

# Gatineau Gliding Club (GGC)



## **Instructor Manual**

March 2018

Manual Owner:  
GGC Chief Flight Instructor

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Approved by [Name]

Revision 11

## REVISION RECORD

REVISION NO.	AFFECTED SECTIONS	DESCRIPTION	ISSUE DATE	INITIAL
0	All	Initial draft release.	January 2005	RH
1	Sec. 4.1	Flight sheet requirements added.	April 2005	RH
	Sec. 4.1	Lesson summary reference added.	“ “	RH
	Sec. 4.2.2	Reference to pre-solo exam changed.	“ “	RH
	All	Annex references added/corrected.	“ “	RH
2	1	Figure 1 updated.	January 2006	RH
	4.2.2	Pre-solo exam now 42 out of 47 instead of 30 out of 40 questions.	“ “	RH
	4.2.2	Pre-solo exam administered by TC Auth. Pers. or CFI.	“ “	RH
	4.2.2	Last sentence removed.	“ “	RH
	4.3.4	Logbook entry wording clarified.	“ “	RH
3	1	Figure 1 & 2 updated	March 2010	RH
	3.1 & 3.2	CFI Appointment, Responsibilities & Reporting clarified	“ “	RH
	4	Flight training clarifications	“ “	RH
	5	Recurrent training & Recency clarified	“ “	RH
	6	Tables 1&2 modified for ASW-24	“ “	RH
	7	Aerobatics section added	“ “	RH
	All	Misc. editorial changes throughout.	“ “	RH
4	Figure 1	Figure #1 updated.	Sept. 2012	RH
5	Figure 1	Figure #1 updated	April 2014	RH
	Figure 2	Figure #2 updated	“ “	
	All	Clean-up of various links and text	“ “	
	Table 2	Table #2 updated	“ “	
	6.1	Fleet progression clarified	“ “	
	7.1	“Solo aerobatics” clarified	“ “	
	8.2	Revised XC instructors	“ “	
	Annex “H”	Super-Blanik & ASW-20 notes added	“ “	
6	All	Clean-up of various links and text	July 2014	RH
7	Table 2	Updated table with “Junior” information	March 2015	RH
	Annex “H”	“Junior” pilot notes added	“ “	
	Figure 1	Figure #1 updated	“ “	
8	4.2.1.2	Cat. 4 not valid in US	March 2016	RH
	Tables 1&2	Tables updated	“ “	RH
9	Table 1	Updated	July 2016	RH
10	Table 1	P1 requirements updated	March 2017	RH
11	5.3	Currency requirements added	March 2018	RH
	8.2	Authorized instructors clarified	“ “	RH

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## **1. OVERVIEW**

Gatineau Gliding Club is proud to maintain a high-quality program of glider flight training. The goals of this program are:

- to enable club members to acquire the knowledge, experience and skill to enable them to qualify for the Transport Canada Glider Pilot Licence; and
- to facilitate new members integration into the club and participation as safe, enthusiastic glider pilots.

This document has been generated to provide instructor and flying members a single source reference of information, procedures, and standards that are used by GGC in its flight training operations. This document should be reviewed by all flying club members.

The objectives of this handbook are:

- Identify the role and responsibilities of the flight instruction staff at GGC.
- Educate all members as to the specific requirements associated with the GGC flight training program.
- Define procedures for gliding specific elements that are not addressed by the Canadian Aviation Regulations (CARs). Encourage a vibrant “Safety Culture” at GCC.

This Instructor Manual forms part of the overall GGC Operational Procedures as shown in Figure 1.

# Gatineau Gliding Club Governance Documents

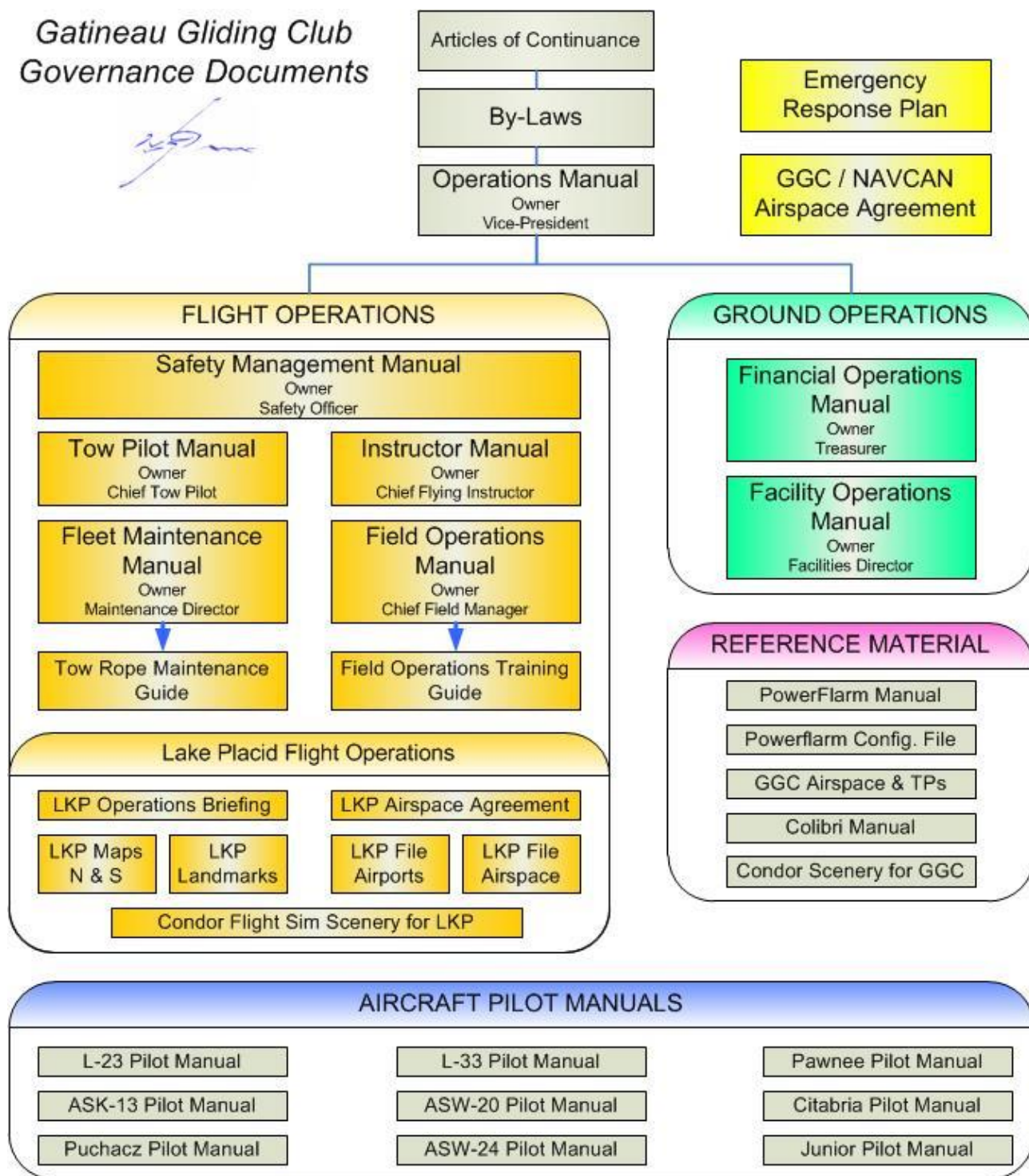


Figure 1 – GGC Operational Procedures

## **2. APPLICABLE STANDARDS, REFERENCES & DEFINITIONS**

### **2.1 Standards & References**

- Canadian Aviation Regulations (CARs)  
<http://www.tc.gc.ca/eng/civilaviation/regserv/cars/menu.htm>
- Canadian Glider Pilot Study & Reference Guide  
[www.tc.gc.ca/eng/civilaviation/publications/tp876-menu-1034.htm](http://www.tc.gc.ca/eng/civilaviation/publications/tp876-menu-1034.htm).
- Sample Canadian Glider Pilot Examination  
[www.tc.gc.ca/eng/civilaviation/publications/tp877-menu-5166.htm](http://www.tc.gc.ca/eng/civilaviation/publications/tp877-menu-5166.htm).
- Soar and Learn to Fly Gliders - Soaring Association of Canada Student Manual
- Instructors Course Manual – Soaring Association of Canada

### **2.2 Definitions**

- Student – a person who receives flight instruction
- Solo Student – a person who has acquired sufficient skill to solo but is not yet a licenced glider pilot
- Licenced Glider Pilot – a person who is in possession of a valid Canadian Glider Pilot Licence
- Cross Country Approved Glider Pilot – A licenced glider pilot that has met the requirements of the SAC Bronze Badge or equivalent GGC cross country checkout

### **3. DUTIES & RESPONSIBILITIES**

#### **3.1 Chief Flight Instructor (CFI) Appointment & Reporting**

At GGC, the CFI is nominated by the instructional staff and confirmed by the Board of Directors.

The CFI shall inform the Minister within 10 working days after appointment and shall acknowledge in writing that the appointed person knows, accepts and will carry out the responsibilities of the position. (Reference CAR 406.21)

#### **3.2 CFI Qualifications & Responsibilities**

The CFI shall be the holder of a glider pilot licence and an instructor rating and shall normally be a SAC Class 1 instructor. (Reference CAR 426.22(3) and SAC standards).

The CFI shall:

- Be responsible for operational control of glider, glider pilot and flight training activities at GGC (reference CAR 426.22(4)),
- Own and maintain the GGC Instructor Manual
- Have final authority in all matters pertaining to the use of the glider fleet except that the Fleet Maintenance Director may impose limitations on the use of club aircraft if, in his opinion, such limitations are desirable in the interests of safety.
- May delegate one or more members to make arrangements with Transport Canada to become a “Transport Canada Authorized Person”.
- May appoint as required qualified members to become club instructors.
- Ensure that the entries in the club aircraft journey and technical logbooks are kept up to date and that no aircraft is operated past its time limit.

#### **3.3 Duty Instructor Responsibilities**

The duties of the duty instructor include:

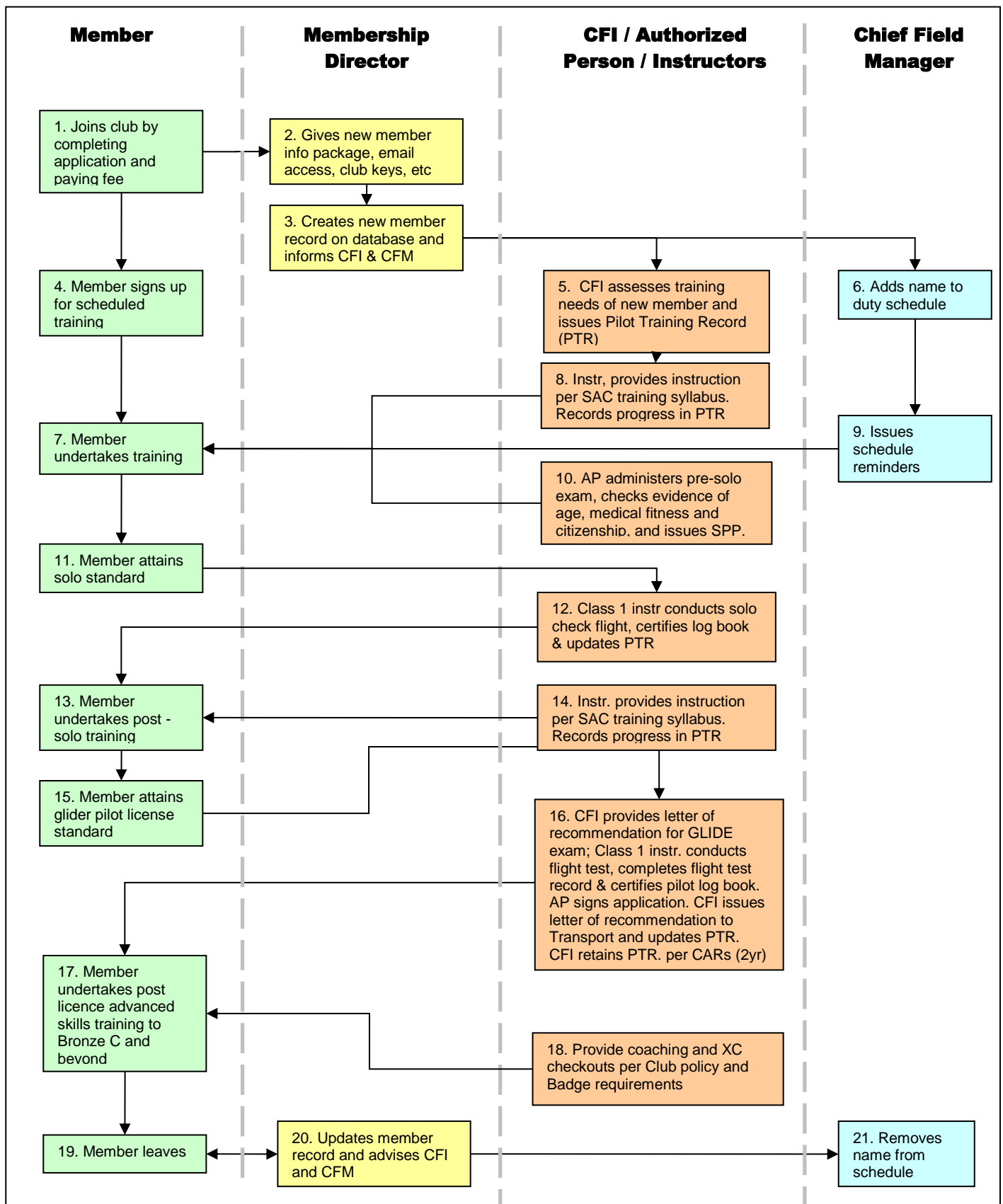
- Responsible for the entire daily flying operation and reports to the CFI.
- Brief solo students and pilots on specific daily flying conditions and may not allow solo student flying if conditions are not suitable (in consultation with the duty tow pilot)
- The duty instructor ensures the daily flight operation is run safely and prepares reports on any incident or accident.
- Responsible for reporting on their duty days or finding replacements
- Oversee and support the Field Manager in his daily functions
- Updating of glider logbooks at the end of the flying day

#### **4. Flight Training**

All flying shall be in accordance with the Canadian Aviation Regulations (CARs) and follow the procedures of the Soaring Association of Canada Instruction manuals. The flight training syllabus is published by SAC in the SAC instructor manual, student manual and pilot training record book. All members shall be familiar with all sections of these documents pertaining to safety and emergency procedures.

All members flying shall be in possession of the appropriate permit or license, a fully paid-up club membership, and shall be a paid-up member of SAC (Soaring Association of Canada).

The student pilot progression process followed by GGC is shown graphically in Figure 2.



**Figure 2 – GGC Member to Licenced Pilot Process Map**

## **4.1 Daily Flight Records (Reference CAR 406.56)**

To assist instructors with meeting the flight record requirements, the daily flight sheets include three additional columns for student signature, instructor signature and lesson number identification. A copy of the flight sheet is given in Annex A of this manual. A lesson summary reference sheet has also been created. A copy of the instructor lesson summary sheet (including proficiency level descriptions) is given in Annex B of this manual.

The instructor and student must both sign and identify on the daily flight sheets, the lesson(s) that they intend to cover during their instructional flight prior to launch. To aid this process, a copy of the lesson summary sheet has been attached to the underside of the field manager clipboard and has been posted in the window of the flight shack. The flight lesson summary has grouped the approximately 60 air manoeuvres identified in the SAC (Soaring Association of Canada) curriculum into 26 “typical” lesson flights. Instructors are still required to complete the student’s pilot training record booklet at the completion of each flight.

The duty instructor must also initial the flight sheet entry prior to any flight by a “solo student”. This is to ensure that:

- The solo student has been fully briefed by the instructor about any daily weather or operational issues.

The duty instructor has the final say as to whether or not a particular solo student will be permitted to fly solo on that particular day.

## **4.2 Requirements for Student Pilot Permit (SPP)**

A student pilot permit must be issued to any student pilot prior to solo flight. GGC has one Transport Canada “Authorized Person” (Wolfgang Weichert) that is able to issue SPPs.

The requirements for a student pilot permit are:

- Category 1, 3 or 4 medical certificate (minimum category 4)
- Successful completion of a pre-solo examination
- Proof of age (14 years), citizenship and identity

### **4.2.1 Medical Requirements**

#### **4.2.1.1 Category 3 Medical**

A category 3 medical certificate requires the pilot to undergo a medical examination by a Transport Canada approved Civil Aviation Medical Examiner (CAME). This examination is not covered by OHIP and costs \$150 dollars. A list of TC approved medical examiners can be found at:

<http://wwwapps.tc.gc.ca/saf-sec-sur/2/came-meac/1.aspx?lang=eng>

A category 3 medical certificate is required for all instructors and pilots wishing to carry passengers other than friends or family at GGC.

#### **4.2.1.2 Category 4 Medical**

A category 4 medical certificate is a self-declared certificate ([TC form 26-0297](#)) where the pilot must answer a set of questions regarding his/her current health. If any question cannot be answered (i.e. a pre-existing medical condition), the pilot must undergo a medical examination with a CAME. Although Transport Canada allows a pilot that holds a category 4 to fly passengers, GGC maintains a policy of requiring all passenger carrying glider pilots to hold a category 3 (or higher) medical.

A note of caution here. If a pilot knowingly lies about a pre-existing medical condition on the category 4 application form, this will expose the pilot to TC penalties. It may invalidate any personal insurance policies that are in place with that pilot, and invalidate SAC liability and hull insurance.

A category 4 medical is also not valid outside of Canada, i.e. flying in the US with a Canadian GPL requires a category 3 or higher medical.

#### **4.2.2 Pre-Solo Examination**

A pre-solo examination is a written examination consisting of 47 multiple choice questions. Questions incorrectly answered are discussed with student until the instructor believes that the correct answer has been properly understood. Questions answered incorrectly shall be initialed by the instructor and student after the correct answer has been discussed and understood. If more than 10 incorrect answers were given, the student should complete more studies and take the exam again at another time. This examination must be administered by a Transport Canada Authorized Person or the club CFI.

#### **4.2.3 Logbook Certification for Solo**

Prior to the student going solo, the following statement by the checkout instructor must be entered in the student's logbook, preferably using the rubber stamp provided for this purpose:

*I hereby certify per CAR 421.19(2)(e) that this student has reached a satisfactory standard of experience and skill to complete solo flight in gliders, using aero tow as launching method.*

*Date(yy/mm/dd) Signature Licence Number*

#### **4.2.4 SPP Limitations**

The SPP allows the student pilot to fly solo (no passengers) only while under the supervision of an instructor. Cross-country flying (outside gliding distance of the airfield) is not allowed for students flying under an SPP. The SPP is a Canadian document and is not valid for solo flight outside of Canada.

Solo student pilots must present themselves to the duty instructor prior to daily flying. The duty instructor will determine whether or not conditions are suitable for solo student flying and will advise/brief the solo student of any unusual weather or operational conditions that may be unique to the day.

Solo students are required to fly with an instructor every 5<sup>th</sup> flight approximately to consolidate the skills gained during initial training and to complete the post-solo training exercises in the syllabus leading toward the glider pilot licence.

### **4.3 Requirements for Glider Pilot Licence**

- The personnel licensing standards published by Transport Canada requires the applicant for a glider pilot licence to have attained a prescribed level of knowledge, experience, and skill. The requirements for the glider pilot licence include the following:
- Attendance at an approved ground school
- Successful completion of the TC GLIDE examination
- 20 solo flights and 2 hrs. of solo flying time
- Successful completion of a flight test. Certification of the student's logbook and the provision of a letter of recommendation by a qualified instructor.

#### **4.3.1 Ground school**

All students must attend a ground school of no less than 15 hrs. duration that covers the topics described on the following Transport Canada web site:

[www.tc.gc.ca/eng/civilaviation/publications/tp876-menu-1034.htm](http://www.tc.gc.ca/eng/civilaviation/publications/tp876-menu-1034.htm)

A letter confirming attendance will be issued to the student by the ground school co-ordinator at the successful completion of the ground school. An applicant who holds a pilot licence - aeroplane may be deemed to have met the ground school instruction requirement.

#### **4.3.2 Transport Canada GLIDE Examination**

Students can only write the Transport Canada GLIDE exam once they have received a letter of recommendation from the CFI. Transport Canada charges a fee for writing this examination. A passing grade is 60%. An applicant who holds a pilot licence - aeroplane shall be deemed to have met the written examination requirement.

#### **4.3.3 Flight Test**

The flight test consists of a minimum of 2 flights with a Class 1 instructor that requires the student to demonstrate a variety of normal and emergency manoeuvres. The flight test checklist is given in Annex D.

Following successful completion of the flight test, the instructor shall:

- complete the flight test record in Annex D
- Make the following entry in the student's log book, preferably using the rubber stamp provided for this purpose:

*I hereby certify per CAR 421.24 that this student has demonstrated the ability to perform both normal and emergency manoeuvres appropriate to the glider used in the test with a degree of competency appropriate to the holder of a pilot licence – glider, using aero tow as launching method.*

*Date (yy/mm/dd)      Signature      Licence Number*

#### **4.3.4 Procedure for Application for Glider Pilot Licence**

When the student has met the above requirements for a glider pilot licence, the student should submit to the club Authorized Person:

- His or her log book and pilot training record book;
- Official GLIDE examination result;
- The flight test record (Annex D);
- Letter of recommendation from the CFI (Annex -E);
- Completed TC form 26-0797E Application for a Glider Pilot Licence;
- A cheque payable to the Receiver General for Canada for the licence fee (currently \$55.00);
- Student Pilot Permit for endorsement as licence.

The Authorised Person should countersign the application form and should submit it along with the letter of recommendation and the fee to Transport Canada Regional Office for issuance of the licence. The CFI should retain the following records on file for a minimum of 2 years:

- Pilot training record book
- Pre-Solo exam paper
- Student pilot permit (yellow copy)
- GLIDE examination result
- Flight test record
- Copy of letter of recommendation
- Copy of glider pilot licence application form

## **5. RECURRENT TRAINING & RECENCY**

### **5.1 Recurrent Training**

All licensed members before flying solo at the start of each annual season shall complete a flight review with an instructor that covers the items included in the glider pilot flight test record. The flight review may be completed in a single flight if that flight includes a demonstration of spin entry and recovery in addition to the items in Annex D for the first test flight.

### **5.2 Recency Requirements**

Members who intend to instruct or carry passengers must have done five flights as pilot-in-command of an aircraft within the past 6 months, or must have completed two take-offs and two landings in a glider with the holder of a flight instructor rating - glider and obtained a certification of competence to carry passengers on board a glider from that holder.

These flights may be combined with the flight review in 5.1, in which case the second flight may consist of a 1000 foot launch and circuit.

Any member who has not acted as pilot or co-pilot of an aircraft within the previous five years must undergo a flight review covering the items included in the glider pilot flight test record and must successfully complete the TC PSTAR examination.

(Reference CAR 401.05 and 421.05.)

### **5.3 Currency Requirements**

Pilots with <100hrs TT who have not flown in the past 30 days require a check flight with an instructor. Pilots with >100 hrs TT who have not flown in the past 60 days require a check flight with an instructor.

In all cases, additional flights with and instructor may be required if skills are not to standard.

### **5.4 Certification of Competence**

Following successful completion of annual flight review and/or recency dual flights, the instructor shall certify the pilot's log book as follows, preferably using the rubber stamp provided for this purpose:

*"Completed flight review per CAR 421.05(2)(a). Meets the skill requirements for the glider pilot licence. Competent to carry passengers, per CAR 401.05(2)(b)(B)."*

*Date (yy/mm/dd)    Signature    Licence Number*

The words "Competent to carry passengers, per CAR 401.05(2)(b)(B)" in the above certification shall be struck out if the pilot has not previously been authorized to carry passengers at GGC or has not completed 2 flights with an instructor or 5 flight as P1 within the previous 6 months.

## 6. ADVANCED TRAINING

### 6.1 Fleet Progression & Passenger Carrying Privileges

AIRCRAFT	SOLO CRITERIA	EXPERIENCE - PASSENGER CARRYING (rear seat)
ASK-13	Solo sign off from initial training <b>OR</b> 5 solo flights in Blanik L23 and solo sign off if trained in Blanik L-23	5 hrs. P1 on ASK-13 + rear seat checkout <b>OR</b> completed rear seat checkout in Puchacz; plus 2 P1 flights in ASK-13 in last 60 days.
L-23 Super Blanik	Solo sign off from initial training <b>OR</b> 5 solo flights in ASK 13 and solo sign off if trained in ASK 13	5 hrs. P1 on L-23 + rear seat checkout <b>OR</b> completed rear seat checkout in Puchacz; plus 2 P1 flights in L-23 in last 60 days.
Puchacz	20 hrs P1, of which 10 hrs must be in ASK-13 and/or Blanik L23.	5 hrs. P1 on Puchacz + rear seat checkout, plus 2 P1 flights on Puchacz in last 60 days.
L-33 & Junior	5 solo flights in ASK-13 or Blanik L23 & 2 hours P1.	N/A
ASW-24	50 hrs. P1 + solo sign off in all other club gliders.	N/A
ASW-20	10 extended flights in the ASW-24.	N/A

**Table 1 – Fleet Progression & Experience Requirements**

Notes:

- For passenger carrying from front seat, experience as per solo requirement and 5 hrs P1 on type plus passenger checkout by a current instructor
- All passenger carrying privileges at GGC require the pilot in command (PIC) to have a valid Category 3 medical certificate. Passenger carrying is not allowed with a Student Permit.
- All of these requirements are assuming the PIC is “recent”, relative to the TC CARs.
- The above experience table represents minimum requirements and is not a “guarantee” of fleet progression. Ultimate sign-off authority will always rest with the CFI or his designate.
- A set of “Glider Type Checkout Notes” are given in Annex H of this document to assist pilots with the transition to other club gliders.

### 6.2 Cross Country Checkouts

Prior to any cross country flying in a club aircraft, the following minimum requirements must be demonstrated to an instructor:

A SAC "Bronze Badge" or the GGC standard consisting of the following:

- 3 consecutive spot landings 450' from a designated point
- a demonstrated competency in thermaling (two flights of 2 hrs. of soaring or silver duration),
- dual instruction in off field landing, dual x- country flight including pre-flight planning and a final glide,
- understanding and practice in rigging/de-rigging and trailering glider pilot intends to x-country fly.

### 6.3 Check Out on Types

The procedure to follow when a pilot wishes to move into another club glider should include a check out on type by a competent pilot on the type in question. This check out should include the following after the candidate has read the flight manual:

- flight manual read (discuss questions).
- walk around demo showing differences unique to type
- strapping in (seat adjustments, parachute, visibility) and demo flight attitudes
- discuss instruments & flying qualities (slip/stall/spin etc.)
- discuss critical airspeeds
- discuss safety points with respect to type including "polars"
- rigging /de-rigging for trailer
- weight and balance
- solo flight with 3000 ft. tow to let pilot get accustomed to handling qualities, explore flight characteristics (dutch rolls are a good exercise for this)

Attention should be given to these additional areas for this aircraft, also this is likely the students first exposure to parachutes so this equipment and how to use should be explained.

AIRCRAFT	V <sub>stall</sub>	MIN. SINK	BEST L/D	V <sub>gust</sub>	MAX. PILOT WEIGHT	V <sub>approach</sub>
Ask-13 s/d	32 kts	35 kts	45/49 kts	78 kts	220/410 lbs	51 kts
L-33 Solo	36 kts	38 kts	49 kts	85 kts	242 lbs	55 kts
ASW-24	36 kts	46 kts	54 kts	110 kts	242 lbs	55 kts
ASW-20	38 kts	40 kts	54 kts	97 kts	279 lbs	49 kts
L-23 Super Blanik s/d	32 kts	37 kts	43/49 kts	81 kts	242/440 lbs	48 kts
SZD-50-3 Puchacz s/d	34 kts	43 kts	44/50 kts	81 kts	242/445 lbs	51 kts
SZD-51-1 Junior	33 kts	38 kts	43 kts	83 kts	242 lbs	50 kts

Minimum forward pilot weight for all club ships = 150 lbs (Puchacz = 155 lbs)

**Table 2 – GGC Club Fleet Performance Speeds**

## **7. AEROBATICS**

### **7.1 Solo Aerobatics**

Before any pilot performs solo aerobatics in a club glider, that person shall complete dual instruction on aerobatic manoeuvres and have his or her log book endorsed by a flight instructor-glider-aerobatic rating.

Solo aerobatics shall not be conducted:

- (a) Over a built-up area or an open-air assembly of persons;
- (b) In controlled airspace
- (c) When flight visibility is less than three miles; or
- (d) Below 2,000 feet AGL

(Reference CAR 602.27)

### **7.2 Aerobatics with passengers**

No person shall conduct an aerobatic manoeuvre with a passenger on board unless the pilot-in-command has engaged in:

- (a) at least 10 hours dual flight instruction in the conducting of aerobatic manoeuvres or 20 hours conducting aerobatic manoeuvres; and
- (b) at least one hour of conducting aerobatic manoeuvres in the preceding six months.

The pilot in command shall have his or her log book endorsed by a flight instructor-glider-aerobatic rating. As a general rule, aerobatic manoeuvres should not be flown with introductory passengers.

(Reference CAR 602.28)

## 8. INSTRUCTOR QUALIFICATIONS

Requirements and privileges of a gliding instructor (CAR 401.82) can be found on the Transport Canada website at: <http://laws-lois.justice.gc.ca/eng/regulations/SOR-96-433/page-90.html#docCont>

SAC issues three levels of instructor classifications to pilots who are members of SAC clubs and who have successfully completed a SAC-approved instructor course. A class III classification is issued to beginner instructors when they first receive their Transport Canada (TC) endorsement to their glider pilot licence. After achieving more experience and attending a refresher or upgrade clinic an instructor may be issued a **Class II (basic instructor)** or **Class I (advanced or senior instructor)** classification. These classifications are issued by and records are kept in the SAC national office. A description of these categories is given in Table 3.

Requirement	Class I	Class II	Class III		
Training required	SAC Upgrade Clinic conducted by SAC Instructor Course Director	SAC Upgrade Clinic, or Training within the club by two SAC Class I instructors	SAC Instructor Course; or SAC-Approved course of instructor training within the club plus check flights and exam by a SAC Course Director (CFI to apply to FTS Committee member for details)		
Pass mark in SAC Instructor Exam	70%	70%	60%	60%	60%
Badge required	Silver	Bronze			
No. of hours gliding time (solo or instructing)	200	50	20	15 PPL or Commcl	10 – Flight Instructor Rating - Aeroplanes
No. of hours instructing in gliders	100	25	N/A	N/A	N/A
No. of gliding flights, Pilot-in-Command; incl. min. of 10 rear seat flights		200	100 – air tow 150 – winch	75 – a 125 – w	25 – a 50 – w
Privileges	As for Class II, plus may send students for first solo flights. May provide advanced training such as cross-country and, following additional training, may train pilots to become instructors.	May instruct students up to and beyond solo stage. May send a student solo with second recommendation from another Class II or Class I instructor. May train pilots for passenger carrying and cross-country flight.	May instruct students up to and including solo stage. May recommend students for solo flight to a more senior instructor.		
Currency	During the previous season, minimum required number of instructing flights - 20				

**Table 3 – SAC Instructor Qualifications**

## **8.1 Instructor Upgrading**

To upgrade a pilot from **Class III to Class II**, the instructor may attend an SAC upgrade clinic, or he or she may be upgraded by the club CFI, plus one other Class II or Class I instructor. The club CFI is to apply to the FTS Committee for such an upgrade using the form identified in Annex G.

To upgrade a pilot from **Class II to Class I**, the instructor must attend a SAC upgrade clinic, usually run in conjunction with instructor courses by a national course director who will make the requisite recommendation for the upgrade and will inform the club CFI accordingly.

As an alternative, the club CFI may request a Class I upgrade clinic be run at his/her club. Contact a member of the Flight Training and Safety Committee closest to you, and suitable arrangements will be made.

## **8.2 Instructors Authorized for Dual Cross Country Training**

The cross country instructor must:

- Hold a valid instructor rating
- Have obtained at least an FAI “Silver C” badge and
- Successfully completed two field (not airport) landings
- Be approved by the CFI for cross-country training

Class I and Class II GGC instructor are authorized to provide dual cross country training as well as any Class III instructor approved by the CFI.

## **8.3 Instructor Rating Renewals**

Before any instructional flight, instructors should verify that their instructor endorsement is valid. Endorsement expiry date is listed on the GPL licence behind the FI: entry (The FI stands for Flight Instructor). Requests for instructor rating renewals should be sent to the CFI who will submit a formal request (see Annex “F”) for renewal to Transport Canada.

## **9. INSTRUCTOR RECURRING TRAINING**

Recurring training among the instructors at GGC is done through the following mechanisms:


- Annual flight review and recency requirements
- Spring Instructor Meeting
  - Discussion of any changes to the SAC training curriculum and how these changes will be implemented at GGC
  - Any actions arising from the “fault tree analysis” on incidents from the previous season
  - Discussion on specific areas of focus as determined by the CFI.
- Fall Instructor Meeting
  - Summary of what worked and didn’t work in the training curriculum during the preceding season
  - Discussion of any relevant incidents/accidents that may aid the safety officer in the “fault tree analysis” of these incidents/accidents.
  - Recommendations for improving the training program at GGC
- GGC Instructor internet newsgroup on Yahoo Groups
  - Discussion of status and progression of students
  - Provide an alerting mechanism to mitigate incidents before they occur
  - Disseminate information related to the training program at GGC throughout the year.

As well, the CFI may elect to hold special Instructor meetings throughout the year to address specific issues.

## ANNEX A – GGC FLIGHT RECORD SHEET

<b>GATINEAU GLIDING CLUB - DAILY FLIGHT RECORD</b>															
		A.M. Field Manager:				P.M. Field Manager:				Weather:					
		A.M. Instructor:				P.M. Instructor:									
Flight #	1st Pilot (P1)	2nd Pilot (P2)	Glider Reg.	Tow Reg.	Tow Pilot	Flight Lesson	Student Initials	Instr. Auth.	Tow Height	Launch Time	Tow Down	Glider Down	Tow Time	Glider Time	Comments

## ANNEX B – GGC FLIGHT LESSON SUMMARY

LESSON #		DESCRIPTION	LESSON #	DESCRIPTION	PROFICIENCY LEVELS					
1	BASIC LESSONS	Demo Interior and Exterior Inspections;	11	Boxing the Slipstream;	1	The Student was not capable of completing the task. Student required verbal and/or physical assistance to avoid making major errors. Further instruction is required.				
		Demo CISTRSCO;		Low Tow;						
		LOOKOUT;		High Tow;						
		Primary Effects of Controls;		Further Stalling exercises (Climbing, Descending, and in a Turn).						
2		Aileron Drag;	12	Rope/Cable Break Recovery Technique at altitude;	2	The student completed the task but required verbal and/or minor physical assistance to avoid making major errors. Further practice is required.				
		Continuous Turns;		Effect of Angle of Bank on Stall Speed.						
3		Demo SOAR technique.	13	Slack Rope on Aerotow & Rope/Cable Break Recoveries at Sideslipping at altitude exercises;	3	The Student completed the task, making only minor errors. Student required minimum verbal cues to analyze and/or correct errors.				
		Stability;		Abbreviated Circuit.						
		Primary Effect of Rudder;		Tug Upsets & Emergency Aerotow Procedures;			4	The Student completed the task without assistance, making only minor errors. Student was able to self-analyze and correct errors.		
		The Trim;		X-Wind Takeoff;					5	The Student completed the task without assistance and without error.
SOAR;		Sideslipping & Sideslip on Approach;								
Continuous Turns;		Illusions created by Drift;								
4		Demo SWAFTS (including radio call).	14	X-Wind Landing.	4	The Student completed the task without assistance, making only minor errors. Student was able to self-analyze and correct errors.				
		Reduced-g;		15			Spins - Comparison to Spiral Dive;			
		Slow Flying;					Airbrakes fully open before Circuit exercise;			
		1G Stalls;					Changing Effect of the Rudder at the Stall;			
5		Turning to a Heading;	16		Spins Avoidance Practice (recover before spin develops).	5	The Student completed the task without assistance and without error.			
		SOAR and SWAFTS.		17	Right-hand circuit exercise;					
		Medium Turns;			Instruments covered exercise.					
		Thermalling Technique and Protocols;			18			Rope Break demo at 500 ft + agl;		
6	Straight Flight (towards a reference point on horizon).	19	Abbreviated Circuit.			ADVANCED LESSONS	GATINEAU GLIDING CLUB FLIGHT INSTRUCTION LESSONS & PROFICIENCY LEVELS 			
	Demo Takeoff & Aerotow /Winch Launch;		20	Off-field Field Selection and Circuit Planning.						
	Effects of Airbrakes at height;			Rope/Cable Breaks flights;						
	Approach Control using Airbrakes;			(demo first at lift-off, at low height, at medium height (300 ft						
7	Overshooting and Undershooting;	21		Student practice with full briefing before each flight.	23	Post-Solo: [dual flight after every 4 flights max.]; Review basic manoeuvres, upper air work;				
	Demo Landing.		22	Review and Practice all manoeuvres and skills.				24	Descending on tow; Slipping Turn onto Final, etc.	
	Practice Takeoff and Tow/Winch launch turns;			25						Upper air: Post-basic training exercises, Review of flight test Upper air work: Review spins and spin avoidance, slips, etc.;
	Lookout, Straight Flight;									
Stalls;	25	Off-field field and circuit selection.								
Approach and Landing (from high Final Turn).			26		Flight test review and recommendation.					
Steep Turns;				26		Flight test review and recommendation.				
Demo Circuit Planning;							26	Flight test review and recommendation.		
Practice Approach and Landing.	26	Flight test review and recommendation.								
Steep Turns, Thermalling;			26		Flight test review and recommendation.					
Demo and Practice Collision Avoidance;				26		Flight test review and recommendation.				
Flying the Circuit (normal Final Turn Height);							26	Flight test review and recommendation.		
Use of Radio.	26	Flight test review and recommendation.								
Spiral Dives;			26		Flight test review and recommendation.					
Zigzag in Downwind exercise.				26		Flight test review and recommendation.				

**GATINEAU GLIDING CLUB  
FLIGHT INSTRUCTION LESSONS  
&  
PROFICIENCY LEVELS**

## ANNEX C – CFI RECOMMENDATION TO WRITE GLIDE EXAM

Ottawa Transport Canada Centre  
30 Camelot Drive, Suite 300  
Nepean, ON K2G 5W6

Date

### **Subject: Admittance to Glider Pilot Licence Examination**

This is to certify that:

Name  
Address  
File #

has completed a course of not less than 15 hours of glider pilot ground school instruction on the subjects specified in CAR 421.24(3) and has reached a sufficient level of knowledge to write the Glider Pilot Examination. He has also completed the required 50% of the total flight experience for the issue of the glider pilot licence as required by CAR 421.13(4)(f)

Pursuant to CAR 421.13, please admit this student to the examination.

Yours sincerely,

Gordenko Jeremic GG390202  
C.F.I. Gatineau Gliding Club  
1203-71 Somerset Street  
Ottawa, ON K2P2G2  
613-565-7632

## ANNEX D - FLIGHT TEST RECORD

Student Pilot Name ..... Club .....

Flight #1: Instructor ..... Date/Time .....

Flight #2: Instructor ..... Date/Time .....

Student Flying Time (dual) ..... Solo ..... # of Solo Flights .....

### FIRST FLIGHT TEST

Runway in Use ..... Wind ..... degrees ..... Knots

Aircraft Used (type) ..... Registration ..... Weather .....

Item	Fail	MPR *	Accept	Good	Comments
Documents					
Preflight (walkaround) - Check of Aircraft					
Cockpit Check (runway & approach clear)					
Take-off, Tow, Boxing the Wake					
Loose Rope on Tow					
Release Procedure (prior lookout)					
Gentle and Medium Stalls (symptoms)					
Clear Before Doing Stalls?					
Co-ordination of Controls in Turning					
Continuous Medium Turns (lookout)?					
Steep Turns; Speed Control (lookout)?					
Spiral Dive Recovery ('G' control)					
Circuit Pattern					
Pre-landing Check					
Speed Control					
Co-ordination Near Ground					
Use of Spoilers; Glide Path Control					
Side Slip					
Landing (held off)					
Post Landing Actions					
General Airmanship - Awareness of Other Traffic					
General Airmanship - Keeping a Lookout					
General Airmanship - Planning Ahead					

\*MPR = More Practice Required

## SECOND FLIGHT TEST

Runway in Use ..... Wind ..... degrees ..... Knots

Aircraft Used (type) ..... Registration ..... Weather .....

Item	Fail	MPR *	Accept	Good	Comments
Cockpit Checks, Take-off, Tow					
Rope Break Procedure: Aerotow / Winch / Auto					
Slow Flying, Use of Rudder					
Incipient Spin Entry and Recovery					
Full Spin to the Left					
Full Spin to the Right					
Clear Before Doing Incipient and Full Spins?					
Flying at High Speed (approx. 0.8 Vne)					
Circuit Entry					
Circuit Pattern					
Pre-landing Check					
Cross Wind Approach					
Landing (cross wind mandatory)					
General Airmanship - Awareness of Other Traffic					
General Airmanship - Keeping a Lookout					
General Airmanship - Planning Ahead					

Note: Division of flight items to first or second flights is suggested as above. Items missed on one flight to be covered on other flight(s).

C.F.I.'s comments on general flying ability .....

Airmanship .....

	P1	P2	Totals
<b>Hours</b>			
<b># of Flights</b>			

Recommend for Licence;                      YES                      NO

Check Instructor Signature .....

Name and Licence # .....

Date .....

## ANNEX E – CFI LETTER OF RECOMMENDATION FOR LICENCE

Transport Canada  
Aviation Licensing  
4900 Yonge Street, Suite 300  
North York, Ontario  
M2N 6A5

Date

**Subject: Recommendation for Glider Pilot License (File # )**

This is to certify that:

[name and address]  
Student Pilot Permit No:

has completed a course of not less than 6 hours of glider pilot flight training in the preceding 24 months, which included not less than 1 hour dual instruction flight time, and not less than 2 hours solo flight time with 20 take-offs and landings.

He has also demonstrated his ability to perform both normal and emergency manoeuvres appropriate to the glider used in the test with a degree of competency appropriate to that of a pilot license - glider.

This satisfies the requirements of CAR Part IV Division V subpart 421.24. Proof of attendance at a glider ground school of not less than 15 hours and a pass mark on the GLIDE examination is on your files.

Attached are:

- Completed applications for a Flight Crew Licence and for the Aviation Document Booklet;
- Completed Aviation Language Proficiency Test;
- Cheque for \$55.00 payable to Receiver General for Canada.

Pursuant to CAR 401.06, please issue the license to [name] at the address above.

Sincerely yours,

Gordenko Jeremic GG390202  
C.F.I. Gatineau Gliding Club  
1203-71 Somerset Street  
Ottawa, ON K2P2G2  
613-565-7632

## **ANNEX F - CFI LETTER OF RECOMMENDATION FOR INSTRUCTOR RENEWAL**

Transport Canada  
Aviation Licensing  
4900 Yonge Street, Suite 300  
North York, Ontario  
M2N 6A5

Date

**Subject: Re-Issuance of Glider Instructor Rating Licence #GG xxxxxx**

This is to certify that:

Name  
Address  
Licence No

is familiar with current instructional techniques, and is competent to act as a glider flight instructor as required by CAR 421.86(1)(b) Pursuant to CAR 401.06, please re-issue the rating and forward it to the address above. A cheque is enclosed payable to the Receiver General for Canada for \$30.00.

Sincerely yours,

Gordenko Jeremic GG390202  
C.F.I. Gatineau Gliding Club  
1203-71 Somerset Street  
Ottawa, ON K2P2G2  
613-565-7632

## ANNEX G – INSTRUCTOR RATING/UPGRADING REQUEST



Soaring Association of Canada

L'Association Canadienne du vol à voile

Flight Training & Safety Committee

INSTRUCTOR RATING / UPGRADING REQUEST

Club ..... Date .....

Instructor's Name ..... SAC Number .....

Request for Initial Rating ..... Request for Up-Rating to Class .....

### DETAILS OF INSTRUCTOR'S EXPERIENCE

Pilot Licences Held (List All) .....

Attended Instructor Course at ..... Dates ..... Exam Mark .....%

Gliding Time (hours) to Date: Total ..... P2 ..... P1 ..... Instructing .....

Gliding Flights to Date: Total ..... P2 ..... P1 ..... Instructing .....

Other Flying Time as Pilot in command (state type of flying) .....

### Certification

I certify that I/we have flown with this pilot and have satisfied myself/ourselves that he or she meets the standards appropriate to the level of instructor requested – see reverse side of this form.

.....  
Signature of CFI

.....  
NAME of CFI (Please PRINT)

.....  
Date

.....

..... Inst Class .....

Signature of Second Instructor\*

Name of Second Instructor

.....  
Date

Note\*: The second recommendation is required for upgrade to class II; for upgrade to Class I, an upgrade clinic should have been attended and this form is to be submitted after the clinic also to the FTS Committee at the address below.

Mail completed form to the **Flight Training and Safety Committee**, c/o Tom Coulson, 175 Endeavour Dr., Cambridge, Ontario, N3C 4C9; 519-651-2779.

Revised 2000 Jan 24

## **ANNEX H – GLIDER TYPE CHECKOUT NOTES**

### **L-33**

- Point out stressed skin design, look for loose rivets & wrinkles in skin, oil can effect.
- Trim mechanism; recommend position for take-off and landing.
- Show canopy miss latch possible.
- Tail dolly must be removed immediately when glider put on flight line.
- Spoilers: note very effective, open slowly, reqr add 10 kts. on approach if fully opened.
- Demo spoiler lock position if red band visible spoilers not locked
- Landing flare/rotation should not be made with more than ½ spoiler or tail strike
- T tail lock mechanism on walk around, raise tail by lowering nose easiest/safer.
- Neutral stick position for take-off.
- Ballast plate has read seat cover.
- Brakes effective on spoiler handle and can put glider on nose, full back stick required.
- Crosswind limit is only 8 kts.
- Unique spar locking mechanism.
- Use canopy cover when storing and put in luggage compartment when flying
- Note max. pilot weight 243 lbs. Pilot less than 137 lbs must use ballast plate 16 lbs.

### **Super - Blanik L-23**

- Wing attachment bolts cannot be viewed in walk around.
- Stick neutral to slightly forward on take-off until tail off ground.
- Stressed skin design, rivets, inspection covers at rear fuselage.
- Particular attention to bulkhead where vertical fin attaches.
- Caution in use of spoiler and brakes as both are effective.
- Brakes grab if used aggressively and can put glider on nose (stick back required).
- Caution spoilers tend to suck out. High sink rates possible.
- Use gear when flying to practice habit of use. Can land with gear retracted if forgotten.
- Visibility poor from back seat.
- Controls harmonized but trim required.
- For ground handling use handles on rear fuselage. Push forward only to avoid damage to vertical fin bulkhead.
- Stall/Spin - slow skidding turns can result in abrupt spin entry, caution with over “ruddering” turns as rudder is very effective
- Note max. pilot weights solo/dual 242/440 lbs.

### **ASW-24**

- Visibility on tow difficult (require 70 vs 65).

- Deploy spoiler during taking up slack (avoid overrunning rope) and during initial takeoff roll to improve aileron effectiveness
- Glider accelerates quickly and need to pay attention to speed control.
- Laminar flow wing can stall abruptly in some attitudes; stall & buffet to stall can be quick.
- Spoilers effective watch out for high rates of descent possible.
- Land tail low. Main and tail wheel at the same time.
- Brake is very effective, use full back stick, ground loop possible.
- Don't push on canopy to test lock, frame only.
- Crack spoilers open when storing glider in hanger and use canopy cover..
- Discuss V speeds and use of spoiler if speed gaining too quickly.
- Good L/D and "polar", if you can see it over the nose you can reach it usually.
- If pitch up on flare close spoilers and hold nose up attitude to reduce sink.
- Lowering nose will cause hard landing & bounce.
- Note max. pilot weight is 242lbs.

### **Puchacz**

- Spoiler handle has short throw compared to ASK-13, care must be taken to visually confirm that only ½ spoiler for landing or high sink rate can develop with full spoiler
- Extra runway length should be used for take-off/obstacle clearance because of higher gross weight of aircraft
- Good L/D at best glide speed but rate of descent will increase dramatically with airspeed
- Controls very well harmonized but pay attention to attitude for speed control (quietest cockpit in the club fleet)
- Aircraft will enter spin quickly. For recovery emphasize OPPOSITE RUDDER MUST BE FIRST APPLIED AND THEN FORWARD STICK
- Emphasize that this is a high energy aircraft and that the pilot needs to be thinking "further ahead" than with the ASK-13 or Blanik.
- Emphasize speed control
- Canopy must be opened by leveraging near centre. Opening from front seat must be done carefully, the canopy can warp. Pry fingers under canopy frame when opening from outside.
- Ensure that witness wire on emergency canopy release is not broken
- Ensure that both sides of elevator are secure during DI.
- Aggressive use of wheel brake will lock the wheel until glider is pushed back
- Note max. pilot weight is 242lbs.

### **ASW -20**

- Aircraft is similar to ASW 24. Pilot should become familiar with speed limits for different flap settings, and with proper flap selection for various flight regimes.
- Select flap position 2 for take-off roll, then position 3 at about 40 kts., or even position 4. Position 4 helps tighten the rope and dips the nose slightly for better visibility.
- Pitch angle changes very little for flap settings range of 1 to 4. Going from 3 to 2 to 1 increases the speed quickly, so watching out for over-speeding is important.
- For most thermalling flap position 4 works well for light wing loading and speed of 46 kts. is about optimum.
- For joining and flying the circuit use flap setting 4.

- Spoilers are effective so most approaches and landings can be performed with flap setting 4 and use of spoilers.
- Flap setting 5 should only be used when the pilot is certain that the threshold can be reached. Reducing the flap setting from 5 to 4 [potentially dangerous because of significant height loss.
- Flap setting of 5 should only be used in moderate cross wind because of reduced aileron control.

### **Junior**

- The aircraft is a tail dragger - therefore more sensitive in crosswind conditions, like L-33.
- Keep it straight on take-off, if not possible, release.
- To avoid PIO during take-off, brace your flying arm on your thigh.
- The aircraft is very clean and picks up speed quickly. Good airspeed management is important, particularly in the circuit.
- The aircraft will spin aggressively with light pilot loads. Spin recovery is standard.
- Side slip with bank up to 30° is effective.
- Side slip with extended air brakes causes significant buffeting, and may severely degrade elevator effectiveness.
- Approach speed should be between 49 and 54 kts, or faster in very strong wind conditions.
- Hold off the glider during landing flare, then land on both wheels at the same time (2-point landing).
- The main wheel is fixed and not sprung. The large wheel size of 400x140 will effectively cushion the touch down.