operation of each main system and associated components
- Understand and apply the OEM's recommended approach as it pertains to operational maintenance procedures and best practices pertaining to aircraft system troubleshooting
- Describe various aircraft troubleshooting analytical approaches
- Describe the operation of aircraft system maintenance and diagnostic systems

Regulatory Compliance

CAE is authorized to conduct this course under the following Regulatory Authority approvals:

- FAA [USA]

Engine Run & Taxi (Initial) Maintenance Training Summary

Course Description

This course provides designated technicians with the necessary procedures and practices to perform a successful engine run session. Our course combines both classroom theoretical instruction with practical, applied interaction with a Full Flight Simulator or similar advanced training aids.

This engaging and thorough course is ideal for any technician who has the added responsibility for taxiing aircraft to designated run-up areas, away from the maintenance hangar and parking ramp.

Course Objectives

After completion of this Engine Run and Taxi Initial Course, the student should be able to:

- Identify and use appropriate aircraft documentation
- Safely operate the aircraft as pertaining to engine starting and shutdown, including relevant pre-engine run safety precautions
- Safely perform any aircraft system emergency procedures as pertaining to engine and/or APU operation
- Perform aircraft ground handling and aircraft operations related to taxiing the aircraft in an active airport environment
- Address and contain aircraft malfunctions as pertaining to systems associated with either aircraft taxing and/or engine and/or APU operations, while maintaining situational awareness concerning the active airport environment in which these operations may be performed

Course Total Time ..... 12 Hrs / 2 Days

SUBJECT	ATA
Safety Prep / Planning	N/A
MRM (Maintenance Resource Management)	N/A
Mfr's Aircraft Operation Publications	N/A
Engine / APU Systems Review	49, 73-80
Engine / APU Normal Procedures	49, 73-80
Engine / APU Emergency Procedures	49, 73-80
Fire Protection System Review	26
NWS / Braking System Review	32
Communication System Review	23
Airport Signs, Markings and Lights	N/A
Airport Radio Comms & Protocols	N/A
Airport Operations and Taxi Procedures	N/A
Engine / APU Normal Op. Procedures	49, 73-80
Engines / APU Emergency Procedures	49, 73-80
Aircraft Ops (taxiing) & Ground-handling	N/A
Post Engine Run Checks	N/A

Training Location Requirements

Training will be conducted at an approved CAE Training Center where the required training aids and a Full Flight Simulator is available.

Regulatory Compliance

CAE is authorized to conduct this course under the following Regulatory Authority approvals:

- FAA [USA]

Engine Run & Taxi (Recurrent) Maintenance Training Summary

Course Description

This course provides designated technicians with the sufficient review of procedures and practices to perform a successful engine run session. Our course combines both classroom theoretical instruction with practical, applied interaction with a Full Flight Simulator or similar advanced training aids.

(It is recommended that the attendee has previously completed a Maintenance Initial type course, or an Engine Run & Taxi Initial course, or has an equivalent level of experience on the aircraft)

Course Total Time ..... 6 Hrs / 1 Days

SUBJECT	ATA
Safety Prep/Planning	N/A
Airport Signs, Markings and Lights	N/A
Airport Radio Communications & Protocols	N/A
Engines / APU normal operational procedures	49, 70-80
Engines / APU emergency procedures	49, 70-80
Aircraft Operations (taxiing) and Ground-handling	N/A
Post engine run checks	N/A

Training Location Requirements
Training will be conducted at an approved CAE Training Center where the required training aids and a Full Flight Simulator is available.

Course Objectives

After completion of this Engine Run and Taxi Refresher Course, the student should be able to:

- Identify and use appropriate aircraft documentation
- Safely operate the aircraft as pertaining to engine starting and shutdown, including relevant pre-engine run safety precautions
- Safely perform any aircraft system emergency procedures as pertaining to engine and/or APU operation
- Satisfactorily perform aircraft ground handling and aircraft operations related to taxiing the aircraft in an active airport environment
- Satisfactorily address and contain aircraft malfunctions as pertaining to systems associated with either aircraft taxing and/or or engine and/or APU operations, while maintaining situational awareness concerning the active airport environment in which these operations may be performed

Regulatory Compliance

CAE is authorized to conduct this course under the following Regulatory Authority approvals:

- FAA [USA]

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