



Private Aircraft Handbook - 2016

Owen Sound Flight Services Policies and Procedures

Congratulations on owning your own aircraft! You are one of a select few that have made the ultimate commitment to your passion for flying. Learning to fly is an exciting and challenging pursuit, and no matter how many licences or ratings you acquire, a proficient pilot is always in a perpetual state of flight training.

Flying in your own airplane can be a very rewarding experience! Whether you are a new owner, or have been flying your plane for years, OSFS can help you get the most out of your aircraft, and out of your flying education.

For the new owner, there is a steep learning curve that requires an understanding of new requirements regarding Insurance, Maintenance and Storage of your aircraft. In addition, Owen Sound Flight Services also has policies and procedures in place that need to be addressed in order for us to train you in your aircraft.

Our policies and procedures were developed with one main driving force; **The safety of the flight and everyone involved**. Our years of experience have shaped our current mentality as to what constitutes a safe flying environment, and our current policies and procedures utilize this mindset to mitigate risk at every opportunity.

Our Policies are updated regularly, based around new experiences that arise throughout the industry, both in house and nationwide. As the dynamic playing field of aviation transforms, we will adapt our procedures as necessary, and you will be notified of changes to our policies as they come in to effect.

Please take some time to review the this document, as it should serve to clarify a number of questions you might have about learning to fly in your airplane, with Owen Sound Flight Services as your instructors. We are excited to get flying with you, and look forward to many safe adventures in the air to come!

Table of Contents

Definitions	Page 3
Weather Minimums.....	Page 4
Practice Areas	Page 5
Licensed and Non-Licensed Policies	Page 6
Dispatching – Responsibilities and Liabilities.....	Page 7
Making Bookings	Page 8
Signing in and Signing Out	Page 9
Current Training Rates.....	Page 10
Understanding Our Rates	P. 11-13
Expectations	Page 14
Frequently Asked Questions	Page 15
Private Aircraft Document Checklist.....	Page 16
Insurance Binders	Page 17
Aircraft Requirements – Day VFR	Page 18
Aircraft Requirements – VFR OTT	Page 19
Aircraft Requirements – Night VFR.....	Page 20
Aircraft Requirements - IFR	Page 21
Contact Information	Page 22

*** Changes to this version over previous are marked with this symbol**

A/C – Aircraft. Refers to your private aircraft.

After Hours Supervision – The Dispatching, Monitoring, and Post Flight Debriefing or Solo Flights that take place by student pilots in their own aircraft, outside of regular business hours for OSFS Staff. This time is calculated from the time of sign out to the time of sign in. You can expect to be billed for the total duration of this time, based on the current supervision rate.
Solo practice during regular business hours is not charged any fee.

Duty Person – An employee of OSFS delegated as a contact for students, pilots and renters, who shall be notified of departures and arrivals of the aircraft during and/or after business hours as required.

Cross Country Flight – Any flight containing multiple legs. A multiple leg is a flight where a shut down and start-up has initiated at airports other than Owen Sound, when the origin of the flight was Owen Sound. If you fly from Owen Sound to Tobermory and do a touch and go, that is for the purposes of these policies and procedures, not considered by OSFS to be a cross country.

Flight Plan – A record of the flight, filed with London Flight Information Centre (FIC), or the nearest appropriate FIC

Operational Circumstances – Circumstances related to Airport, Airplane or Weather that are beyond our control. Typically used in a negative context, such as “your flight is unfortunately cancelled due to operational circumstances”.

PI – Principal Instructor – The flight instructor that has been assigned to oversee your flight training progress. He or she has the ultimate authority to authorize your for solo training flights, in addition to any other OSFS staff delegated by you PI. You PI is the instructor who will be doing the majority of, or all of your flight training.

CFS – Canada Flight Supplement

FSS – Flight Service Station, sometimes called Flight Information Centre (FIC) or referred to as London Flight Services.

We, Us, Our, OSFS – Refers to the company Owen Sound Flight Services Inc. and it’s staff.

Weather Minimums – Ceiling and Visibility

	Local		Cross-Country	
	Dual	Solo	Dual	Solo
Day	VFR Limits	1500' AGL / 6 sm	VFR Limits	3000' AGL/ +6sm
Night	VFR Limits	2500' AGL / 8 sm	VFR Limits	3000' AGL/ +6sm
	Local – Dual Only		Cross-Country – Dual Only	
IFR	At or above IFR Limits for the appropriate approach.		At or above IFR Limits for the appropriate approach.	
IFR Alternate	VFR or IFR Limits – Whichever is greater		VFR or IFR Limits – Whichever is greater	

* Weather conditions must be stable and expected to remain at or above the minimums stated above. Weather is based on Metar's, TAF's and GFA's for airports near the route of flight.

Maximum 90° Gusting Cross-Wind

Dual - 30 knot / Solo - 15 Knots

Overruled by any limitations of the aircraft

Minimum Surface Temperature

Minus 20° C

Minimum Fuel Requirements

Dual Local	- Required for flight plus VFR Reserve (CARs 602.88)
Dual X/Country	- Required for flight plus VFR Reserve (CARs 602.88)
Solo Local	- Min ½ Tank at Takeoff and ¼ Tank upon landing
Solo X-Country	- Maximum Permissible - Refuel if flight time will exceed ¾ of useable fuel
Minimum 1Hour of fuel remaining upon landing.	

Practice Areas

As defined in the document OSFS Practice Areas

Aircraft Defects

If there are any aircraft defects noticed by the student, it is his/her responsibility to report them to their AME and amend their log books as necessary. **The Principal Instructor must be made aware of the defect and countermeasure implemented before further flight training is commenced.**

Securing Of Aircraft

It is the aircraft owners responsibility after each flight, to properly secure the aircraft as they see best fit.

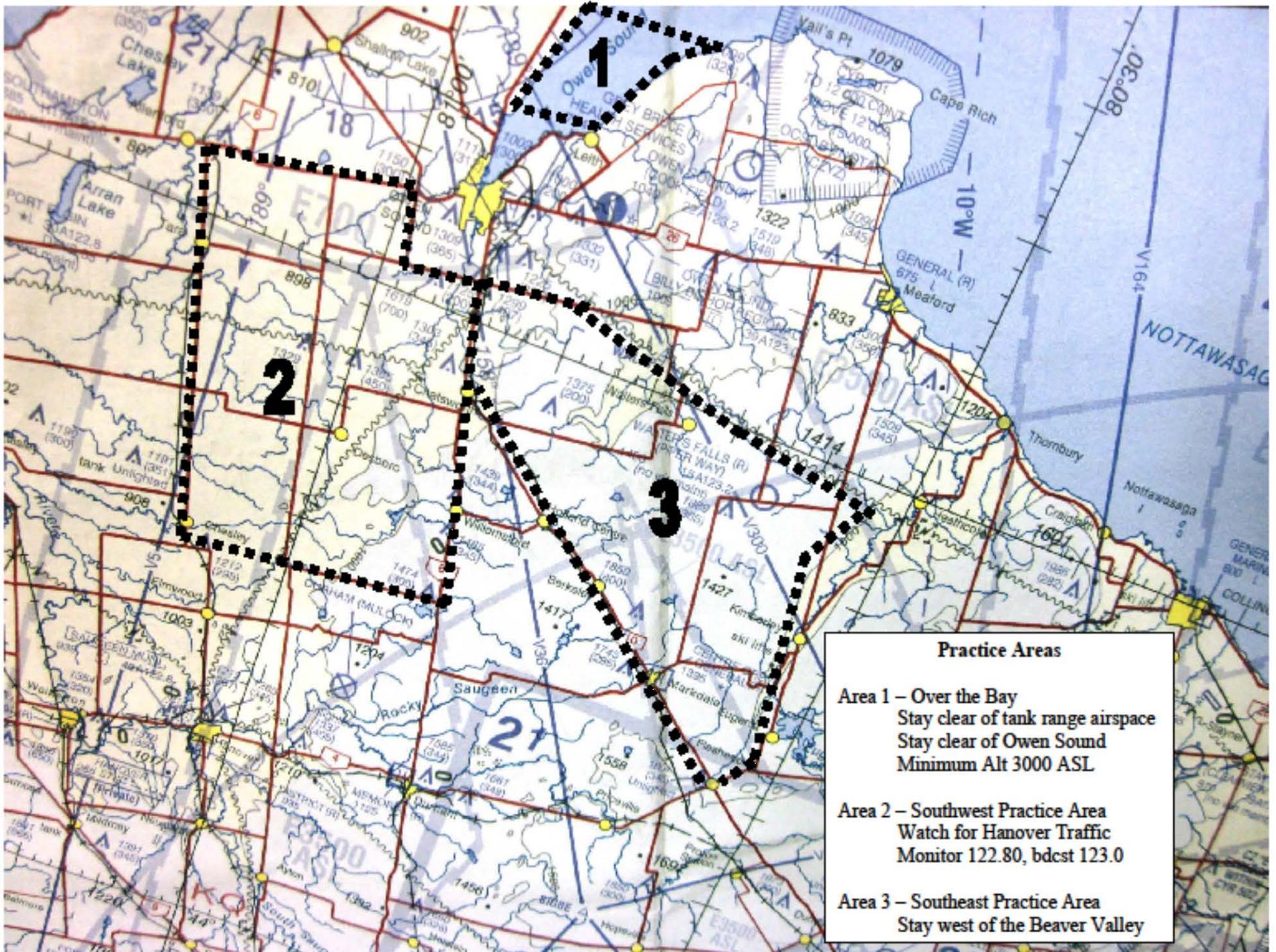
Emergency Landings

In the event of an unscheduled or forced landing, the student should obtain assistance from the nearest available source and contact Owen Sound Flight Services as soon as practicable at 519-372-1259.

Flights Over Water

No flights are permitted to operate over water, except when conducting a take-off or landing, beyond a point where the aircraft could reach shore in the event of an engine failure.

OSFS Practice Areas



Licensed & Non-Licensed Pilots - Policies

If you are a private aircraft owner who **does not yet have a pilot licence**, then **all** policies and procedures in this document apply to you.

If you are a private aircraft owner who **has a valid pilot licence**, then the policies and procedures in this document apply to you only for flights where upgrading instruction is taking place (this includes both Dual and Solo flights).

To clarify through example, if you have a Private Pilot Licence and are working towards a Night Rating, you can certainly come out during the day at your discretion and fly your aircraft whenever you like without the need to involve OSFS.

If however you plan to continue flying into the evening to practice some solo night flying, but do not yet have the Night Rating endorsement, then OSFS policies and procedures must be followed.

In short, as a licensed pilot, you are always able to exercise the privileges of your licence and any ratings within the permissions and parameters of those endorsements. OSFS does not overrule or restrict you from any privileges you already have.

Dispatching – Understanding Responsibility and Liability

Dispatching flights is both a big responsibility and liability for Owen Sound Flight Services, and it is not something we take lightly. Student pilots are sometimes disappointed when we decide not to authorize their solo flights, or when the conditions are not suitable even to fly dual.

Please understand that we want to fly, and we want you to fly, however there are many factors that affect our decision to dispatch a flight. You may feel confident in your ability to fly on any given day, though when your Instructor is analyzing whether to sign you out or not, they are likely considering more criteria than may appear at first glance.

When signing out a student for solo flight training, your instructor is considering the weather for the entire duration of your flight. We are considering the strength and direction of the wind relative to the runway, your experience, skill level and recency. We are considering runway conditions, as well as the busyness of the airport and surrounding airspace in general. We are looking at weather forecasts, radar and satellite imagery with an experienced perspective, knowing that sometimes forecasters are wrong, as we can often pick up on trends that are more subtle than what appear on the surface of a Metar, TAF or GFA.

Generally speaking, we approach dispatching solo flights with a pessimistic outlook. Not because we are negative people, or because we don't want you to fly, but because in our role, we have to plan for the worst and hope for the best. We consider the worst case scenario when authorizing flights because if there was ever an accident or incident, it is us, OSFS, your authorizing instructor and chief flight instructor that have to justify our actions, possibly later in court. It sounds drastic, but that is the reality of our liability. We have to be confident in the uneventful execution and conclusion of each flight, and as a general rule, err on the side of caution.

When the inevitable disappointment of a cancelled flight occurs, try to find something positive to focus on. Take this as an opportunity to learn why we have decided not to dispatch the flight. There is a lot to learn when it comes to interpreting weather and executing a safe flight, and it is our goal to impart this perspective on to you, so that you can evolve to be the one to give the go / no go decision of your flights in future. We encourage you to ask questions, as we are more than happy to give our perspective on our decisions.

Every now and then inevitably, our mindset unfortunately leads to a flight being cancelled when it might have otherwise been ok to fly. This is the casualty of a safe mentality when flying. Ultimately, the old adage applies: It is better to be on the ground wishing you were in the air, than in the air wishing you were on the ground. Let's be safe and make good decisions, from the ground up.

All flights, whether Dual or Solo, need to be booked in advance of the flight.

Making Dual Bookings

Dual bookings can be made during any regular business hours by phone, e-mail, text message with your PI, or through Flight Schedule Pro. After hours bookings can be made through coordination with your PI.

Making Solo Bookings

Solo Bookings need to be made with your Principal Instructors approval. Your PI may assign a secondary instructor who can authorize and monitor your solo flights on days where they are away, or for times they are unavailable, however this Secondary Instructor must be established in advance of the booking to be made.

Solo bookings cannot presently be made through Flight Schedule Pro. You must contact your PI and he/she will make an internal record of when you plan to fly.

You cannot simply show up at the airport on a whim and expect to fly solo during regular business hours if nothing has been coordinated ahead of time. Your instructor may be busy, out flying, or away, and in such cases it is not possible for them to authorize or monitor your flight. Our schedule is published both on our website for 1 month at a time under the menu item: About Us – Our Schedule page, as well as on Flight Schedule Pro.

Cancelling Bookings

If for any reason you need to cancel a booking, we require 24 hours notice for reasons other than operational circumstances. Operational circumstances include inclement weather, airport unsuitability and aircraft unavailability.

Please make every effort to contact your instructor with as much notice as possible if you are unable to make it in for your booking, **whether Dual or Solo**. If you **miss a booking without giving adequate notice**, or an appropriate reason as deemed so by your instructor, you will be subject to a **\$75 No Show Fee**. If you are late for your booking, your instructor may at their discretion, begin charging you the hourly fee from the time your booking was scheduled to start. We don't want to charge these fees. If you respect our time, we will respect yours.

Signing Out and Signing In

As the owner of the aircraft, you have more flexibility regarding when you want to fly, compared to a student renting our aircraft, however there are still some restrictions you need to know about.

All Flights Must Be Authorized

This means that OSFS instructors must talk with you before each flight conducted in your private airplane. We must also talk with you after each flight so that the appropriate Pre and Post Flight Briefings are carried out.

As part of the authorization process, the Sign Out Sheet must be filled out prior to the flight, and signed by both you the student, and your authorizing instructor, indicating the exercises to be practiced. **You are not permitted to deviate from the exercises or Practice Areas discussed with your PI at the time of Authorization without additional permission.**

All Flights Must be Monitored

This means that an instructor must be aware of your flight and must be keeping tabs on you throughout your flight. This can be a different instructor than the one who authorized your flight if the two instructors have discussed the details of your flight prior to signing out.

All Flights Must be Debriefed

This means that after your flight, once your aircraft is secured, you must return to the OSFS office, fill in your flight times and talk with your dispatching instructor in brief or in detail about the events of the flight.

Currency During Training

While you are receiving upgrading instruction as a licensed pilot, or any instruction as a Student Pilot, your currency to fly the aircraft Solo, without the need for more Dual, is 14 days (2 weeks). Your instructor may at any time, require a Dual checkout prior to reaching 2 weeks for any reason deemed necessary by your instructor. This includes but is not limited to: your flying ability, inclement weather, hazardous runway conditions, congested airspace and aircraft airworthiness. It is our intention to ensure your next solo flight is safe and productive.

Our current rates to train you to fly in your aircraft for 2016 are outlined below:

Hourly Rate

In Flight Training in Private Aircraft.....	\$75/hr
Ground Briefings.....	\$75/hr
After Hours Solo Supervision.....	\$35/hr
Business Hours Solo Supervision.....	\$00/hr
No Show Fee.....	\$75.00

Payment Terms

Payment is due when services are rendered.

You must remain up to date, or ahead of your account.

If you wish, you can put money on account, and after each flight an invoice will be provided showing the remaining balance.

We are unfortunately unable to carry a balance owing to us, as it is beyond our financial means to operate with a "Tab" from students.

Payment Options

Payment by Debit, Cheque, E-Mail Money Transfer or Cash is preferred.

Payment by Credit Card is subject to a 2% surcharge.

Our current rate for training you in your own aircraft is higher than our current rate to train students in OSFS aircraft. For the purpose of transparency and understanding, we would like to clarify the reasons why this is the case.

The short answer is that **it costs us more to train you** in your own airplane. Here are some variables to consider.

Pilot in Command

When we step into your aircraft to train you, we are acting as Pilot in Command. This means we take responsibility for the safety of everyone affected by the flight, including you the student, the aircraft, other airplanes in the vicinity and persons and property on the ground. You the student are essentially relieved of accountability in the event of an accident or incident.

To be an effective Pilot in Command, we have to know your aircraft, and we should know it better than you do! This means we have to spend additional time learning the ins and outs of your specific airplane, including Airspeeds, Procedures, Handling Characteristics, Weight and Balance Loading, Crosswind Limitations and the list goes on and on. In order to be effective in your training, we have to maintain a fresh understanding of your aircraft's ability, and your ability, so that we can train you safely.

Record of Documents

We retain on file a record of all your documents to ensure their validity so that when we as PIC are flying in your airplane, the aircraft is in fact airworthy. We have to verify the following before each flight:

- * The Certificate or Airworthiness is valid and onboard
- * The Certificate of Registration is in your name and onboard
- * A Pilot Operating Handbook is available in the cockpit
- * A Weight and Balance for the empty aircraft is valid and on board
- * A Weight and Balance for the flight has been assessed and is within limits
- * The Journey Log has been kept up to date, there are no snags, and it is on board
- * Annual Airworthiness Inspections have been completed on time
- * Out of phase items like Compass Swings and ELT Recertification's have been completed
- * Your aircraft insurance is valid and names OSFS instructors as additional insured
- * Your personal Licence, Permit, Aviation Document Booklet and Medical is valid

Cost of Downtime

When we fly in your aircraft, we don't fly in ours. This means that our airplane is sitting on the ground, not only generating zero revenue, but actually costing us money as we pay fixed annual fees. Granted there are sometimes Rental Pilots who are utilizing our airplanes to fly when we are not in them, however for the most part, this is not often the case as we are simply not busy enough to have our airplanes booked all the time. In the 2016 year, we are currently maintaining documents to fly 13 privately owned aircraft, compared to just 2 in our fleet.

We pay substantial premiums for flight training insurance and commercial level maintenance, in addition to costs associated with providing a flight school to the general public who wish to learn to fly. Paying these fixed costs, to then go and fly another airplane, is not a financially sustainable platform without offsetting the cost of downtime somehow.

This is a big factor for the increased hourly rate to train you in your aircraft. If we did not offset our costs, we would not be able to afford to keep a flight school open, and as a result, we would not be here available to train you in your private aircraft. It's no secret that teaching flying is passion driven, and not financially motivated.

After Hours Supervision

As a private aircraft owner, you will want the freedom to fly your airplane wherever and whenever you want, and rightfully so you will be able to, **but not until you are licenced to do so**. In the meantime, you are restricted to the training schedule we provide for you. We want to try and be flexible and help you reach your goal, so sometimes that means working late or starting early. From spring to fall we are open 7 days a week!

Our Flight Instructors are only paid for billed hours. It's a tough business and a tough start to a flying career. There is a lot of solo time that students need in their own airplanes to become proficient. There are also a lot of schools that "over-dual" their students because the instructors know they don't make any money for sitting on the ground while you fly by yourself.

OSFS is committed to being fair and impartial to your needs for learning, even if it means not making any money ourselves. We don't want to fly with you more than necessary, and believe you can learn a lot when the comfort of an instructor is gone from your side. For this reason we don't charge anything when you are flying Solo during our regular business hours, even despite the significant liability we have while you are flying by yourself, and the flight following that has to be conducted by us while you are in the air. It is our commitment to you to never make flight training decisions based on financial gain, and always drive your training based on quality education and your needs as a student pilot. We are in fact here, for you.

There may be times when you wish to fly by yourself outside of our regular business hours. It seems that everyone is busy in life these days, and sometimes you can only get out to the airplane after work, or on a weekend when we may not be here. We are flexible and can assist you with this request; however for our instructors to come in and spend the time to oversee the safe solo operation of your aircraft from the ground, we will require some compensation, as we are now displaced from our personal lives with family and friends.

The After Hours Supervision fee is an hourly rate for your instructor to be present at the airport while you are flying by yourself in your airplane, outside of regular scheduled working hours. **The hourly rate commences at the time of Sign Out, and is concluded when you have Signed In.** The After Hours Supervision fee for 2016 is \$35/hr.

If you arrive for your solo flight more than 30 minutes beyond the arrival time coordinated with your instructor, without fair reason, the hourly rate will commence and will be added to the time between Sign Out and Sign In.

If your instructor has to travel a significant distance to be at the airport to supervise you, they may at their discretion, and with prior notice and agreement with you, charge a flat fee to travel to and from the airport (which for some instructors is up to 1 Hour of driving each way)!

As Flight Instructors, we are passionate about teaching flying, and we want to teach the World to fly, including you! As pilots, we love airplanes, and are excited at opportunities to diversify our experience in flying all sorts of aircraft. The bottom line is we want to teach you to fly your plane, and if it was any less expensive for us to do so, you would find it less expensive also.

Readiness

Flying is all about timing, and we need you to help us stay on schedule. You are expected to have your aircraft ready for flight at your scheduled booking time. This is relative to the state of your flight training.

If you hold a Pilot Licence or Pilot Permit already, the aircraft should be on the ramp, walked around with the appropriate amount of fuel for the flight to be flown.

If you are still in the initial stages of your training and have not yet been authorized to taxi the aircraft on your own, than having the aircraft ready for flight in the hanger or at the tie down location is acceptable.

Ensure you have authorization from your instructor to operate the aircraft through the means necessary to prepare it for flight. In general, after the first 3 or 4 lessons, student pilots will typically be permitted to taxi their aircraft without the instructor on board.

Aircraft Serviceability

You are expected to make every effort to have a serviceable aircraft ready for the time of your flight. We are aircraft owners too, and we understand that this is not always possible, sometimes defects are not found until the walkaround or start up phase, however there are also often persistent issues that continue to pop up again and again. If this begins to happen, we will stop flying with you until you rectify the problem permanently.

OSFS reserves the right, as acting PIC in your aircraft, to cease flight operations in your aircraft for any safety related issues we see fit. **This includes flying dual, and authorizing you for solo flights.** During your training, it is our discretion as to which snags constitute the grounding or your aircraft from a training standpoint. We will certainly be happy to at any time, discuss these snags with you and your AME to ensure serviceability of your aircraft.

Q: Do you train in Owner Maintenance Aircraft?

A: Negative ghost rider. We only conduct flight training in aircraft that are maintained by a qualified Aviation Maintenance Engineer or Aviation Maintenance Organization.

Q: Since I have my own airplane, can I go flying whenever and wherever I like?

A: If you don't yet have a licence, you unfortunately can't just fly where and when you like, you are subject to our policies and procedures for flying.

If you have a pilot's licence, than you can exercise the privileges of your licence, however if you are flying with us for the purpose of upgrading your licence or adding a rating, than you are subject to our policies and procedures during that portion of the flying.

Q: I have tried calling the office to make a booking but no one has returned my call and I really want to get flying in my airplane, what do I do?

A: Take a deep breath. Then ascertain whether we are working or not. Check Flight Schedule Pro to see if any Instructors are scheduled for the day you want to fly. Alternatively, check our website under About Us – Our Schedule to see a monthly breakdown of when we are working and confirm someone is in on the day you want to fly.

You can send an e-mail to Info@flyos.ca, that comes directly to Dave.

You can also try sending a text message to your Principal Instructor on their cell phone.

There are many ways to get in touch with us, and we certainly want to hear from you. We will make every effort to get back in touch with you as soon as possible.

Q: I have a Student Pilot Permit now, and I want to fly solo when my instructor is working, can I come out and fly?

A: That depends. You need to be authorized by your Principal Instructor and you are subject to the policies and procedures for Signing in and Out. It's not as simple as showing up to fly, there needs to be a coordinated plan for your flight with an appropriate pre-flight briefing. Make sure you talk to your PI in advance of the flight day to ensure he/she will be able to sign you out.

Q: My schedule is too tight and I just can't wait for instructors to be available to sign me out. I already have my student pilot permit and I just want to come out and fly when I want. What's going to happen if I just come out and fly, and then tell you about it after?

A: Flight training is all about trust. You trust us to keep you safe when we are in control of your aircraft, and we trust you to work hard within the confines of our policies and procedures to reach your aviation goals. If we can't trust you, than we can't train you. We will gladly sign off your Pilot Training Record so that you can continue your training with another flight school.

Private Aircraft Documentation Checklist

In order to fly in private aircraft we must have current copies of the following:

- * Proof of Insurance, naming OSFS Flight Instructors as Additional Insured (See Insurance Binder Examples pg. 17 for more information)
- * Copy of Certificate of Registration
- * Copy of Certificate of Airworthiness
- * Access to Pilot Operating Handbook (physical or digital copy)
- * Access to the Journey Log (available every flight)
- * Copy of Aircraft Weight and Balance
- * Copy of current Annual Inspection Report
- * Copy of owners pilot permit, licence, aviation document booklet and medical

Equipment Requirements for Private Aircraft

The aircraft being used for private flight training must have the following:

- * A **dedicated** means of communication for the instructor (Push to Talk)
- * A headset available for the instructor
- * If used for Day VFR, the [CAR's Requirements 605.14](#) (p.18)
- * If used for Night VFR, the [CAR's Requirements 605.16](#) (p.19)
- * If used for VFR OTT, the [CAR's Requirements 605.15](#) (p.20)
- * If used for IFR, the [CAR's Requirements 605.18](#) (p.21)

Every insurance company is a little bit different in the way that they write their legal jargon regarding the insurance of Flight Instructors in your private aircraft. Have a look at some of the acceptable examples below:

VIP Insurance Brokers

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the following:

MAGNES AVIATION MANUSCRIPT

It is hereby agreed that the Policy to which this endorsement is attached is amended as follows:

Owen Sound Flight Services

is hereby included as additional insured with respect to liability insurance, and shall be provided 30 days notice of cancellation, with the exception of 10 days notice of cancellation for nonpayment of premium.

Magnes Insurance Brokers

1. This Policy is amended effective APRIL 29 / 14, as detailed in (a) to (d) below, to permit the use of your aircraft for basic flight training instruction (referred to as "instruction") of the persons listed in (a) below, as follows:-

(a) The definition of "Pleasure and Business" in Paragraph 44(b) of this Policy is amended to include the use of your aircraft for instruction of

Students Name Insert Here

(referred to as the "student").

(b) The instruction must be pursuant to a private pilot licence for the student, must be conducted by a properly qualified flight instructor (referred to as the "instructor") and must be in accordance with all the applicable Transport Canada regulations.

(c) While the aircraft is being used for instruction of the student:

(i) the instructor pilot may act as pilot in command of the aircraft.

(ii) the instructor pilot is added as an Insured under this Policy, but only with respect to Liability Coverage "F" or Coverage "G", whichever you purchased for your aircraft, and only for liability arising out of those operations which are covered by this Policy; and

Global Aerospace Insurance

(c) A pilot providing an approved pilot as shown on the Policy Data Page, with upgrading flight instruction may act as pilot in command of the aircraft. "Upgrading flight instruction" means flight instruction, given strictly in accordance with all applicable Transport Canada regulations, for the purpose of upgrading a valid powered aircraft pilot license held by the pilot shown as approved on the Policy Data Page, and includes instruction or examination for an Instrument Rating, Float Endorsement Aircraft Type Endorsement and Multi-Engine Endorsement.

605.14 No person shall conduct a take-off in a power-driven aircraft for the purpose of day VFR flight unless it is equipped with

- (a) where the aircraft is operated in uncontrolled airspace, an altimeter;
- (b) where the aircraft is operated in controlled airspace, a sensitive altimeter adjustable for barometric pressure;
- (c) an airspeed indicator;
- (d) a magnetic compass or a magnetic direction indicator that operates independently of the aircraft electrical generating system;
- (e) a tachometer for each engine and for each propeller or rotor that has limiting speeds established by the manufacturer;
- (f) an oil pressure indicator for each engine employing an oil pressure system;
- (g) a coolant temperature indicator for each liquid-cooled engine;
- (h) an oil temperature indicator for each air-cooled engine having a separate oil system;
- (i) a manifold pressure gauge for each
 - (i) reciprocating engine equipped with a variable-pitch propeller,
 - (ii) reciprocating engine used to power a helicopter,
 - (iii) supercharged engine, and
 - (iv) turbocharged engine;
- (j) a means for the flight crew, when seated at the flight controls to determine
 - (i) the fuel quantity in each main fuel tank, and
 - (ii) if the aircraft employs retractable landing gear, the position of the landing gear;
- (k) subject to subsections 601.08(2) and 601.09(2), a radiocommunication system adequate to permit two-way communication on the appropriate frequency when the aircraft is operated within
 - (i) Class B, Class C or Class D airspace,
 - (ii) an MF area, unless the aircraft is operated pursuant to subsection 602.97(3), or
 - (iii) the ADIZ;
- (l) where the aircraft is operated under Subpart 4 of this Part, or under Subpart 3, 4 or 5 of Part VII, radiocommunication equipment adequate to permit two-way communication on the appropriate frequency;
- (m) where the aircraft is operated in Class B airspace, radio navigation equipment that will enable it to be operated in accordance with a flight plan; and
- (n) where the aircraft is operated under Subpart 4 of this Part or under Subpart 5 of Part VII, radio navigation equipment that is adequate to receive radio signals from a transmitting facility.

Power-driven Aircraft — VFR OTT

- **605.15** (1) No person shall conduct a take-off in a power-driven aircraft for the purpose of VFR OTT flight unless it is equipped with
 - (a) the equipment referred to in paragraphs 605.14(c) to (j);
 - (b) a sensitive altimeter adjustable for barometric pressure;
 - (c) a means of preventing malfunction caused by icing for each airspeed indicating system;
 - (d) a gyroscopic direction indicator or a stabilized magnetic direction indicator;
 - (e) an attitude indicator;
 - (f) subject to subsection (2), a turn and slip indicator or turn coordinator;
 - (g) where the aircraft is to be operated within the Northern Domestic Airspace, a means of establishing direction that is not dependent on a magnetic source;
 - (h) radiocommunication equipment adequate to permit two-way communication on the appropriate frequency; and
 - (i) radio navigation equipment adequate to permit the aircraft to be navigated safely.
- (2) Where the aircraft is equipped with a third attitude indicator that is usable through flight attitudes of 360° of pitch and roll for an aeroplane, or $\pm 80^\circ$ of pitch and $\pm 120^\circ$ of roll for a helicopter, the aircraft may be equipped with a slip-skid indicator in lieu of a turn and slip indicator or a turn coordinator.

• **605.16** (1) No person shall conduct a take-off in a power-driven aircraft for the purpose of night VFR flight, unless it is equipped with

- (a) the equipment referred to in paragraphs 605.14(c) to (n);
- (b) a sensitive altimeter adjustable for barometric pressure;
- (c) subject to subsection (2), a turn and slip indicator or turn coordinator;
- (d) an adequate source of electrical energy for all of the electrical and radio equipment;
- (e) in respect of every set of fuses of a particular rating that is installed on the aircraft and accessible to the pilot-in-command during flight, a number of spare fuses that is equal to at least 50 per cent of the total number of installed fuses of that rating;
- (f) where the aircraft is operated so that an aerodrome is not visible from the aircraft, a stabilized magnetic direction indicator or a gyroscopic direction indicator;
- (g) where the aircraft is to be operated within the Northern Domestic Airspace, a means of establishing direction that is not dependent on a magnetic source;
- (h) where the aircraft is an airship operated within controlled airspace, radar reflectors attached in such a manner as to be capable of a 360-degree reflection;
- (i) a means of illumination for all of the instruments used to operate the aircraft;
- (j) when carrying passengers, a landing light; and
- (k) position and anti-collision lights that conform to the *Aircraft Equipment and Maintenance Standards*.

• (2) Where the aircraft is equipped with a third attitude indicator that is usable through flight attitudes of 360° of pitch and roll for an aeroplane, or ± 80° of pitch and ± 120° of roll for a helicopter, the aircraft may be equipped with a slip-skid indicator in lieu of a turn and slip indicator or a turn coordinator.

• (3) No person shall operate an aircraft that is equipped with any light that may be mistaken for, or downgrade the conspicuity of, a light in the navigation light system, unless the aircraft is being operated for the purpose of aerial advertising.

• (4) In addition to the equipment requirements specified in subsection (1), no person shall operate an aircraft in night VFR flight under Subpart 4 of this Part or Subparts 2 to 5 of Part VII, unless the aircraft is equipped with

- (a) an attitude indicator;
- (b) a vertical speed indicator;
- (c) a means of preventing malfunction caused by icing for each airspeed indicating system; and
- (d) an outside air temperature gauge.

605.18 No person shall conduct a take-off in a power-driven aircraft for the purpose of IFR flight unless it is equipped with

- (a) when it is operated by day, the equipment required pursuant to paragraphs 605.16(1)(a) to (h);
- (b) when it is operated by night, the equipment required pursuant to paragraphs 605.16(1)(a) to (k);
- (c) an attitude indicator;
- (d) a vertical speed indicator;
- (e) an outside air temperature gauge;
- (f) a means of preventing malfunction caused by icing for each airspeed indicating system;
- (g) a power failure warning device or vacuum indicator that shows the power available to gyroscopic instruments from each power source;
- (h) an alternative source of static pressure for the altimeter, airspeed indicator and vertical speed indicator;
- (i) sufficient radiocommunication equipment to permit the pilot to conduct two-way communications on the appropriate frequency; and
- (j) sufficient radio navigation equipment to permit the pilot, in the event of the failure at any stage of the flight of any item of that equipment, including any associated flight instrument display,
 - (i) to proceed to the destination aerodrome or proceed to another aerodrome that is suitable for landing, and
 - (ii) where the aircraft is operated in IMC, to complete an instrument approach and, if necessary, conduct a missed approach procedure.

Contact List

Owen Sound Flight Services
#203807 Highway 26, R.R. #8
Owen Sound, ON N4K 5W4
Email: Info@flyos.ca
Phone: (519) 372-1259

Dave Kalistchuk
E-Mail: Info@flyos.ca
Cell Phone: 519-270-1659

Owen Sound Airport Manager
Steve Rouse
Email: osairportmgr@bmts.com
Phone: 519-371-6936

London Flight Services 1-866-WX-BRIEF (1-866-992-7433)

I have read, understand and agree to comply with the policies and procedures outlined in pages 1-22 of the 2016 Private Aircraft Handbook for Owen Sound Flight Services.

Student Name

Student Signature

Date