

The Glasgow Flying Club Flying Orders have been amended.

Before flying a club aircraft on or after the revised date (see bottom of page) you **MUST** read, sign and date the Flying Order book.

**Special Temporary Note: NO NIGHT FLYING UNTIL FURTHER NOTICE**

**Chief Flying Instructor**

## Glasgow Flying Club Flying Orders

### Glasgow Flying Club Ltd The Flying Orders

This Flying order book contains all local, administrative and operational requirements and instructions relevant to the safe and efficient operation of all aircraft owned by, leased by or otherwise operated through the Glasgow Flying Club.

The orders and instructions contained within supplement, and should be read in conjunction with, the Air Navigation Order and the UK AIP as amended.

All flying Members and all Instructors will sign, as having read all orders, at least once per year and whenever a new order is published.

Gordon Drummond  
**Chief Flying Instructor**

# Glasgow Flying Club Flying Orders

## CONTENTS

### ORDER

No.1	TAXYING
No.2	OPERATION WITHIN THE AERODROME TRAFFIC CIRCUIT
No.3	LOCAL FLYING AREA
No.4	FLYING OVER BUILT UP AREAS
Nos. 5, 7, 44	AUTHORISATION OF FLIGHTS
No.6	REFUELLING OF AIRCRAFT AND WATER CHECKS
No.8	SECURITY
No.9	LANDING AWAY
No.10	SMOKING, ALCOHOL and MEDICATION
No.11	CARRIAGE AND USE OF LIFE SAVING EQUIPMENT
No.12	HANDLING OF CONTROLS
No.13	DANGER AREAS AND PROHIBITED AIRSPACE
No.14	UNCERTAINTY OF POSITION AND LOST PROCEDURE
No.15	CHECKING OF DOCUMENTS BEFORE FLIGHT
No.16	BOOKING AND CANCELLATION
No.17	AIR TRAFFIC DELAYS
No.18	SPINNING, STALLING AND AEROBATICS
No.19	VISUAL REFERENCE POINTS
No.20	WAKE TURBULENCE
No.21	POWERS OF FLIGHT ADVISORY PANEL
No.22	TAKE-OFF PERFORMANCE
No.23	WEATHER MINIMA
No.24	PRACTICE ENGINE FAILURE AFTER TAKE-OFF – GLASGOW AIRPORT
No.25	CIRCUIT PROCEDURES
No.26	RADIO FAILURE PROCEDURE
No.27	PERSONAL LOGBOOKS & PILOT DOCUMENTATION
No.28	COMBINED FLIGHT AUTHORISATION SHEET & TECHNICAL LOGS
No.29	WEIGHT AND BALANCE
No.30	TAXYING OVER GRASS AND UNEVEN SURFACES
No.31	TAILWHEEL AIRCRAFT
No.32	CURRENT CLUB AIRCRAFT + THOSE ON PRESTWICK CONCESSIONARY LANDING FEE LIST
No.33	USE OF HIGHLANDS AND ISLANDS AIRFIELDS 'OUT OF HOURS'
No.34	LICENCING
No.35	AIRCRAFT DEFECTS
No.35(a)	DAMAGE, OR SUSPECTED DAMAGE TO AIRCRAFT OR FACILITIES
No.36	EXIT/ENTRY LANES
No.37	IMC RATED PILOTS
No.39	REFUELLING & PICKETING
No.40	WIND LIMITS
No.41	AIRCRAFT OVERDUE/MISSING
No.42	METEOROLOGICAL SERVICES
No.43	CUSTOMS CONTROL
No.44	RUN-IN-AND-BREAKS
No.45	AIRCRAFT DOCUMENTATION
No.46	FLIGHT PLANS
No.47	HIGH VISIBILITY VESTS
No.48	CESSNA 172 CHECK-OUT

### WINTER WISDOM

ANNEX A - GLASGOW FLYING CLUB - RESPONSIBILITIES AND PROCEDURES

LETTER OF AGREEMENT BETWEEN - NATIONAL AIR TRAFFIC SERVICES LTD, GLASGOW AIRPORT

SUMMARIZED OPERATIONS MANUALS FOR CLUB AIRCRAFT

GLASGOW FLYING CLUB FIRST SOLO PROCEDURES

## Glasgow Flying Club Flying Orders

ORDER No.1

### TAXYING

After start up checks have been completed, power and pre-take off checks should be completed in Area W before obtaining ATC clearance and taxiing to the appropriate holding point. Before enacting power checks please ensure the engine is adequately warmed-up and that it is clear behind.

When requesting taxi clearance indicate to ATC whether your pre-take-off checks are complete.

Initial holding point will normally be Y1, with the Ground Controller on frequency 121.70 who will issue your Zone Clearance.

Full-length departures on 05/23 will require using the parallel taxiway to Link G for 05 or to Link B for 23 (see airport map attached)

**TAXYING ON THE APRON AND TAXIWAY MUST BE EXECUTED NO FASTER THAN A BRISK WALKING PACE.**

Aircraft must be manoeuvred by use of a tow bar. Particular caution should be exercised if pushing on the propeller. Untrained visitors must not be allowed to manhandle the aircraft and particularly not the propeller.

Aircraft must not be parked blocking the apron or the refuelling point.

All aircraft must be picketed after their last flight of the day, i.e. re-fuelled as required, controls locked, hand brake on, chocked, tied down, weighted down (as appropriate for forecast strong winds) and covers put in place. The last PIC to fly the aircraft is responsible for this duty. If you are the last PIC to fly the aircraft and unsure as to whether you need picket the aircraft, it is YOUR responsibility before leaving the Club to ensure the next person who has the aircraft booked that day, has or is intending to turn up at the Club.

## Glasgow Flying Club Flying Orders

ORDER No.2

### OPERATION WITHIN THE AERODROME TRAFFIC CIRCUIT

Landing lights are to be kept on whilst in the circuit.

By day, landing lights and Anti-Collision lights (where possible) should not be switched on until lining-up on the runway for take-off and should be switched off on vacating the runway after landing.

Navigation lights must be switched on at Sunset, whether in the air or on the ground.

At night, i.e. Sunset + 30 minutes to Sunrise - 30 minutes, it is mandatory to show full navigation lights.

When taxiing at night or in poor visibility, the landing light in addition to the navigation lights and rotating beacon is to be switched on.

## Glasgow Flying Club Flying Orders

ORDER No.3

### LOCAL FLYING AREA

The local flying area (LFA) is that area in the vicinity of Loch Lomond. Operation to the east of Loch Lomond is to be carried out with the least possible annoyance to residents of this area. Practice forced landings should be carried out with the above in mind. On no account must pilots fly within 500 feet of any person, vessel, vehicle or structure (Rule 5). Bear in mind that your altitude is above mean sea level and local terrain must be taken into account.

Club A/C Flying to Cumbernauld must state if they intend to land (or carry out Touch and Go's) when booking out from Glasgow.

## Glasgow Flying Club Flying Orders

ORDER No.4

### FLYING OVER BUILT UP AREAS

Pilots must ensure when flying over built up areas that they have sufficient altitude to glide to a suitable landing area, should the engine fail. The CAA have deemed that park-land and other vacant areas in cities and towns are still within built up areas, therefore should the engine fail you should not land in that area, but around the periphery of the built up area. If ATC impose an altitude restriction, you should aim to route around the built up area.

Accepting an offer by Glasgow ATC for clearance to route via Glasgow city centre does NOT exempt you from Rule 5. Flying via the city centre in a single engine a/c, should the engine fail, you will be in breach of Rule 5. For this reason, flights via Glasgow city centre are not recommended. You are PIC, it's your decision!

## Glasgow Flying Club Flying Orders

ORDER No. 6

### REFUELLING OF AIRCRAFT AND WATER CHECKS

CAP 748, Chapter 2 states that in general, passengers should be disembarked prior to the commencement of fuelling. Whilst it is not expected that Club pilots should have knowledge of CAP 748, they are instructed to adhere to the above when carrying out re-fuelling operations.

### WATER CHECKS

Prior to the first flight of the day and when aircraft are refuelled, a sample of fuel is to be drained from each tank and checked for water contamination. Whenever possible aircraft should be refuelled to the tabs at the cessation of flying. If tanks are left overnight partly filled, condensation may occur inside the fuel tanks. Prior to the first refuelling of the day make sure that the bowser has had a water check done and that it has been signed off on the fuel delivery sheet. The fuel sample should be placed in the bottle corresponding to the day of the week it was taken and kept for a minimum of 7 days. The sample bottles are kept in the brown wooden box adjacent to the bowser.

See also the instructions for the bowser.

## Glasgow Flying Club Flying Orders

ORDER Nos. 5, 7, 44

### **AUTHORISATION OF FLIGHTS**

All instructional flights must be authorised by an Instructor.

Only full rated Instructors (FI's) may authorise:

- (A) Student First Solo
- (B) Student First Solo Cross Country
- (C) PPL First Solo by Night

FI (Restricted) Instructors must have approval of the duty FI before undertaking any flights with student pilots.

All PPL Students must obtain authorization for their flights from an Instructor.

### **SELF-AUTHORISATION**

PPL's may self authorize when the weather is within the following limits:

- visibility: 10km or more;
- cloud base: 2000ft AGL or above;
- wind: maximum headwind 15kts, maximum crosswind component 7kts

When the weather is outside the above limits, unless the PPL has self-authorising privileges (please see below) flights **must** be authorised by a GFC Instructor.

### **SELF-AUTHORISING PRIVILEGES WHEN WEATHER OUTSIDE ABOVE LIMITS**

To obtain self-authorisation privileges to fly outside the above stated weather limits pilots must apply to an FI (not FI(R)), who will satisfy himself/herself that the applicant has the ability and knowledge for safe operation of flights.

This does not imply that those who are not self authorising are not capable pilots.

The applicants knowledge will be tested by means of a short oral examination on the following subjects: (1) Meteorology (2) Use of AIP and AIC's (3) Flight Manual for Operation of the Type (4) Weight and Balance (5) Navigation (6) Air Law.

Pilots may apply for self-authorisation privileges when they have 100hr TT of which 40 hrs are pilot in command

**Pilots who hold a current IMC Rating are by default deemed to be self-authorizing and need not undergo the above knowledge test.**

### **CURRENCY**

All club pilots require to have flown club type aircraft from GFC within the preceding 60 days, or 90 days in the case of GFC instructors on any GFC type aircraft, to remain GFC current on that type. If club pilots wish non GFC aircraft and / or flying experience to satisfy this requirement, before they fly GFC aircraft, they must present their logbook to a GFC

## Glasgow Flying Club Flying Orders

ORDER Nos. 5, 7, 44 (continued)

instructor and receive confirmation that the flying involved and the aircraft type flown is acceptable. In addition to this logbook presentation the club pilot must ask for and receive from the GFC instructor a briefing covering any changes in Glasgow Airport / area and GFC procedures since last flying an aircraft from Glasgow Airport. Pilots failing to meet any of these requirements must undergo a competency check with an instructor.

PPL's requiring authorisation to fly when no Instructor is present on the airfield and the weather is outside the above noted limits, can obtain authorisation from any of the Instructors at their contact telephone number, which will be on the operations room board. Only authorised flying Instructors, approved by the CFI may sign out PPLs.

In addition all Pilots in Command require to fully comply with any additional conditions laid down by aircraft owners as stated in the aircraft Technical Logs.

The list of Club approved Instructors is given below.

FI(A) : Liz Stevenson; John Goodwin; Stuart Houston; Derek Fox; Hamish Mitchell;  
Gordon Drummond.

### **Note:**

**Stuart Houston** and **Derek Fox** are restricted Instructors.

**Hamish Mitchell** is a "Class Rating Instructor" (CRI) and is restricted to non ab initio SEP Class instruction. Hamish is not a holder of a Commercial Pilot's Licence and can therefore not receive payment for instructional work. The Committee have agreed that instructional flights with Hamish will incur instructional costs at the current instructional rate. These costs will be collected into an Instructor fund. The fund will be used in agreement of the CFI and the collective Instructor group to cover costs in maintaining / improving Instructional Standards at the flying club.

The remaining Instructors on the above list are unrestricted and are willing to supervise restricted instructors when required to do so.

## Glasgow Flying Club Flying Orders

ORDER No. 8

### SECURITY.

As a result of Government Legislation, all persons entering restricted areas of the airport will be searched by BAA Security Personnel. Area WHISKY, outside the Flying Club, is termed a secondary restricted area and all club members have access to the apron via the security gate, **WHICH MUST BE KEPT LOCKED AT ALL TIMES**. Only persons who have signed the Temporary Membership Register, i.e. passengers with a PPL or Trial Lessons will be allowed onto the apron, and must be accompanied by a member of the club at all times. Pilots must carry their license and club membership card at all times when on the airfield.

**No members of the public are allowed onto the apron to take photographs etc.**

If you are the last club member to leave the clubhouse, whether to fly or otherwise, you must secure (alarm and lock) the clubhouse. Members of the public under no circumstances are to be left in the clubhouse unaccompanied by a club member. In such circumstances, if you are the last member to leave the clubhouse, politely ask the members of public to leave the premises and secure the clubhouse.

Pilots should also be aware that when flying after dark when the clubhouse is unoccupied, the main compound gates must be closed and padlocked before going airside.

## Glasgow Flying Club Flying Orders

ORDER No. 9

### LANDING AWAY

Only recognised airfields are to be used by club aircraft, typically those listed in the AIP. Landings in fields, whether or not permission is given by the owner, must be authorised by the Chief Flying Instructor or an FI. In the event of an emergency landing being made in a field, the pilot is to contact a Club FI by telephone for further instructions. The FI will then decide what action is to be taken.

The following airfields may be used, subject to the correct procedures being adopted in the case of PPO and PPR :

All licensed airfields.

Unlicensed airfields may be used, subject to the appropriate dual check or briefing by an Instructor.

Students flying solo cross-country flights must have been briefed by the duty Instructor, and the solo briefing certificate duly completed and signed. Student pilots are allowed to land only at licensed airfields.

## Glasgow Flying Club Flying Orders

ORDER No. 10

### SMOKING, *MOBILE TELEPHONES*, ALCOHOL and MEDICATION

No person is permitted to smoke within 100 feet of aircraft on the ground *or the fuel bowser*. Smoking is not permitted in any of the club aircraft at any time.

*Mobile telephones must not be used in the vicinity of the fuel bowser. Mobile telephones must be switched off whilst in club aircraft.*

Pilots are strictly forbidden to fly club-operated aircraft after consuming alcohol. It has been proven that even small amounts of alcohol can affect judgment. Pilots must not consume alcohol within 8 hours before flight, and it is recommended that no alcohol be consumed within 24 hours.

Pilots on medication should not fly unless their GP deems it is safe to do so. If your GP is in doubt, you should consult your CAA Authorised Medical Examiner for further information.

Pilots should also be aware that certain food additives are known to cause dizziness, fatigue etc., if taken in excess (i.e. coffee, diet coke which contain caffeine and nutrasweet respectively).

Pilots who undertake Scuba diving should not fly for at least 24 hours after their last dive.

## Glasgow Flying Club Flying Orders

ORDER No. 11

### CARRIAGE AND USE OF LIFE SAVING EQUIPMENT

Club Pilots are to ensure that life saving equipment is carried for all flights out with gliding distance of a suitable landing area where a dry landing can be made. The pilot in charge must wear a lifejacket for all flights over water irrespective of altitude. Passengers must be instructed in the use of life-saving equipment and if the flight is to be operated below 3000 feet over water, jackets must be worn. For operation from airfields where the approach or take-off path is over water i.e. Mull, Connel, Skye etc. life jackets are to be donned prior to take-off or intermediate approach. Pilots are requested to make a donation for the upkeep of flying club life jackets. Any club member who loses such life saving equipment will be held responsible and must pay for its replacement.

## Glasgow Flying Club Flying Orders

ORDER No. 12

### HANDLING OF CONTROLS

Only club pilots may handle the controls of aircraft. When 2 pilots are sharing a flight the authorisation sheet must show for each leg of the flight who is the Captain of the aircraft. That person will be held responsible for the conduct of the flight. In the event of an emergency landing the Captain of the aircraft must take control of the aircraft, the other pilot should not interfere with the operation in any way.

## Glasgow Flying Club Flying Orders

ORDER No. 13

### DANGER AREAS AND PROHIBITED AIRSPACE

Consult UK AIP ENR 5 and supporting information.

NOTAMS should be checked when a cross-country flight is contemplated

The following areas close to Glasgow may affect local flights:

- Area P611 Prohibited Area Coulport. Surface to 2200 feet
- Area D601 Danger Area Garelochhead. Active when notified, up to 4000 AMSL
- Area D602 Danger Area North of Dunblane. Active when notified, up to 2500 AMSL.
- Area R515 Restricted Area Hunterston Nuclear Power Station, surface to 2000 AMSL, 2nm radius.

Information regarding D601/D602 can be obtained by telephoning ATC 828029 or 828162 or via the Website.

## Glasgow Flying Club Flying Orders

### ORDER No. 14 (Continued)

7. If no aid is received, and a positive fix is not established, then make a positive decision to carry out a square search or fly to an obvious line feature from which to navigate or carry out an emergency landing.

8. Check WIND VELOCITY. Check that the forecast wind roughly coincides with indications on the ground or water, e.g. smoke or wind lanes. It may be that these checks will reveal an obvious error.

### IF NOT IN VISUAL CONTACT

A descent to Safety Altitude may be made at any time and if you achieve visual contact continue as above.

These procedures cover the action to be taken when lost. If ever uncertain of position admit it early and USE YOUR RADIO repeatedly even if no answer is received initially - someone may hear you eventually. PROMPT ACTION IS VITAL ! If unable to receive a response from an F.I.S. controller or ATC at a suitable airfield, transmit that you are changing to the emergency D&D Frequency of 121.50 MHz. A listening watch is maintained 24 hours a day on this frequency.

ORDER No. 14

UNCERTAINTY OF POSITION AND LOST PROCEDURE

During any form of navigation there will be times when a pilot will not be able to fix his exact position by reference to his map and the ground features being over flown. When navigating, if a particular check point is not identified on time it may be due to a number of reasons. In this situation the pilot should initially assume that the checkpoint has been over flown and continue to maintain his heading until the next check point is identified. In the event of the second checkpoint not being identified, it can be assumed that a situation is developing where the use of the lost procedure should be adopted.

ASSESSMENT OF DR POSITION

If uncertain of your position for a period greater than 15 minutes, and no radio contact is possible, then a circle of uncertainty should be drawn on the chart after the following have been checked.

1. Check compass and heading indicator
2. Fly for range, or if sufficient fuel available, fly at low safe cruise.
3. If no appreciable heading discrepancy is found, continue on calculated heading, and establish a circle of uncertainty (see below), based on the actual heading flown, then attempt to fix position by turning towards the nearest distinctive feature.
4. When a positive fix is obtained, estimate a new heading to regain track or destination.

CIRCLE OF UNCERTAINTY

From the last known positive fix, plot your track made good for the time period from the fix. Draw a circle with a radius of 5 nm from this point. The aircraft should be in the area bounded by this circle. Now adopt the following procedure:

1. Read from Ground to Chart.
2. Try to distinguish a prominent ground feature.
3. If cloud ceiling permits, climb to a higher altitude. This will make ground features in the area easier to find.
4. If unable to fix your position carry out the LOST PROCEDURE.

LOST PROCEDURE:

1. Admit you are lost.
2. Check fuel remaining and estimate endurance.
3. Check and climb if necessary to your safety altitude.
4. Calculate daylight remaining.
5. Recheck flight log for errors, and recheck your DI against the Magnetic Compass.
6. Use the radio on the frequency in use, and if no reply, change to the distress frequency. Remember VHF is line of sight, and the higher the altitude, the greater the reception range.

## Glasgow Flying Club Flying Orders

ORDER No. 16

### BOOKING AND CANCELLATION

Bookings may be made in advance by telephone or in person. The bookings book is kept either in the main clubroom or in the operations room. When advance bookings are transferred to the bookings board the relevant page of the book is crossed out, only an authorised person may alter the bookings board unless when asked to cross out their name.

Pilots who put their own name in the book should make sure that there is an Instructor available to cover the detail. If a provisional booking is made subject to Instructor availability a contact number should be entered at the time the booking is made. If you require to be notified of cancellation then put name and telephone number on the right hand side of the page. Our aim is to achieve better Instructor and aircraft utilisation. If we cannot achieve this then flying rates may have to be increased.

If a cancellation is required then the person concerned should inform the club by 16.30 hours on the day prior to the day on which the flight was to take place. After 17.00 hours the office is closed and there may not be anyone in authority to notify. The onus in this case will be on the member to contact the Instructor concerned and save him an unnecessary journey. In the case of a part time Instructor who may have to come a long way to instruct on his day off this would be considered common courtesy.

A list of Instructors' telephone numbers is kept in the Flight Operations room.

**On the actual day of a booked flight, should the pilot responsible for booking a club aircraft decide not to fly, for whatever reason, it is their responsibility to notify the Club immediate to making that decision. As a minimum, this may require you to leave a message on the Club voice mail system. Failure to comply with this Order may result in a fine for no show.**

### NO SHOWS

Members should be prepared for their flight 20 minutes prior to their booking. Members who regularly fail to arrive for their bookings, or who consistently arrive late may have subsequent bookings cancelled without notice. Bookings are for an aircraft at a particular time, not a claim on a type or an order of flying. If the pilot is not ready for a flight at the start of his booking, the booking may go to any other person available.

The Chief Flying Instructor reserves the right to levy a fine to a pilot who fails to turn up for a flight when he/she has not previously cancelled the flight in good time and in the proper manner.

**Special Note:** owners of GBSYZ have very kindly agreed they will give a minimum of 5 complete days notice in advance of over-riding a booking made by a non-owner of the aircraft.

## Glasgow Flying Club Flying Orders

ORDER No. 15

### CHECKING OF DOCUMENTS BEFORE FLIGHT

1 The Captain of the aircraft is responsible for checking that all relevant documents are valid.

2 The Captain is also to satisfy him/herself that any defects recorded on the authorisation sheet have been rectified and signed off by a licensed engineer. Certain defects are considered to be allowable. If a defect is noted and the pilot is not sure that such a defect is allowable, they must consult an Instructor or licensed engineer.

3 The following is a list of documents which must be checked:

1. Certificate of Airworthiness
2. Certificate of Registration
3. Aircraft Radio License
4. Certificate of Insurance
5. Certificate of Release to Service (CRS) and Certificate of Maintenance Review
6. Authorisation Sheets: Daily inspection (Check "A") signed for and defects noted

All the above documents are contained in the Authorisation binder. If they are found to be missing, inform an Instructor.

All persons flying in club aircraft from GFC must be club members either by holding a valid paid up membership or by completing a temporary membership book entry for the flight - as appropriate for that flight. Integrated into each type of club membership is a cost allowance for an aircraft insurance excess waiver. Instructors and examiners operating from GFC do not require to pay the insurance excess waiver if the flight involved is already covered in this respect by the membership of another GFC pilot flying (trial flying lesson prices do not include an insurance excess waiver cost allowance). If, for whatever reason, the excess waiver has not been paid the Pilot in Command, who would be the Instructor if on a training flight, would be liable to pay the insurance excess in the event of an accident or damage to the aircraft.

If an instructor member wishes to fly as Pilot In Command from GFC on any non instructional or non maintenance flight they are required to have paid an insurance excess waiver fee and hold an appropriate valid paid up alternative GFC membership unless formally authorised otherwise by the GFC committee.

## Glasgow Flying Club Flying Orders

ORDER No. 18

### SPINNING, STALLING AND AEROBATICS

1. Intentional solo stalling and spinning by student pilots is strictly forbidden.
2. The above operations must not be allowed to continue below 3000 feet above terrain. Exceptionally, Instructors may use their discretion when demonstrating a stalling exercise.
3. Pilots are instructed not to carry out the above exercises within 5 nautical miles of advisory routes N560D, N580D and A1D, or within the Scottish TMA.
4. HASELL checks are to be carried out prior to these exercises.

### FORMATION FLYING

No formation flying is permitted unless approval has been obtained from the CFI.

## Glasgow Flying Club Flying Orders

ORDER No. 17

### AIR TRAFFIC DELAYS

Due to the increased amount of Commercial Traffic at Glasgow, ATC are imposing from time to time, delays at the holding point for up to 30 minutes, and will restrict the number of aircraft in the circuit as follows.

Local Time	Number of Aircraft
0000-1100	Nil
1100-1300	Two
1300-1600	One (Mon-Fri), Two (Sat-Sun)
1600-1700	Two
1700-1900	Nil
1900-2200	Two
2200-2400	Nil

The peak traffic times are 0800-1000 and 1600-1900 hours midweek. Pilots may ascertain any possible delays by asking ATC when they book out. Instrument Training Flights are also being restricted to one aircraft per hour at Glasgow if filed on an IFR Flight Plan. ATC will accept, subject to met conditions and traffic flow, aircraft undertaking I/F training if flying under VFR.

## Glasgow Flying Club Flying Orders

ORDER No. 19

### VISUAL REFERENCE POINTS

Pilots should familiarise themselves with the following visual reference points within the vicinity of Glasgow Airport and the Control Zone:

Greenock	Erskine Bridge
Inverkip	Kilmacolm
Alexandria	Kingston Bridge
Barrhead	Stewarton
Beith	East Kilbride
Bishopton	Baillieston
Newmilns	Strathaven
Dumbarton	Coatbridge
Kilmarnock	

ATC may ask pilots to hold (orbit), or route via these visual reference points to the airfield. Pilots routing to Glasgow from Cumbernauld airfield should contact Glasgow Approach when approaching Kilsyth, and must not enter the CTZ without ATC permission. Pilots should also note that hang-gliding operations are conducted to the north of Lennoxton on the Campsie Hills; this area should be avoided if hang-gliding operations are taking place.

## Glasgow Flying Club Flying Orders

ORDER No.20

### WAKE TURBULENCE

Pilots must always be aware of wake turbulence when operating in the vicinity of larger aircraft. The heavier the preceding aircraft the more severe will be the turbulence produced by wingtip vortices which are always present when lift is being produced.

Aeronautical Information Circular No: P18/2009, gives details in graphic form in addition to recommended spacing. As a general rule always fly above the flight path of a heavier aircraft. When landing, aim to land upwind of the point the preceding landing aircraft touched down, or downwind of the preceding departing aircraft's point of rotation. Special care is necessary when carrying out a touch and go after a heavier aircraft has departed and when operating on crossing runways and departing from intersections.

## Glasgow Flying Club Flying Orders

ORDER No. 21

### POWERS OF CHIEF FLYING INSTRUCTOR

The Chief Flying Instructor has the final decision regarding all matters of flying discipline and safety.

## Glasgow Flying Club Flying Orders

ORDER No. 22

### TAKE-OFF PERFORMANCE

Pilots must always be aware of reduced take-off performances when operating from grass airfields and runway surfaces which have deposits of snow, slush or standing water.

Aeronautical Information Circular No: 127(P110)/06, gives useful information for light aircraft operators if planning to take-off or land on short runways. The flight manual for the type of aircraft gives details of the expected performance in terms of take-off distance and landing distance to clear a nominal 50 ft obstacle. The figures obtained should then be increased by the amounts stated in the circular. Note also the effect of up-slope and down-slope and the prevailing wind. Always check for and remove deposits of ice or snow on the airframe before attempting flight. Even slight deposits can seriously affect the aircraft's ability to fly!

## Glasgow Flying Club Flying Orders

ORDER No. 23

### WEATHER MINIMA

All pilots are reminded of the privilege of their licenses and ratings with regard to weather minima, which they can find in the ANO (Schedule 8 & 9).

### PPL's

The Glasgow Control Zone is Class D airspace and the minimum visibility for VFR flight is 5km, for SVFR (day) flight 3km and SVFR (night) flight 10km on Entry/Exit lanes and in the A72, otherwise 10km.

The minimum visibility is 3km outside CAS.

### STUDENT PILOTS

Student Pilots have the following weather limitations imposed when flying solo:

1 For flight to LFA: 1500 ft cloud base 10km visibility

2 Circuits: 1200 ft cloud base 10km visibility

3 Navigation: 2000 ft cloud base 10km visibility

Student Pilots are not permitted to fly solo if the surface wind exceeds 20 knots, or the crosswind component exceeds 5 knots.

## Glasgow Flying Club Flying Orders

ORDER No. 24

### PRACTICE ENGINE FAILURE AFTER TAKE-OFF - GLASGOW AIRPORT

This exercise may only be carried out with an Instructor on board the aircraft.

Runway 05 The exercise is to be terminated and the aircraft climbing before reaching the displaced threshold of Runway 23.

Runway 23 The exercise is to be terminated and the aircraft climbing before reaching the fixed distance markers at the 05 end of the runway.

## Glasgow Flying Club Flying Orders

ORDER No. 25

### CIRCUIT PROCEDURES

When operating in the circuit a standard pattern should be flown. Turns into crosswind leg should be initiated at 500 feet or end of runway, whichever is the latter, and the aircraft leveled at 1000 feet airfield QFE. However, in order to maintain spacing from other aircraft in the circuit it may be necessary to fly further into wind and turn crosswind at a higher altitude than 500 feet. Any deviation from the norm must be notified to ATC. It is expected that an aircraft in the circuit will descend for approach and either overshoot, stop/go, touch and go or land. The correct position to turn base leg will depend on the exercise being practiced. ATC may ask aircraft to carry out non-standard manoeuvres e.g. early turn onto crosswind leg, or to “keep it tight” on base leg.

Orbits at beginning of or end of downwind leg are frequently given but pilots should never be given an orbit on final approach. Any pilot who receives this instruction is to inform an FI who will take up the matter with ATC. The correct procedure is to go-around not below 200 feet or as advised by ATC and having reached a safe height, execute a climbing turn to re-position on base leg. This type of clearance will be issued so as to avoid over flying an aircraft on the runway lined up ready for take-off.

High glide circuits should be carried out from 1500 feet AAL downwind, and pilots must advise ATC of their intentions to fly high glide circuits.

# Glasgow Flying Club Flying Orders

ORDER No. 26

## RADIO FAILURE PROCEDURE

The following procedures are to be adopted in the event of a radio failure:

Check that volumes and correct frequency are set, check headset, use microphone if available, and then carry out the procedure according to circumstances set out below:

### CIRCUITS

Aircraft experiencing radio failure whilst in the circuit will, unless receiving landing clearance by light signal when on final approach, initiate a missed approach, fly overhead the runway at 400 ft QFE minimum, rocking the aircraft wings to indicate radio failure, and continue in the circuit awaiting landing clearance by light signal.

### LOCAL FLYING VFR

Aircraft experiencing radio failure whilst flying VFR outside the circuit, either in the FIR or in the Scottish Control Zone, may elect to return to the airport provided that the aircraft has not landed elsewhere. The returning aircraft will route to either **DUMBARTON or BARRHEAD** at or below **2000 ft QNH** maintaining VFR. On reaching one of these points the aircraft will **orbit for 6 minutes** unless onward clearance is obtained from ATC either by light signal or RTF broadcasts. On completion of this delaying manoeuvre the aircraft will establish the runway in use and join the circuit descending, and adopt the procedure for circuit traffic. Aircraft approaching from Barrhead should remain south of the main runway and its approaches and aircraft approaching from Dumbarton should remain north of the main runway and its approaches until joining the circuit. The pilot must:

- 1 Transmit blind position reports and in addition broadcast intentions.
- 2 If possible listen to ATIS broadcast on 129.575 to establish runway in use etc. ATC may also use ATIS to broadcast instructions.
- 3 If transponder equipped, squawk the appropriate code: 7600
- 4 Attempt to draw attention to the aircraft.

### LOCAL FLYING SPECIAL VFR

NOTE: These procedures are a local exemption from the provisions of ENR 1.2.

For aircraft experiencing radio failure whilst operating in accordance with, or requiring, a Special VFR clearance the following conditions will apply:

- 1 Outbound aircraft will continue as cleared to the Control Zone boundary and, except as detailed in sub-para (3) below, will land outside the control zone.
- 2 Aircraft operating outside the Control Zone and requiring a Special VFR entry clearance will, except as detailed in sub-para (3) below, land outside the Control Zone.
- 3 Aircraft on local flights which anticipate requiring a Special VFR clearance to re-enter the Control Zone may pass to ATC an ETA for the Control Zone boundary at Alexandria/East Kilbride. Provided that ATC have acknowledged that ETA the aircraft may make good that ETA at Alexandria/East Kilbride and proceed as though a Special VFR entry clearance not above 2000 ft (appropriate to the same runway as the initial departure) had been received, as detailed in sub-para (4) below.
- 4 Aircraft in receipt of a Special VFR entry clearance (or as detailed in sub-para (3) above) will continue in accordance with that clearance from the Control Zone boundary to the airfield and land as soon as possible, keeping a watch for visual signals when in the aerodrome traffic circuit.
- 5 When a visual reporting point within the Control Zone is specified as a Clearance Limit, an onward clearance time must be issued as part of the Special VFR Clearance. In the event of radio failure the aircraft will hold at the specified Visual Reference Point until the onward clearance time and then proceed to the airfield in accordance with procedures outlined in the paragraph on local VFR flying.

## Glasgow Flying Club Flying Orders

ORDER No. 27

### PERSONAL LOGBOOKS

- (1) A Pilot's Logbook is a Legal Document.
- (2) Anyone wishing to qualify for a license or renewal of a rating/rating must produce logbook evidence of flying experience.
- (3) A person who has completed a course of flying should present his/her logbook for an authorised examiner's signature before the logbook is sent to the C.A.A.
- (4) Having checked the evidence produced the CAA provides a Certificate of Test for the license.
- (5) The Certificate of Test will validate the license for a period of 24 months (Private Pilots License) from the date of test.
- (6) Before the initial period of 24 months expires the logbook must be presented to an authorised examiner who must satisfy themselves that the holder has acquired the appropriate experience (minimum 12 hours in the 2<sup>nd</sup> year of which 6 hours must be solo and 12 take-offs and landings, plus 1 hour dual with an Instructor).
- (7) Before carrying passengers a pilot must have done 3 take-offs and landings in the last 90 days of which one must be at night if passengers are to be carried at night.
- (8) It is the holder's responsibility to ensure that his/her license and logbook are in order.
- (9) Anyone without a valid certificate of test or experience must not fly a club aircraft. An authorised examiner should be consulted on the correct course of action to be taken to make his or her license valid.
- (10) Before flying with another organisation it will be in the pilot's interest to obtain a Glasgow Flying Club Stamp signed by a GFC Instructor certifying hours claimed.

### PILOT DOCUMENTATION

It is clearly the responsibility of all licensed pilots to ensure their documentation is up-to-date and signed before flying. Failure to do so would, for example, invalidate the aircraft insurance in the event of an accident.

There have been a number of recent occurrences where it has been discovered that pilot documentation of a licensed pilot and member of GFC is no longer current.

To minimize the likely hood of future such occurrences, GFC FI's have now been asked by the CFI to randomly check licensed pilot documentation. Should you be asked by a GFC FI to present your documentation, we ask for your understanding. Such a request is no reflection of you, BUT, is for the protection and safety of all GFC pilots, members, a/c owners and the general public.

## Glasgow Flying Club Flying Orders

ORDER No. 28

### COMBINED FLIGHT AUTHORISATION SHEET & TECHNICAL LOGS

It is a legal requirement that the above Logs are completed accurately. They form part of the CAA Light Aircraft Maintenance Schedule Requirements for the Certificate of Airworthiness (Transport Category). The system requires a series of checks to be carried out, as follows:

Check 'A' - This is a legal requirement to daily validate the a/c C of A. The detail of the check is listed in the a/c Flight Manual. It must be carried out before first flight of the day by a responsible person as per expanded checklist for type;

50 Hr Check - To be carried out at periods not exceeding 50 flying hours or 6 months whichever comes first;

150 Hr Check – 6 months;

Annual Check No flying time limits.

PPLs upwards may only carry out the Check 'A'. The name of the person completing the check should be written in the top right hand corner of the Technical Log before flying. Instructors are to ensure that the Technical Log is completed correctly at the time authorisation is given for solo flights. In addition to Check 'A' the Aircraft Documents must be checked and the following information included in the Logs:

- (1) Top left hand corner - Aircraft Registration, date next check due, and type of check required (not type of aircraft).
- (2) Date applicable
- (3) Hours left to next check.
- (4) Allowable defects noted. After flying, all pilots are to ensure that the defect section is completed correctly. If no defects state 'Nil'. In any event a signature must be included.

Provided that the aircraft is within calendar limits, club aircraft may be provided with an extension on flying hours, upon satisfactory inspection by an authorised engineer.

Oil quantities must also be recorded in the tech. log along with fuel quantities remaining, and any fuel uplifts. The purpose of this is to establish the oil consumption, which indicates possible engine problems.

## Glasgow Flying Club Flying Orders

ORDER No. 29

### WEIGHT AND BALANCE

Before all flights the pilot is to ensure that the aircraft is loaded correctly and that the aircraft is within the approved weight and centre of gravity limits. Details of weight and balance determination for all aircraft are to be found in the appropriate Weight and Balance sections of the various flight manuals, or the Weight and Balance schedule in the aircraft Tech Log.

**It is unlikely that any of the Club aircraft can be flown with the maximum number of adults, full fuel and maximum baggage.**

The 2 major considerations to be made are:

- (1) Are you within the maximum all up weight limits?
- (2) Is the Centre of Gravity within the limits defined for the particular flight?

Remember that an overloaded aircraft may not get airborne and if it does, it most certainly will not climb or cruise as well as it should. It will have a higher stalling speed, poorer range and endurance and structural safety may also be impaired. The position of the Centre of Gravity will also affect performance. A Centre of Gravity too far forward will require a very large control column movement for round out, and overstressing of the undercarriage may occur on landing. A Centre of Gravity too far aft will make the aircraft unstable to the extent where loss of control may occur. Increased stress on the pilot will undoubtedly occur and this is particularly noticeable when instrument flying.

The moral of this is that you must ensure that any aircraft you fly is correctly loaded BEFORE you fly. Weight and balance forms are available for all Club aircraft.

## Glasgow Flying Club Flying Orders

ORDER No. 30

### TAXYING OVER GRASS AND UNEVEN SURFACES

This order is aimed mainly at Pilots who fly PA 38 Tomahawk aircraft, but is applicable to all nose wheel aircraft. Over the last few years several incidents have occurred, causing damage to the propellers. Not only are propellers expensive items, but serious engine damage may also occur. The PA 38 oleo strut is not as robust as other types so it is the pilot's responsibility to ensure that the surface he/she is taxiing on is suitable for that purpose. If taxiing uphill or downhill, whenever possible taxi at a 45° angle, with the control yoke in the fully aft position. Ensure oleo extension is a minimum of 3 inches. If not, the oleo must be pumped up by an aircraft engineer.

## Glasgow Flying Club Flying Orders

ORDER No. 3 I

### TAILWHEEL AIRCRAFT

All pilots please note that tail wheel types are more easily affected by the slipstream of other aircraft. They are also more difficult to taxi, especially when the surface wind exceeds 10kts. These aircraft sometimes have no brakes on the main wheels, or if they have, the brakes may not be effective, and the tail wheel may be castoring. When starting your aircraft, or taxiing in the vicinity of these aircraft, be very careful not to expose them to your slipstream. When parked they must be handled as follows:

- 1 Ensure that chocks are placed against main wheels.
- 2 Park on level ground, unless tied down and aligned with the wind.
- 3 Not hand swung by untrained persons.
- 4 Must be tied down properly whenever the wind actual or forecast, makes this desirable (normally 10kts or more) or left unattended for long periods in the open.
- 5 Take care when handling, due to fabric coverings, and the risk of damage to the fabric.
- 6 Keep untrained persons away from these aircraft. Passengers must be supervised at all times in the vicinity of the aircraft.

#### Before flight

- 1 Visually check fuel on board, as fuel transmitters are unreliable.
- 2 Check both doors and windows are closed and locked. On Super Cub aircraft the window panels may be opened, provided power is reduced to 2300 RPM during flight.

Pilots should note that a minimum of 3 hours flying training is required before any solo flying is permitted, unless the pilot has previous experience of tail wheel aircraft.

In addition, only trained persons are permitted to hand swing the propeller, having ascertained the following checks have been completed:

- 1 Wheels are chocked
- 2 Park brake is engaged
- 3 A PPL-holder is in the cockpit

The maximum crosswind limit for PPL's is 8 knots with a maximum surface wind of 15 knots.

## Glasgow Flying Club Flying Orders

ORDER No. 32

The pilot of any aircraft which is on the Glasgow Flying Club Concessionary List (See below) must either be self-authorising as set out in Flying Order No. 7, or must be authorised by a Flying Instructor. Self Authorising Pilots should also note that the Duty Flying Instructor has the right to refuse Self Authorising Pilots to undertake flights, for reasons of weather (including wind limitations), pilots currency or ability on the aircraft type or any other operational reason.

### **CURRENT AIRCRAFT ON G.F.C. CONCESSIONARY LIST:**

*GBGIG; GBNIM; GBGIY; GBSYZ; GIZZS; GBAPI*

### **CURRENT AIRCRAFT ON THE CONCESSIONARY LIST AT PRESTWICK:**

*GBGIG; GBNIM; GBGIY; GBSYZ*

*If visiting a Flying Club at Prestwick, pay a landing fee via the Prestwick club, otherwise make your landing fee payment when you return to GFC. Prestwick landing fees paid via the GFC invoice are £10 per landing.*

## Glasgow Flying Club Flying Orders

ORDER No. 33

### USE OF HIGHLANDS AND ISLANDS AIRFIELDS 'OUT OF HOURS'

The use of airfields operated by Highlands & Islands Airports Limited outside of published hours is restricted to aircraft that have been approved by H.I.A. in respect of insurance and indemnity. This indemnity is required to be reconfirmed at the end of March each year. Therefore pilots must check that the aircraft that they intend to fly is on the list. Highlands and Islands Airports Limited "Out of Hours Indemnity" Scheme details can be obtained from the HIAL website or HIAL Tel: 01667-462445; Fax 01667-464208.

Please also note the content of the indemnity:

PPR – Pilots must telephone the airfield and advise them of the aircraft registration and estimated arrival and departure times. Pilots should give, if possible, a minimum of 24 hrs notice.

Details of the aircraft on the list can be obtained from the office.

Individual dates of expiry for the indemnity run in conjunction with the aircraft's insurance expiry date. It is a requirement that you telephone the airfield during operational hours to obtain prior permission. A concession of this arrangement is that if you leave cash or a cheque on arrival, you will be entitled to a reduced landing fee of ten pounds. Instructional training flights are subject to a further rebate, subject to certain further conditions and the required proforma completed.

#### H.I.A AIRFIELDS

Benbecula, Islay, Inverness, Tiree, Stornoway, Kirkwall, Wick

Please note that Sumburgh is not on the indemnity list due to the 15 million pounds insurance requirement, and neither is Campbeltown.

All club aircraft normally have out of hours indemnity for the above airfields.

**HIGHLANDS AND ISLANDS AIRPORTS LIMITED**  
**"OUT OF HOURS" PERMIT FOR FIXED-WING AIRCRAFT**

Highlands and Islands Airports Limited (hereinafter called "the Company") hereby gives permission for use of **Benbecula, Inverness, Islay (Port Ellen), Kirkwall, Stornoway, Tiree and Wick** Airports for the purpose of landing and take-off by the aircraft specified below during hours outside those for which the Airports respectively are notified as available for use, subject to the following conditions and limitations:

1. The Standard Conditions under which aircraft may land, be parked, housed, or otherwise dealt with on Airports under the control of the Company shall apply;
2. A pilot wishing to use this permission must contact the person in charge of the Airport either by telephone or in writing before the flight takes place - failure to do so will result in the permission's becoming void at the Company's discretion;
3. The aircraft shall be covered by Third Party Insurance to a minimum value of £500,000 (Five Hundred Thousand Pounds), except at **Sumburgh** where the minimum value shall be £15,000,000 (Fifteen Million Pounds). Acceptable evidence of this insurance must be produced to the Company for inspection upon request;
4. The aircraft owner or operator shall execute a form of indemnity to the satisfaction of the Company;
5. No flight shall be made pursuant to this permission during the hours between half-an-hour after sunset and half-an-hour before sunrise, sunset and sunrise being determined at surface level;
6. Landing charges will be paid at the rates and under the conditions applicable. For this purpose, the Airport concerned must be informed in writing of the details of the aircraft movement;
7. This permission may be revoked by the Company in the exercise of its sole discretion at any time without prior notice;
8. All local regulations should be observed and NOTAM's Class I and II should be consulted in addition;
9. On a flight pursuant to this permission, the pilot must call the destination Airport from a range of at least ten miles on the notified frequency to check whether it is manned. If he receives no reply, he should continue in any case to make normal RT calls on the proper frequency to make his presence known to any other aircraft in the vicinity;

Continued....

Glasgow Flying Club Flying Orders

"OUT OF HOURS" PERMIT FOR FIXED-WING AIRCRAFT Cont'd

10. For flights for purposes other than:

- (a) scheduled journeys for the public transport of passengers;
- (b) the public transport of passengers beginning and ending at the same Airport;
- (c) instruction in flying;
- (d) the public transport of passengers in aircraft of which the maximum total weight authorised exceeds 2,730 kg.

Aircraft Registration Letters : GBGIG  
Aircraft Type : Piper PA -38-112  
Maximum Permissible Weight : 757 kilos  
Home Aerodrome : Glasgow  
Name of Registered Owner Operator : Glasgow Flying Club Ltd  
Address : Walkinshaw Road  
Glasgow Airport  
Paisley PA3 2RY  
This permission is valid from : 22 June 2003  
to : 01 March 2004

unless previously revoked.

of

(Highlands and Islands Airports Limited)

Date : 22 June 2003

## Glasgow Flying Club Flying Orders

ORDER No. 34

### LICENCING

Only authorised Flying Instructors, approved by the Chief Flying Instructor may instruct in club aircraft.

PPL's should note that they are not permitted to check out other PPL's in club aircraft unless previously agreed with the Chief Flying Instructor at whose discretion a PPL may be authorised to carry out "renewal" checkouts subject to a right seat check-out being successfully completed.

All PPL's must inform the Chief Flying Instructor of any additional ratings/qualifications obtained at other flying training organisations, and in addition, should bring in their Pilots License when obtaining a new Certificate of Experience or Certificate of Test. The purpose of this is to update our records, and in addition, the club can notify the member that his license is due for renewal.

The Civil Aviation Authority is now issuing computerised flight crew licenses, which contain a personal reference number. All pilots are required to inform the Instructors of this reference number for record purposes.

## Glasgow Flying Club Flying Orders

ORDER No. 35

### AIRCRAFT DEFECTS

#### PPL or Student Solo Flights

When a PPL or Student becomes aware of a defect, they should not fill in the details in the Tech Log until they have consulted with an Instructor.

If no Instructor is available, then ANY defect MUST be entered in the tech log.

Defects of a minor nature may be placed in the Acceptable Deferred Defects Record in the Tech Log by an Instructor.

Defects of a more serious nature should be reported to the duty Instructor, who will liaise with the engineering maintenance organisation.

Defects should also be notified to a/c owners.

ORDER No. 35(a)

### **DAMAGE, OR SUSPECTED DAMAGE TO AIRCRAFT OR FACILITIES.**

In the event of an aircraft sustaining damage, or suspected damage, immediate notice must be given to the Instructor in charge, or to the Owner, in the absence of an Instructor. In any event the Owner MUST be informed.

An example of suspected damage is a heavy landing, particularly on the nose wheel of any aircraft.

The said aircraft must not be flown until a satisfactory inspection has been carried out. A notice must be placed in the Technical sheet, with time, date and signature of pilot suspecting that damage has occurred, or person finding or suspecting that damage has occurred.

In the event of major damage, the Civil Aviation Authority Accident Department must be informed, and the damaged aircraft must not be removed without Authority permission.

## NEWLY APPOINTED FLYING INSTRUCTORS AT REGISTERED FACILITIES

1 The UK Air Accidents Investigations Branch, in MIB Bulletin 8/2000, published the findings of its investigation into a fatal accident that occurred on 18 December 1999 at Bournemouth International Airport. The aeroplane involved was a PA28-140 in which three people were killed.

1.1 The findings included one Safety Recommendation (recommendation 2000-24) concerning newly appointed Instructors at Registered Facilities.

1.2 The CAA accepted this recommendation:

'The CAA should recommend to Registered Facilities (RF) that newly appointed Instructors undertake a flight with a senior FI to confirm the Instructor's instructional and flying ability. If the RF operates a class/type of aeroplane not covered by the experience of the newly appointed Instructor, specific differences should be identified to the Instructor and the differences training recorded in his/her logbook'.

2 By means of this Circular the CAA formally recommends that all Registered Facilities, including those offering training in helicopters, adopt the practice described as a standard operating procedure.

2.1 Appropriate information about the practice should be included in material produced by a Facility (e.g. a Flying Order Book) for the benefit of staff and students alike.

3 Flight Instructors at Registered Facilities are reminded that the European Joint Aviation Requirements - Flight Crew Licensing (JAR-FCL), require formal differences or familiarisation training to be completed to change to another type or variant of an aeroplane within an aeroplane class rating or helicopter within a helicopter type rating included in their licenses. JAR-FCL 1.215(b) and JAR-FCL 2.220(c) refer. JAR-FCL aeroplane class ratings are set out in AMC FCL 1.215 and JAR-FCL helicopter type ratings in Appendix 1 to JAR-FCL 2.220.

3.1 Although facilities are registered specifically for the purpose of training students for Private Pilot Licenses and associated privileges issued in accordance with the provisions of JAR-FCL, the CAA also recommends and encourages those establishments training students for UK Private Pilot Licenses and associated privileges for microlight aeroplanes, self-launching motor gliders, gyroplanes, balloons and airships to adopt the same practice in so far as it is applicable to their activities.

Reference: AAIB Bulletin 8/2000 (ISSN 03094278), case reference EW/C99/12/03.

(AAIB Bulletins and Reports are available on the Internet - <http://www.open.gov.uk/aaib/aaibhome.htm>)

## Glasgow Flying Club Flying Orders

ORDER No. 36

### EXIT/ENTRY LANES

The routings for exit/entry lanes are shown on the diagram overleaf. Pilots must familiarise themselves with the routing and altitudes en-route to the Local Flying Areas. No deviation on routings and altitudes should be made unless authorised by A.T.C.

Pilots should note that the AIP states that pilots proceeding to/from the airfield under VFR, can expect to be routed by one of these entry/exit lanes even in VMC. This implies that ATC will not give routings in or out of the zone on a direct track, but will insist that aircraft route in or out via East Kilbride/Alexandria/Greenock. Inbound aircraft will be given the runway in use, altimeter setting, and entry clearance.

## Glasgow Flying Club Flying Orders

ORDER No. 37

### IMC RATED PILOTS

IMC Rated Pilots are reminded to observe the privileges of their rating if they plan to operate in Instrument Meteorological Conditions, and should refer to the recommended Aerodrome Operating Minima in the Aerodrome and En-Route sections of the U.K AIP.

IMC Rated Pilots are now permitted to fly under I.F.R. in Class D and E Controlled Airspace but not on Airways. However there are other rules concerning carriage of radio and equipment and the possibility of icing which may prevent Club aircraft being used for such flights. In any event, pilots should not attempt IFR flight in controlled airspace unless they have had the necessary training over and above the basic IMC Rating. Severe disciplinary action will be taken against any pilot breaking the above rule. Additionally pilots are recommended to file a flight plan (see Order 46) on any occasion that they plan to operate I.F.R.

Aircraft Instrumentation: Pilots can only operate in Instrument Meteorological Conditions if the aircraft is suitably equipped for that purpose. The Air Navigation Order Schedules refer to the instrumentation required.

### PILOTS WITH NIGHT QUALIFICATION

Pilots with a Night Qualification must ensure before carrying passengers at night, that as Pilot In Command they have completed at least one take-off and landing by night (and two take-offs and landings by day or night) within the preceding 90 days. Touch and Go's are acceptable for this purpose.

In the event of radio failure at night, you should re-enter the zone, at the time specified by you to ATC on leaving the zone. Entry points are either Alexandria or East Kilbride. You should then adopt the Standard Radio Failure Procedure, and listen to the ATIS.

Pilots should also be aware that when flying after dark when the clubhouse is unoccupied, the main compound gates must be closed and padlocked before going airside.

## Glasgow Flying Club Flying Orders

ORDER No. 39

### REFUELLING & PICKETING

All aircraft should be refuelled after the last flight of the day to at least tab level. If weight and balance is not limiting, the aircraft should be refuelled to full tanks.

All aircraft are to be tied down after each flight.

Pilots should not leave the aircraft untied when leaving the club, in the expectation of the next pilots arrival.

## Glasgow Flying Club Flying Orders

ORDER No. 41

### AIRCRAFT OVERDUE/MISSING.

In the event that a club aircraft is overdue or missing the duty Instructor must notify a member of the Flight Advisory Panel. The Chief Flying Instructor will then form a small management team to coordinate the search/rescue with Air Traffic/Scottish Military and notify next of kin. Due to the nature of our flying operation, no statements should be made to the press, as quotations are often taken out of context and used to create sensationalism.

## Glasgow Flying Club Flying Orders

ORDER No. 40

### WIND LIMITS

Pilots are limited to the following surface wind limits (Actual or Forecast) including gusts.

- Student Pilots : 20 knots
- Private Pilots : 25 knots
- Instructors : 30 knots

## Glasgow Flying Club Flying Orders

ORDER No. 42

### METEOROLOGICAL SERVICES.

Met services are available within the clubhouse via the Met Office website.

Pilots away from base can obtain AIRMET Forecasts for the UK Region by telephoning 09060 700 5 followed by the two-digit code. This service is available between 0500 and 2100 local. The full contact details for obtaining AIRMET can be found in the CAA publication GetMet a copy of which is on the club Desktop.

TAFs and Actuals for most UK airfields and some Continental and Irish airfields can be obtained via the 09063 800 400 automated telephone service. Again full details of which can be found in GetMet.

In the air METARS can be obtained on VOLMET:

Scottish 125.725

North 126.60

South 128.60

Main 135.375

## Glasgow Flying Club Flying Orders

ORDER No. 43

### CUSTOMS CONTROL

With the introduction of the single European market in 1993 Customs formalities within the U.K for aircraft arriving and departing to foreign airfields remain unchanged. The only change to the regulations is that the Temporary Export of Aircraft Certificate (C42), is not required for the temporary export of an aircraft within the E.E.C.

## Glasgow Flying Club Flying Orders

ORDER No. 44

### RUN-IN-AND-BREAKS

Club members are not permitted to carry out Run-in-and-break manoeuvres at Glasgow Airport.

The BAA Ops Manager is not actually banning these manoeuvres but has indicated that such a manoeuvre is not an appropriate Glasgow Airport operation.

Normal go-arounds and EFATO's are still permitted.

## Glasgow Flying Club Flying Orders

ORDER No. 45

### AIRCRAFT DOCUMENTATION

As per Schedule 10 of the Air Navigation Order (CAP 393) the following documentation must be carried in the aircraft as follows:

Aerial Work - all instructional flights

Aircraft Technical Log containing: a/c radio license; Certificate of Airworthiness; Certificate of Maintenance Review.

Flight Instructors must carry their flight crew license.

If an International flight, in addition both the Certificate of Registration and a copy of Interception Procedures must be carried.

Private Flying (International flights **only**)

Aircraft Technical Log containing : a/c radio license; Certificate of Airworthiness; Certificate of Registration.

In addition a copy of Interception Procedures must be carried.

Pilots must carry their pilot's license.

## Glasgow Flying Club Flying Orders

ORDER No. 46

### FLIGHT PLANS

The club is registered for on-line logging of flight plans with AFPEX.

To file a flight plan, log into: <https://ts1.flightplanningonline.co.uk>

Userid: glasgow\_flying

Password: GFC Ltd 172

Help Guides can be found on the flying club's computer – see Desktop Icons.

The AFPEX account Helpdesk number should you need it is: 08456010483.

Should you require it for preparation a Flight Plan template CA48 can be downloaded from the AIS web site: [www.nats-uk.ead-it.com/public/index.php?option=com\\_content&task=blogcategory&id=179&Itemid=6.html](http://www.nats-uk.ead-it.com/public/index.php?option=com_content&task=blogcategory&id=179&Itemid=6.html) , page down to "Random Flight Plan Address Book (CAP 550)".

## Glasgow Flying Club Flying Orders

ORDER No. 47

### HIGH VISIBILITY VESTS

High Visibility Vests must be worn by all club members/Instructors at all times when airside.

When airside, club member pilots and Instructors must accompany non-club member passengers.

## Glasgow Flying Club Flying Orders

ORDER No. 48

### CESSNA 172 CHECK-OUT

PPLs with no experience flying Cessna 172 aircraft will require the following minimum check-out with an Instructor comprising 3 stages.

Stages 1 and 2 will be flown in G-IY.

**Stage 1)** A General Handling flight, to include Stalls, PFLs, Steep turns etc;

**Stage 2)** A circuit detail with PPL and Instructor only on board, finishing off with at least one solo circuit (assuming PPL competence);

Stages 1 and 2 need not be separate flights but can be combined depending on PPL aptitude.

Between stages 2 and 3 there can be a time gap where the PPL might only fly G-IY with 2 (total) people on board. To fly with 3 or 4 people on board the PPL must also enact stage 3.

**Stage 3)** A circuit detail with 3 or 4 people on board - to emphasise different landing/handling characteristics with full payload. This will also include a Weight and Balance calculation.

Circuits to include glide and flapless approaches and, importantly, a go-around initiated with full flap set (40 degrees in G-IY).

PPLs can progress to the new 172 (G-IZZS) once minimum flying hour requirements for that aircraft are reached. These are 100 hours total time and 50 hours PIC.

PPLs converting from G-IY to G-ZS will require a one hour familiarisation flight with an Instructor comprising general handling and circuits. Prior to the flight the Instructor will ask the PPL questions on the aircraft taken from the aircraft's Flight Manual. This **will** include a check to ensure familiarisation of aircraft engine start-up procedure.

Due to the complexity of the GPS equipment in G-ZS, in order to introduce the PPL to the use of this equipment an additional flight with the owners (Jim McInroy or Gary Anderson) is strongly recommended,

## Glasgow Flying Club Flying Orders

### ~ WINTER WISDOM ~

In case you hadn't noticed WINTER is upon us so let's remind ourselves of some of the things that make winter operations different from those at other times of the year.

#### CHECK THE PILOT

Don't fly with a cold! You risk burst eardrums and a snotty microphone!

Wear something warm for those pre flight inspections not forgetting gloves.

Whether you intend to land away or not, remember you may have to make an unscheduled landing or find yourself with an unserviceable aircraft and be forced to return home by public transport!

#### CHECK THE WEATHER

Check your **destination and at least one diversion** airfield **even for local flights**. Are these airfields closed due to snow or ice?

Carry extra fuel in case of holding due to delays caused by slower than normal aircraft movements on icy surfaces or with taxiway restrictions.

#### CHECK THE AIRCRAFT

**ALL ice, snow and frost MUST be removed** from the aircraft before flight.

Use a soft brush, broom or rubber squeegee plus deicing spray (aerosol cans) where necessary. **DO NOT** scratch the paint or the windows with hard scrapers and use only the minimum amount of spray on the perspex. Be careful in case doors or controls are frozen solid. Use deicer to avoid tearing door seals but avoid getting deicer on control hinges as it will wash away the lubricant. Make sure the brakes are not frozen on. Ensure the static vents are not blocked with ice.

#### STARTING

In cold weather the first start of the day can be difficult. Extra priming may be necessary, 3 to 6 strokes should be enough, but beware, **over-priming can cause intake fires!** Have someone standing by outside to keep an eye on things. Batteries will be weakened by the cold. If an engine is reluctant to start, **don't keep cranking until the battery is dead**. After three attempts let the battery 'recover' for about 30 minutes before trying again. Let the engine warm up before doing a run-up. The temperature gauge should at least be starting to move.

#### TAXYING

On icy surfaces **taxi dead slow** so as to minimise braking and wheel locking. Be particularly careful on sloping surfaces and give yourself more than the usual amount of clearance from obstructions, particularly other aircraft! Don't attempt to taxi over **ice ridges** more than a couple of inches high as your propeller will make contact before your nose wheel. Beware of **carburetor ice** particularly after a long taxi on a wet surface after doing the engine run-up.

#### FLYING

**Remember you can get carburetor icing at any time.**

In freezing rain or snow the intake filter can get iced up. The symptoms are the same as carb. icing but selection of carb. heat may cause no RPM drop and even a rise instead. Deselection of carb. heat may then show a drop in RPM. The only way to clear intake icing is to descend if possible into warmer air but be aware of the **safety altitude** especially if

## Glasgow Flying Club Flying Orders

the windscreen is iced over as well! Avoid cloud flying above the forecast freezing level and beware of freezing rain ahead of warm fronts.

### FINISHING

On ice don't try to taxi into tight gaps and if slippery under foot get help to man-handle the aircraft. Brakes on, chocks in place, tied down and the controls secured, preferably elevator down. Covers on if available. Put the kettle on and have a hot drink. Enjoy!

**ANNEX A**

**GLASGOW FLYING CLUB**

**Responsibilities and Procedures**

**1 Training Area**

Whenever possible, flying training (other than circuits) will be carried out in the Local Flying Area, clear of controlled airspace, to the North of the TMA.

**2 Entry/Exit Procedures**

Standard routes to facilitate entry and exit to the Local Flying Area are as follows:

**a) Outbound Runway 23**

South of the South Bank of the River Clyde to abeam Dumbarton then West of the River Leven to Alexandria.

**b) Outbound Runway 05**

North of the North bank of the River Clyde to Dumbarton then East of the River Leven to Alexandria.

**c) Inbound Runway 23**

East of the River Leven from Alexandria to Dumbarton then North of the North bank of the River Clyde

**d) Inbound Runway 05**

West of the River Leven from Alexandria to Dumbarton then South of the South bank of the River Clyde.

All aircraft shall fly at an altitude not exceeding 2000ft Glasgow QNH. Traffic information shall be passed when appropriate by Air Traffic Control. To reduce RT loading an abbreviated form of route designation shall be used, i.e. "Standard Exit" or "Standard Entry".

**3 Holding**

Holding areas are defined below in the event that Air Traffic Control require to hold Glasgow Flying Club aircraft in the air.

**Erskine North:** Aircraft shall hold North of the North Bank of the Clyde, centred on the Northern Approach Road to the Erskine Bridge and not extend more than half a mile to the East of the bridge.

**Bishopton:** Aircraft will hold in the triangle bounded by the M8 motorway, the Erskine Bridge approach road and the South bank of the River Clyde.

**Dumbarton:** Aircraft will hold on the North bank of the River Clyde and on whichever side of the River Leven their entry clearance specifies.

**Letter of Agreement  
Between  
National Air Traffic Services Ltd, Glasgow Airport**

and

**Glasgow Flying Club**

**1 Introduction**

This Letter of Agreement is drawn up to permit to operate to and from the **Local Flying Area** and within the Glasgow Control Zone.

**2 Scope**

The authorisation covered by this agreement applies to all flights by Glasgow Flying Club aircraft within the Glasgow Control Zone and it is incumbent upon the Glasgow Flying Club to endeavour to ensure that all flying club pilots are fully briefed whether club members or not as to its contents.

**3 Procedures**

The procedures to be adopted by Glasgow Flying Club and by Glasgow ATC are detailed in the Annexes to this agreement as follows:

- Annex A Glasgow Flying Club  
Responsibilities and Procedures
- Annex B National Air Traffic Services Ltd Glasgow Airport  
Responsibilities and Procedures

**4 Amendment or Revocation of Procedures**

These procedures have been agreed by General Manager (ATS) Glasgow Airport and the Glasgow Flying Club. Permanent amendment of the Agreement is to be effected only with the written consent of the signatories or their successors. A review of these procedures will be conducted at the request of either party.

**5 Parties to the Agreement**

For the avoidance of doubt it is hereby declared that the parties to the said Agreement are the National Air Traffic Services Ltd Glasgow Airport and the Glasgow Flying Club.

4 **Radio Failure Procedures**

All aircraft experiencing Radio Failure shall comply with the following procedures.

**Circuit**

Unless receiving landing clearance by light signal, pilots should initiate a missed approach, fly overhead the runway at no less than 400ft QFE and rock the aircraft's wings to indicate radio failure. They should then continue **in the circuit and await landing clearance by light signal.**

**Local Flying, VFR**

Aircraft experiencing radio failure whilst flying outside the circuit may elect to return to the airport provided that the aircraft has not landed elsewhere.

The returning aircraft will route to either Dumbarton or Barrhead not above 2000ft QNH, maintaining VFR. On reaching one of these points the aircraft will orbit for 6 minutes unless onward clearance is obtained from ATC either by light signal or RT broadcast. On completion of this delaying manoeuvre the aircraft will establish the runway in use, join the circuit for that runway and adopt the procedures for circuit traffic. Until joining the circuit, aircraft approaching from Barrhead should remain south of the main runway and its approaches. Aircraft approaching from Dumbarton should remain north of the main runway and its approaches.

Pilots must:

- a) Transmit position reports blind and in addition broadcast their intentions.
- b) If possible listen to ATIS broadcasts on the 129.575 frequency to establish runway in use etc. ATC may also use the ATIS to broadcast instructions.
- c) Squawk the appropriate code if the aircraft is transponder equipped.
- d) Attempt to draw attention to the aircraft.

**Local Flying, Special VFR**

It is emphasised that these Special VFR radio failure procedures are a local exemption from the provisions of ENR 1.2.

For aircraft experiencing radio failure whilst operating in accordance with, or requiring, a Special VFR clearance the following conditions will apply:

- a) Outbound aircraft will continue as cleared to the Control Zone boundary and, except as detailed in sub para c) below, will land outside the Control Zone.
- b) Aircraft operating outside the Control Zone and requiring a Special VFR clearance will, except as detailed in sub para c) below, land outside the Control Zone.
- c) Aircraft on Local flights that anticipate requiring a Special VFR clearance to re-enter the Control Zone may pass an ETA for the Control Zone boundary at Alexandria/East Kilbride to ATC. **Provided that ATC have acknowledged that ETA**, the aircraft may make good that time at Alexandria/East Kilbride and proceed as though a Special VFR entry clearance not above 2000ft QNH (appropriate to the same runway as the initial departure) has been received, as detailed in sub para d) below.
- d) Aircraft in receipt of a Special VFR entry clearance (or as detailed in sub para (c) above) will continue in accordance with that clearance from the Control Zone boundary to the airfield and land as soon as possible. Pilots shall keep a watch for visual signals when in the aerodrome traffic circuit.

## Glasgow Flying Club Flying Orders

### 5 **Practice Engine Failure**

Aircraft carrying out Practice Engine Failures after take-off are subject to the following restrictions:

**Runway 05** The exercise shall be concluded and the aircraft climbing away by the time the aircraft passes the displaced threshold of runway 23.

**Runway 23** The exercise shall be concluded and the aircraft climbing away by the time the aircraft passes the fixed distance markers at the 05 threshold end of the runway.

The Instructor will inform ATC at commencement of the exercise by use of the phrase "G-IM request fanstop". The Aerodrome Controller has discretion to terminate the exercise for traffic reasons.

**ANNEX B NATIONAL AIR TRAFFIC SERVICES LTD, GLASGOW AIRPORT**

**Responsibilities and Procedures**

- 1 The General Manager (ATS) at Glasgow Airport is responsible for ensuring that Air Traffic Controllers at Glasgow Airport are made aware of and comply with the procedures specified in this Agreement.
- 2 ATC at Glasgow Airport will consider the routings listed in Annex A as permanently active up to 2000ft. An acceptable buffer has been established between aircraft using these routes and IFR traffic. Exceptionally ATC may approve the use of an altitude above 2000ft when this is requested by the pilot.
- 3 ATC will pass traffic information whenever it is deemed advisable to do so and whenever requested by the pilot.

Glasgow Flying Club Flying Orders  
GLASGOW FLYING CLUB OPERATIONS MANUAL  
AIRCRAFT DATA AND HANDLING NOTES  
CESSNA 172 SKYHAWK

Engine oil max 6 qts min 4 qts  
Max RPM 2700  
Generator max output 60 AMPS  
Oil temp 75-245 F  
Oil pressure 60-90 PSI Min 25 Max 100 PSI  
Fuel pressure .5-8 PSI  
Fuel Capacity 36 IG total 33 IG useable  
Max AUW normal 2300 lbs utility 2000 lbs  
Max baggage 1201bs inc max 50lbs aft of baggage door  
Tyre pressure mains 29 psi nose 31 psi

Load Factor  
Flaps up normal +3.8G/-1.52G utility +4.4G/-1.76G  
Flaps down +3.0G/-0.0G utility +3.0G/-0.0G

Stall speed Flaps up 47 kts Flaps down 41 kts  
Never exceed speed Vne 160 kts  
Flap limiting speed Vfe 110 kts (20+ 85 kts)  
Manoeuvring speed Va 97 kts  
Max rough air speed Vno 128 kts  
Best angle climb Vx 59 kts  
Best rate climb Vy 73 kts  
Best glide 65 kts Flaps up 60 kts Flaps down  
Max crosswind 15 kts Max 20 flap in crosswinds  
Normal take-off  
Flaps up Rotate 55 kts Climb 70-85 kts

Short/Soft field or Obstacles  
Flaps 10 Rotate 55 kts Climb 59 kts. 70-85 kts flaps up when clear of obstacles

Normal landing  
Base leg Flap 10 90 kts Finals Flap 30 65 kts  
Typical cruise  
2000 ft 22-2400 RPM 100-110 kts 7 IGPH  
5000 ft 2600 rpm 118 kts 7 IGPH  
Take-off and landing performance  
Max weight Sea-level 15° C No wind Level Hard runway  
Take off run 245 metres  
Take off distance to 50 ft 439 metres  
Landing distance from 50 ft 381 metres  
Increase by  
10% for 10° C increase in temperature  
10% for 2% up slope  
20% for short dry grass  
20% for each 5 kts tailwind  
30% for long wet grass  
Decrease by  
10% for 10% reduction in wgt  
10% for 10° C reduction in temperature  
10% for each 5 kts headwind

Glasgow Flying Club Flying Orders  
GLASGOW FLYING CLUB OPERATIONS MANUAL  
AIRCRAFT DATA AND HANDLING NOTES  
PIPER PA28-140 CHEROKEE

Engine oil max 8 qts min 2 qts  
Max RPM 2700  
Generator max output 35 AMPS  
Oil temp 75-245 F  
Oil pressure 60-90 PSI Min 25 Max 90 PSI  
Fuel pressure .5-6 PSI  
Fuel Capacity 42 IG total 41 IG useable 30 IG Tabs  
Max AUW normal 2150 lbs utility 1950 lbs  
Max baggage 200lbs  
Typical fuel and cabin load 2150 - 1350 = 800 lbs  
Tyre pressure mains and nose 24 psi  
Load Factor  
Flaps up normal +3.8G/-OG utility +4.4G/-1.76G  
Flaps down +2.0G/-OG  
Stall speed Flaps up 64 mph (56 kts)  
Flaps down 54 mph (47kts)  
Never exceed speed Vne 171 mph (149 kts)  
Flap limiting speed Vfe 115 mph (100 kts)  
Manoeuvring speed Va 126 mph (109 kts)  
Max rough air speed Vno 137 mph (119 kts)  
Best angle climb Vx 78 mph (68 kts) Flap 25  
Best rate climb Vy 83 mph (72 kts)  
Best glide 83 mph (72 kts)

Max crosswind 17 kts  
Normal take-off  
Flaps 10 Rotate 74 mph (64 kts) Climb 83-95 mph (72-82 kts)

Short/Soft field or Obstacles  
Flaps 25 Rotate 74 mph Climb 83 mph. 95 mph flaps up when clear of obstacles

Normal landing  
Base leg Flap 25 90 mph Finals Flap 40 80 mph  
Typical cruise  
2000 ft 2400 RPM 110 kts 7 IGPH  
Take-off and landing performance  
Max weight Sea-level 15° C No wind Level Hard runway  
Take off distance to 50 ft 611 metres  
Landing distance from 50 ft 443 metres  
Increase by  
10% for 10° C increase in temperature  
10% for 2% up slope  
20% for short dry grass  
20% for each 5 kts tailwind  
30% for long wet grass

Decrease by  
10% for 10% reduction in wgt  
10% for 10° C reduction in temperature  
10% for each 5 kts headwind

Glasgow Flying Club Flying Orders  
GLASGOW FLYING CLUB OPERATIONS MANUAL  
AIRCRAFT DATA AND HANDLING NOTES  
PIPER PA 28-201T CHEROKEE ARROW III

Engine oil max 8 qts min \* qts  
Generator max output \*\* AMPS  
Oil temp 100-240° F  
Oil pressure 30-80 PSI Min 10 Max 100 PSI  
Fuel pressure 3.5-19 PSI  
EGT 1200-1650° F  
CHT cruise 350-4000 F climb 4600 F  
Max MP 41"  
Max RPM 2575  
Normal RPM 500-2000 and 2220-2575  
Avoid continuous RPM 2000-2200 above 32" MP  
Mixture may be leaned in cruise below 75% power and in climb below 5000 ft

Fuel Capacity 62 IG total 60 IG useable Tabs 40 IG  
Max AUW 2900 lbs  
Max baggage 200lbs  
Tyre pressure mains \*\* psi nose \*\* psi  
Load Factor normal +\*. \*G utility +\*. \*G/-OG  
Stall speed Flaps up 63 kts  
Flaps down 56 kts

Never exceed speed	Vne 183 kts
Max rough air speed	Vno 146 kts
Manoeuvring speed	Va 119 kts @ 2900 lbs 96 kts ~ 1865 lbs
Flap limiting speed	Vfe 103 kts

Max Gear extension speed Vle 129 kts  
Max gear retraction speed Vlr 107 kts

Best angle climb	Vx 71 kts gear down 78 kts gear up
Best rate climb	Vy 78 kts gear down 96 kts gear up
Best glide	89 kts (1.4 nm per 1000ft)

Max crosswind 17 kts

Landing gear with back up gear extender fitted.

Green lights show when each leg is locked down

Red light shows and horn sounds when:

- Throttle reduced to 14" or less and gear selector not down or
- In the air gear has extended automatically and gear selector is not down and throttle is not full open or

## Glasgow Flying Club Flying Orders

-On the ground Master switch is On and gear selector is Up

Yellow AUTO EXT. OFF light will flash whenever Over-ride lever is up

Yellow IN TRANSIT light shows whenever any leg is neither fully up nor fully down

Gear will extend automatically and be inhibited from retracting when auto-extension is on and speed less than 74-91 kts depending on power and altitude

Emergency gear extension: speed below 87 kts; gear selector down; emergency gear lever full up; then to Emergency Down

Normal take-off

2575 RPM / 41" MP

Flaps up Rotate 70-77 kts Climb 78-96 kts

Short/Soft field or Obstacles

Flaps 25 Rotate 53-64 kts Climb 71-78 kts.

78-96 kts flaps up when clear of obstacles

Cruise climb 2450RPM / 33" 104 kts

Normal landing

Gear 129 kts Flaps 103 kts Final 75 kts

Typical cruise 2000 ft +10°

MP

KTS	%	IGPH	2200	2300	2400	2500
120	55	11	29	28	27	26
130	65	12.7	33	31	30	29
140	75	14	-	35	34	33

Take-off and landing performance

Max weight Sea-level 15 C No wind Level Hard runway

Take off run metres

Take off distance to 50 ft metres

Landing distance from 50 ft metres

Increase by

10% for 10° C increase in temperature

10% for 2% up slope

20% for short dry grass

20% for each 5 kts tailwind

30% for long wet grass

Decrease by

10% for 10% reduction in wgt

10% for 10° C reduction in temperature

10% for each 5 kts headwind

Glasgow Flying Club Flying Orders  
GLASGOW FLYING CLUB OPERATIONS MANUAL  
AIRCRAFT DATA AND HANDLING NOTES  
PIPER PA 38-112 TOMAHAWK

Engine

Max RPM 2600

Generator max output 60 amps

Oil temp 75-245 F

Oil pressure 60-90 PSI Min 15 Max 100 PSI

Fuel pressure .5-8 PSI

Fuel Capacity 26.5 IG total 25 IG useable

Max AUW 1670 lbs Max baggage 100 lbs

Tyre pressure 26 psi

Load Factor Flaps up +4.4G/-OG Flaps down +2.0G/-OG

Stall speed Flaps up 52 kts Flaps down 49 kts

Never exceed speed Vne 138 kts

Flap limiting speed Vfe 89 kts

Manoeuvring speed Va 90-103 kts

Max rough air speed Vno 110 kts

Best angle climb Vx 61 kts

Best rate climb Vy 70 kts

Best glide 70 kts

Max crosswind 15 kts

Normal take-off

Flaps up Rotate 55 kts Climb 70 kts

Short/Soft field or Obstacles

Flaps 21 Rotate 55 kts Climb 61 kts. 70 kts flaps up when clear of obstacles

Normal landing

Base leg Flap 21 70 kts Finals Flap 30 65 kts

Typical cruise

2000 ft 2200 RPM (G-IG) / 2350 RPM (G-IM) 85 - 90 kts 6 IGPH

Take-off and landing performance

Max weight Sea-level 15° C No wind Level Hard runway

Take off distance to 50 ft 455 metres

Landing distance from 50 ft 475 metres

Increase by

10% for 10° C increase in temperature

10% for 2% up slope

20% for short dry grass

20% for each 5 kts tailwind

30% for long wet grass

Decrease by

10% for 10% reduction in wgt

10% for 10° C reduction in temperature

10% for each 5 kts headwind

Glasgow Flying Club Flying Orders

GLASGOW FLYING CLUB OPERATIONS MANUAL  
AIRCRAFT DATA AND HANDLING NOTES  
PIPER PA 28-161 CHEROKEE WARRIOR

Engine oil max 8 qts min 2 qts  
Max RPM 2700  
Generator max output 60 AMPS  
Oil temp 75-245 F  
Oil pressure 60-90 PST Min 25 Max 100 PST  
Fuel pressure .5-S PSI  
Fuel Capacity 42 IG total 40 IG useable Tabs 30 IG  
Max AUV normal 2440 lbs utility 2020 lbs  
Max baggage 200lbs  
Tyre pressure mains 24 psi nose 30 psi  
Load Factor normal +3.8G utility +4.4G/-OG  
Stall speed Flaps up 52 kts Flaps down 44 kts  
Never exceed speed Vne 160 kts  
Flap limiting speed Vfe 103 kts  
Manoeuvring speed va 88-111 kts  
Max rough air speed vno 126 kts  
Best angle climb Vx 63 kts  
Best rate climb Vy 79 kts

Best glide 73 kts

Max crosswind 17 kts  
Normal take-off  
Flaps up Rotate 55 kts Climb 79-90 kts

Short/Soft field or Obstacles  
Flaps 25 Rotate 55 kts Climb 63 kts. 79-90 kts flaps up when clear of obstacles

Normal landing  
Base leg Flap 25 90 kts Finals Flap 40 65 kts  
Typical cruise  
2000 ft 22-2400 RPM 95-105 kts 7 IGPH  
5000 ft 2625 rpm 118 kts 7 IGPH  
Take-off and landing performance  
Max weight Sea-level 15 C No wind Level Hard runway  
Take off run 550 metres  
Take off distance to 50 ft 750 metres  
Landing distance from 50 ft 475 metres  
Increase by  
10% for 10° C increase in temperature  
10% for 2% up slope  
20% for short dry grass  
20% for each 5 kts tailwind  
30% for long wet grass  
Decrease by  
10% for 10% reduction in wgt  
10% for 10° C reduction in temperature  
10% for each 5 kts headwind

Glasgow Flying Club Flying Orders  
GLASGOW FLYING CLUB OPERATIONS MANUAL  
AIRCRAFT DATA AND HANDLING NOTES  
PIPER PA 28R-200 CHEROKEE ARROW

Engine oil max 8 qts min 6 qts  
Generator max output 60 AMPS Battery 25 amp.hrs  
Oil temp 75-245 F  
Oil pressure 60-90 PSI Min 25 Max 90 PSI  
Fuel pressure 14-45 PSI  
Max RPM 2700 Max RPM for Feathering is 1500  
Normal RPM 500-1950 and 2350-2700  
Avoid continuous RPM 1950-2350 below 15"MP  
Mixture may be leaned in cruise below 75% power and in climb below 5000 ft

Fuel Capacity 42 IG total 40 IG useable Tabs 30 IG  
Max AUW 2650 lbs  
Max baggage 200lbs  
Tyre pressure mains 27 psi nose 30 psi  
Oleo extension mains 2.0" +/- .25 nose 2.75" +/- .25  
Load Factor Flaps up +3.8G Flaps down +2.0G  
Stall speed Gear down Flaps up 53 kts (62 mph)  
Flaps down 49 kts (56 mph)

Never exceed speed	Vne 193 kts ( 222 mph)
Max cruising speed	152 kts (175 mph)
Flap limiting speed	Vfe 110 kts (125 mph)
Manoeuvring speed	Va 115 kts (132 mph)
Max rough air speed	Vno 115 kts (132 mph)

Max Gear extension speed Vle 133 kts (153 mph)  
Max gear retraction speed Vlr 109 kts(125 mph)

Best angle climb	Vx 74 kts gear down 83 kts gear up
Best rate climb	Vy 83 kts gear down 87 kts gear up
Best glide	89 kts (1.4 nm per 1000ft)

Max crosswind 17 kts  
Engine starting Master ON  
Throttle 1/2" Mixture ICO  
Fuel pump ON  
Cold Mixture Rich until fuel flow seen then ICO  
Hot Mixture ICO  
Operate starter  
Mixture Rich when engine starts  
Throttle 1200 RPM

## Glasgow Flying Club Flying Orders

Landing gear with back up gear extender fitted.

Green lights show when each leg is locked down

Red light shows and horn sounds when:

- Throttle reduced to 14" or less and gear selector not down or
- In the air gear has extended automatically and gear selector is not down and throttle is not full open or
- On the ground Master switch is On and gear selector is Up

Yellow AUTO EXT. OFF light will flash whenever Over-ride lever is Up

Yellow IN TRANSIT light shows whenever any leg is neither fully up nor fully down

Gear will extend automatically and be inhibited from retracting when auto-extension is on and speed less than 74-91 kts depending on power and altitude

Emergency gear extension: speed below 87 kts; gear selector down; emergency gear lever full up; then to Emergency Down; yaw ac abruptly side to side with rudder

Normal take-off

Flaps up Rotate 65 kts Climb 85 kts

Short/Soft field or Obstacles

Flaps 25 Rotate 60 kts Climb 75 kts. 85kts flaps up when clear of obstacles

Normal landing

Base leg Flap 25 90 kts Finals Flap 40 75 kts

Typical cruise 2400 rpm

	55% 8.0GPH	65% 9.2GPH	75% 10.2GPH
2000 ft	20" 117 kts	22.5" 126 kts	25.2" 136 kts
5000 ft	19.3" 120 kts	21.7" 132 kts	24.4" 141 kts

Take-off and landing performance

Max weight Sea-level 15 C No wind Level Hard runway

Take off run 375 metres

Take off distance to 50 ft 735 metres

Landing distance from 50 ft 840 metres

Increase by

10% for 10° C increase in temperature

10% for 2% up slope

20% for short dry grass

20% for each 5 kts tailwind

30% for long wet grass

Decrease by

10% for 10% reduction in wgt

10% for 10° C reduction in temperature

10% for each 5 kts headwind

## Glasgow Flying Club Flying Orders

ATC Operational Notice 6/99 1 5/04/99

### GLASGOW FLYING CLUB FIRST SOLO PROCEDURES

Following representations from the Glasgow Flying Club the following procedures have been agreed.

When an Instructor advises that a student is going to be sent on their first solo, controllers should be aware that the student will expect to depart from the intersection, irrespective of runway in use. This means that they should be cleared to taxi to the holding point at Alpha or Bravo after dropping the Instructor at the Control Tower.

If this is not suitable due to traffic then the normal holding points should be used. ATCOS should note that in this event, the taxiway may become blocked if 23 is in use since the student must carry out full pre take off checks.

The following Operational Notices are current, all others have expired, been withdrawn or incorporated into Mats Part 2.

11/98	Departure separations
2/99	Evacuation pack
3/99	Provision of Radar Advisory Service
4/99	BRT/MNX ATP operations
5/99	ATIS Procedures
6/99	First Solo operations

The Glasgow Flying Club Flying Orders have been amended.

Before flying a club aircraft on or after the revised date (see bottom of page) you **MUST** read, sign and date the Flying Order book.

**Chief Flying Instructor**