Study and Reference Guide
for written examinations for the

Airline Transport Pilot Licence
Aeroplane

Twenty-first Edition
March 2016
Please direct your comments, orders and inquiries to:

The Order Desk
Operational Support Services
Transport Canada (AAFBD)
330 Sparks Street
Ottawa ON K1A 0N8

Telephone: 1-888-830-4911 (in North America) 613-991-4071 (other countries)
Fax: 613-991-1653
E-Mail: Publications@tc.gc.ca

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Transport, 1977.

Permission is granted by the Department of Transport, Canada, to copy and/or reproduce the contents of this publication in whole or in part provided that full acknowledgment is given to the Department of Transport, Canada, and that the material be accurately reproduced. While use of this material has been authorized, the Department of Transport, Canada, shall not be responsible for the manner in which the information is presented, nor for any interpretations thereof.

The information in this publication is to be considered solely as a guide and should not be quoted as or considered to be a legal authority. It may become obsolete in whole or in part at any time without notice.

TP 690E
(Revised 03/2016)

TC-1002457

You may reproduce this guide as required and it can be found at
# TABLE OF CONTENTS

**GENERAL** .................................................................................................................................................. 3

  KNOWLEDGE REQUIREMENTS .............................................................................................................. 3

  EXAMINATION RULES .......................................................................................................................... 3

  MATERIALS REQUIRED ......................................................................................................................... 3

  VALIDITY PERIOD .................................................................................................................................. 3

  REWRITING OF EXAMINATIONS .......................................................................................................... 3

  EXAMINATION FEEDBACK ..................................................................................................................... 4

**EXAMINATIONS** ...................................................................................................................................... 4

  SARON .................................................................................................................................................. 4

  SAMRA ................................................................................................................................................ 4

  CONVERSION EXAMINATION – FAA AIRLINE TRANSPORT PILOT CERTIFICATE – AEROPLANE ....... 4

**SARON (sections 1 to 7)** ..................................................................................................................... 5

  SECTION 1: AIR LAW AND PROCEDURES ......................................................................................... 5

  SECTION 2: AIRFRAMES, POWER PLANTS, PROPELLERS AND AIRCRAFT SYSTEMS ................. 18

  SECTION 3: INSTRUMENTS .................................................................................................................. 19

  SECTION 4: NAVIGATION – GENERAL ............................................................................................... 20

  SECTION 5: FLIGHT OPERATIONS ..................................................................................................... 21

  SECTION 6: THEORY OF FLIGHT ......................................................................................................... 22

  SECTION 7: HUMAN FACTORS ............................................................................................................. 23

**SAMRA (sections 8 to 10)** .................................................................................................................... 24

  SECTION 8: METEOROLOGY .................................................................................................................. 24

  SECTION 9: FLIGHT PLANNING ............................................................................................................. 27

  SECTION 10: RADIO COMMUNICATIONS AND AIDS TO NAVIGATION - BASIC PRINCIPLES AND USE ......................................................................................................................... 28

**ANNEX 1** ................................................................................................................................................. 29

**ANNEX 2** ................................................................................................................................................. 29

**RECOMMENDED STUDY MATERIAL SARON AND SAMRA** .............................................................. 31

**RECOMMENDED STUDY MATERIAL FOR THE FAA CONVERSION EXAMINATION** .................... 32

**ENQUIRIES** ............................................................................................................................................ 34
GENERAL

KNOWLEDGE REQUIREMENTS
There is no mandatory ground school for an Airline Transport Pilot Licence - Aeroplane. An applicant is expected to have mastered the various subjects included in this guide and to demonstrate that knowledge by passing two written examinations. The Airline Transport Pilot Licence – Aeroplane also requires a multi-engine instrument rating, therefore an applicant without such a valid rating must complete the requirements for an instrument rating as well.

EXAMINATION RULES
CAR 400.02
(1) Except as authorized by an invigilator, no person shall, or shall attempt to, in respect of a written examination:
   a) copy or remove from any place all or any portion of the text of the examination;
   b) give to or accept from any person a copy of all or any portion of the text of the examination;
   c) give help to or accept help from any person during the examination;
   d) complete all or any portion of the examination on behalf of any other person; or
   e) use any aid or written material during the examination.
(2) A person who commits an act prohibited under subsection (1) fails the examination and may not take any other examination for a period of one year.

MATERIALS REQUIRED
A pencil is required for rough work. Electronic calculators are useful and are permitted if their memory is cleared before and after the examination. Computers capable of storing text are not approved. Navigation tools (ruler/scale, flight computer) are required for the navigation questions. A list of approved electronic navigation computers is available at: http://www.tc.gc.ca/eng/civilaviation/opssvs/general-exams-computers-2011.htm

VALIDITY PERIOD
Examinations that are required for the issuance of a permit or licence or for the endorsement of a permit or licence with a rating shall be completed during the 24-month period immediately preceding the date of the application for the permit, licence or rating.

REWRITING OF EXAMINATIONS
CAR 400.04
(1) A person who fails an examination or a section of a sectionalized examination required for the issuance of a flight crew permit, licence, rating or foreign licence validation certificate is ineligible to rewrite the examination or the failed section for a period of
   a) in the case of a first failure, 14 days;
   b) in the case of a second failure, 30 days; and
   c) in the case of a third or subsequent failure, 30 days plus an additional 30 days for each failure in excess of two failures, up to a maximum of 180 days.
EXAMINATION FEEDBACK
Feedback statements in the results letter will inform the candidate where questions were answered incorrectly.

Example of Feedback Statement
Identify the atmospheric conditions favourable to thunderstorm formation.

EXAMINATIONS
CAR 421.34

SARON

<table>
<thead>
<tr>
<th>Examination</th>
<th>Questions</th>
<th>Time Limit</th>
<th>Pass Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aviation Regulations and Air Traffic Procedures, Aeroplane Operations and General Navigation (Sections 1 to 7)</td>
<td>80</td>
<td>3½ hours</td>
<td>70%</td>
</tr>
</tbody>
</table>

SAMRA

<table>
<thead>
<tr>
<th>Examination</th>
<th>Questions</th>
<th>Time Limit</th>
<th>Pass Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meteorology, Radio Aids to Navigation and Flight Planning (Sections 8 to 10)</td>
<td>80</td>
<td>3½ hours</td>
<td>70%</td>
</tr>
</tbody>
</table>

The Instrument Rating (INRAT) examination must also have been passed (70%) to obtain an Airline Transport Pilot Licence – Aeroplane (ATPL-A).

CONVERSION EXAMINATION – FAA AIRLINE TRANSPORT PILOT CERTIFICATE – AEROPLANE

Pilots who hold a United States of America Airline Transport Pilot certificate – Aeroplane, which has not been “Issued on the basis...” of another foreign licence, may demonstrate their knowledge by writing the following Transport Canada multiple choice examination:

<table>
<thead>
<tr>
<th>Examination</th>
<th>Questions</th>
<th>Time Limit</th>
<th>Pass Mark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Law and Procedures (FAAAA)</td>
<td>25</td>
<td>1½ hour</td>
<td>70%</td>
</tr>
</tbody>
</table>

The FAAAA examination is based on subjects contained in the AIR LAW AND PROCEDURES section of this Study and Reference Guide. Candidates should read the recommended references on pages 33 and 34 as they apply to aeroplanes).
SARON (sections 1 to 7)

SECTION 1: AIR LAW AND PROCEDURES

Canadian Aviation Regulations (CARs)

Some Canadian Aviation Regulations (CARs) refer to their associated standards. Questions from the CARs may test knowledge from the regulation or the standard.

PART I – GENERAL PROVISIONS

101 – INTERPRETATION

101.01 Interpretation

103 – ADMINISTRATION AND COMPLIANCE

103.02 Inspection of Aircraft, Requests for Production of Documents and Prohibitions
103.03 Return of Canadian Aviation Documents
103.04 Record Keeping
103.12 Definition of “Principal”

106 – ACCOUNTABLE EXECUTIVE

106.01 Application
106.02 Appointment and Acceptance
106.03 Accountability
106.04 More Than One Certificate

107 – SAFETY MANAGEMENT SYSTEM REQUIREMENTS

107.01 Application
107.02 Establishing a Safety Management System
107.03 Safety Management System
107.04 Size

PART II – AIRCRAFT IDENTIFICATION AND REGISTRATION AND OPERATION OF A LEASED AIRCRAFT BY A NON-REGISTERED OWNER

202 – AIRCRAFT MARKING AND REGISTRATION

202.01 Requirements for Marks on Aircraft
202.26 Carrying Certificate of Registration on Board the Aircraft
202.35 Transfer of Legal Custody and Control - General

203 – OPERATION OF A LEASED AIRCRAFT BY A NON-REGISTERED OWNER

203.02 Application
203.03 Leasing Operations – General
203.04 Leasing Operations – International
203.05 Registration of Leased Aircraft
PART III – AERODROMES AND AIRPORTS

300 – INTERPRETATION

300.01 Interpretation

301 – AERODROMES

301.01 Application
301.04 Markers and Markings
301.06 Wind Direction Indicator
301.07 Lighting
301.08 Prohibitions
301.09 Fire Prevention

302 – AIRPORTS

302.10 Prohibitions
302.11 Fire Prevention

PART IV – PERSONNEL LICENSING AND TRAINING

400 – GENERAL

400.01 Interpretation

401 – FLIGHT CREW PERMITS, LICENSES AND RATINGS

401.03 Requirements to Hold a Flight Crew Permit, Licence or Rating
401.04 Flight Crew Members of Aircraft Registered in Contracting States Other than Canada
401.05 Recency Requirements
401.08 Personal Logs
401.11 Airline Transport Licence Training Program
401.34 ATPL Privileges – Aeroplane
401.47 Instrument Rating Privileges
401.52 Second Officer Rating
401.53 Second Officer Privileges

404 – MEDICAL REQUIREMENTS

404.03 Requirement to Hold a Medical Certificate
404.04 Issuance, Renewal and Validity Period of Medical Certificate
404.06 Prohibitions Regarding Exercise of Privileges
404.10 Medical Certificate Requirements for Personnel Licences
404.18 Permission to Continue to Exercise the Privileges of a Licence or Rating
PART V – AIRWORTHINESS

STANDARDS

AIRWORTHINESS MANUAL CHAPTER 525 – TRANSPORT CATEGORY AIRPLANES

SUB-CHAPTER D – DESIGN AND CONSTRUCTION

525.857 Cargo Compartment Classification

PART VI – GENERAL OPERATING AND FLIGHT RULES

600 – INTERPRETATION

600.01 Interpretation

601 – AIRSPACE STRUCTURE, CLASSIFICATION AND USE

601.01 Airspace Structure
601.02 Airspace Classification
601.03 Transponder Airspace
601.04 IFR or VFR Flight in Class F Special Use Restricted Airspace or Class F Special Use Advisory Airspace
601.05 IFR Flight in Class A, B, C, D or E Airspace or Class F Special Use Restricted or Advisory Controlled Airspace
601.06 VFR Flight in Class A Airspace
601.07 VFR Flight in Class B Airspace
601.08 VFR Flight in Class C Airspace
601.09 VFR Flight in Class D Airspace
601.14 Interpretation
601.15 Forest Fire Aircraft Operating Restrictions
601.16 Issuance of NOTAM for Forest Fire Aircraft Operating Restrictions
601.17 Exceptions
601.18 Orders Prohibiting or Restricting Aircraft Operations
601.20 Projection of a Directed Bright Light Source at an Aircraft
601.21 Requirement for Notification
601.22 Requirement for Pilot-in-Command

602 – OPERATING AND FLIGHT RULES

602.01 Reckless or Negligent Operation of Aircraft
602.02 Fitness of Flight Crew Members
602.03 Alcohol or Drugs – Crew Members
602.04 Alcohol or Drugs – Passengers
602.05 Compliance with Instructions
602.06 Smoking
602.07 Aircraft Operating Limitations
602.08 Portable Electronic Devices
602.09 Fueling with Engines Running
602.10 Starting and Ground Running of Aircraft Engines
602.11 Aircraft Icing
602.12 Overflight of Built-up Areas or Open-Air Assemblies of Persons during Take-offs, Approaches and Landings
602.13 Take-offs, Approaches and Landings within Built-up Areas of Cities and Towns
602.14 Minimum Altitudes and Distances
602.15 Permissible Low Altitude Flight
602.19 Right-of-Way – General
602.20 Right-of-Way – Aircraft Manoeuvering on Water
602.21 Avoidance of Collision
602.22 Towing
602.23 Dropping of Objects
602.24 Formation Flight
602.25 Entering or Leaving an Aircraft in Flight
602.26 Parachute Descents
602.27 Aerobatic Maneuvers – Prohibited Areas and Flight Conditions
602.28 Aerobatic Maneuvers with Passengers
602.30 Fuel Dumping
602.31 Compliance with Air Traffic Control Instructions and Clearances
602.32 Airspeed Limitations
602.33 Supersonic Flight
602.34 Cruising Altitudes and Cruising Flight Levels
602.35 Altimeter Setting and Operating Procedures in the Altimeter-Setting Region
602.36 Altimeter Setting and Operating Procedures in the Standard Pressure Region
602.37 Altimeter Setting and Operating Procedures in Transition between Regions
602.38 Flight over the High Seas
602.39 Transoceanic Flight
602.40 Landing at or Take-off from an Aerodrome at Night
602.46 Refusal to Transport

OPERATIONAL AND EMERGENCY EQUIPMENT REQUIREMENTS

602.58 Prohibition
602.59 Equipment Standards
602.60 Requirements for Power-driven Aircraft
602.61 Survival Equipment – Flights Over Land
602.62 Life Preservers and Flotation Devices
602.63 Life Rafts and Survival Equipment – Flights over Water

FLIGHT PREPARATION, FLIGHT PLANS AND FLIGHT ITINERARIES

602.70 Interpretation
602.71 Pre-flight Information
602.72 Weather Information
602.73 Requirement to File a Flight Plan or a Flight Itinerary
602.74 Contents of a Flight Plan or Flight Itinerary
602.75 Filing of a Flight Plan or Flight Itinerary
602.76 Changes in the Flight Plan
602.77 Requirement to File an Arrival Report
602.78 Contents of an Arrival Report
602.79 Overdue Aircraft Report

PRE-FLIGHT AND FUEL REQUIREMENTS

602.86 Carry-on Baggage, Equipment and Cargo
602.87 Crew Member Instructions
602.88 Fuel Requirements
OPERATIONS AT OR IN THE VICINITY OF AN AERODROME

602.89 Passenger Briefings

602.96 General
602.97 VFR and IFR Aircraft Operations at Uncontrolled Aerodromes within an MF Area
602.98 General MF Reporting Requirements
602.99 MF Reporting Procedures before Entering Maneuvering Area
602.100 MF Reporting Procedures on Departure
602.101 MF Reporting Procedures on Arrival
602.102 MF Reporting Procedures When Flying Continuous Circuits
602.103 Reporting Procedures When Flying Through an MF Area
602.104 Reporting Procedures for IFR Aircraft When Approaching or Landing at an Uncontrolled Aerodrome
602.105 Noise Operating Criteria
602.106 Noise-Restricted Runways

VISUAL FLIGHT RULES

602.114 Minimum Visual Meteorological Conditions for VFR Flight in Controlled Airspace
602.115 Minimum Visual Meteorological Conditions for VFR Flight in Uncontrolled Airspace
602.116 VFR Over-the-Top
602.117 Special VFR Flight

INSTRUMENT FLIGHT RULES

602.121 General Requirements
602.122 Alternate Aerodrome Requirements
602.123 Alternate Aerodrome Weather
602.124 Minimum Altitudes to Ensure Obstacle Clearance
602.125 Enroute IFR Position Reports
602.126 Take-off Minima
602.127 Instrument Approaches
602.128 Landing Minima
602.129 Approach Ban – General
602.130 Approach Ban – Cat III
602.131 Runway Visibility

RADIOCOMMUNICATIONS

602.136 Continuous Listening Watch
602.137 Two-way Radio communication Failure in IFR Flight
602.138 Two-way Radio communication Failure in VFR Flight

EMERGENCY COMMUNICATION AND SECURITY

602.143 Emergency Radio Frequency Capability
602.144 Interception Signals, Interception of Aircraft and Instructions to Land
602.145 ADIZ
602.146 ESCAT Plan

603 – SPECIAL FLIGHT OPERATIONS
603.01 Certification Requirements for Special Aviation Events
603.37 Certification Requirements for Parachute Operations
603.65 Miscellaneous Special Flight Operations – Application
603.66 Miscellaneous Special Flight Operations – Certification Requirements

604 – PRIVATE OPERATOR PASSENGER TRANSPORTATION

GENERAL PROVISIONS
604.01 Interpretation
604.02 Application
604.03 Prohibition

FLIGHT OPERATIONS

604.25 Operational Control System
604.26 Designation of Pilot-in-command and Second-in-command
604.28 Instrument Approaches - Landing

FLIGHT OPERATIONS - DOCUMENTS

604.36 Checklist
604.37 Aircraft Operating Manual
604.38 Operational Flight Data Sheet

FLIGHT OPERATIONS - PASSENGERS

604.82 Cabin Safety
604.83 Fuelling with Passengers on Board
604.84 Fuelling with Passengers on Board and an Engine Running
604.85 Briefing of Passengers
604.86 Safety Features Card

FLIGHT TIME AND FLIGHT DUTY TIME

604.98 Flight Time Limits
604.99 Flight Duty Time and Rest Periods
604.100 Split Flight duty Time
604.102 Unforeseen Operational Circumstances
604.103 Delayed Reporting Time
604.104 Time with no Assigned Duties
604.105 Rest Period – Flight Crew Member Positioning
604.106 Controlled Rest on the Flight Deck

MAINTENANCE

604.128 Maintenance, Elementary Work and Servicing

PERSONNEL REQUIREMENTS
604.139 Validity Periods
604.143 Flight Crew Member Qualifications and Training

OPERATIONS MANUAL

604.198 Distribution

SAFETY MANAGEMENT SYSTEM

604.205 Duties of Personnel

605 – AIRCRAFT REQUIREMENTS

605.03 Flight Authority
605.04 Availability of Aircraft Flight Manual
605.05 Markings and Placards
605.06 Aircraft Equipment Standards and Serviceability
605.07 Minimum Equipment Lists
605.08 Unserviceable and Removed Equipment – General
605.09 Unserviceable and Removed Equipment – Aircraft with a Minimum Equipment List
605.10 Unserviceable and Removed Equipment – Aircraft without a Minimum Equipment List

AIRCRAFT EQUIPMENT REQUIREMENTS

605.14 Power-driven Aircraft – Day VFR
605.15 Power-driven Aircraft – VFR OTT
605.16 Power-driven Aircraft – Night VFR
605.17 Use of Position and Anti-collision Lights
605.18 Power-driven Aircraft – IFR
605.22 Seat and Safety-Belt Requirements
605.23 Restraint System Requirements
605.24 Shoulder Harness Requirements
605.25 General Use of Safety Belts and Restraints System
605.26 Use of Passenger Safety Belts and Restraint Systems
605.27 Use of Crew Member Safety Belts
605.28 Child Restraint System
605.29 Flight Control Locks
605.30 De-icing or Anti-icing Equipment
605.31 Oxygen Equipment and Supply
605.32 Use of Oxygen
605.33 Flight Data Recorder and Cockpit Voice Recorder Requirements
605.34 Use of Flight Data Recorders and Cockpit Voice Recorders
605.35 Transponder and Automatic Pressure-Altitude Reporting Equipment
605.36 Altitude Alerting System or Device
605.37 GPWS
605.38 ELT
605.39 Use of ELTs
605.40 ELT Activation
605.41 Third Attitude Indicator
605.42 TAWS
605.84 Aircraft Maintenance – General
605.85 Maintenance Release and Elementary Work
605.86 Maintenance Schedule
605.87 Transfer of Aeronautical Products Between Maintenance Schedules
605.88 Inspection after Abnormal Occurrences

TECHNICAL RECORD

605.92 Requirement to Keep Technical Records
605.93 Technical Records – General
605.94 Journey Log Requirements
605.95 Journey Log – Carrying on Board
605.97 Transfer of Records

606 – MISCELLANEOUS

606.01 Munitions of War
606.02 Liability Insurance
606.03 Synthetic Flight Training Equipment

PART VII – COMMERCIAL AIR SERVICES

700 – COMMERCIAL AIR SERVICES

700.01 Interpretation
700.02 Requirements for Air Operator Certificate
700.03 Authorization to Operate Specialty Air Service under NAFTA
700.05 Aircraft Requirements
700.06 Extended Charter
700.07 Management Agreement
700.08 Operations between Points Abroad
700.09 Duties of Certificate Holder
700.10 Approach Bans – Non Precision, APV and CAT I Precision

FLIGHT TIME AND FLIGHT DUTY TIME LIMITATIONS AND REST PERIODS

700.14 Monitoring System
700.15 Flight Time Limitations
700.16 Flight Duty Time Limitations and Rest Periods
700.17 Unforeseen Operational Circumstances
700.18 Delayed Reporting Time
700.19 Requirements for Time Free from Duty
700.20 Flight Crew Positioning
700.21 Flight Crew Members on Reserve
700.22 Long Range Flights
700.23 Controlled Rest on the Flight Deck

704 – COMMUTER OPERATIONS

704.01 Application
FLIGHT OPERATIONS

704.12 Operating Instructions
704.15 Operational Control System
704.16 Flight Authorization
704.17 Operational Flight Plan
704.19 Checklist
704.20 Fuel Requirements
704.21 Admission to Flight Deck
704.22 Simulations of Emergency Situations
704.23 VFR Flight Obstacle Clearance Requirements
704.24 VFR Flight Minimum Flight Visibility – Uncontrolled Airspace
704.25 VFR Flight Weather Conditions
704.26 Take-off Minima
704.29 Routes in Uncontrolled Airspace
704.32 Weight and Balance Control
704.33 Apron and Cabin Safety Procedures
704.34 Briefing of Passengers
704.35 Safety Features Card
704.37 Approach Bans – Non Precision, APV and CAT I Precision

AIRCRAFT PERFORMANCE OPERATING LIMITATIONS

704.46 Take-off Weight Limitations
704.47 Net Take-Off Flight Path
704.48 Enroute Limitations with One Engine Inoperative
704.49 Dispatch Limitations: Landing at Destination and Alternate Aerodromes
704.50 Dispatch Limitations: Wet Runway – Turbo-jet-powered Aeroplanes

AIRCRAFT EQUIPMENT REQUIREMENTS

704.62 General Requirements
704.63 Operation of Aircraft in Icing Conditions
704.64 Airborne Thunderstorm Detection and Weather Radar Equipment
704.65 Additional Equipment for Single-Pilot Operations
704.66 Protective Breathing Equipment
704.67 First Aid Oxygen
704.68 Shoulder Harness

EMERGENCY EQUIPMENT

704.83 Hand-Held Fire Extinguisher
704.84 Equipment Standards and Inspection

PERSONNEL REQUIREMENTS

704.106 Minimum Crew
704.107 Designation of Pilot-in-command and Second-in-command
704.108 Flight Crew Member Qualification
704.111 Validity Period
TRAINING

704.115 Training Program

MANUALS

704.122 Distribution of Company Operations Manual
704.123 Aircraft Operating Manual
704.124 Standard Operating Procedures

705 – AIRLINE OPERATION

705.01 Application

FLIGHT OPERATIONS

705.16 Exceptions
705.17 Operating Instructions
705.20 Operational Control System
705.21 Flight Authorization
705.22 Operational Flight Plan
705.24 Checklist
705.25 Fuel Requirements
705.26 Extended Range Twin-engined Operations
705.27 Admission to the Flight Deck
705.28 Seats for Cabin Safety Inspectors
705.29 Flight Crew Members at Controls
705.30 Simulation of Emergency Situations
705.31 Crew Member Briefing
705.32 VFR Flight Obstacle Clearance Requirements
705.33 VFR Flight Weather Conditions
705.34 Take-off Minima
705.37 Routes in Uncontrolled Airspace
705.39 Weight and Balance Control
705.40 Passenger and Cabin Safety Procedures
705.42 Carry-on Baggage
705.43 Briefing of Passengers
705.44 Safety Features Card and Supplemental Briefing Card
705.45 Closing and Locking of Flight Deck Door
705.46 Night VFR Flight – Aeroplane
704.48 Approach Bans – Non-Precision, APV and CAT I Precision

AIRCRAFT PERFORMANCE OPERATING LIMITATIONS

705.56 Take-off Weight limitations
705.57 Net Take-off Flight Path
705.58 Enroute Limitations with One Engine Operative
705.59 Enroute Limitations with Two Engines Inoperative
705.60 Dispatch Limitations: Landing at Destination and Alternate Aerodromes
705.61 Dispatch Limitations: Wet Runway – Turbo-jet-powered Aeroplanes
AIRCRAFT EQUIPMENT REQUIREMENTS

705.67 General Requirements
705.68 Landing Lights
705.69 Operation of Aircraft in Icing Conditions
705.70 Weather Radar Equipment
705.71 Protective Breathing Equipment
705.72 First Aid Oxygen
705.73 Interphone System
705.74 Public Address System
705.75 Crew Member Shoulder Harness
705.76 Lavatory Fire Protection
705.78 Floor Proximity Emergency Escape Path Markings
705.79 Flashlight Stowage
705.80 Doors and Locks
705.81 Cargo and Baggage Compartment Fire Protection

EMERGENCY EQUIPMENT

705.89 Megaphones
705.90 First Aid Kits
705.91 Emergency Medical Kit
705.92 Crash Axe
705.93 Hand-held Fire Extinguishers
705.94 Portable Oxygen
705.95 Survival Equipment
705.96 Inspection Requirements
705.97 Flashlights

PERSONNEL REQUIREMENTS

705.103 Designation of Pilot-in-Command and Second-in-Command
705.106 Pilot Qualifications
705.107 Flight Engineer and Second Officer Qualifications
705.108 Crew Pairing
705.111 Route and Aerodrome Qualifications
705.113 Validity Period

TRAINING

705.124 Training Program
705.201 Minimum Number of Flight Attendants
705.225 Emergency Evacuation — Before and During Surface Movements

MANUALS

705.136 Distribution of Company Operations Manual
705.137 Aircraft Operating Manual
705.138 Standard Operating Procedures

SAFETY MANAGEMENT SYSTEM

705.151 Requirements
705.152 Components of the Safety Management System

INTERFERENCE WITH A CREW MEMBER

705.174 Reporting Incidents of Interference with a Crew Member
OTHER LAW AND PROCEDURES

TRANSPORTATION SAFETY BOARD OF CANADA (TSB) (TC AIM – GEN 3.0)

OTHER CANADIAN LEGISLATION
1. Canada Transportation Act Part II – Air Transportation Licences, Prohibitions (section 57); Air Transportation Regulations (sections 3 and 7)
3. Transportation of Dangerous Goods by Air (TC AIM – RAC Annex 3.0)

INTERNATIONAL AIR LAW
1. Warsaw Convention (1929) – tickets/waybills
2. Tokyo Convention (1963) – PIC authority, responsibility of States in cases of unlawful interference
3. Chicago Convention (1944) – ICAO rules apply to international travel, designated airports of entry must be used

INTERNATIONAL FLIGHT PROCEDURES
1. Entry, Transit and Departure of Aircraft (AIP Canada (ICAO) GEN 1.2)

AIR TRAFFIC SERVICES AND PROCEDURES
1. Air Traffic Services
2. Services Other Than Air Traffic Services
3. Radar Service
4. ATC Clearances, Instructions and Information
5. ATC Service Priority
6. Wake Turbulence Separation
7. Noise Abatement Departure Procedures
8. Airport/Aerodrome Operations – Uncontrolled
9. Airport/Aerodrome Operations – Controlled
10. Airport/Aerodrome Markings and Lighting
11. Mandatory and Aerodrome Traffic Frequencies
12. VFR En Route Procedures
13. Operations on Intersecting Runways and High Intensity Runway Operations
14. ESCAT Plan
15. Holding Speed Limitations

OPERATIONS IN HIGH LEVEL DOMESTIC AIRSPACE
1. Altimeter Setting Procedures
2. Cruising Altitudes
3. Mach Number/TAS Changes
4. Profile (Continuous) Descent
5. Leaving or Entering Uncontrolled Airspace
6. Uncontrolled Airspace Procedures

PERFORMANCE BASED NAVIGATION, REQUIRED NAVIGATION PERFORMANCE (RNP), AND CANADIAN MINIMUM NAVIGATION PERFORMANCE SPECIFICATIONS (CMNPS) AIRSPACE
1. General Principles
2. Certification Requirement

ATC SPECIAL PROCEDURES
1. Parallel Offset Procedures

REDUCED VERTICAL SEPARATION MINIMUM (RVSM) AIRSPACE
1. Airspace
2. Approval Requirement
3. In-Flight Procedures
4. In-Flight Contingencies
SECTION 2: AIRFRAMES, POWER PLANTS, PROPELLERS AND AIRCRAFT SYSTEMS

AIRFRAMES
1 Construction, Materials
2 Life, Fatigue, Cycles, Stress, Corrosion
3 Weight & G-Load Limitations

WING SYSTEMS
1 Flaps
2 Slots/Slats/Leading Edge Devices
3 Winglets
4 Canards
5 Vortex Generators

FLIGHT CONTROLS
1 Axes of the Aeroplane/Movement
2 Aerodynamic Forces, Dynamic Balancing
3 Trimming Devices
4 Flutter, Mass Balance
5 Aileron and Rudder Limiting
6 Speed Brakes
7 Spoilers
8 Primary/Secondary Flight Controls

POWER PLANTS
1 Principles of Turbo-prop Engines
2 Handling Procedures for Turbo-prop Engines
3 Principles of Turbo-jet Engines
4 Handling and Procedures for Turbo-jet Engines
5 Engine Controls
6 Full Authority Digital Engine Control (FADEC)
7 Oil Systems

PROPELLERS
1 Propeller Thrust and Torque
2 Geometric and Effective Pitch
3 Slipstream, Gyroscopic Effect and Asymmetric Thrust
4 Controls
5 Ground and Flight Range
6 Constant Speed
7 Feathering
8 Reversing

AIRCRAFT SYSTEMS
1 Fuel
2 Electrical
3 Hydraulic
4 Pneumatic
5 Fire Protection (extinguishing systems)
6 Ice and Rain Protection
7 Oxygen
8 Heating, Air Conditioning and Pressurization
9 Landing Gear and Brakes
10 Autoflight
11 Avionics
12 Flight Controls
13 Voice/Flight Data Recording

WARNING AND PROTECTION SYSTEMS
1 Master Warning Systems
2 Stall Warning /Identification/Protection
3 TAWS/GPWS/EGPWS
4 ACAS/TCAS
5 Altitude Alerting Systems
6 Lightning and Weather Detection
7 Take-off/Configuration Test/Warnings

SERVICEABILITY
1 Unserviceabilities, Snags, Minimum Equipment List
2 Recording/Logs
SECTION 3: INSTRUMENTS

FLIGHT INSTRUMENTS – PRINCIPLES AND OPERATIONAL USE

1. Pitot Static System
2. Airspeed Indicator
3. Machmeter
4. Altimeter and Encoding Altimeter
5. Vertical Speed Indicator (VSI)
6. Radio/Radar Altimeter
7. Outside Air Temperature
8. Air Data Computer
9. Turn-and-bank Indicator / Turn Co-ordinator
10. Heading Indicator
11. Attitude Indicator (AI)
12. Flight Director
13. Radio Magnetic Indicator (RMI)
14. Horizontal Situation Indicator (HSI)
15. Angle of Attack Indicator

ENGINE INSTRUMENTS – PRINCIPLES AND USE

1. Tachometer (including N1, N2, NH, NL)
2. Oil Pressure
3. Oil Temperature
4. Fuel Pressure
5. Fuel Flow
6. Torquemeter
7. Engine Pressure Ratio (EPR)
8. Turbine Temperature (ITT/TIT)

FLIGHT MANAGEMENT INSTRUMENTS

1. Flight Management System (FMS)
2. Electronic Centralized Aircraft Monitoring (ECAM/EICAS)

AIRCRAFT COMPASS SYSTEMS

1. Construction
2. Use
3. Limitations and Faults
4. Gyromagnetic Remote Indicating Compass
SECTION 4: NAVIGATION – GENERAL

NAVIGATION TERMS
1 Air Position
2 Great Circle
3 Rhumb Line

MAPS AND CHARTS
1 Lambert Conformal
2 Transverse Mercator
3 Enroute Low and High Altitude Charts
4 Navigation Databases

TIME AND LONGITUDE
1 Time Zones and Relation to Longitude

EN ROUTE NAVIGATION
1 Use of Aeronautical Charts
2 Calculation of Heading, Groundspeed and ETE
3 Determination of Wind Velocity
4 Use of Radio Aids to Determine Position
5 RNAV Waypoints and Position Plotting
6 Gyro Steering Techniques in Areas of Compass Unreliability
7 Maintaining Flight Log
SECTION 5: FLIGHT OPERATIONS

ATMOSPHERIC EFFECTS IN FLIGHT
1 ICAO Standard Atmosphere
2 Temperature and Pressure / Air Density
3 Humidity/Rain
4 Cold Temperature Corrections

PERFORMANCE
1 Indicated and True Stalling Speeds
2 Slow Speed Flight Characteristics
   – Turbo-prop
   – Turbo-jet
3 High Speed Flight Characteristic
   – Turbo-prop
   – Turbo-jet
4 Relationship of Speed to Angle of Attack
5 Cruising for Range/Endurance
6 Flight Performance “V” Speeds – Definition and Use
7 Effect of Changes in Weight and Load Distribution
8 Hydroplaning
9 Wind Shear – Effects, Avoidance and Recovery
10 Landing Techniques

CHARTS AND GRAPHS
1 Weight and Balance – Load Adjustment (refer to Annex 1)
2 Take-off
3 Climb
4 Cruise
5 Buffet Boundary
6 Holding
7 Engine Out
8 Descent
9 Landing
10 Crosswind/CRFI
11 Weight, Altitude, Temperature (WAT), Takeoff/Landing Performance Charts

CRITICAL SURFACE CONTAMINATION
1 Clean Aircraft Concept – Practices and Techniques
2 Frozen Contaminants Including Cold-Soaking Phenomenon
3 Icing in Clear Air (Hoar Frost)
4 De-icing and Anti-icing Fluids
5 De-icing and Anti-icing Procedures
6 Variables that Can Influence Holdover Time
7 Critical Surface Inspections
8 Pre-take-off Inspection
9 Health Effects
10 Application Guideline Tables

WAKE TURBULENCE
1 Causes and Effects
2 Avoidance Procedures
3 Separation Criteria and Waiver

FLIGHT MANUAL
1 Approved Information

VOLCANIC ASH
1 Hazards

AIRMANSHIP/RULES OF THUMB
1 Average Wind in Climb
2 Descent Point
3 Rate of Descent
4 Thunderstorm Penetration & Avoidance

ABNORMAL FLIGHT PROCEDURES/RECOVERY
1 Icing, Tailplane Stall, Roll Upset
2 Contaminated Runway
3 Turbulence Reporting Criteria
SECTION 6: THEORY OF FLIGHT

FORCES ACTING ON AN AEROPLANE
1 Load Factor
2 Relationship of Weight and Load Factor to Stalling
3 Gust Loads
4 Stability
5 Lift/Weight/Thrust/Drag
6 Moments

SUBSONIC AERODYNAMICS
1 Airflow, Boundary Layer
2 2-Dimensional Airflow – streamline, stagnation, pressure distribution, downwash, angle of attack
3 3-Dimensional Airflow – vortices, spanwise flow, wake turbulence, ground effect
4 Degradation - effects of ice, airframe condition

HIGH SPEED AERODYNAMICS
1 Speed of sound, Mach, Compressibility, Shock Waves
2 Critical Mach

WING DESIGN
1 Sweepback
3 Leading and Trailing Edge Flaps
4 Winglets
5 Canards
6 Vortex Generators
7 Wing Fences

EFFECTS OF IN-FLIGHT ICING
1 Lift and Drag
2 Engine and Propeller Efficiency
3 Wing and Tailplane Stalls
SECTION 7: HUMAN FACTORS

AVIATION PHYSIOLOGY
1. Hypoxia/Hyperventilation
2. Gas Expansion Effects
3. Decompression (Including SCUBA Diving)
4. Vision/Visual Scanning Techniques
5. Hearing
6. Orientation/Disorientation (Including Visual and Vestibular Illusions)
7. Positive and Negative “G”
8. Circadian Rhythms/Jet Lag
9. Sleep/Fatigue

THE PILOT AND THE OPERATING ENVIRONMENT
1. Personal Health Exercise / Fitness
2. Obesity/Diet/Nutrition
3. Medications (Prescribed and Over-the-Counter)
4. Substance Abuse (Alcohol and Drugs)
5. Pregnancy
6. Heat/Cold
7. Noise/Vibration
8. Effects of Smoking
9. Toxic Hazards (Including Carbon Monoxide)
10. Fitness for Flight

AVIATION PSYCHOLOGY
1. The Decision-Making Process
2. Factors That Influence Decision-Making
3. Situational Awareness
4. Stress
5. Managing Risk
6. Attitudes
7. Workload (Attention and Information Processing)

PILOT – EQUIPMENT/MATERIALS RELATIONSHIP
1. Controls and Displays
   – Errors in Interpretation and Control
   – Information Selection: e.g. “glass” cockpits
2. Alerting and Warning Systems
   – Appropriate Selection and Set Up
   – False Indications
   – Distractions and Responses
3. Standard Operating Procedures (SOPs)
4. Correct Use of Charts, Checklists and Manuals
5. Cockpit Visibility and Eye Reference Position/Seat Position
6. Automation and Complacency

INTERPERSONAL RELATIONS
1. Communications with Flight and Cabin Crew/Passengers/ Company Management/Flight Operations/Maintenance Personnel/Air Traffic Services
2. Operating Pressures Family / Peer Group / Employer

CREW RESOURCE MANAGEMENT (CRM)
1. Crew Problem Solving and Decision Making
2. Crew Management/Small Group Dynamics

CONTROLLED FLIGHT INTO TERRAIN (CFIT)

THREAT AND ERROR MANAGEMENT (TEM)
1. Sources, Contributors
2. Countermeasures
3. Undesired Aircraft State
4. Pilot’s Role in Safety Management System
SAMRA (sections 8 to 10)

SECTION 8: METEOROLOGY

THE EARTH’S ATMOSPHERE
1 Properties
2 Vertical Structure
3 ICAO Standard Atmosphere

ATMOSPHERIC PRESSURE
1 Pressure Measurements
2 Station Pressure
3 Mean Sea Level Pressure
4 Pressure Systems and their Variations
5 Effects of Temperature
6 Horizontal Pressure Differences

METEOROLOGICAL ASPECTS
OF ALTIMETRY
1 Pressure Altitude
2 Density Altitude
3 True Altitude
4 Altimeter Setting
5 Effects of both Pressure and Temperature
6 Reduction to Sea Level Pressure

TEMPERATURE
1 Heating and Cooling of the Atmosphere – Convection/Advection/Radiation
2 Horizontal Differences
3 Temperature Variations with Altitude
4 Inversions
5 Isothermal Layers

MOISTURE
1 Relative Humidity/Dewpoint
2 Change of State - Sublimation/Condensation/Evaporation
3 Cloud Formation
4 Precipitation
5 Saturated/Dry Adiabatic Lapse Rates

STABILITY AND INSTABILITY
1 Lapse Rate and Stability
2 Modification of Stability
3 Characteristics of Stable/Unstable Air
4 Surface Heating and Cooling
5 Lifting Process
6 Subsidence/Convergence

CLOUDS
1 Classification
2 Formation
3 Types and Recognition
4 Associated Precipitation and Turbulence

TURBULENCE
1 Convection
2 Mechanical
3 Orographic
4 Clear Air Turbulence
5 VIRGA – Evaporation Cooling
6 Reporting Criteria
7 Mountain Waves

WIND
1 Pressure Gradient
2 Deflection Caused by the Earth’s Rotation
3 Low Level Winds – Variation in Surface Wind
4 Friction
5 Centrifugal Force
6 Veer and Back
7 Squalls and Gusts
8 Diurnal Effects
9 Land and Sea Breezes
10 Katabatic/Anabatic Effects
11 Topographical Effects
12 Wind Shear, Types and Causes
JET STREAMS
1 Frontal Jet Streams
2 Wind Distribution / Location
3 Temperature Distribution
4 Seasonal Variations in Latitude and Speed
5 Arctic Stratospheric Jets
6 Subtropical Jet Streams
7 Low Level Nocturnal Jet Streams
8 Turbulence

AIR MASSES
1 Definition and Characteristics
2 Formation
3 Classification
4 Modification
5 Factors that Determine Weather
6 Seasonal and Geographic Effects
7 Air Masses Affecting North America

FRONTS
1 Structure
2 Types
3 Formation
4 Cross-sections
5 Discontinuities Along Fronts
6 Frontal Waves and Occlusions
7 Frontogenesis and Frontolysis

FRONTAL WEATHER
1 Warm Front
2 Cold Front
3 Stationary Front
4 TROWAL and Upper Fronts

AIRCRAFT ICING
1 Formation
2 Type of Ice
3 Reporting Criteria
4 Cloud Types and Icing
5 Freezing Rain and Drizzle
6 Collection Efficiency
7 Aerodynamic Heating

THUNDERSTORMS
1 Requirements for Development
2 Life Cycle
3 Classification – Air Mass, Frontal, Squall Line, Convective, Orographic and Nocturnal
4 Tornadoes and Hurricanes
5 Hazards – Turbulence, Hail, Rain, Icing, Altimetry, Lightning, Gust Fronts, Downbursts and Microbursts

SURFACE BASED LAYERS
1 Fog Formation
2 Fog Types
3 Haze and Smoke
4 Blowing Obstructions to Vision

METEOROLOGICAL SERVICES AVAILABLE TO PILOTS
1 Pilot Briefing Service (FICs)
2 Aviation Weather Web Sites
3 Pilots Automatic Telephone Weather Answering Service (PATWAS)
4 Automatic Terminal Information Service (ATIS)
5 VOLMET (HF) Broadcast
AVIATION WEATHER REPORTS

1 Aviation Routine Weather Report (METAR)
2 SPECI
3 Decoding
4 AWOS/LWIS
5 Pilot Reports (PIREP/AIREP)

AVIATION FORECASTS

1 Times Issued / Validity Periods
2 Decoding
3 Graphical Area Forecasts (GFA) /AIRMET
4 Terminal Area Forecasts (TAF)
5 Upper Level Winds and Temperature Forecasts (FD)
6 Significant In-flight Weather Warning Message (SIGMET)

WEATHER MAPS AND PROGNOSTIC CHARTS

1 Times Issued / Validity Periods
2 Symbols/Decoding
3 Surface Weather Map
4 Prognostic Surface Chart
5 Upper Level Charts – ANAL (850mb, 700mb, 500mb & 250mb)
6 Upper Level Charts – PROG (FL240, FL340, FL450)
7 Significant Weather Prognostic Chart FL100-250 (700-400mb) & FL250-630 (400-100mb)
SECTION 9: FLIGHT PLANNING

FLIGHT PLANNING AND FORMS
1 Flight Planning Fuel Requirements
2 Fuel Load, Zero Fuel Weight
3 Critical Point/Equal time Point
4 Flight Plans
5 Flight Itineraries
6 Aeronautical Information Sources
7 NOTAMs

COMPUTERIZED FLIGHT PLANS
1 Decode (refer to Annex 2)
2 Analysis and Interpolation

AIR NAVIGATION/TRAFFIC SYSTEMS
1 Canadian Domestic Routes
2 Use of Preferred Routes
3 Regional Procedures (North Atlantic, Northern Pacific, Polar) – determination and publication of routes
# SECTION 10: RADIO COMMUNICATIONS AND AIDS TO NAVIGATION - BASIC PRINCIPLES AND USE

## RADIO
1. Elementary Theory
2. Wave Length and Frequency
3. Frequency Bands Used in Communication and Navigation
4. Characteristics of Low, High and Very High Frequency Radio Waves
5. Ground Waves and Sky Waves
6. Skip Distance
7. Reflection and Refraction
8. Night Effect

## AIRCRAFT RADIO TRANSCEIVERS
1. VHF
2. HF
3. DATALINK, ACARS

## SELECTIVE CALL SYSTEM (SELCAL)
1. VHF
2. HF

## EMERGENCY LOCATOR TRANSMITTER (ELT)
1. Requirements
2. Testing
3. Flight Planning
4. Accidental Transmission
5. Pilot Response to Signals
6. Downed Aircraft Procedures

## NAVIGATION SYSTEMS
1. Automatic Direction Finder (ADF)
2. VHF Omnidirectional Range (VOR)
3. Distance Measuring Equipment (DME)
4. Co-located VOR and TACAN (VORTAC)
5. Global Navigation Satellite System (GNSS – GPS)
6. Very High Frequency Direction Finding (VHF – DF)
7. Area Navigation System (RNAV)
8. Inertial Navigation System (INS)
9. Inertial Reference System (IRS)

## APPROACH AIDS
1. Instrument Landing System (ILS)
2. Global Navigation Satellite System Approaches
3. Primary Surveillance Radar (PSR)
4. Precision Approach Radar (PAR)
5. Secondary Surveillance Radar (SSR)
6. VASIS/PAPI

## TRANSPONDERS
**ACAS/TCAS**
1. General
2. Use of TCAS/ACAS
3. Pilot Immunity from Enforcement Action
4. Pilot/Controller Actions
5. Pilot and Controller Interchange

## WEATHER RADAR
1. Operating Principles
2. Operation and Interpretation
ANNEX 1

Airline transport Pilots are expected to be able to correct aircraft imbalance. Below is a formula for shifting weights.

WEIGHT SHIFT FORMULA

\[
\frac{\text{WEIGHT OF CARGO MOVED}}{\text{WEIGHT OF AEROPLANE}} = \frac{\text{DISTANCE CG MOVED}}{\text{DISTANCE BETWEEN ARM LOCATION}}
\]

Airline Transport Pilots are expected to use and interpret loading and performance charts and tables applicable to two-crew aeroplanes. Applicants should review charts such as takeoff performance charts, cruise performance charts, buffet boundary charts, descent charts, landing performance charts and aircraft loading charts. Airline Transport Pilots must understand how weight, altitude, configuration and environmental factors affect aircraft performance.

Airline Transport Pilots are expected to interpret computer-generated flight plans and extract information from them. Below is a sample computer-generated flight plan with a list of abbreviations.

ANNEX 2

SAMPLE COMPUTER FLIGHT PLAN

<table>
<thead>
<tr>
<th>PLAN 1510</th>
<th>CYAM TO CYOW CES2 HSC/F IFR 08/24/00</th>
</tr>
</thead>
<tbody>
<tr>
<td>NONSTOP COMPUTED 1209Z FOR ETD 1700Z PROGS 2400ADF CFZZZ LBBS</td>
<td></td>
</tr>
<tr>
<td>FUEL</td>
<td>TIME</td>
</tr>
<tr>
<td>-----------------</td>
<td>-----</td>
</tr>
<tr>
<td>POA CYOW</td>
<td>001475</td>
</tr>
<tr>
<td>ALT CYND</td>
<td>000369</td>
</tr>
<tr>
<td>HLD</td>
<td>000000</td>
</tr>
<tr>
<td>RES</td>
<td>002956</td>
</tr>
<tr>
<td>TOT</td>
<td>004800</td>
</tr>
<tr>
<td>CYAM . SSM . YYB J513 SMARE YOW314 YOW . CYOW</td>
<td></td>
</tr>
<tr>
<td>WIND P035 MXSH 1/SMAR</td>
<td></td>
</tr>
<tr>
<td>FL 330</td>
<td></td>
</tr>
<tr>
<td>WPT</td>
<td>MTR</td>
</tr>
<tr>
<td>SSM</td>
<td>125.5</td>
</tr>
</tbody>
</table>


POA –Point of Arrival
ALT –Alternate
HLD –Holding
RES –Reserve
TOT –Total
AV PLD –Average Payload
OPNLT –Operational weight
CYAM –CYAM Latitude and longitude
FIRS –FIR Boundary Times
NOTE: Weight and balance calculation computed separately take precedence over these weight calculations.

RECOMMENDED STUDY MATERIAL SARON AND SAMRA

- Air Command Weather Manual (TP 9352E).
- Air Command Weather Manual (Supplement) (TP 9353E).
- Human Factors for Aviation – Basic Handbook (TP 12863E), and Advanced Handbook (TP 12864E).
- When in Doubt ... Aircraft Critical Surface Contamination Training (TP 10643E).
- AIP Canada (ICAO) [http://www.navcanada.ca/EN/products-and-services/Pages/AIP.aspx](http://www.navcanada.ca/EN/products-and-services/Pages/AIP.aspx)
- Canada Flight Supplement
- Enroute High / Low Altitude Charts


Information on the Transportation of Dangerous Goods is available from Transport Canada. Air Transportation Licence information is available from the Canadian Transportation Agency ([http://www.otc-cta.gc.ca/eng/licensing-charter-permits](http://www.otc-cta.gc.ca/eng/licensing-charter-permits)).

Customs Requirements are available from the Canada Customs and Revenue Agency ([http://www.cbsa-asfc.gc.ca/menu-eng.html](http://www.cbsa-asfc.gc.ca/menu-eng.html)).


Information on text books and other publications produced by commercial publishers can be obtained through local flying training organizations, bookstores and similar sources.

RECOMMENDED STUDY MATERIAL FOR THE FAA CONVERSION EXAMINATION

Candidates attempting the examination for conversion from an FAA certificate to a Canadian Airline Transport Pilot Licence (FAAAA examination) are encouraged to review the following references as they apply to aeroplanes:

CARs Part I, Subpart 1  GENERAL PROVISIONS
                      101.01 – Interpretation (definitions as needed)
CARs Part IV, Subpart 1  FLIGHT CREW PERMITS, LICENCES AND RATINGS
                      401.05 – Recency Requirements
CARs Part IV, Subpart 4  AIRLINE TRANSPORT PILOT LICENCE, AEROPLANES – PRIVILEGES
                      401.34 – Airline Transport Pilot Licence, Aeroplanes – Privileges
CARs Part IV, Subpart 4  MEDICAL REQUIREMENTS
                      404.04 – Issuance, Renewal, Validity Period and Extension of a Medical Certificate
CARs Part VI, Subpart 1  AIRSPACE
                      Division I – Airspace Structure, Classification and Use
                      Division II – Aircraft Operating Restrictions and Hazards to Aviation Safety
CARs Part VI, Subpart 2  OPERATING AND FLIGHT RULES
                      Division I – General
                      Division II – Operational and Emergency Equipment Requirements
                      Division III – Flight Preparation, Flight Plans and Flight Itineraries
                      Division IV – Pre-flight and Fuel Requirements
                      Division V – Operations at or in the Vicinity of an Aerodrome
                      Division VI – Visual Flight Rules
                      Division VII – Instrument Flight Rules
                      Division VIII – Radiocommunications
                      Division IX – Emergency Communications and Security
CARs Part VI, Subpart 5  AIRCRAFT REQUIREMENTS
                      Division I – Aircraft Requirements - General
                      Division II – Aircraft Equipment Requirements
CARs Part VII, Subpart 0  COMMERCIAL AIR SERVICES, GENERAL
                      Division II – Approach Bans
                      Division III – Flight Time and Flight Duty Time Limitations and Rest Periods
CARs Part VII, Subpart 4  COMMUTER OPERATIONS
                      Division I – General
                      Division III – Flight Operations
                      Division V – Aircraft Equipment Requirements
                      Division VII – Personnel Requirements
                      Division IX – Manuals
CARs Part VII, Subpart 5 AIRLINE OPERATIONS
Division I – General
Division III – Flight Operations
Division IV – Aircraft Performance Operating Limit
Division V – Aircraft Equipment Requirements
Division VII – Personnel Requirements
Division IX – Manuals
TC AIM - GEN
GENERAL
1.0 – General Information
3.0 – Transportation Safety Board of Canada
TC AIM - AGA
AERODROMES
3.0 – Runway characteristics
7.18 – Aerodrome Lighting – (including Aircraft Radio Control of
Aerodrome Lighting (ARCAL))
TC AIM - COM
COMMUNICATIONS
4.11 – ILS
1.15 – Radio Communications – Phone use during Radio
Communications Failure
TC AIM - RAC
RULES OF THE AIR AND AIR TRAFFIC SERVICES
2.0 – Airspace – Requirements and Procedures
3.6 – Flight Planning – Flight Plans and Flight Itineraries
(Opening)
3.7 – Changes to the information in a Flight Plan or Flight Itinerary
3.12 – Closing
3.13 – Fuel Requirements
3.14 – Requirements for Alternate Aerodrome – IFR Flight
3.15 – Completion of Canadian Flight Plan and Flight Itinerary / ICAO Flight Plan
4.0 – Airport Operations
5.0 – VFR En Route Procedures
6.0 – Instrument flight rules (IFR) -General
7.0 – Instrument flight rules (IFR) – Departure Procedures
8.0 – Instrument flight rules (IFR) - En Route Procedures
9.0 – Instrument flight rules (IFR) Arrival Procedures
10.0 – Instrument flight rules – Holding Procedures
TC AIM - SAR
SEARCH AND RESCUE
3.9 – Emergency Locator Transmitter – Schedule of Requirements
TC AIM - LRA
LICENSING, REGISTRATION AND AIRWORTHINESS
1.12 – Pilot Licensing – Recency Requirements
TC AIM - AIR
AIRMANSHIP
1.6 – General Information – Canadian Runway Friction Index
2.12 – Flight Operations – Flight Operations in Winters
AIP Canada (ICAO)
PART 1 GENERAL
3.1 – Aeronautical Information Services
3.2 – Aeronautical Charts

The above documents can be located on the Transport Canada web pages
http://laws-lois.justice.gc.ca/eng/regulations/SOR-96-433/index.html and
http://www.tc.gc.ca/eng/civilaviation/publications/menu.htm
and on the Nav Canada web page
http://www.navcanada.ca/EN/products-and-services/Pages/AIP.aspx
ENQUIRIES

Information concerning the location of pilot training organizations and matters pertaining to flight crew licensing may be obtained by contacting the appropriate Regional Offices. A complete listing may be found at: http://www.tc.gc.ca/eng/civilaviation/opssvs/general-exams-centres-2010.htm