



Flight Training Program Outline

Waltair

Table of Contents

Section 1.0 – Introduction.....	5
1.1 Abbreviations and Acronyms.....	5
Section 2.0 – Admissions Policy.....	7
Admissions Policy – Introduction.....	7
Course Specific Prerequisites.....	7
2.2Final Admission.....	8
Section 3.0 – General Policies.....	8
3.1Conduct of Flight Training.....	8
3.2Aeroplane Manuals and Publications.....	8
3.3Course Syllabus.....	9
Transport Canada Publications.....	9
3.4Flying Schedule.....	9
3.8Prior Learning Assessment Policy.....	10
3.9Student Learning Assessment (Academic Standing) Policy.....	10
Transport Canada Written Examinations.....	10
Transport Canada Flight Tests.....	10
3.10Facilitation of Student Success.....	11
3.11Grade Appeal Policy.....	11
3.12Suspension of Training and Disciplinary Action.....	11
3.13Dismissal Policy.....	12
3.14Dispute and Complaint Resolution Policy.....	12
3.15Detecting Training Deficiencies and Student Probation Policy.....	12
3.16Student Withdrawal Policy.....	12
3.17Refund Policy.....	13
3.18Health and Safety Policy.....	13
3.19Privacy Policy.....	13
Section 4.0 – Flight Following and Operational Control.....	14
4.1Supervision.....	14
4.2Operational Control and Flight Authorization.....	14
4.3Flight Following.....	15
4.4Authorization of Solo Flights.....	15
4.5Authorization of Night Flights.....	15
Section 5.0 – Flight Training Operations.....	16

5.1	Operating Requirements, Policies and Limitations: General.....	16
5.2	Operating Requirements, Policies and Limitations: Weather Considerations and Minima.....	23
	Minimum Temperatures for Flight Training Operations.....	27
	Cold Weather Dress Code.....	27
	Aircraft Surface Contamination.....	27
	Icing Conditions in Flight.....	28
5.3	Operating Requirements, Policies and Limitations: Fuel and Oil Procedures.....	29

Acknowledgment:

This information is being provided to the student noted below, who wishes to train towards the noted licenses and ratings.

Check the course(s) that apply:

- Private Pilot Licence
- Commercial Pilot Licence
- Night Rating
- Multi-Engine Rating
- Group 1 Instrument Rating
- Group 3 Instrument Rating

The student acknowledges receipt of Walter Gillies (DBA *Waltair*)'s Flight Training Program Outline and School Policies:

Student Name: _____ Primary Instructor Name: Walter Gillies

Student Signature: _____ Primary Instructor Signature: Walter Gillies

Date:

This page is to be removed once complete and kept in the student's file.

Section 1.0 – Introduction

This Flight Training Program Outline and School Policies document details the limits, conditions and policies of Walter Gillies, doing business as *Waltair*, and also outlines what is expected of students training with Waltair. In case of any discrepancy between the limits set out in this document and the *Canadian Aviation Regulations*, the more stringent policy shall take precedence.

The guidance contained within this document will help students train in a safe and efficient manner. Pilots flying aircraft in contravention of the policies and limitations expressed in this document shall be deemed to be operating an unauthorized flight.

1.1 Abbreviations and Acronyms

The following abbreviations and acronyms are used throughout this manual:

Waltair: Shall be taken to mean Walter Gillies.

Flight following: the monitoring of a flight's progress, the provision of any operational information that might be requested by the PIC, and the notification of the FTU and search-and-rescue authorities if a flight is overdue or missing.

ConMachine.com: online scheduling, invoicing and tracking website.

Operations manual: Flight Training Operations Manual.

Operational control: The exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of safety, and the regularity and efficiency of the flight.

Pilot's self-dispatch: a flight where the PIC is solely responsible for flight watch.

AIM	Transport Canada Aeronautical Information Manual
AMO	Approved Maintenance Organization
ATC	Air Traffic Control
C152	Cessna 152
C172	Cessna 172
CAP	Canada Air Pilot
CAP GEN	Canada Air Pilot – General Pages
CAR	Canadian Aviation Regulation
CFI (Walter)	Chief Flight Instructor
CFS	Canada Flight Supplement
CGI	Chief Ground Instructor
CPL	Commercial Pilot Licence
DFO	Director of Flight Operations
DFS	Daily Flight Sheet
ETA	Estimated Time of Arrival
FRAT	Flight Risk Assessment Tool
FTOM	Flight Training Operations Manual
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
IMC	Instrument Meteorological Conditions
IPM	Instrument Procedures Manual
website	Maintenance Control Manual
MFO	Manager of Flight Operations
PA34	Piper Seneca
PF	Pilot Flying
PNF	Pilot Not Flying
PIC	Pilot in Command
POH	Pilot's Operating Handbook
PPL	Private Pilot Licence
PRM	Person Responsible for Maintenance
PSTAR	Pre-Solo Test of Air Regulations
PTIB	Private Training Institutions Branch
PTR	Pilot Training Record
QA	Quality Assurance
RPP	Recreational Pilot Permit
SOP	Standard Operating Procedure
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions
VNC	VFR Navigation Chart
VTA	VFR Terminal Area Chart

Section 2.0 – Admissions Policy

Admissions Policy – Introduction

All students must meet the admission requirements for their intended course of training. These criteria are outlined in the paragraphs below and cannot be waived by either the student or Waltair.

Course Specific Prerequisites

2.1.1 Private Pilot Licence (PPL) and Night Rating

- 1.1.a) No specific age requirement for enrollment, however applicants for a PPL should be a minimum of 17 years of age;
- 1.1.b) Completed *Pilot Information Form*, reviewed by the CFI (Walter), with a copy on file;
- 1.1.c) Valid Transport Canada Category 1 or Category 3 Medical Certificate, with a copy on file;
- 1.1.d) All applicants must be able to achieve Level 4 proficiency (operational) in an ICAO English Language assessment. Applicants who have completed high school in Canada are not required to undergo further English language testing;

2.1.2 Commercial Pilot Licence (CPL)

- 1.2.a) Students must be a minimum age of 17 at the time of enrollment with Waltair. An applicant must be 18 years old to hold a Transport Canada CPL.
- 1.2.b) Completed *Pilot Information Form*, reviewed by the CFI (Walter), with a copy on file;
- 1.2.c) All applicants must be able to achieve Level 4 proficiency (operational) in an ICAO English Language assessment. Applicants who have completed high school in Canada are not required to undergo further English language testing;
- 1.2.d) Applicants must be able to pass and retain a Transport Canada Category 1 Medical Certificate, with a copy on file prior to commencing training;
- 1.2.e) Applicants must have the equivalent of Canadian Grade 12 high school education; international applicants must provide evidence of their educational qualifications which will be reviewed by Waltair staff (the student affairs team) for approval.

2.1.3 Multi-Engine Rating

- 1.3.a) Minimum age of 17;
- 1.3.b) Completed *Pilot Information Form*, reviewed by the CFI (Walter), with a copy on file;
- 1.3.c) Valid Transport Canada PPL or CPL, with a copy on file;
- 1.3.d) Valid Transport Canada Category 1 or Category 3 Medical Certificate, with a copy on file.

2.1.4 Group 1 and Group 3 Instrument Rating

- 1.4.a) Minimum age of 17;
- 1.4.b) Completed *Pilot Information Form*, reviewed by the CFI (Walter), with a copy on file;
- 1.4.c) Valid Transport Canada PPL or CPL, with a copy on file;
- 1.4.d) Valid Transport Canada Category 1 or Category 3 Medical Certificate, with a copy on file.

2.2 Final Admission

Prior to acceptance and training start, the following items must have been completed:

- Waltair must have a copy of the applicant's current Transport Canada Medical Certificate on file
- Any required academic transcripts have been received
- A copy of the applicant's passport has been supplied
- For international students, a copy of a study permit or visa (if required) is on file
- Any required deposit has been paid by the applicant

Section 3.0 – General Policies

3.1 Conduct of Flight Training

All flight instruction with Waltair shall be conducted in accordance with:

- *Canadian Aviation Regulations and Standards*
- *Flight Training Operations Manual*
- *Company Training Manual* (for quick finishing students)
- *Transport Canada Flight Instructor Guide*
- *Transport Canada Flight Training Manual*

This shall be done with reference to:

- *Aeronautical Information Manual (AIM)*
- *Canada Air Pilot (CAP)*
- *Canada Flight Supplement (CFS)*
- *Instrument Procedures Manual (IPM)*
- Transport Canada Human Factors Training Manuals

3.2 Aeroplane Manuals and Publications

The Pilot Operating Handbook (POH) shall be used as the final authority for all manoeuvres, limitations and performance. If a discrepancy is found between the aircraft POH and Waltair's Standard Operating Procedures (SOPs), the POH shall be used as the final authority, unless authorized by the CFI (Walter).

Waltair aeroplanes shall be operated at all times in accordance with the limitations and conditions in the approved POH, a copy of which shall be issued to each students and be available in each aeroplane.

The Pilot in Command (PIC) shall decide what safety factor over and above the recommendations established in the POH shall be applied on any given flight, subject to any overriding limitation in this document, the *Flight Training Operations Manual* or by the supervising instructor. However, at no time shall the aircraft be operated beyond or outside the limitations established in the POH, unless approved by the CFI (Walter).

The PIC will be familiar with the POH and will use the necessary checklists, information and performance data for the intended flight. The PIC shall consult the POH and/or approved checklists as necessary when handling emergencies.

3.3 Course Syllabus

For the latest summaries and detailed descriptions of Waltair's flight training and ground school programs, refer to the Canada Pilot Training and Flight Lessons sections found on Waltair's ConMachine.com website.

Transport Canada Publications

All students shall have a copy of the relevant Transport Canada Study and Reference Guide and Flight Test Guide prior to undertaking written or flight tests. These are also available from the instructor and on the Transport Canada website.

3.4 Flying Schedule

Students book an instructor and time slots on ConMachine.com, including filling out the daily flight authorization. Students are responsible to provide their own aircraft which is legal for flight under the Canadian Aviation Regulations and suitable for the intended training.

3.7.1 Attendance

Students are expected to be at the Waltair area at least 30 minutes prior to the scheduled booking time.

Students are requested to be on time for their bookings and be ready for their flight and pre-flight briefing with their instructor. Examples of things to have prepared are:

- Complete weather briefing (current and forecast), including local ATIS
- Crosswind components (departure and destination airports)
- Flight Authorization entry online form at ConMachine.com
- Pre-flight inspection
- Flight plan (if applicable)

Waltair expects all students to arrive promptly and be prepared for scheduled ground and flight training sessions.

3.8 Prior Learning Assessment Policy

Any student wishing to transfer to Waltair following the commencement of their flight training at another flight training establishment will be subject to assessment and testing at the discretion of the CFI (Walter) in order to establish a modified training plan based on their ability.

3.9 Student Learning Assessment (Academic Standing) Policy

Measurement of learning is an essential part of training. It ensures that both the training organization and the student know whether training objectives are being met and whether a student is ready to advance to the next lesson or phase of training. Student assessments occur in a number of ways, outlined below.

3.9.1 Lesson Plans

Student assessments occur at the conclusion of each flight. Comments and evaluations as appropriate are recorded on the daily flight authorization sheet comments section and are available for the student's review at any time during the progress of training. Evaluations are recorded using the Transport Canada Flight Test Guide four-point marking scheme.

3.9.2 Waltair Ground School Assignments

Ground school assignments will normally be issued after specific ground school lessons. Their purpose is to test the students' understanding of the material. Tests and material are generally assigned to be completed online on ConMachine.com, including

- Aircraft POH tests
- PSTAR, Private and Commercial practice examinations

Transport Canada Written Examinations

During the course of a training program, students may take one or more Transport Canada written examinations in order to meet the theoretical knowledge requirements for the issue of certain licences and ratings. These tests are taken at designated Transport Canada examination centres. Feedback is provided to the student directly by Transport Canada in these cases.

No student will be recommended to take a Transport Canada written examination unless they have completed all of the Waltair ground school requirements and met the requirements in CAR 421.13. Recommendation for written examinations shall be at the discretion of the Chief Ground Instructor (CGI), or delegate.

Transport Canada Flight Tests

For the issuance of licences and ratings, students have to pass specific Transport Canada Flight Tests. These tests shall be conducted by Transport Canada appointed flight test examiners. Feedback is provided to the student directly by the examiner in these cases.

No student will be recommended for a Transport Canada flight test unless they have completed all of the Waltair flight training requirements for that flight test and received a recommendation from the CFI (Walter), or delegate.

Failure of either a Transport Canada flight test or written examination implies that the student cannot hold the licence or rating. Should a student consistently fail these assessments, the CFI (Walter) shall conduct a review of the student's performance over the whole course and a decision will be made as to whether the student should continue with the course or withdraw from training.

3.10 Facilitation of Student Success

Each individual student is responsible for being prepared for every flight training lesson and ground school session. Good preparation includes having completed any required study beforehand and arriving fit and rested for the lesson.

Should any student feel that they are experiencing difficulties in training they should discuss the situation with their primary instructor or the CFI (Walter).

3.11 Grade Appeal Policy

All final written examinations and flight tests are conducted by Transport Canada, or their appointed delegates. Therefore, any appeals with respect to final grades or failure of examinations must be directed to the appropriate individual at the local/regional Transport Canada office.

Should a student feel that the assessment of an interim review flight was not performed or assessed correctly, the individual should discuss this with the CFI (Walter).

3.12 Suspension of Training and Disciplinary Action

A student's training can be suspended or postponed for a variety of reasons.

- Violation of Canadian Aviation Regulations
- Violation of Waltair Safety Policies
- Willful negligence
- Consistent record of unsafe decision making or airmanship, affecting the safety of the trainee or others (examples of which can be reported through the Safety Management System or documented on lesson plans)
- Physical abuse, verbal abuse or harassment
- Substance abuse
- Poor attendance

There may be other circumstances in which the student's training may need to be suspended or postponed for personal, health or other reasons. These situations will be dealt with on a case-by-case basis in consultation with Transport Canada.

All significant issues regarding training effectiveness, such as unsatisfactory progress reports, will be recorded in each student's training file and remain confidential.

3.13 Dismissal Policy

Should a student be in violation of the *Canadian Aviation Regulations*, Waltair reserves the right to terminate the student's enrollment and refund any monies on their account. All students must understand that safety and compliance with the *Canadian Aviation Regulations* is of paramount importance to Waltair.

3.14 Dispute and Complaint Resolution Policy

Any problems concerning the performance of Waltair's obligations to the student should be forwarded to the CFI (Walter) should be contacted in writing.

3.15 Detecting Training Deficiencies and Student Probation Policy

Waltair does not operate a formal academic probation policy since there are no formal interim assessments or GPA scores assigned during the training courses. However, if concerned with the rate of progress of an individual student, the CFI (Walter) will review the student's progress. If it is deemed necessary, the CFI (Walter) will meet with the student to discuss their concerns and assist in developing an appropriate plan for achieving satisfactory performance. In extreme circumstances, the student may be advised that a program of flight training is perhaps not best suited to them and withdrawal from the program may be suggested.

Waltair will act should it become apparent that a higher than normal proportion of students on a particular course are:

- Failing flight tests
- Failing written examinations
- Achieving lower marks on lesson plans or progress tests than previous classes
- Having disciplinary problems
- Receiving Unsatisfactory Progress Reports
- Requiring additional flight training hours (remedial training)
- Showing other indications of poor performance

Should it be considered that any one of the above was directly attributable to training or operational deficiency, Waltair will take action that could include:

- Requests for further student feedback
- Any other action deemed appropriate by the CFI (Walter)

3.16 Student Withdrawal Policy

A student wishing to withdraw from a training course may do so after discussion with the CFI (Walter), advising of the reasons for withdrawal. Any fee refund shall be calculated as per the Company's refund policy, described below. The Pilot Training Record (PTR) remains the property of the student and will be returned in exchange for a confirmatory signature of receipt.

3.17 Refund Policy

Refunds will only be processed to the entity or location that made the original payment.

A student may be entitled to a refund of tuition fees in the event that:

- a) The student provides written notice to Waltair that they are withdrawing from the program; or,
- b) Waltair provides written notice to the student advising that they have been dismissed from the training program.

Written notice advising of withdrawal or dismissal may be delivered in any manner provided that a receipt or other verification is available that indicates the date on which notice is delivered. The notice of withdrawal or dismissal is deemed to be effective from the date it is delivered.

3.18 Health and Safety Policy

Walter Gillies. is dedicated to promoting safe and healthy working conditions and attitudes for employees, students and visitors. It is therefore the policy of Waltair to:

- Protect the health and safety of all employees, students and visitors.
- Comply with all relevant statutes, regulations, standards of government agencies and regulatory authorities relevant to occupational health and safety.
- Give priority to safe working conditions and job safety practices in the planning, budgeting, direction and implementation of Waltair's activities.

Health and safety is the responsibility of everyone with Waltair. However, specific responsibilities of students include:

- Comply with Waltair's health and safety policies and procedures.
- Seek guidance from their instructors concerning safety-related knowledge and skills required to ensure safe performance in their Waltair-related activities.
- Attend health and safety training programs and meetings as required.
- Immediately report to their instructor, using an Event Notification Investigation Report (ENIR) form, any accident, incident, injury, near-miss, hazardous work practice or work condition with respect to Waltair-related activities.

3.19 Privacy Policy

Waltair collects staff and students' personal information for the following purposes:

- Compliance with the *Canadian Aviation Regulations*.

- Compliance with Transport Canada *Personnel Licensing and Training Standards*.
- Conventional accounting practices and procedures.
- Compliance with the policies and procedures of the Canada Revenue Agency.

Waltair staff are prohibited from releasing any private information related to students. The company shall abide by the *Personal Information Protection Act*.

3.19.1 Procedure for maintaining student files

Student personal information is collected throughout the student's attendance at Waltair. All required information regarding a student's performance, progress and acquired pilot qualification(s) shall be kept in a physical and electronic student file.

- Electronic student files shall be kept securely in a folder on the Company hard drive that shall have limited access.
- When a student completes training towards the issuance of a license or rating, the applicable pilot training records and transcripts of examinations shall be forwarded to Transport Canada for processing.

3.19.2 Procedure for student access to information on file

Under the *Personal Information Protection Act*, students are entitled to access their student file. Students wishing to access the information in their student file must contact the CFI (Walter).

Waltair will not release information to any person other than people authorized by the student to access information unless required to do so by legislation, a subpoena, court order or if release of information is necessary as part of an ongoing police investigation.

Persons authorized to access information on behalf of a student must provide written proof of this authorization.

Section 4.0 – Flight Following and Operational Control

4.1 Supervision

Students with Waltair must be supervised before, during and after their flights. This includes students who are time building towards their CPL. All pilot must be able to prove to Waltair that they have a valid licence or permit, medical certificate and rental agreement, and that they meet Waltair and Transport Canada currency requirements. Copies of the aforementioned documents must also be in the pilot's file with Waltair.

4.2 Operational Control and Flight Authorization

Operational control means the exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of the safety of the aircraft and the regularity and efficiency of the flight. The system is under control of the CFI (Walter).

All flights, or series of flights, away from base must be authorized before departure by the CFI (Walter) or by an individual delegated by the CFI (Walter).

4.3 Flight Following

Students book flights online at ConMachine.com by filling out the daily flight authorization form, including their intended flight route. This route is confirmed by their instructor, and if the student is solo, by text messages, telephone call or email while enroute if stopping.

The PIC is responsible for Flight Watch but shall be supported by a Flight Following System that shall monitor the estimated location of each flight from its commencement to its termination, including any intermediate stops. Each aircraft shall be equipped with serviceable VHF radio communications equipment that permits the PIC two-way communication with a ground station.

4.3.1 PIC Responsibilities

The PIC shall obtain and monitor current information relevant to the progress of their flight. They shall be responsible, among other things, for:

- 3.1.a) Obtaining weather and NOTAM information for accurate flight planning;
- 3.1.b) Update en-route information as necessary in order to carry out a safe flight;
- 3.1.c) Upon landing, advise Waltair of arrival or any changes.
- 3.1.d) The PIC shall be responsible for passing messages to Waltair.

4.4 Authorization of Solo Flights

All solo flights must be pre-authorized by the student's instructor, usually via the Daily Flight Authorization form on ConMachine.com. The authorization also provides details on restrictions imposed by an instructor and confirms that the instructor is authorizing the student to undertake that lesson plan.

The authorization is completed and signed on solo lesson plans. As well as signing to authorize the flight, the instructor will also detail any weather minima, location or other restrictions that they deem pertinent to the flight. All authorizations are valid no greater than 7 days from the date of signing. All solo students require a pre-flight briefing from their primary, or other delegated, instructor.

4.5 Authorization of Night Flights

All night flying must be approved by the CFI (Walter). This will allow Waltair to provide, whenever practicable, on-site flight following for all night flying activities.

For all night VFR flights, a VFR flight plan shall be filed with air traffic services where no Company duty person is present and available on-site. The exception to this is when conducting night circuits, unless no ATC services are available on site during the flight. All night flights beyond 25nm from the base of departure must be on a flight plan. The emergency contact listed on a flight plan must be a person who will be available on that telephone number at ETA + 60 minutes. They must also be knowledgeable in overdue aircraft procedures and be aware that they are holding this responsibility.

Section 5.0 – Flight Training Operations

5.1 Operating Requirements, Policies and Limitations: General

5.1.1 Pre-Flight Inspection

The Flight Instructor or PIC is responsible for the completion of an aeroplane pre-flight inspection prior to each flight, in accordance with the aircraft flight manual or POH.

5.1.2 Aircraft Equipment Requirements

All aircraft will be equipped to meet the requirements of CAR 605, Division II and CAR 425.23.

5.1.3 Pilot Equipment

The following equipment is required to be carried by pilots operating aircraft: VFR:

- Pilot licence or permit, medical certificate and restricted radio operator's certificate
- Current VFR charts for the area
- CFS
- All necessary aircraft documents
- Flight computer
- Lesson plan (quick finishing students)
- Navigation log (for cross country flights)
- Flight plan (where required)
- Hood (for instrument training)
- Survival kit as required for route of flight
- Credit card for fuel when planning cross country flights
- Cell phone

IFR, IFR training and Night:

- All VFR requirements listed above
- Appropriate IFR charts and approach plates
- Navigation log
- Flashlight (night only)
- Spare batteries for flashlight or second flashlight (night only)

5.1.4 Use of Pilot's Operating Handbook and Performance Limitations

The PIC will be familiar with the POH for the aircraft type they are operating and shall use the necessary checklists and performance data. Prior to acting as PIC on any aircraft, the pilot shall have passed the relevant POH test which shall be kept in their employee or student file. The pilot will refer to the POH and aircraft checklists as necessary when handling emergencies.

The aircraft POH will be used as the final authority for all manoeuvres, limitations and performance data. In the event of a discrepancy between the information in the POH and the Company approved aircraft checklist, the POH shall be considered to be the final authority, unless authorized by the CFI (Walter).

The PIC shall decide if any safety factor over and above the recommendations established in the POH shall be applied in a given flight, subject to any overriding limitations imposed in this Manual. At no time will the aircraft be operated beyond or outside the limitations established in the POH.

5.1.5 Passenger Briefings

Before each flight, the PIC is responsible for giving passengers a thorough safety briefing. Individual briefings may be necessary for visually impaired, hearing impaired, mobility and comprehension restricted persons or a person responsible for another (e.g. an infant).

Before take-off and landing, the PIC shall visually check that all passengers are seated and secured. Only able-bodied persons who are able to operate the emergency exits shall be seated next to them.

Items to be covered in the passenger briefing are described in each aircraft checklist, including details of passenger preparation for emergency landings.

Where no additional passengers or students have embarked for the flight, for subsequent take-offs on the same day a pre-flight passenger briefing may be omitted provided the PIC has verified that all baggage is properly stowed, safety belts and harnesses are properly fastened and seat backs properly secured.

5.1.6 Use of Checklists

All pilots shall operate aircraft using the approved Normal and Emergency checklists. When completing the pre-flight check, the PIC shall ensure that both of these checklists are on board the aircraft.

To ensure standardization in training and operation of aircraft, the following checklist procedures shall be used:

- 1.6.a) Initiation of Checklists: the title of the checks shall be read out; For example: **“Pre-Start Checks”**
- 1.6.b) Correct Use of Checklists: aircraft checklists should be worked through in the order that they appear in an Action/Response fashion. Each item should be verbalized, the corresponding action should be completed and also verbalized using the exact verbiage on the checklist. Additional words such as
'is' or 'are' should not be used;
For example: **“Master Switch... On”** *Switch Master switch ON*
- 1.6.c) Interruption while completing the checklist: the phrase **“Holding at (item)”** should be used; For example: **“Holding at Parking Brake”**
- 1.6.d) Skipping an Item: when an action on the checklist does not need to be completed, the phrase **“(item) to come”** shall be used;

For example: **“Landing Gear.....To Come”**

- 1.6.e) Completion of a checklist: The title of the checks shall be read out again followed by the word “complete”;
For example: **“Pre-Start Checks Complete”**

Students are not permitted to make personal notes on aircraft checklists. The aircraft checklists are company approved documents compiled using manufacturers’ data and best practice evidence. In addition, students should not be taught alternative methods of completing a particular aircraft checklist.

Members of operational personnel can suggest improvements to an aircraft checklist by submitting suggestions in writing via email or the daily flight authorization sheet online.

5.1.7 Minimum Altitudes and Obstacle Clearance

All flights will be conducted at a safe altitude with respect to weather, pilot experience and obstacles. Under no circumstances will flights be conducted lower than the minimums stated in CAR 602.12, 602.14 and 602.15, taking into account the cruising altitude order as specified in CAR 602.34.

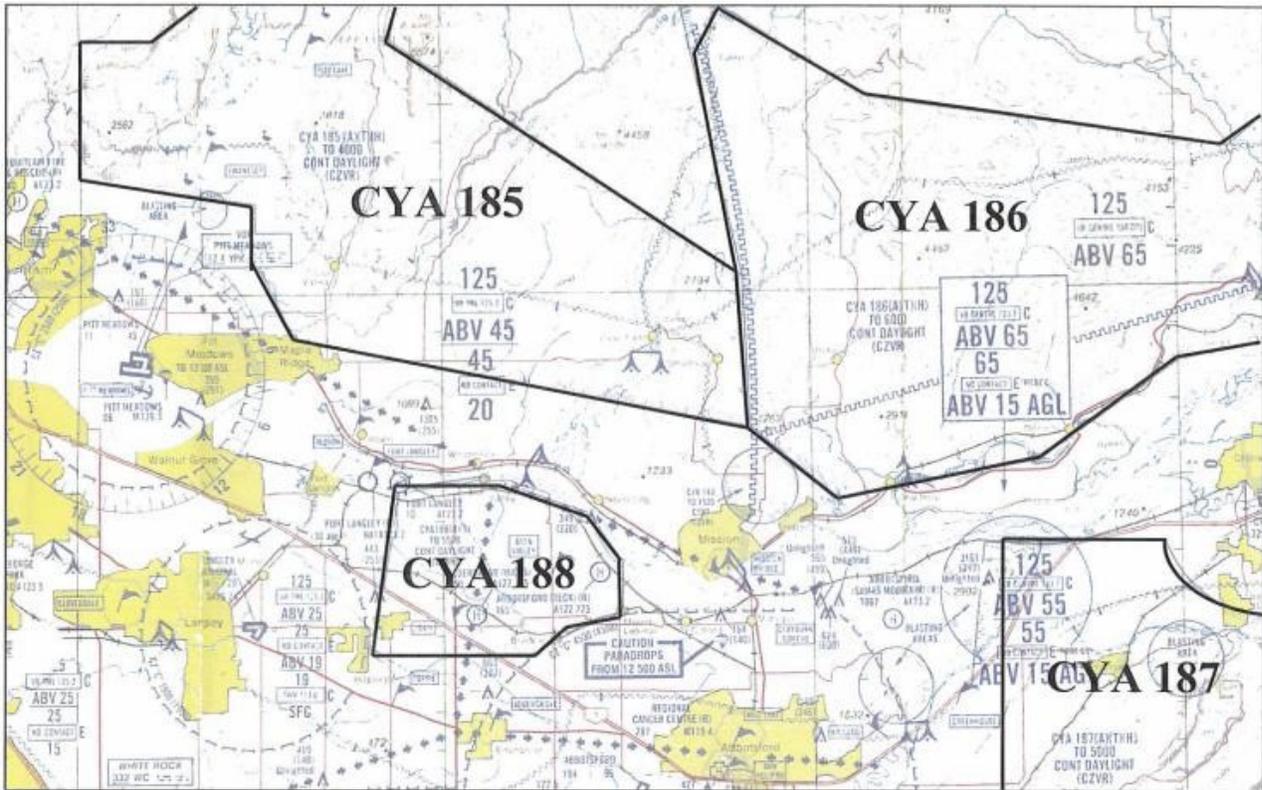
The minimum altitude for cross country training flights is specified in sections 5.3.5 and 5.3.6 above. Local cross country flights are defined as flights within 50nm of the departure aerodrome that do not enter mountainous terrain, cross the Strait of Georgia or enter the United States.

5.1.8 Transfer of Control

During all training flights with two crewmembers (including instructor and student), transfer of control will be accomplished using the following methods:

- 1.8.a) The PF passing control to the PNF:
1.8.a.i. PF passing control calls **“You have control”** and does not release controls until PNF assumes control;
1.8.a.ii. PNF assumes control and calls **“I have control”**.
- 1.8.b) The PNF initiating take over of control from the PF:
1.8.b.i. PNF assuming control calls **“I have control”**;
1.8.b.ii. PF relinquishes control and calls **“You have control”**.

5.1.9 CYNJ Designated Practice Areas



Practice Area	Designation	Max. Altitude	Remarks	Traffic Call
CYA 185	(A)(T)(H)	4000ft	Close proximity to CYNJ control zone High terrain	"Pitt Traffic"
CYA 188	(A)(T)	5500ft	Adjacent to CYXX control zone	"Glen Valley Traffic"
CYA 186	(A)(T)(H)	6000ft	High terrain Encompasses CYR 138 Adjacent to CYR 140	"Harrison Traffic"
CYA 187	(A)(T)(H)	5000ft	Close proximity to CYCW and CYXX	"Sumas Traffic"

Steep turns, slow flight, stalls, spins, precautionary landings and forced landings can be performed in all of the practice areas listed above.

Operating Over Water

Aircraft used for training with Waltair shall not be operated over water, except when conducting take-off or landing, beyond a point where the aircraft could reach shore in the event of an engine failure, in accordance with the *Canadian Aviation Regulations* and the *Personnel Licensing and Training Standards*.

5.1.10 Mountain Flying

Flying in mountainous terrain is not to be conducted in a C152. Only a C172, PA34 or shall be used for flight training in mountainous areas and only after the PIC has conducted a mountain check flight. The designation of such areas is depicted on charts with Waltair facilities.

5.1.11 Operation from Unprepared Surfaces

No pilot shall operate aircraft in or out of an unprepared surface without first receiving the required checkout from a flight instructor, with a record of such flight being kept in their personnel or student file. The use of any unprepared surface by aircraft shall be assessed on a case-by-case basis by the CFI (Walter) prior to approval.

5.1.12 Oxygen Requirements

Sufficient oxygen shall be available for all crewmembers and 10 percent of passengers (in any case not less than one passenger) for the entire period of flight exceeding 30 minutes at a cabin pressure altitude of greater than 10,000ft ASL but not exceeding 13,000ft ASL.

Oxygen is required for all crew and passengers for all periods of flight above a cabin pressure altitude of 13,000ft ASL.

These requirements are in accordance with CAR 605.31 and 605.32.

5.1.13 Carriage of Dangerous Goods

Waltair does not have approval under the *Transportation of Dangerous Goods Regulations* for the carriage of dangerous goods.

It is the responsibility of the PIC to ensure no dangerous goods are on board the aircraft prior to departure. Any substance that is, for example, explosive, gaseous, oxidizing, toxic/infectious, flammable, radioactive or corrosive could be classed as a dangerous good.

Training will be provided to all instructors via the ConMachine.com website on the identification of potentially dangerous goods.

5.1.14 Collision Avoidance

The collision avoidance procedures and aircraft right-of-way rules described in the *Canadian Aviation Regulations* shall be adhered to at all times. All anti-collision lights on all aeroplanes shall be operated at all times or in accordance with the Aircraft Flight Manual. The landing light on the C152 and C172 and the wing tip lights on the PA34 should be on during all VMC operations below 10,000 feet MSL. Strobe lights should be switched on when entering the runway prior to take-off and switched off during the after-landing checks. Strobe lights should also be turned off when flying through cloud; the flashing light reflected from water droplets, particularly at night, can produce vertigo and loss of orientation.

5.1.15 Resetting Tripped Circuit Breakers

The aircraft POH and the aircraft maintenance manual shall form the basis for circuit breaker resetting procedures.

There is a latent danger in resetting a circuit breaker tripped by an unknown cause since the tripped condition is a signal that something may be wrong with the related circuit. Until it can be determined what has caused the circuit interruption, crew members will be unsure of the consequences of resetting the circuit breaker.

Resetting a circuit breaker tripped by an unknown cause should normally be a maintenance function conducted on the ground.

A tripped circuit breaker shall not be reset in flight unless doing so is consistent with the procedures specified in the POH, company SOPs and approved aircraft checklist unless, in the judgement of the PIC, the resetting of a circuit breaker is necessary for the safe completion of the flight. Crewmembers should limit the resetting of circuit breakers to one (1) in-flight reset per flight where this action is deemed necessary. No attempt should be made to re-set a circuit breaker if it trips a second time.

Any tripped circuit breakers should be reported to maintenance at the earliest opportunity following the flight. Refer to the website for further information.

5.1.16 Pilot Incapacitation

Incapacitation of an individual can be either obvious or subtle. Obvious incapacitation can be caused by anything from a heart attack or a speck of dust in a pilot's eye. Subtle incapacitation can be caused by anything from a stroke to a mental lapse caused by stress or exhaustion.

Recognition of obvious incapacitation presents less of a problem than recognition of subtle incapacitation. Subtle incapacitation is particularly insidious since the non-functioning pilot can enter this state with no warning and may appear perfectly normal with eyes open and hands on the controls.

Recognition of subtle incapacitation may take considerable time and present a problem for the Pilot Not Flying (PNF) in that they have to decide how far they shall allow the Pilot Flying (PF) to deviate before taking over control. The two communication rule shall be adopted any time there are two pilots in the cockpit in order to reduce the risk of accident.

5.1.17 Two Communication Rule

Whenever a pilot, whether PF or PNF, does not respond to two verbal communication attempts with a reply, response or by executing a corrective action, the other pilot shall:

- 1.17.a) Say ***"I have control"*** (if not already the PF);
- 1.17.b) Take over control of the aircraft until the reason for non-response can be ascertained (i.e. incapacitation).

In the event of non-response due to incapacitation, the functioning pilot will carry out the following actions:

- a) Assume/maintain control and fly the aircraft to a safe condition;
- b) Restrain and/or remove the incapacitated pilot;
- c) Consider declaring an emergency;
- d) Reorganize the cockpit and prepare for landing;
- e) Enlist help from other qualified people if available;
- f) Arrange for ground assistance on arrival.

5.1.18 [Unscheduled or Forced Landing](#)

In the event of an unscheduled or forced landing, the aircraft is not to be operated until approved by the PRM. In the event of an emergency or forced landing, the PIC should contact Waltair at their respective training base as well as any ATS unit, peace officer, Canadian Armed Forces member or other responsible person immediately.

5.1.19 [Private Pilot Training: Approved Solo Cross-Country \(CYNJ\)](#)

The cross-country requirement, as specified by Transport Canada, must consist of a flight of not less than 150 nautical miles and shall include two full stop landings at points other than the point of departure. Waltair has two routes for the Langley training base:

- 1.19.a) CYNJ to CYCW [full stop landing], CYCW to CYXX, CYXX to Hope City [overfly], Hope City to CZBB [full stop landing], CZBB to CYNJ.
- 1.19.b) CYNJ to CZBB, CZBB to CYCW [full stop landing], CYCW to CYXX [full stop landing], CYXX TO Hope City [overfly], Hope City to CYNJ.

Weather minima for the above cross-country flights shall be as follows: ceiling 6000ft, visibility 10 statute miles (unless authorized by the CFI (Walter)).

5.1.20 [Flights to the United States, Including Training Flights in US Airspace](#)

All flights to the United States shall follow all required customs and immigration requirements. Any pilot wishing to fly a Aircraft used for training with Waltair to the US must have completed a US check flight with a Waltair instructor. Training flights conducted in the US must abide by the following procedures:

- 1.20.a) All aircraft must be on an active flight plan;
- 1.20.b) All aircraft must be equipped with an operational Mode C or Mode S transponder and squawk an ATC assigned code continuously;
- 1.20.c) All aircraft must maintain two-way communication with ATC.

Single engine training flights into US airspace that are not for the intention of cross-country to reach Vancouver Island or the United States are not permitted without the authorization of the CFI (Walter).

Multi engine training flights into US airspace are permitted if the above conditions are complied with.

5.1.21 Reporting Defects and Unserviceable Items

All suspected defects and unserviceable items shall be reported immediately to the supervising instructor. Any defects or unserviceable items should be recorded in the aircraft journey log book immediately after the flight.

If an aircraft defect occurs while away from a Waltair base of operations, the PIC shall:

- 1.21.a) Contact Waltair with details of the defect as soon as practicable;
- 1.21.b) If necessary, leave a voice message with a contact telephone number where the PIC can be reached;
- 1.21.c) Await further instructions – the PIC shall not continue the flight until they have been assured that flight authorization is still valid.

Under all circumstances, the procedures set out in Waltair's website shall be followed.

5.1.22 Post-Flight Duties (including securing of aircraft)

At the termination of the flight, the PIC shall ensure that their instructor is notified, the flight authorization is completed and flight plan is closed as applicable.

5.2 Operating Requirements, Policies and Limitations: Weather Considerations and Minima

5.2.1 Obtaining Weather Information

Students and operational personnel are able to obtain pre-flight weather information from a number of sources:

- 2.1.a) The NAV CANADA Aviation Weather Website at: <https://flightplanning.navcanada.ca>;
- 2.1.b) Aviation weather briefings are available from NAV CANADA over the telephone by calling 1-866-992-7433 (1-866-WXBRIEF);
- 2.1.c) Local ATIS information is available at the Langley training location, and for other airports in lower mainland BC, by calling 1-877-517-2847.

Telephones and computers are available for operational personnel and students to use in the Waltair areas of both Company training bases.

5.2.2 Weather Minima – General

The following sections outline Waltair's policies and regulations with regard to weather as absolute minima. The recommended minima with respect to each phase of flight training are then shown; these minima apply to all students since the figures can be interpolated for non-contract students.

All Waltair weather minima may be varied on a case-by-case basis by the CFI (Walter).

Under no circumstances shall an aircraft be operated in weather conditions below the minima stated in CAR 602 Division VI and Division VII.

5.2.3 Dual Day VFR Flights

Weather minima for dual day VFR flights are at the discretion of the flight instructor or supervising flight instructor. In no case shall they be below the minima stated in CAR 602.114 and CAR 602.115.

5.2.4 Solo Day VFR Flights

For solo day VFR flights, weather minima are at the discretion of the supervising instructor, but in any case they shall be no less than 5 statute miles of visibility and ceilings of **2000ft** AGL, or **3000ft** AGL if any form of airwork practice is to be conducted. Ceilings should always be sufficient to allow recovery from upper airwork exercises before reaching 2000ft AGL (or higher if the aircraft manufacturers data is more restrictive).

5.2.5 Dual and Solo Night VFR Flights

Company weather minima for all night VFR flights are detailed in the table below.

	No Cloud Below	Visibility	Temperature/Dew Point Spread
Circuits	2000ft AGL	5 SM	≥2°C
Local VFR (<25nm)	3000ft AGL	10 SM	≥3°C
Local Cross Country	4000ft AGL	10 SM	≥4°C
Other Cross Country	5000ft AGL	10 SM	≥5°C

In addition, there should be:

- No cloud below 1000ft above the maximum anticipated altitude
- No precipitation
- No CB or TCU clouds forecast in the vicinity of the route
- A maximum surface wind speed of 12 knots
- Stable or improving weather conditions in the TAFs

These requirements may be varied by the CFI (Walter) at their discretion.

5.2.6 Recommended Weather Minima – Day VFR Flights

The table below represents the Company recommended weather minima for day VFR flights organized by phase of training. Night VFR flights shall always be conducted in accordance with the weather minima detailed in section 5.3.5 above.

The weather minima in this section can also be applied to modular/non-contract students by comparing their experience level and any permits or licences held with the phases of training detailed in the *Training Manual*.

The CFI (Walter) may impose further individual limits based on instructor or student experience.

Each phase and type of training has an associated cloud ceiling (AGL), visibility and surface wind speed limitation.

Cloud Ceiling (AGL) / Visibility / Surface Wind		
Dual Circuits	Solo Circuits	Dual Practice Area
1500ft/5SM/15Kts	1500ft/5SM/15Kts	1500ft/5SM/15kts

The table below represents recommended weather minima for day VFR cross country flights organized by phase.

Dual Local XC		Solo Local XC		Dual Other XC		Solo Other XC
CYNJ	CYXX	CYNJ	CYXX	CYNJ	CYXX	CYNJ
10/20/00	2000/10/20	3000/10/20	2500/10/20	5000/10/20	3000/10/20	5000/10/20

5.2.7 Mountain Flying

Any flights conducted in designated mountainous terrain are subject to other criteria at the discretion of the CFI (Walter) and the supervising instructor. Due to the variables involved with such flying, they shall be discussed on a case-by-case basis.

Under no circumstances shall Waltair instructors conduct such flying until authorized to do so by the CFI (Walter). No student will fly in mountainous terrain until they have completed a Company mountain check flight.

In addition, mountain flying shall only be conducted in day VFR conditions. All mountain flights are required to be clear of mountainous terrain at least **30** minutes prior to sunset. It is the responsibility of the PIC of such flights to plan and monitor their flight time accordingly.

5.2.8 Special VFR Flights

Special VFR flights may be conducted under extenuating circumstances where authorized by ATC. Holders of Student Pilot Permits cannot fly Special VFR on Solo flights. Other licenced pilots shall not fly Special VFR without prior approval from the CFI (Walter) or in the event of an emergency.

5.2.9 IFR Flight Training Minima

No flight shall depart if the weather is, or is forecast to be, below the alternate minima for the departure aerodrome unless approved by the CFI (Walter). In the aforementioned scenario, only a Level 1 IFR instructor is to conduct the training. This is a minimum and factors such as the stage of training or the individual involved may require better weather than the minima stated here. In all circumstances, arrivals are ultimately limited to the minimums established in the CAP.

5.2.10 Crosswind Limitations

The maximum crosswind component for flight training shall be the values established in the specific aircraft POH.

Prior to authorizing a student to undertake a solo flight that will or may involve crosswind conditions, the instructor shall consider establishing more restrictive limitations for the student based on their experience with that student.

5.2.11 Operations in Adverse Conditions

Flight operations will not be conducted into known hazardous conditions. However, should an aircraft be inadvertently faced with hazardous conditions operations will be in accordance with *AIM AIR 2.0*. The following sections provide more detailed information on specific hazards.

Flight operations in high density altitude conditions are to be conducted in accordance with the performance data in the aircraft POH and the aerodrome data in the CFS. It is the responsibility of the PIC to calculate

density altitude at any time there is doubt over the aircraft performance prior to take-off in certain conditions.

5.2.12 Thunderstorms

Thunderstorms present a significant and severe threat to all aircraft since they are capable of producing all of the meteorological hazards known to aviation.

Take-offs and landings should not be attempted when a thunderstorm is approaching or in the vicinity (<5 statute miles) of the aerodrome due to the possibility of low-level wind shear, or sudden wind shift at the gust front, which could result in loss of control.

Pilots should avoid thunderstorms by observing the following precautions:

- Flight underneath a thunderstorm should not be attempted, even when the flight path to the other side looks clear. The turbulence present underneath most thunderstorms can be extremely dangerous.
- Avoid any area where thunderstorms are covering more than 5/8ths of the sky.
- Pilots shall not fly into a cloud mass containing embedded thunderstorms without airborne radar.
- Avoid by at least 20NM any thunderstorms identified as severe or giving intense radar returns. This includes the anvil of large cumulonimbus clouds.
- Clear the top of a known or suspected severe thunderstorm by at least 1000ft altitude for each 10kt of wind speed at the cloud top.

5.2.13 Low Level Wind Shear

Low Level Wind Shear (LLWS) may create a severe hazard for aircraft lower than 2000ft AGL near a microburst. Microbursts seldom last longer than 15 minutes, with maximum intensity winds lasting 2-4 minutes. However, multiple microbursts in a line structure can increase the duration of the hazard.

Wind shear conditions are particularly hazardous during the take-off, approach and landing phases of a flight. The most appropriate course of action is to avoid these areas altogether since it could be beyond the ability of the pilot or the capability of the aircraft to recover from decreasing performance wind shear.

Pilots should always heed wind shear PIREPs since a previous pilot's encounter might be the only warning. Upon receiving such notice, the best alternative action is to delay departure or arrival until the phenomenon has passed. Upon recognizing decreasing performance wind shear, prompt action is required. In all aeroplanes, recovery requires full power and a pitch attitude consistent with the aeroplane's maximum angle of climb. Once clear of the wind shear area it is imperative that pilots inform other agencies by sending a PIREP as soon as practicable.

Refer to *AIM AIR 2.8* for further information.

5.2.14 Whiteout Conditions

Whiteout conditions exist when there is a lack of features on the ground and light is diffused in such a way that shadows, horizon or clouds are not discernible. The sky and terrain blend together to deny normal visual clues that the pilot uses for depth perception.

Pilots should always be alert to the possibility of whiteout conditions and take steps to avoid them. These conditions are most likely to present when there is snow on the ground and overcast cloud conditions to diffuse light in all directions. Blowing snow can exacerbate the condition.

If a whiteout condition is encountered, pilots should climb immediately if at low level, or level off and turn towards an area where sharp terrain features exist. Instruments should be crosschecked to ensure positive flight path control.

5.2.15 Cold Weather Operations

Minimum Temperatures for Flight Training Operations

The following are Waltair regulations for flight operations during cold weather. Operating temperatures referred to below are ambient temperatures. Cold weather temperature corrections must be applied to minimum en-route altitudes and approach minimums for temperatures below standard. Refer to *AIM RAC Figure 9.1* or the *Canada Air Pilot General Pages* for temperature correction information.

Temperature	Limitation
-10°C to -20°C	All pilots must be briefed on cold weather operations
-21°C to -25°C	All circuit flights cancelled Low RPM airwork prohibited (stalls, spins, slow flight)
-26°C or colder	All flights cancelled

Note 1: Cross country flights are still permitted with ambient temperatures between -21°C and -25°C.

Note 2: Below -10°C, pilots must be aware of faster engine cooling times which could lead to shock-cooling of engine components. Practising engine failure drills in cold weather conditions is still permitted providing the following procedures are followed to simulate glide conditions:

- Use 10° flap setting
- Keep the engine at 1200 to 1500 RPM
- Warm the engine every 500ft in the glide descent

Cold Weather Dress Code

For all Company flights, Waltair requires all aircrew and passengers to wear, or carry on board, appropriate clothing taking into account seasonal climatic variations and the geographical location of the flight. Flight crew should consider how the air temperature will change over the next 12 hours and the physiological and psychological effects should the cabin heater become unserviceable during the course of the flight.

Aircraft Surface Contamination

The CARs prohibit take-off when frost, ice or snow is adhering to any critical surface of the aircraft. This is referred to as the “Clean Aircraft Concept”. The critical surfaces of Waltair aeroplanes include the wings, control surfaces, propellers, horizontal and vertical stabilizers and any other stabilizing surface.

Test data have revealed that even small amounts of frost on the leading edge or top surface of wings can reduce lift by up to 30% and increase drag by up to 40%.

When weather conditions exist that include frost, ice or snow, or rain where aircraft skin temperatures can cause freezing, the aircraft shall be inspected to determine whether contaminants are adhering to the critical surfaces. This inspection shall be carried out by the PIC or by a person delegated by the company who has received training concerning surface contamination.

It is always the responsibility of the PIC to ensure that no frost, ice or snow is adhering to the aircraft’s critical surfaces prior to take off.

If any frost, ice or snow is adhering to any critical surfaces, said contaminant shall be removed completely before take-off is attempted. If a clean aircraft prior to departure cannot be assured the only acceptable alternative action is to cancel or postpone the flight until conditions are favorable.

Methods of removing frozen contaminants from aircraft on the ground include:

- Application of heat: leaving the aircraft in a warm hangar or exposure to sunlight.
- Application of de-icing fluid: Waltair uses SAE Type 1 Propylene Glycol de-icing fluid. Prior to conducting de-icing using this fluid all operational personnel must have been briefed on its use by a member of Ramp personnel or a senior (check) instructor. De-icing fluid shall not be used inside any hangar because of the increased risk of slips/falls when glycol comes into contact with the hangar floor. The PIC should be aware that SAE Type 1 fluid has the shortest holdover time and any precipitation encountered on the ground after de-icing with this fluid could present a further surface contamination risk.
- Mechanical methods: brushing can be used as a method of removing frozen contaminants from aircraft surfaces provided that ice or snow is not adhering too strongly to the surface.

When pilots are away from their main base of operations it is their responsibility to ensure that the aircraft has been cleaned completely of any surface contaminants prior to departure. If the PIC has concerns about a situation they are in they are to contact Waltair at their base of operations for assistance.

Refer to *AIM AIR 2.12.2* for further information.

Icing Conditions in Flight

Icing encountered in flight can cause the following performance issues:

- Loss of lift and increase in drag and weight which leads to an increased stalling speed and reduced stalling angle of attack, which can produce a stall with little or no warning;
- Propeller icing can cause a loss of thrust and increased vibration;
- Windshield icing causing a loss of visibility;
- Carburetor icing (see *AIM AIR 2.3*).

Waltair operational personnel shall not commence or continue flights into areas of known or expected icing conditions in aircraft that are not equipped for flight into known icing (i.e. the single-engine fleet).

For aircraft certified for flight into known icing, pilots should take the following actions to mitigate the risks of icing conditions:

- Ice protection systems should be tested on the ground, immediately before the flight, if departing into known icing conditions
- Anti-ice protection systems should be turned on prior to entering areas of known or expected icing;
- If icing conditions present in flight, a change of altitude by 3000ft either up or down (if possible) usually allows the aircraft to exit the icing conditions
- Pilots should ask ATS for any icing PIREPs
- Minimum speeds should be adhered to according to the aircraft POH:
 - PA34: 89kts

For safety reasons, flight into visible moisture at or below 10°C shall be considered icing conditions.

If windshield heat is turned on, it should be left on for the duration of the flight to prevent large temperature changes cracking the windshield.

Aircraft de-icing protection (i.e. critical surface boots) should always be used in accordance with the aircraft POH. Pilots should be aware that ice protection systems are not flight tested for icing that may be encountered in freezing rain, freezing drizzle or conditions defined as severe. Such conditions may produce hazardous ice accumulations that can exceed the capabilities of the ice protection equipment. Pilots must be prepared to divert if such conditions are encountered.

Refer to *AIM AIR 2.12.3* for further information.

5.3 Operating Requirements, Policies and Limitations: Fuel and Oil Procedures

5.3.1 fueling Procedures: General

Sections 5.3.2 to 5.3.6 below outline Waltair's policies with respect to aircraft fuel planning. It is the responsibility of the PIC to ensure that sufficient fuel is on board and that all fuel requirements are planned for properly. Under no circumstances can the amount of fuel carried be less than the minima specified in CAR 602.88.

5.3.2 Local VFR Flights

Sufficient fuel must be carried on board for the duration of the flight at 65% power plus fuel for taxi, take off, climb, approach and contingencies, in addition to a **30** minute reserve for day VFR flights and a **45** minute reserve for night VFR flights. In any case, no less than 50% of standard tank capacity shall be carried without prior approval from the CFI (Walter).

5.3.3 Cross Country VFR Flights

At the start of each leg, sufficient fuel must be carried on board for the duration of the flight at 65% power plus fuel for taxi, take off, climb, approach and contingencies, in addition to a **30** minute reserve for day VFR cross country flights and a **45** minute reserve for night VFR cross country flights. In any case, no less than 50% of standard tank capacity shall be carried without prior approval from the CFI (Walter).

It is recommended that, whenever the aircraft weight and balance calculation allows, the aeroplane departs with full fuel on the first leg of a cross country flight.

5.3.4 Multi-Engine Aeroplane Flights

Owing to the dihedral of the Piper PA34 Seneca wing, pilots must not depart with less than **70** gallons of fuel. Any amount less than this will not be visible in the fuel tanks and the pilot will not be able to confirm the exact amount being carried.

5.3.5 IFR Flights

Where an alternate aerodrome is specified in the flight plan or flight itinerary, sufficient fuel must be carried to fly to and execute an approach and missed approach at the destination aerodrome, fly to and land at the alternate aerodrome, and then fly for a period of **45** minutes.

Where no alternate aerodrome is specified in the flight plan or flight itinerary, sufficient fuel must be carried to fly to and execute an approach and missed approach at the destination aerodrome and then fly for a period of **45** minutes.

Sufficient fuel will also be carried to allow descent at any point along the route to the lower of the single-engine service ceiling or 10,000 feet and cruise to a suitable aerodrome plus further contingency reserve if required by any factors that may affect the duration of the flight.

5.3.6 Contingency Fuel

Sufficient contingency fuel shall be carried to provide for:

- 3.6.a) Taxiing and foreseeable delays prior to take off;
- 3.6.b) Meteorological conditions;
- 3.6.c) Foreseeable air traffic routings and traffic delays;
- 3.6.d) Landing at a suitable aerodrome in the event of loss of cabin pressurization or, in the case of multi-engine aircraft, failure of any engine at the most critical point during the flight;
- 3.6.e) Any other foreseeable conditions that could delay the landing of the aircraft.

5.3.7 Fueling of Aircraft

Under no circumstances is fueling allowed with passengers on board the aircraft.

Provided that it is not prohibited by the fuel dispensing agency, students may refuel aircraft subject to the following:

- 3.7.a) The instructor has showed the student how to fuel.
- 3.7.b) The aeroplane's engine/engines is/are not running;
- 3.7.c) The aircraft is bonded properly to the refueling facility or refueling vehicle;
- 3.7.d) External electrical power supplies are not being connected or disconnected to the aircraft and any equipment likely to produce sparks or arcs is not being used;
- 3.7.e) Smoking is not permitted within the aircraft or in the vicinity of the refueling facility;
- 3.7.f) fueling is suspended when there are lightning discharges within five statute miles (eight kilometers) of the aeroplane;
- 3.7.g) Combustion heaters in the aircraft, or in the vicinity of the aircraft, are not being used;
- 3.7.h) Refueling by students is closely supervised by a flight instructor or another appropriately qualified Company employee;
- 3.7.i) Bonding requirements:
 - 3.7.i.i) The hose nozzle must be bonded to the aircraft using the bonding cable before the fuel tank cap is removed on all aeroplanes with an over-wing refueling system;
 - 3.7.i.ii) If funnels or filters are to be used, they must also be bonded to the aeroplane prior to commencing refueling.

Aeroplane Type	Fuel Type	Quantity
C152	Avgas 100/100LL	Full fuel (26 Gallons)
C172	Avgas 100/100LL	Fuel to collars (43 Gallons)
PA34	Avgas 100/100LL	Fuel half way up sides (100 Gallons)

5.3.8 Fuel Contamination Precautions

It is the responsibility of the PIC to ensure that the fuel on board their aircraft is free of contaminants. During the pre-flight check, a reasonable quantity of fuel shall be drawn from all tanks, and from the lowest point in the fuel system for that aeroplane type, into a clear container. A "clear and bright" visual check shall be carried out to ensure that the fuel is completely free of visible solid contaminants and water. For more background information on aviation fuel handling, refer to *AIM AIR 1.3*.

5.3.9 Oil Requirements

Prior to adding oil to an aircraft engine unsupervised, all students shall have received training from a flight instructor for that aeroplane type. To determine which type of engine oil to add, the aircraft POH should be consulted.

The following table shall be used to ascertain the amount of oil required for each aeroplane type operated by Waltair. The units used are US Quarts:

	POH Minimum	Normal	Extended Flight	Refill at	Maximum
C152	4	4.5 – 5.5	6	4.5	6
C172	5	5.5 – 6.5	7	5.5	7
PA34	3	5.5 – 6.5	7	5.5	8

*from full

When an aeroplane has recently returned from a flight and the engine is still hot, not all of the oil may have drained back into the oil sump. Caution should be used when taking oil readings at this time since they may be inaccurate. Flight instructors should be consulted for further guidance.

When embarking on longer cross country flights, it is the responsibility of the PIC to request spare oil from Waltair to be carried on board in case it is required at an intermediate stop or at the destination.