STAPLEFORD FLIGHT CENTRE

APPROVED TRAINING ORGANISATION

FLYING ORDER BOOK

Part 1 – Flying Orders

Stapleford Flying Club Ltd, trading as
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GBR.ATO.0201

Version: **4.7**
Date: **27/11/2023**

Manual Copy No:

1 Checklist of Pages and Amendment List

The following pages of the SFC Flying Order Book are now current:

Page No.	Date	Action	Amended by
Title page	27/11/23	Replace	
2	25/04/22	Replace	
3	30/05/18	Replace	
4	30/05/18	Replace	
5	30/05/18	Replace	
6	30/05/18	Replace	
7	30/05/18	Replace	
8	30/05/18	Replace	
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2 Distribution List

Position in Company	Manual No
FLIGHT PLANNING	
Reception / All Pilots	1
HEAD OF TRAINING	
Capt Colin Dobney	2

3 List of Contents

4 Introduction

4.1 Applicability

4.1.1 These Flying Orders detail the operation of aircraft operated by Stapleford Flying Club Ltd. Where the names Herts & Essex Aero Club Ltd or Stapleford Flight Centre are used, they shall be read to mean Stapleford Flying Club Ltd.

4.1.2 In the event that there is any conflict between these Flying Orders and the current ANO, (Rules of the Air, and Air Navigation General Regulations). then these Flying Orders are subordinate to the above except when these Flying Orders are more limiting, in which case these Flying Orders shall apply.

4.2 Compliance

4.2.1 No member or employee of Stapleford Flying Club Ltd shall be absolved from compliance with these Flying Orders or any other relevant notices or regulations because of ignorance of their existence, content or effect. A membership form shall be signed by a pilot and/or passenger before commencing flight in a Stapleford Flying Club Ltd aircraft.

4.2.2 All Members, Hirers or Employees of Stapleford Flying Club Ltd will indicate their knowledge of the contents of these Flying Orders by signing the signature sheet held in the Operations Department prior to first flying a Stapleford Flying Club Ltd aircraft solo, and thereafter by signing annually or whenever any amendment is introduced whichever is the sooner.

4.2.3 Members undertaking training for or holding a National PPL shall accept these orders as if they were Part-FCL PPL students/holders.

4.3 Amendments

4.3.1 With the exception of the Appendices, no amendments to these Flying Orders shall be made by manuscript changes. All amendments are to be made by reissuing the relevant page(s) and by reissuing the Check List of Pages.

4.3.2 The Check List of pages shall be reissued whenever any amendment is made to any of these Flying Orders. All amendments to these Flying Orders shall be authorised by Head of Training.

4.4 Phraseology

4.4.1 Throughout these Flying Orders where the male pronouns he, him, and his are used they should be read as he/she, him/her, and his/hers. The use of the male pronouns is intended to make the text less cumbersome.

4.5 Distribution

4.5.1 These Flying Orders will be distributed as detailed on Page 3 of this Manual.

5 Authorisation and Documentation

5.1 Air Navigation Order and Rules of the Air Regulations

5.1.1 Copies of the current Air Navigation Order and Rules of the Air Regulations are available in the operations room and on the CAA website. A computer connected to the Internet is available in the flight planning room to allow pilots to access the ANO, AIP, AICs, AFPEx and weather information.

5.1.2 Pilots are to read and comply with the Air Navigation Order (ANO), Air Navigation General Regulations and the Rules of the Air.

5.1.3 No order or instruction in this Flying Order Book or any other Stapleford Flight Centre publication shall override the Air Navigation Order.

5.2 Flight authorisation and authorisation sheets

5.2.1 Authorisation is recorded in the Technical Log for the aircraft and the Student Record Sheet for Student Pilots.

5.2.2 All training flights that take place under the jurisdiction of Stapleford Flying Club Ltd shall be authorised by a Stapleford Flying Club Ltd Instructor. Students First Solo and First Solo cross-country flights may only be authorised by an unrestricted Flight Instructor. On Dual instruction flights, the Instructor concerned shall self-authorise the flight. When a flight involves multiple sectors, each sector shall be separately authorised. FIs shall ensure training flight numbers are recorded on the Student Record Sheet.

5.2.3 Flights by qualified pilots shall be authorised by a Stapleford Flying Club Ltd Flight Instructor or Reception Staff. Such authorisation only confirms that the nature of the intended flight is acceptable to Stapleford Flying Club Ltd.

5.2.4 Student solo sorties must be preceded by a dual check until at least 3 hours of circuit consolidation has been completed. The first three details of solo circuit consolidation must be planned as full stop landings.

5.2.5 Student or Private Pilot License holders may be required at any time to undertake a dual check. See paragraph 5.2.9 below.

5.2.6 Student cross country details must be preceded by a dual check at the discretion of the Authorising Instructor, but must be within 7 days of the previous dual check unless the CFI or Head of Training considers a longer period for that individual would not prejudice safety.

5.2.7 All student local flights except circuits must be planned and authorised to terminate at least 1 hour before sunset or 1 hour before a forecast of possible deterioration in the weather.

5.2.8 All student cross-country flights must be planned and authorised, subject to a suitable weather forecast, to terminate at Stapleford at least 2 hours before sunset or 1700 hours Local Time whichever is the earlier.

5.2.9 Flight by PPL holders in Club aircraft must be preceded by a dual check at the discretion of the authorising Instructor, or if the pilot has not flown within 62 days of the

previous flight or 45 days if the pilot has less than 150 hours total time, unless the CFI considers a longer period for that individual would not prejudice safety. If a different type of aircraft is required where 62 or 45 days (as appropriate) are exceeded for that type, the Head of Training or the Duty Instructor may authorise flight without a check if they consider the pilot has sufficient experience to warrant it. All Pilots must undergo a dual check if they have not flown with a Club Instructor during the last 12 months.

5.2.10 The Pilot in Command is to initial the current page of the Technical Log before flight. This to signify that the following actions have been performed:

a) Check suitability of the weather for the proposed flight
b) The aircraft and its equipment are serviceable for the flight and that the Check A has been completed in accordance with the Check List
c) The aircraft has sufficient fuel for the proposed flight plus reserve
d) There is sufficient time available on the aircraft to complete the flight before the hours/days to the next scheduled maintenance will expire
e) All Notams relevant to the proposed flight have been checked
f) Maps, charts and navigational equipment are available
g) All other crew members and passengers have been briefed on possible contingencies affecting the safety of the flight.

5.2.11 Pilots are reminded that it is their responsibility to brief all passengers as required by the ANO including how to operate seat belts and means of exit from the aircraft.

5.2.12 New members or visiting foreign ICAO Licensed pilots will be required to undertake a dual check before being authorised to fly solo in Club aircraft. On four seat aircraft, they will be required to fly at or near the maximum landing weight.

5.2.13 Pilots with less than 100 hours experience as Pilot in Command will be required on their first flight abroad to be accompanied by a Flight Instructor. Subsequent flights may only be authorised if that Instructor gives a satisfactory report.

5.2.14 Flight in single engine aircraft to unlicensed aerodromes or to those having less than 600 metres landing distance available must be authorised by Head of Training or his Deputy.

5.2.15 Pilots undertaking approved Part CPL(A) or IR(A) course training shall only fly with a course approved Instructor. Solo flying may only be authorised by the applicable course approved Instructors.

5.2.16 Mutual Flying on Flight Instructor Courses

5.2.16.1 Five hours mutual flying on the FI(R) course gives the “Student Instructor” an opportunity to practice his/her instructional technique with a person designated by the CFI or FIC Instructor.

5.2.16.2 Any “mutual” flight must be authorised by a FIC Instructor who shall specify who is to be the Commander of the aircraft (the “Instructor”) and who is to be the “Student”.

5.2.16.3 The “Student” shall occupy the left-hand seat and the “Instructor” shall occupy the right hand seat.

5.2.16.4 The “Student” shall not log the flight in his/her logbook, the “Instructor” shall log the flight as P1 and enter the time in the Command Column of his/her logbook.

5.3 Completion of technical log and notification of defects

5.3.1 The Captain will check the Certificate of Airworthiness and the Certificate of Insurance to ensure they are still valid, together with the Certificate of Registration and the Radio Licence.

5.3.2 Before each flight detail, the crew will ensure that the Technical Log has no outstanding defects, unless they are permitted by the Minimum Equipment List (MEL) to be deferred and have been properly recorded and do not affect the training content of the sortie. They will also ensure that the brought forward total hours and next check hours/date are correctly entered from the previous sheet. See Operations Manual paragraph 2.2.4 Technical Logs.

5.3.3 The Captain will also check the Certificate of Release to Service for the Aircraft, Engine(s) and its Radio, and the Airworthiness Review Certificate to ensure they are within date and hours and will remain so by the end of the intended flight.

5.3.4 The Captain will ensure that the weight and centre of gravity calculations are made to ensure compliance with the Certificate of Airworthiness and Flight Manual requirements and performance calculations made when the length of the runway is limiting or the flight will be into Instrument Meteorological Conditions after take-off.

5.3.5 Prior to flight, the first line of the Technical Log will be completed with the relevant details including Fuel State and initialled by the pilot. Any fuel loaded before the flight shall be entered in the Technical Log sheet.

5.3.6 On completion of the flight, the actual time of Brakes off UTC and the actual time of Brakes on UTC will be entered in the correct columns. The Airborne Time is to be added to the previous total, the fuel state recorded, with Nil entered in the defects column if there are none, or the line number entered with the defect detailed in the space provided below. When complete, the Captain shall sign the flight sector line as correct.

5.3.7 If a defect has arisen and there is any doubt about the serviceability of the aircraft, then an engineer or a School Instructor is to be consulted before any further flight is undertaken.

5.3.8 All defects are to be checked against the Deferred Defects List. If it is an allowable defect which does not affect the airworthiness of the aircraft, it is to be recorded in the technical log and the Deferred Defects Reporting page when the aircraft may continue in service for the hours, period or type of flight if such a restriction is detailed.

5.3.9 The Operations department will ensure that at the end of each day, or a full Technical Log sheet, the flights are correctly totalled and the hours to the next check shown, with

the relevant figures carried forward to the next Technical Log Sheet. If during a flight with a landing away a defect occurs, the Captain is to refer to the 'Acceptable Deferred Defects List', also known as the 'Minimum Equipment List' and if such defect is listed, he may record it and continue the flight. If however it is not listed, he must report the defect to the Operations Department who will arrange for it to be rectified or consult with the engineering department to decide how to handle the problem of crew and aircraft recovery.

5.3.10 If a defect has been recorded which is not an allowable item, the rectification procedure is to be initiated by Operations with the Technical Log being removed to the hangar or tagged as unserviceable. See Operations Manual para 2.2.2. If it is an allowable item, the Chief Engineer is to be informed in order that rectification can be planned.

5.3.11 The Operations department will ensure that the reference numbers of any permitted deferred defects are entered on each successive Technical Log sheet until they are cleared, these will normally be no later than the next scheduled check.

5.3.12 The approved maintenance organisation is Stapleford Flying Club Ltd - maintenance hangar, Phone No 01708-688449. Only organisations with EASA Part M approval may carry out repairs away from base. They must be authorised to carry out such repairs by the Engineering Quality Manager.

5.4 Possession of current licence

5.4.1 All students are recommended to have their medical examination and the Medical Certificate issued before they commence training in case they do not meet the required standard. The medical certificate constitutes the Students Pilot Licence, and must always be available for checking.

5.4.2 All pilots are to be possession of a valid pilot licence and medical certificate before acting as pilot in command of a School aircraft and comply with the following to maintain validity:

a) The licence and medical certificate shall be signed by the holder
b) The medical certificate expiry date shall not have been exceeded during the period of flying
c) The licence shall contain a valid Rating for the Class or Type of aeroplane to be flown
d) For flight in IMC, the licence shall contain a valid IMC rating or a valid IR or have embedded privileges (UK CPL and ATPL) unless under instruction
e) If the flight involves a flight at night, the licence shall contain a night rating or night qualification, unless the pilot is undergoing training for a night qualification.

5.4.3 A pilot who holds a licence issued by another ICAO State shall ensure that the licence is valid in all respects demanded by that State.

5.5 Requirements for solo flying

5.5.1 Before flying solo, all licensed pilots must be in current flying practice and in possession of a Pilots Licence together with a valid medical certificate and Skill Test Certificate as applicable, and current in all respects. Logbooks, licences and medical certificates must be available for checking before flight in a Club aircraft is authorised. They must also show evidence of meeting any mandatory experience requirements.

5.5.2 Where the medical certificate requires the wearing of spectacles or other conditions are detailed, non-compliance renders the certificate invalid. See ANO, Safety Sense Leaflets and relevant AICs regarding the various requirements and advice to pilots.

5.5.3 All pilots shall have read and signed this Flying Order Book and demonstrated their competence to a Stapleford Flying Club Instructor.

5.5.4 A qualified pilot who has not flown a School aircraft within the past 62 days, or 45 days if the pilot has less than 150 hours total time, shall undergo a check flight with a Flight Instructor prior to any further solo flight. A qualified pilot wishing to fly multi-engine aircraft solo shall, subject to licence validity, undergo a check flight prior to flying solo if he has not flown a MEP Class aircraft within the past 62 days, or 45 days if the pilot has less than 150 hours total time.

5.5.5 In the case of a professional pilot, these recency requirements may be varied at the discretion of the Chief Flight Instructor.

5.5.6 Pilots who do not hold a night qualification shall not plan to fly after sunset (Night commences 30 minutes after sunset)

5.5.7 A student pilot MUST be in possession of a valid medical certificate before being allowed to fly solo. Student pilots with less than 3 hours solo flying shall fly with an Instructor prior to each solo flight, thereafter, a student pilot shall not fly solo if they have not flown a school aircraft within the past 14 days. A student pilot shall fly no more than 4 hours solo between dual instructional flights.

5.5.8 A Student pilot may only fly solo if authorised to do so by a Flight Instructor - the authorisation in the Technical Log must be signed together with the Student Record Sheet, by both the Instructor and the student, and must contain the estimated departure time, the duration, and the exercise number(s) to be carried out.

5.5.9 All solo flying by a student pilot in the circuit shall be arranged to terminate at least 30 minutes prior to sunset.

5.6 Regulations for carriage of passengers

5.6.1 Booking arrangements for training details and solo hire of Club aircraft must be made with Operations Staff and entered on the booking system.

5.6.2 Subject to the privileges of his licence a member of the School may fly as pilot in command of a School aircraft carrying passengers provided that:

a) Each passenger is a member of the School
b) Each passenger shall be briefed in the use of the seat belts, normal exit and if fitted, emergency exit and emergency actions (ANO).
c) When the flight involves flight over water, each passenger shall be briefed in the use of the life jackets and dinghies and evacuation procedures (ANO)
d) Any passenger occupying the front seat shall be adequately briefed to avoid any interference with the controls.

5.6.3 Before carrying passengers, pilots shall have carried out at least 3 take-offs and landings as PIC in the preceeding 90 days. For flight by night, at least 1 take-off and landing shall have been conducted by night.

5.6.4 Passengers who may have acquired the right to fly by virtue of a competition or raffle prize shall not be flown by School members. Such a flight may constitute a Public Transport Flight. Whilst there is a provision to fly passengers on Charity Flights, all such cases shall be referred to the Head of Training (See Section 7 paragraph 7.18 re Charity Flights)

5.7 Compilation of pilot's log books

5.7.1 Pilots are responsible for ensuring that they maintain a personal flying logbook in accordance with the ANO and Part-FCL. Details of all flights are to be entered into the logbook as soon as practical after each flight.

5.7.2 Student Pilots are to log all flight details including the exercise numbers appearing on the Technical Log. In the case of a navigation flight (Exercise 18a) the turning points are also to be logged.

5.7.3 Details of all flight tests and proficiency checks are to be entered in the log book together with details of any instrument flying. Before claiming any flight time as PICUS, the examiner shall sign the entry in the logbook to verify the details.

5.7.4 Pilots are to log the number of landings when more than one is conducted on any flight.

5.8 Reference to other Company Part-FCL manuals

5.8.1 These flying orders are to be read in conjunction with the Company Part-FCL Operations Manual, Quality Manual, Training Manual and the associated Training Syllabi.

5.8.2 For those Flight Instructors who also act as a Pilot in Public Transport operations under the Company AOC, particular attention is drawn to the requirements of the AOC Operations Manual with respect to Flight Time Limitations. In addition to the maintenance of the normal Flight Instructor Duty Hour records as required by the Part-FCL Operations Manual, it is also a requirement that a Commander's Discretion Report is raised whenever the flight duty period and/or the number of sectors are exceeded on either a flight for the purposes of Flight Instruction or Public Transport. See Appendix 42, copy of the Commander's Discretion Report.

5.8.3 Flight Instructors involved in approved training courses are required to keep monthly totals of flying hours in their personal log books. Pilots involved in the AOC operation will be exempt this requirement as the monthly printout of their duty hours fulfils this requirement.

6 Aircraft Handling Orders

6.1 Aircraft checks before flight – not included in standard check lists

6.1.1 Prior to each flight the aircraft shall be checked in accordance with the specified check list for the type of aircraft. Whilst all checks are important, particular attention shall be paid to the following:

a) In winter ensure that the airframe is free of all ice, snow and frost prior to attempting to move any control surfaces – see relevant AICs

b) Before the first flight of the day ensure that the fuel has been properly checked for the presence of water

c) Immediately prior to take-off ensure that the flying controls have full and free movement, particularly if the aircraft has an autopilot - see relevant AICs

6.1.2 Pilots are to comply with the ANO, which details the pre-flight actions by the commander of an aircraft.

6.1.3 Ensure that Control Locks are removed, tie-down ropes and/or chocks are removed and stowed in the aircraft, Pitot and Static covers are removed and stowed.

6.1.4 In the case of an aircraft used for Public Transport operations, ensure that a Check 'A' is signed for by an authorised person.

6.1.5 Ensure that the Fire Extinguisher is readily available and fully charged and that the First Aid Kit is available. The expiry date of both must be checked.

6.1.6 Ensure that the aircraft is in a safe position for starting and subsequent taxiing, using chocks if necessary and that there is no debris under the propeller(s). Engine(s) must not be started in or too near a hangar.

6.1.7 Ensure that unauthorised persons are not near the aircraft, especially unescorted children. When engineers are near the aircraft, have pre-arranged signals for engine operations.

6.2 Refuelling procedure

6.2.1 Do not taxi directly towards the fuel pumps, but position the aircraft broadside with the wing tip well clear of the fuel pump. Leave the brakes off so that it can be pushed away in the event of a fire but ensure it cannot run away, use chocks if necessary. Ensure the battery Master Switch is off – do not switch it on until refuelling is complete or the hose has been removed and well clear of the aircraft if it is necessary to confirm fuel contents.

6.2.2 Mobile Telephones or any other portable electronic devices must be switched off within a range of 10 metres of the fuel installation.

6.2.3 Smoking is PROHIBITED within 50 metres of the fuel pumps and on all aircraft aprons and taxiways.

6.2.4 Check that fuel samples have been taken from the Fuel Pump Installation before any aircraft refuelling takes place.

6.2.5 The refuelling installation bonding lead is to be attached to a suitable metal point on the aircraft before re-fuelling commences. A fire extinguisher, other than the aircraft extinguisher, shall be readily available. All passengers are to disembark.

6.2.6 Avoid skin contact with Kerosene and other Aviation fuels which can give rise to dermatitis. Should this occur, immediate first aid treatment must consist of removal of contaminated clothing etc as soon as possible followed by copious washing of the skin with cold water only.

6.2.7 Fuel and oil uplifts are to be recorded on the re-fuelling sheet and in the Technical Log.

6.2.8 Light aircraft fuel gauges shall not be relied upon for accuracy, a visual check or dip stick must therefore be used to confirm quantities on board.

6.2.9 If at any time more than 85 Litres are required to fill a C152, 130 Litres for a C172, or 160 Litres for a PA28 Warrior and PA28R Arrow, the Operations Department and the CFI are to be informed in order that the previous pilot can be questioned as to why the aircraft was run low on fuel.

6.2.10 Fuel tank caps on Cessna aircraft must not be reversed. The cap on the right (Stbd) tank MUST have a vent, the cap on the left (Port) tank may not because the tank has a vent exiting near the strut. The rubber valve must always be checked, if it is damaged or missing, fuel can be siphoned out in flight.

6.2.11 Re-fuelling by Student Pilots is not permitted until they have been briefed and authorised by an Instructor, and the self fuelling form completed. This will occur usually after their First Solo.

6.2.12 Before any flight in a Club aircraft, the pilot-in-command must ensure that sufficient fuel is carried for the duration of the intended flight, plus ONE-HOUR RESERVE. A visual or dipstick check must be carried out whenever possible due to the possible inaccuracy of the fuel gauges.

6.2.13 The minimum oil quantity before flight will be:

Cessna 152	5 Qts
Cessna 172	6 Qts
PA28, PA28R & PA34	6 Qts
Diamond DA42	above min on oil dipstick
Tecnam P2008	above min (2.5 ltr) on oil dipstick.

6.2.14 Aircraft are to be taxied or pushed clear of the fuel pump area if not immediately required for use.

6.3 Precautions when starting engines

6.3.1 Prior to starting the aircraft engine(s) the pilot shall ensure that he is aware of the nearest fire extinguisher in addition to the aircraft fire extinguisher.

6.3.2 An engine is not to be started when the aircraft is wholly or partly inside a hangar, or when the slipstream will be directed through open hangar doors.

6.3.3 Check that the brakes have pressure and will hold, otherwise ensure chocks are in place and assistance available.

6.3.4 Ensure all avionics equipment is switched OFF.

6.3.5 Carry out an internal check using the checklist.

6.3.6 Hand swinging and pulling through of propellers on Club aircraft is PROHIBITED except when conducting an oil check on the Tecnam P2008.

6.3.7 Prime the engine as necessary and be ready to start.

6.3.8 Check for people too near the aircraft and give a loud verbal warning 'CLEAR PROP'.

6.3.9 Start the engine(s) in accordance with the checklist, holding the RPM between 1100 and 1200 RPM as soon as possible.

6.3.10 Should an engine fire occur on starting, keep the engine turning over with the starter, turn off the fuel and open the throttle. If the engine starts, keep it running at 1000 to 1500 rpm until it runs out of fuel. A fire usually occurs due to over priming. Keeping the engine turning will take the flames into the engine until that fuel is burnt off.

6.3.11 Shortly after starting, check each magneto in turn to ensure that a drop in RPM occurs. A drop in RPM proves the magneto is not live, if the engine continues to run, this proves the other magneto is not dead. If no drop is present, at tickover RPM switch off both magnetos. If the engine still runs, it proves a live magneto exists and the flight SHALL NOT be made. If it is necessary to stop the engine, move the mixture control to ICO to stop it. Do not close the throttle until the engine stops running.

6.3.12 When the engine is cold, do not increase the RPM above 1500 for at least three minutes in order that temperatures will progressively increase and the oil will properly circulate.

6.3.13 After engine start the radio(s) shall be switched on and the volume/squelch controls adjusted to a comfortable level. Prior to transmitting, a check shall be made to ensure that no other station is using the frequency before transmitting – speak clearly and at a speed which permits the recipient to write down any relevant information.

6.4 Running changes

6.4.1 Changes of crew or passengers shall not be conducted with engine(s) running.

6.5 Taxiing procedures

6.5.1 Where applicable, pilots shall obtain permission from the ATSU before taxiing any aircraft. At Stapleford, pilots shall advise the Radio Operator they are taxiing.

6.5.2 Aircraft shall not be taxied into or out of hangars.

6.5.3 The maximum surface wind permitted for high wing aircraft is gusting 30 kts and for low wing aircraft gusting 40 kts.

6.5.4 A functional check of the braking system shall be carried out as soon as practicable, only use sufficient power to get the aircraft rolling and close the throttle(s) then try the brakes. The check shall be conducted in an area such that in the event of brake failure or partial brake failure there is no possibility of collision with any other aircraft or object.

6.5.5 Taxiing shall be carried out at a speed that will enable the aircraft to be brought to a safe halt in the stopping distance available. Use the elevators and ailerons correctly according to the wind direction on the aircraft and the amount of power being used.

6.5.6 Always taxi at least a wing span from other aircraft at a little over walking pace. If in a restricted area, e.g. between the fence and parked aircraft, taxi at less than walking pace with the engine ticking over, DO NOT USE BRAKES AGAINST POWER.

6.5.7 If coming onto the perimeter track, ensure the nose wheel will not go into a low area causing the propeller to strike the hard surface. On a single engine aircraft, approach the perimeter track at 45 degrees.

6.5.8 With twin engine aircraft, do not approach the perimeter track at an angle, always at 90 degrees, otherwise the nose wheel could be in a hollow, and the propeller may touch the hard higher surface. Always ensure the nose leg has sufficient extension.

6.5.9 When the grass is wet, do not use the brakes unless absolutely necessary, particularly for sharp turns because a wheel may lock and drag out a turf leaving a hole and muddy area for the future.

6.5.10 When parking the aircraft, either the parking brake shall be on or the aircraft shall be tied down or chocked, unless it is on a slope when the parking brake shall be on and the aircraft shall be chocked. The parking position shall be as far as possible chosen to allow the aircraft to be parked pointing into wind. Prior to vacating the aircraft a check shall be made to ensure that the Master Switch and Magnetos are switched off but leave the Tail Beacon ON.

6.6 Running up procedures and pre take-off checks

6.6.1 Ensure that all performance criteria are checked prior to take-off in order to satisfy the requirements of the ANO.

6.6.2 Position the aircraft at the holding point for power checks so that any slipstream will not cross the runway or affect other aircraft. The heading should be approximately into wind, but up to 60 degrees out of wind is acceptable. Power checks on the hardstand should be performed with the aircraft facing north.

6.6.3 Pick an area for power checks where the surface is free from debris, which could damage the propeller.

6.6.4 At airfields with designated run-up areas the power check shall be carried out at these areas.

6.6.5 Carry out power checks in accordance with the aircraft checklist.

6.6.6 If there is no drop in RPM when Carburettor Heat or Alternate Air is applied, unless it is not applicable to type, an engineer must check for serviceability.

6.6.7 The magneto rpm drop is to confirm that all cylinders are firing and that the magnetos are properly timed. The rpm drop gradually increases between periodic servicing, and even if all cylinders are firing, the maximum may be exceeded. This indicates either incorrect timing or a worn contact breaker heel, which retards the ignition. The maximum of 50 rpm drop between the two magnetos is to confirm ignition timing. No drop indicates a live magneto, and the flight must be abandoned. On the Cessna 152

and Piper Singles, the correct drop should be between 50 RPM and the maximum shown in the checklist.

6.6.8 Excessive magneto drops are not to be rectified by leaning off the mixture at high power except by Engineers or Flight Instructors.

6.6.9 Any discrepancies found during power checks must be reported before the flight is continued.

6.6.10 All pre take-off checks are to be carried out using the check list. Ensure that with the QNH set, the altimeter reads the elevation where you are, i.e. 120 feet at the holding point of R/W 21. Flap setting for take-off should be:

Runways 21 or 03 - Zero Flap
Runways 10 or 28 - 10 Degrees

6.6.11 When ready for departure, high wing aircraft must be turned away from the active runway and then turned towards the holding point to view the base leg and approach area before reporting ready.

6.6.12 When assessing traffic on long final, allow time after line up to run the engine at 2000 rpm for Piper PA28 before opening the throttle(s) for take-off. The DI/H.S.I must be set to the runway heading and the compass checked for approx. accuracy at this stage.

6.7 Accelerate-Stop training

6.7.1 When practising an Accelerate-Stop in a simulator, the engine is to be failed from the Instructor panel and in an aircraft by moving the mixture lever to idle cut-off. The engine failure should normally be initiated below 50 kts but also up to VMCa. The aircraft shall be brought to rest and the runway vacated before any further take-off roll is commenced.

6.8 Performance and engine failure after take-off

6.8.1 EFATO on single engine aircraft shall not be carried out from Runway 21 because, due to the rising ground, insufficient altitude will be achieved over Lambourne End resulting in annoyance to the local inhabitants.

6.8.2 When using Runway 21, EFATO on single engine aircraft must be practised dual from a go-around on final, which also proves whether a safe landing would have been achieved.

6.8.3 When an EFATO is intended, the A/G Radio is to be advised prior to take-off.

6.8.4 To satisfy the take-off and landing performance on certain Company aircraft when the grass runway is wet, take-offs and landings will be conducted from RW03R or RW21L.

6.8.5 When Runway 03R is in use, aircraft shall backtrack Runway 03L to the holding point. All pilots using Runway 03R must ensure the runway is clear and in addition to normal R/T communications, they must transmit their intentions and position on take-off and approach to landing when they see other aircraft in the vicinity.

6.9 Asymmetric engine failure after take-off

6.9.1 EFATO is only to be simulated by closing a throttle. When the engine has been identified and the engine failure touch drill has been completed, the Instructor shall set zero thrust on the failed engine.

6.9.2 Planned EFATO shall only be carried out under the supervision of an FI or CRI qualified to give multi-engine instruction, or a CAA authorised multi-examiner. The EFATO procedure is only to be initiated above 250 feet agl, clear of cloud, with the landing gear and flap retracted and at a safe speed at or above blue line.

6.9.3 Stapleford Radio and other circuit traffic are to be informed that the aircraft is under asymmetric flight by making the following radio call:

"STLXX simulated asymmetric, extending upwind"

6.9.4 Pilots shall climb straight ahead to 1000 feet agl before turning when asymmetric. ME qualified FIs and CRIs may at their discretion commence a turn below 1000 feet but not below 500 feet agl when simulated asymmetric. An appropriate circuit direction may be taken but a radio call shall indicate the decision being made. At Stapleford, avoid over-flying Lambourne below 600 feet agl.

6.10 Turns after take-off

6.10.1 Pilots shall not make turns immediately after take-off below 500 feet agl unless required as part of a noise abatement procedure or for purposes of terrain clearance.

6.10.2 When noise abatement procedures require pilots to turn below 500 feet, no turn shall be commenced until the aircraft has passed the screen height of 50 feet or the end of the runway. No turns are to be commenced until the aircraft has achieved the published climb speed.

6.10.3 During a climbing turn, the angle of bank shall not exceed 15 degrees. In the case of a ME aircraft, a rate one turn shall not be exceeded, and if turning into a dead engine, 10 degrees of bank shall not be exceeded.

6.10.4 When taking off from other runways, climb on runway heading until at least 500 feet agl is reached before turning onto the crosswind leg.

6.11 Local anti-noise requirements

6.11.1 When taking off from RW21L hard surface, avoid using any flap selection if possible in order that a higher altitude will be achieved, and track 200° after passing 300 feet QNH or the 03 threshold in order to avoid the village.

6.11.2 When taking off from RW03 turn to track 060° after passing 300 feet QNH. If departing the circuit to the East continue to climb ahead to 1000 feet before turning.

6.11.3 Pilots of aircraft with variable pitch propellers must reduce the rpm as soon as possible after take-off preferable by 500 feet agl, and leave them no higher than the cruise climb position whilst within the circuit and to 500 feet agl on final. When committed to land, carry out the Reds, Blues and Greens check, select fine pitch where it is unlikely that maximum rpm will in fact be reached due to a low throttle setting.

6.11.4 Avoid the noise sensitive areas, particularly those of Abridge and Lambourne End by following the circuit procedures since annoyance to locals could cause them to complain to the Council who might attempt to seriously limit movements as Councils have done at other aerodromes. When flaps have to be used, retract them as soon as possible to achieve a better rate of climb. With the exception of official Flight Tests, low-level bad weather circuits below 800 feet QNH are not permitted when runway 28 is in use and then only when authorised by the CFI. No more than 3 consecutive bad weather circuits are to be flown.

6.12 Circuit procedures

6.12.1 The Stapleford circuit pattern is normally left hand at 1200 feet on the QNH. Climbing turns shall be restricted to a maximum 15 degrees angle of bank, and descending turns to 20 degrees. Circuit traffic must avoid infringing the North Weald Traffic Area. North Weald circuits are to the west of the M11 up to 1400 feet QNH. A good lookout is always essential, particularly due to a busy circuit and the possibility of transiting traffic violating Stapleford ATZ.

6.12.2 When operating from grass runways, always commence the take-off run with the control column held well back, relaxing the pressure as speed increases maintaining a nose up attitude sufficient only to enable the aircraft to become airborne. This method reduces the actual take-off distance, particularly with soft ground. Except from R/W 28, climb ahead to at least 800 feet QNH before turning crosswind.

6.12.3 When taking off on Runway 28, make your flight path to the North of Abridge, and do not turn crosswind until reaching 1200 feet QNH. Always pick landmarks on which to turn onto the next leg or in poor visibility, use compass headings. The crosswind heading must be compensated for wind to avoid drifting downwind. Turning crosswind too early or drifting downwind could result in a climb being made into correctly joining traffic.

6.12.4 On a hot day or if there is a tail wind component on the crosswind leg, climb to 1000 feet QNH before turning. Climbing turns must not exceed 15 degrees angle of bank. If leaving the circuit, always climb ahead to 1000 feet QNH before setting course.

6.12.5 When turning downwind, again head for a landmark or on a compass heading if unable to do so, but DO NOT start looking for the airfield until you are established on the downwind heading when the airfield should then be at your 10 to 11 o'clock position.

6.12.6 For high wing aircraft, whenever turning in the circuit, it is safest to slightly lift the wing on the side of your intended turn looking for other traffic, then make the turn and scan the upwind side in the turn for other traffic. Extra vigilance must always be exercised in or near an Aerodrome ATZ.

6.12.7 The downwind call should be made abeam the upwind end of the runway. The A/G Radio and other traffic will then know where you are. If unable to call at that point, call 'late downwind'.

6.12.8 The pre-landing checks must all be completed before you are ready to turn base. The Carburettor Heat must be selected to hot during these checks and returned to cold on completion. Due to the mix of high and low wing aircraft in the circuit, maintaining altitude and lookout is very important.

6.12.9 Be sure to be at least 1200 feet QNH turning base. If lower, you may not be seen by other downwind traffic that could then turn base and descend onto you. At Stapleford, the base leg for R/W 21 should be slightly to the north of the power cables in order to be no less than 700 feet QNH over them on final. Glide approaches should commence from the base leg so that judgement for landing from the 1000 foot point prepares the student for successful practice forced landings.

6.12.10 The bank angle should not exceed 20 degrees turning final with the speed 5 kts higher than the normal approach speed. Commence final turn to roll out on the runway centre line. As soon as wings are level on final, select full flap if required and call final.

6.12.11 Wherever you are landing, be satisfied that the landing distance available is sufficient to meet the landing distance required. See relevant AICs to assist in calculations from the Flight Manual.

6.13 Circuit re-joining and lookout

6.13.1 Pilots are to maintain a LOOKOUT at all times. When flying with passengers they should be encouraged to assist with this lookout. Pilots shall brief passengers to report other aircraft, using the clock code to identify their position.

6.13.2 When joining overhead, overflight should be at 1800 feet QNH. The descent is to be on the Dead Side down to 1200 feet QNH east of the motorway intersection to avoid penetrating Stansted Controlled Airspace. Then fly at 1200 feet to cross the upwind end of the runway. The track to downwind join must avoid being over the crosswind climb path and the downwind call should be made when abeam the upwind end of the runway. See Safety Sense Leaflets and relevant AICs.

6.13.3 Due to extensive circuit traffic, only join overhead at weekends and at other times base or final joins mustt be advised to the A/G Radio or Stapleford Traffic with a very good lookout maintained - circuit traffic must always have right of way. Remember that Helicopters could be joining for a different runway on a low level joining route.

6.13.4 At all times when the Aerodrome Radio is not manned, circuit calls will be made. Not hearing calls at any time does not absolve a pilot from maintaining a good lookout, there could be a radio failure, or someone may forget to call.

6.14 Landing and go-around action

6.14.1 Pilots shall initiate go-around action if there is any doubt regarding the ability to land the aircraft safely. See relevant AICs. In particular, go-around action shall be initiated:

a) If the landing area is obstructed
b) The approach path or airspeed is unsatisfactory
c) The prevailing wind or weather exceeds his limits or ability
d) When initiated by Air Traffic Control
e) In the event of a bounced landing or pilot induced oscillation.

6.14.2 In the event of a go-around. The pilot shall:

a) Apply full power – ensure carburettor heat is cold
b) Remove drag flap by setting the optimum lift setting for the aircraft
c) Establish a safe climb
d) In the case of an aircraft with retractable undercarriage raise the gear
e) Do not turn near the ground. Climb either side of the runway, or where permitted, turn onto the dead-side and parallel the runway
f) Retract the flaps fully once above 300 feet agl
g) Advise ATC
h) Continue to climb straight ahead to circuit altitude before turning crosswind to reduce the risk of climbing into circuit joining traffic.
i) Either complete another circuit or divert

6.14.3 At airfields where there is ATC, pilots shall not descend below 200 feet agl unless cleared to land by ATC. At airfields where there is an AFIS, A/G or no communications, pilots are to initiate a go-around if the runway is not clear of all traffic by 200 feet agl. When aircraft are backtracking RW21 after landing at Stapleford, pilots shall not descend below 400 feet agl. Clearance to ‘land after’ may only be authorised by an ATCO (ref ANO).

6.14.4 EFATO should be practised dual from a go-around on final to ensure that a safe landing would have been achieved. Advise A/G Radio of your intentions.

6.14.5 In the case of Multi-engine aircraft, the actions detailed above shall be complied with where possible, but operate the aircraft to the method described in the Flight Manual for the type concerned or when training for the Instrument Rating, in accordance with the Training Manual.

6.15 Asymmetric go-around and committal altitude

6.15.1 When the aircraft is asymmetric, the commander is to ensure a suitable asymmetric committal altitude is used below which no go-around is planned. When conducting asymmetric training or testing, an asymmetric committal altitude of 400 feet agl shall be used except for the Instrument Rating Training when 250 feet above runway threshold may be used. The land flap shall not be selected until a landing without further power is guaranteed. See relevant AICs.

6.15.2 Notwithstanding the above, asymmetric committal altitude is not fixed but in the event of a real asymmetric condition, may be lowered to assure a landing is possible. In such an event the approach speed shall be maintained above Blue Line until a visual landing is assured.

6.16 Action after landing at Stapleford

6.16.1 After landing on RW10 vacate RIGHT and on RW28 vacate LEFT, unless information by the A/G Radio would suggest otherwise, stopping well clear of the runway, then carry out after landing checks. Backtrack to a suitable crossing point if required and observe the A/G Radio information for further taxi and parking. No instructions will be issued when A/G is being used.

6.16.2 When the ground is soft, RW21R and RW03L will not be used unless notified as active. If RW21R is in use, vacate to the left and taxi down to RW21L. Ensure there is no landing traffic as it is better to backtrack the hard surface when the ground is soft.

6.16.3 When landing on RW03R, continue rolling onto the hard surface and vacate left at any point unless information from A/G Radio advise otherwise. A following aircraft may land on RW03L subject to advising the A/G Radio. An aircraft landing on RW03R will also be informed. The aircraft landing on RW03R must have rolled at least halfway down the hard runway before any aircraft may land on RW03L.

6.16.4 When landing on RW21L (Hard runway) turn right onto RW21R and backtrack unless RW21R is in use when you must turn left and backtrack RW21L. RW21R will not normally be used for landing. When required, it is safest to cross the active runway at 90 degrees. If full stop landings are being made on RW03L, vacate right onto RW03R as soon as possible in order that following aircraft can land, then backtrack RW03R to the holding point. When the detail is complete and it is safe to cross RW03L, ensure you have a good view for possible RW03L traffic and continue down R/W 28 to the parking area.

6.16.5 Touch and go landings are not to be practised unless authorised by a Flight Instructor. The first three details of solo circuit consolidation must be planned as full stop landings.

6.16.6 Where the runway is marked with a displaced threshold, this is designed to maintain a safe separation from obstacles, the touchdown must not be made before such markings.

6.16.7 All asymmetric landings are to be full stop and should normally be the last landing of a training sortie. Where an asymmetric landing is to be followed by a further departure, the aircraft shall initially be brought to rest before taking such action. Roller or Touch

and Go landings should not be made following an asymmetric approach unless dual and with sufficient runway distance available to satisfy performance calculations. See AICs.

6.17 Local flying area

6.17.1 The local training area is displayed in the flight planning room (also Appendix 25). Pilots must be fully aware of the limitations imposed by the London TMA, London CTR, Thames CTR, Stansted CTR/CTA/TMZ and Southend CTR/CTA.

6.17.2 The Thames CTR Northern Boundary from Ground Level to the base of the London TMA of 2500 feet QNH is 4.5 nm to the South of Stapleford and the Stansted CTA base of 1500 feet QNH extends to the intersection of the M11 and M25 at Theydon Garnon. North Weald airfield is under the Stansted 1500 feet CTA and within the TMZ, and 2 miles to its north the CTR boundary is from ground level to the TMA base. See relevant AICs.

6.17.3 In view of the proximity of Stansted controlled airspace, overhead departures are not recommended. Great care is to be exercised when rejoining overhead and descending on the North West Side of the airfield. Aircraft must be below 1500 feet QNH before reaching the motorway intersection. During training, students will be given the opportunity to liaise with Stansted and London City for CTR/CTA penetration procedures. You will also be taught how to set up the Transponder in order that a request from ATC can be complied with. It is the pilot's responsibility to comply with ANO Rule 5 over built up areas. On a single engine flight further than 4NM South of Stapleford, Rule 5 cannot be satisfied.

6.17.4 Within the local training area, Radar assistance is available from Southend on 130.780, Farnborough North on 132.8 or Farnborough East on 123.225. In the event of being uncertain of your position, contact the most likely of these frequencies or D&D on 121.5 as soon as possible to avoid infringing controlled airspace.

6.17.5 If you think you may have infringed any controlled airspace, report to the CFI on landing in order that contact with the respective ATC unit can be made to explain the reasons and hopefully prevent unwelcome action being initiated.

6.17.6 Pilots are advised that within or close to the Local Flying Area, there are several private landing strips and that aircraft may be landing or departing without being in any form of radio contact, the busiest ones are:-

Damyns Hall
Jenkins Farm
Laindon
Thurrock
Willingale (near Ongar)

6.17.7 To locate Stapleford visually from the local flying area, the prominent features are the A12 Trunk Road, the River Thames, the M25 from Dartford through Brentwood to Stapleford, the M11/M25 intersection, Havering White Tower and North Weald aerodrome.

6.18 Practice forced landing

6.18.1 Solo practice forced landings will not normally be authorised, but dual glide approach landings from Base Leg on the aerodrome will be carried out until it can be demonstrated they are to a satisfactory standard to carry out solo practice forced landings. When solo PFLs are allowed, they must be authorised by a Stapleford Flying Club Instructor when the briefing shall include:

a) Minimum altitudes to be observed
b) Location
c) Requirement not to use the same field twice
d) Requirement to comply with Rule 5
e) Use of Carburettor Heat
f) Engine warming (every 1000 feet – partial power for 3 seconds)
g) Requirement for LOOKOUT
h) Electric Fuel Boost pump to be on at all times.

6.18.2 Unless you have flown over a good forced landing area, turning downwind after an engine failure is not desirable since there could be a town or very unsuitable area in that direction. Whilst trimming for the glide, roll right and look for a field, if none, roll left and look underneath, if none there, keep turning left looking for a field within gliding distance. When the field is found, align the wind direction on the gyro with the field to find the landing run direction, then choose the 1000 foot point, adding the elevation for an altitude for a left or right base as used for glide approach landings. Endeavour to glide to that position and altitude, carrying out forced landing checks and other vital actions. If high at that point, extend the track distance, if low, shorten the turn onto final. Comply with Rule 5 at all times during training.

6.18.3 Qualified pilots are encouraged to practice forced landings on a regular basis, and in particular glide approach landings at Stapleford. Before flight, student pilots are to obtain a briefing from a Flight Instructor.

6.18.4 When a practice forced landing is authorised over Stapleford Airfield, the student must declare his intentions to the A/G Radio, but circuit traffic has priority at all times. An exceptionally good lookout must be maintained at all times during the descent.

6.18.5 When the 'forced landing with power' exercise is practised at Stapleford, it shall only be carried out on RW21, RW03 or RW10 with a circuit altitude not lower than 900 feet. At this altitude, ensure you do not pass over noise sensitive areas. All other circuit traffic is to be informed of this exercise.

6.19 Aerobatics & other unusual manoeuvres (including spinning)

6.19.1 No aerobatic manoeuvres are permitted in any School aircraft other than G-BYOB. Spinning is permitted in G-BYOB, G-BGAA and G-BYMJ, and then only under the authorisation of a Stapleford Flying Club Instructor.

6.19.2 Aerobatics and unusual manoeuvres may only be carried out in VMC.

6.19.3 Aerobatics and unusual manoeuvres must be conducted to the East of Stapleford Airfield, obtaining permission to enter or keeping clear of controlled airspace, and not over any town or settlement. They must be commenced at an altitude that will ensure recovery above 2500 feet agl.

6.19.4 Aerobatics and unusual manoeuvres are not permitted within the aerodrome traffic zone unless authorised by the Management and the duty A/G Radio Operator.

6.19.5 The approved manoeuvres detailed in the aircraft flight manual will limit the extent of aerobatics permitted.

6.19.6 Stalling and recovery from unusual attitudes specified in the training syllabus will normally be conducted in the local flying area around Hanningfield Reservoir.

6.19.7 The role of the Slingsby Firefly G-BYOB is to provide aerobatic capability for the following:

FI Aerobatic Course
AOPA Basic Aerobatic Course
AOPA Standard Aerobatic Course
Aerobatic Instruction
Competition Aerobatic Instruction
Aerobatic Trial Lessons
Spin training

6.19.8 Firefly Instructors shall be approved by Head of Training or his nominated Deputy.

6.19.9 When such Approved Instructors are flying the aircraft, the radio call sign “Firefly” shall be used when communicating with Stapleford A/G Radio.

6.19.10 When being flown by Approved Instructors, the a/c shall be recovered to level flight not below 2000 feet agl

6.19.11 Aerobatics overhead Stapleford Airfield may only be performed by those Approved Instructors so authorised by Head of Training.

6.19.12 The Firefly is available for hire by SFC pilots who have undergone appropriate Differences Training and/or type conversion at SFC.

6.19.13 A student record shall be maintained for such pilots and any aerobatic manoeuvres which these pilots have safely demonstrated shall be authorised therein, together with any restrictions which their Instructor may deem necessary to impose.

6.19.14 The Firefly shall at all times be operated in accordance with the AFM.

6.19.15 At the completion of a sortie, the Firefly shall be left fully fuelled and the covers fitted.

6.20 Instrument flying – actual and simulated

6.20.1 Pilots wishing to fly School aircraft in IMC shall hold a valid IMC rating, an IR or a UK Professional pilots licence with embedded IMC privileges. All pilots shall be in current flying practice.

6.20.2 Students undergoing training may fly in IMC provided a School Instructor qualified to give instrument flight instruction accompany them.

6.20.3 Pilots wishing to practise instrument flying or approaches shall comply with the provisions of Rules 6 and 7 of the Rules of the Air. Instrument approaches shall not be conducted in VMC without the permission of ATC.

6.20.4 Only approved instrument flying screens may be fixed to the aircraft for instrument flying training. If screens are not available, Foggles or a Hood may be used, but it must be remembered that continued movements of the head due to the restricted vision may reduce ones scanning ability, also the possibility of seeing external cues.

6.20.5 Simulated instrument flying is not permitted unless an observer is carried. The aircraft shall be fitted with dual flying controls, and the person in the right hand seat will be designated Pilot in Command. The Pilot in Command must be an Instructor with an Instrument or IMC rating. Observers may be carried who must assist in keeping a good lookout.

6.20.6 Dual IMC/IR training in Single-Engine aircraft will only be conducted when the cloud base is higher than 1000 feet above the Departure and Training airfield and for the whole of the route. Rule 5 of the Rules of the Air must also be complied with.

6.20.7 If instrument training is carried out in controlled airspace, the PIC must hold a valid Instrument Rating if IMC prevails. In controlled airspace, the PIC must inform ATC if he is not Instrument Rated. Only a pilot with a valid Instrument Rating may fly in Class 'A' airspace. Remember that Stansted CTR/CTA merges into the 2500 feet and 3500 feet base of the LTMA, which is Class 'A' airspace.

6.20.8 During instrument approach training, an instrument approach ban will exist when:

a) The requirement for the commencement and continuation of an approach as defined in the ANO shall be satisfied
b) A Pilot in Command may commence an instrument approach regardless of the reported RVR/Visibility but the approach shall not be continued below 1000 ft above the aerodrome if the relevant RVR/Visibility for that runway is at the time less than the specified minimum for landing:
c) Where the RVR is not available, RVR values may be derived by converting the reported visibility in accordance with the following table:

Lighting Elements in Operation	**RVR = Reported Met Visibility Multiplied by**	
	Day	**Night**
HI Approach & Runway Lighting	1.5	2.0
Any Type of Lighting Installation Other than	1.0	1.5
No Lighting	1.0	Not Applicable

d) If, after passing 1000 feet in accordance with para b) above, the reported RVR/Visibility falls below the applicable minimum, the approach may be continued to DA or MDA but to continue below DA or MDA, para 6.20.9 and 6.20.10 following must be satisfied.

6.20.9 A pilot shall not continue an approach below the Category 1 DA determined from EASA Minima, or the landing completed, unless the required visual reference is established at the DA or MDA and is maintained. The following visual references for the intended runway shall be distinctly visible and identifiable to the pilot:

a) elements of the approach light system
b) the threshold
c) the threshold markings
d) the threshold lights
e) the threshold identification lights
f) the visual glide slope indicator
g) the touchdown zone or touchdown zone markings or
h) runway edge lights.

6.20.10 In the case of a non-precision approach flown non-CDFA, the aircraft may be levelled-off at the MDA and heading maintained towards the missed approach point for the runway provided that:

a) the approach heading does not diverge more than 15 degrees from the heading of the runway on which landing is intended and
b) the forward visibility assessed from the cockpit is not less than the in-flight visibility for circling and
c) if and when a visual reference as detailed in para 6.20.9 above is satisfied, the descent may be resumed only if the landing can be carried out in the normal touchdown area at the normal touchdown speed.

6.20.11 For single pilot operations, an RVR of less than 800 metres is not permitted except when using a suitable autopilot coupled to an ILS, in which case normal minima apply. If an RVR greater than 800 metres is published, that will become the minimum RVR.

6.20.12 Simulated instrument flying training outside controlled airspace should be in VMC, however, if a Radar service can be maintained, such training may be carried out in IMC.

6.20.13 Instrument training involving recovery from unusual attitudes will only be carried out in VMC.

6.20.14 Requests for training periods at airfields with an approved approach procedure must always be made by phone or fax, and the slot times allocated must be adhered to. If a delayed departure is likely to occur, advise ATC at the airfield that a revised time is required or cancel the slot in order that it can be offered to others.

6.20.15 When QNH is used on a precision instrument approach, if the Threshold Elevation is 7 ft or more below the Aerodrome Elevation, the barometric pressure setting to be used for landing will be passed by ATC as QNH with the Threshold Elevation in feet. If less than 7 ft below Aerodrome Elevation and for a non-precision instrument approach, the Aerodrome Elevation in feet will be passed. See also relevant AICs regarding ILS standards and coverage area.

6.20.16 ATC Flight Plans will be submitted to NATS via the AFPEx system and must be filed at least 1 hour but preferably 2 hours before the ETD because training flights have a low priority.

6.20.17 The flight plan is to be activated on the radio by contacting London Info on 124.6 or by prior arrangement with Stapleford A/G Radio.

6.21 Practice asymmetric flights

6.21.1 Simulated engine failure with feathering is not permitted below 3000 feet agl. Below this altitude, a touch drill will be carried out. See relevant AICs.

6.21.2 Simulated engine failure after take-off at a speed no less than Blue Line plus 10% may be initiated after passing 300 feet agl if it is safe to do so, taking into consideration the configuration, the trainee pilots ability and obstacles in the flight path.

6.21.3 To simulate engine failure, the Flight Instructor is to cover the throttles with a sheet of paper etc., and slowly close one throttle. Once correctly identified and touch drill completed, leave the failed engine pitch lever at 2400 RPM and set the throttle to 12” M.P. to simulate Zero Thrust.

6.21.4 When on circuit training, to minimise noise, normal twin engine power must be restored when drills are completed, and Zero Thrust set up again just prior to turning base leg.

6.21.5 Simulated single engine go-around must be initiated in accordance with para 6.15 of this manual before descending below the relevant altitude, this will be the ‘Asymmetric Committal Altitude. For Asymmetric Committal Altitude, add 400 feet to the runway elevation.

6.21.6 Simulated engine failure on a two engine approach go-around with a maximum 25 degrees of flap extended shall not be carried out below 400 feet agl, the Instructor assisting with rudder application and flap retraction if necessary, until the student is proficient.

6.21.7 Engine feathering (shut down) shall be practised in VMC only in the Clacton area up to FL 55, and where in the event of being unable to restart, Southend Airport can be used for landing.

6.22 Use of Mixture control

6.22.1 Should carburettor icing occur and the engine runs rough when the Carb Heat is applied, it must not be returned but left out and the mixture weakened until the engine runs smoothly. Application of Carb Heat richens the mixture, which is the cause of the rough running. See AICs for full details.

6.22.2 On fuel injected engines, application of alternate air in flight should cause a slight drop in MP, should the MP increase, this would indicate intake icing and alternate air should remain selected to ON. This will cause the engine to run richer and mixture control should be used to compensate.

6.22.3 The primary need for a mixture control is to adjust the mixture fuel/air ratio as altitude is increased when the mixture becomes richer. It must never be leaned off when 75% or more power is being used.

6.22.4 Up to 3000 feet for a C152 and 5000 feet for most other engines on full throttle, 75% or more power is available, and the richer mixture is required for cooling. Above these altitudes, 75% power is no longer available on a normally aspirated engine, therefore correct leaning will not cause overheating.

6.22.5 Because power is reduced to about 65% power or less for the cruise, it is permissible, and for fuel planning advisable, to lean off at any altitude, this should be done by slowly leaning until a slight increase in RPM or rough running is detected, then richening slightly up to about 1/4 inch.

6.22.6 At any time power is increased to 75% or more, the mixture must be set at full rich until power is reduced again. At altitudes above 5000 feet instead of richening from the peak RPM, it is beneficial with a tail wind to further lean just past the peak RPM provided the engine is still running smoothly. If the mixture is set correctly, provided there is no carburettor icing, there should be no or little change in RPM if Hot Air is applied. The Exhaust Gas Temperature (EGT) gauge, if fitted should be monitored during leaning, as should all other temperatures and pressures.

6.22.7 The mixture should be left at lean in the descent down to circuit altitude, richening slightly if a long descent, to prevent over cooling the pistons. It must always be rich in the circuit.

6.23 Use of Carburettor Heat

6.23.1 Refer to relevant AICs relating to Induction Icing in Piston Engines.

6.23.2 Hot air is obtained by routing it through a muffler around one or more of the exhaust pipes or silencer, it follows therefore that no heat is obtained with reduced or no power. Carb Heat must not be confused with Alternate Air which is used on Fuel Injected engines only, these suffer a different type of icing.

6.23.3 To ensure hot air is delivered to the carburettor when heat is required, the engine must always be under power when the control must be left out for some 15 to 30 seconds to achieve proper heating. If this is done before a glide, the carburettor will remain hot for some time, as very little air will be passing through until the throttle is opened again.

Hot air passing through the cylinders also assists in maintaining carburettor temperature.

6.23.4 Before selecting Hot Air, note the RPM, return to cold after 15 to 30 seconds if no rough running is detected, if the RPM is then higher, carburettor icing was present. If ice is present and continual use of hot air is required, leave Hot Air set and lean the mixture to obtain smooth running. Heat must always be applied whenever a drop in RPM is detected, or should the engine start to run rough - carburettor ice causes a rich mixture giving both these symptoms. If the engine runs rougher still with first application of Carb heat, do not return it to Cold but lean off the mixture slightly until it runs smooth.

7 General Flying Orders

7.1 Minimum altitude/flight levels for training

7.1.1 The minimum altitude for circuit training shall be 1200 feet with the exception that practice low level circuits may be conducted at 600 feet agl on the East side of the airfield and to the South of the Power Cables.

7.1.2 For cross-country flights in VMC, the flight shall be planned and conducted at a level at least 500 feet above the highest obstacle within ten miles of the track.

7.1.3 The minimum altitude for dual and solo stall/spin training shall be such that recovery can be completed by at least 2500 feet agl.

7.1.4 The minimum planned altitude for solo VFR navigation exercise shall be 2000 feet agl. Dual navigation training flights shall not be planned below 1500 feet unless the intention to practice minimum level operation is entered in the Authorisation Sheet.

7.1.5 For flight in IMC, the flight shall be planned and conducted at a level at least 1000 feet above the highest obstacle within ten miles of the centreline between two navigation aids not more than 50 miles apart. If the aids are at a greater distance than this, then the flight must be conducted at least 1000 feet above of the highest obstacle within 25 miles from the intended track.

7.1.6 The minimum altitude for practice asymmetric operation outside the circuit shall be 3000 feet agl.

7.1.7 For all flights, the Rules of the Air Regulations and in particular Rule 5 must be fully satisfied.

7.2 Weather minima for local flying and cross country flights

7.2.1 Aircraft may not be operated with ANY frost or ice on them. See AICs dealing with slush and snow. Flights in aircraft without de-icing or anti-icing equipment are not permitted into known icing conditions - see Flight Manual.

7.2.2 The maximum permitted crosswind limits are:

a)	Cessna 152 Take-off and landing	12 kts
b)	Cessna 172 Take-off	20 kts
c)	Cessna 172 Landing	15 kts
d)	Piper PA28-161 Take-off and landing	17 kts
e)	Piper PA28R Take-off and landing	17 kts
f)	Piper PA34 Seneca Take-off and landing	13 kts
g)	PA18 Super Cub Take-off and landing	12 kts
h)	Diamond DA42 Take-off and landing	20 kts
i)	Tecnam P2008 Take-off and landing	15 kts

7.2.3 For other aircraft types, refer to the Flight Manual.

7.2.4 Weather Minima VMC:

a) Student Pilots:

Phase	Cloud Base Altitude	Visibility	X-Wind Comp:	Max S/Wind
Circuit	1500 feet	7 km	10 kts	20 kts
Solo Navigation	2500 feet	10 km	10 kts	20 kts

b) PPL with less than 100 hours post licence issue – no IMC Rating.

Phase	Cloud Base Altitude	Visibility	X-Wind Comp:	Max S/Wind
Circuit	1200 feet	5 km	12 kts	25 kts
Solo Navigation	2000 feet	5 km	12 kts	25 kts

c) PPL with more than 100 hours PIC – No IMC Rating.

Phase	Cloud Base Altitude	Visibility	X-Wind Comp:	Max S/Wind
Circuit	1200 feet	3 km	17 kts	30 kts
Solo Navigation	2000 feet	3 km	17 kts	30 kts

Note: The Maximum Surface Wind including gusts may be extended from 30 to 40 kts with low wing aircraft.

d) Max surface wind PA18 Super Cub 20 kts.
e) Holders of professional pilot licences shall be limited by the privileges of their licence

7.2.5 Weather Minima IMC (Cloud base AAL in feet – Visibility in metres):

a) Instrument Rated Pilots and CPL holders:

Single engine aircraft	Take-off and Landing	600 feet & 1800 metres
Multi engine aircraft	Take-off	300 feet & 1000 metres
	Visual Approach	1000 feet & 1500 metres
	Instrument Approach	Procedure Minima

b) IMC Rated Pilots:

Single engine aircraft	Take-off and Landing	600 feet & 1800 metres
Multi engine aircraft	Take-off	300 feet & 1000 metres
	Visual Approach	1000 feet & 1500 metres
	Instrument Approach	600 feet & 1800 metres

c) Procedural EASA Minima is fully detailed in the Aerad Manuals.

7.2.6 The pilot in command is responsible for checking the weather is suitable for the intended flight and that it will remain so for at least two hours after ETA.

7.2.7 Local Area Forecasts and upper winds are obtained twice daily and are displayed in the Operation Room. Oral forecasts are available from Exeter on Telephone 01392-885680. TAFs and METARs are also available on the computer connected to the Internet in the flight planning room.

7.2.8 At no time will a flight be conducted over terrain or built up areas in a single engine aircraft when the cloud base, or the base of controlled airspace, would prohibit having sufficient altitude for a forced landing to be carried out to comply with the requirements of Rule 5, and with a reasonable chance of success.

7.3 Wake turbulence

7.3.1 Pilots flying Stapleford Flight Centre aircraft shall adhere to the UK minimum distance and time separation requirements published in AICs, when taking-off or landing whether operating the UK or not. These criteria are:

a) When approaching to land:

Behind a Heavy aircraft	8nm	or	4min
Behind a Medium aircraft	6nm	or	3min
Behind a Small aircraft	4nm	or	2min
Behind a Light aircraft	N/A		N/A

b) When departing from:

The same departing point other than behind a light aircraft	2min
An intermediate departing point other than behind a light aircraft	3min

7.3.2 Pilots attention is drawn to AICs dealing with wake turbulence and vortex rings. They go into greater depth of knowledge and advice than the following paragraphs.

7.3.3 Pilots are reminded of the hazardous conditions which will arise in the event of encountering Wake-Turbulence. Wake vortices, usually referred to as wake turbulence, are present behind every aircraft, including helicopters when in forward flight, but are particularly severe when generated by heavy aircraft such as the wide-bodied jets. They are most hazardous to aircraft with small wing span during the take-off, initial climb, final approach and landing phases of flight.

7.3.4 The characteristics of the wake vortex system generated by an aircraft in flight are determined initially by the aircraft's gross weight, wingspan, airspeed configuration and attitude. Subsequently these characteristics are altered by interactions between the vortices and the ambient atmosphere and eventually, after a time varying according to the circumstances from a few seconds to a few minutes after the passage of an aircraft, the effects of the wake become undetectable.

7.3.5 Vortex strength increases with the weight of the generating aircraft. With the aircraft in a given configuration, the vortex strength decreases with increasing speed, and for a given weight and speed, the vortex strength is greatest when the aircraft is in a clean configuration. There is some evidence that for a given weight and speed, a helicopter produces a stronger vortex than a fixed-wing aircraft.

7.3.6 For practical purposes, the vortex system in the wake of an aircraft may be regarded as being made up of two counter-rotating cylindrical air masses trailing aft from the aircraft, i.e. looking from behind, the left vortex clockwise and the right one anti-clockwise. Typically, the two vortices are separated by about 3/4 of the aircraft's wingspan. In still air, they tend to drift slowly downwards and either level off, usually not more than 1000ft below the flight path of the aircraft or, on approaching the ground, move outwards at about 5 kts from the track of the generating aircraft at a height approximately equal to half the aircraft's wingspan.

7.3.7 In a stable airflow, the wake vortex near the ground will drift with the wind. In the case of a crosswind of around 5 kts, the downwind vortex will drift away from the runway, but the other, due to its 5 kts movement against a 5 kts wind will remain on the aircraft's track.

7.3.8 Wind shear causes the two vortices to descend at different rates and, close to the ground can cause one of the vortices to rise. See relevant AICs. Atmospheric turbulence and high winds close to the ground hasten the decay and disintegration of vortex wakes, thus special attention need to be given to situations of light wind, when vortices may stay in the approach and touchdown areas of airports or sink to the landing or take-off paths of succeeding aircraft.

7.3.9 In order to reduce the risk of penetrating wake vortices, the following must be borne in mind to assist such avoidance:

a) Always allow at least 2 minutes when taking off from the threshold and 3 minutes from an intersection after any heavy departure.
b) In light wind conditions, always commence the takeoff from the threshold, noting the rotation point of any departing heavier aircraft. Never take-off from an intersection unless the surface crosswind is in excess of 10 kts when heavy aircraft are departing.
c) Use extreme caution taking off from intersecting runways where there is a risk of crossing wake-turbulence either at the intersection or merging or crossing flight paths.
d) Use extreme caution when taking off from a parallel runway where wake-turbulence may have drifted across the departure flight path.

7.4 Thunderstorms, Windshear and Turbulence

7.4.1 AICs provide information on turbulence, thunderstorms, mountain waves and low altitude windshear. When thunderstorm warnings are in force, pilots shall read these AICs before undertaking any flight.

7.5 Preparation for cross country exercises and navigation flights

7.5.1 Pilots are to ensure that cross-country flights are planned in accordance with the following instructions:

a) Pilots are to obtain a met forecast covering the route to be flown including TAFs and METARS for the destination and alternate aerodromes
b) Notams, Temporary Navigation Warnings shall be checked to ensure that the proposed flight is not affected by Purple Airspace, Air Displays, Temporary Restricted Airspace, Royal Flights etc
c) Pilots are to prepare a PLOG for all flights, except those remaining within the local flying area. The PLOG shall include: headings, estimated time for each leg and all relevant navaid and communication frequencies
d) Pilots are to ensure that the proposed flight does not infringe any Prohibited Area, Restricted Area or any active Danger Area, unless a Danger Area Crossing Service can be obtained
e) Pilots planning a sea crossing exceeding 10nm, or a flight over sparsely populated areas shall file a Flight Plan (form CA48), AICs refer, with the appropriate ATSU. For the purposes of these Flying Orders the whole of Scotland (except the Forth/Clyde valley), the whole of Wales and Southwest England west of Airway A25 is considered to be sparsely populated.
f) Pilots are to use the UK AIP to obtain en-route information and for details of en-route, destination and alternate aerodromes
g) Student Pilots shall not depart on a solo cross-country flight until the accuracy of the PLOG has been checked by a School Flight Instructor. The Instructor is to complete the Solo Navigation “Briefing Certificate” for all student solo flights, also the Technical Log:
h) Pilots are to complete a Weight and Balance schedule prior to departure. Fuel planning shall take into account the fuel burn for the entire route plus ten per cent. Additional fuel shall be carried to permit flight to the nominated alternate from overhead the destination and a further 45 minutes reserve shall be carried
i) Calculation of landing distance and take off distance are to be calculated for all airfields with which the pilot is not familiar and grass airfields.

7.5.2 All flights beyond the Aerodrome Local Flying area are classed as Cross-Country flights if turning points are properly recorded.

7.5.3 The minimum altitude for cross country flying shall be at least 1000 feet agl, but flights over built up areas shall be at an altitude which, in the event of an engine failure, in accordance with Rules of the Air permit the aircraft to be at such a height as would enable the aircraft to alight clear and without danger to persons or property on the surface or a height of 1000 feet above the highest fixed object within 600 metres of the aircraft whichever is the higher. Flights over the Greater London area are therefore not possible with single engine aircraft even if ATC give a clearance.

7.5.4 All cross country flights to the South or South East must be planned from the A12/M25 intersection at Brentwood and down the M25 to the Queen Elizabeth Bridge, because over flight of Ilford, Romford, and Dagenham at a maximum altitude of 2400 feet below the LTMA, cannot satisfy the requirements of Rule 5.

7.5.5 Refer to AICs that relate to flight when low pressure settings prevail, Visual Reference Points and VFR/SVFR clearances.

7.5.6 If the authorising Instructor has not flown with the student, the student record sheet for the last dual cross country must have been endorsed by the Instructor that the student may be authorised for the solo cross country. If the authorising Instructor has not flown

with the student during the previous 7 days, and there is a crosswind or any other pertinent reason, a minimum of a dual circuit check is to be carried out before the solo detail.

7.5.7 Cross-country dual training must not be carried out over the PPL Skill Test routes. Training diversions must be in different areas to those carried out during these Tests.

7.5.8 Before the first solo cross country detail, a student shall have received sufficient Dual Navigation instruction including a landing away from base at an International Airport, a MATZ penetration (see relevant AICs for R/T calls), a satisfactory diversion with recovery from a lost situation using the Distress and Diversion Cell on 121.5, and be fully competent in Spin/Stall Awareness. A practice forced landing without warning should also have been carried out.

7.5.9 The briefing for the Qualifying Cross-Country shall satisfy the approved printed brief detailed as Appendix 4. Clearance must be obtained from the airfields where a landing is intended. The duration of the exercise must allow a minimum of 30 minutes on the ground at each airfield, plus the planned flight time. The departure time from Stapleford must provide for an ETA back at Stapleford at least two hours prior to Sunset or 1700 hours Local Time whichever is the earlier, or two hours before any deterioration of the weather is forecast.

7.5.10 The Student shall take the approved authorisation sheet detailed in Appendix 5 on which a satisfactory report must be signed by an authorised person at the airfields at which a landing is to be made. Should a satisfactory arrival not be made at either of the intended airfields, or he/she will be unable to satisfy the ETA at Stapleford, the student shall not depart but shall contact his Instructor or the CFI for further instructions.

7.5.11 If at any time during a solo cross country flight a weather or technical problem occurs, the student must return to his point of departure or the nearest airfield depending on the circumstances of the situation. If the planned route is not achieved at any time, immediately after landing, the student shall contact his Instructor or the CFI.

7.5.12 Be familiar with the position, horizontal plan, vertical dimensions and nature of charted Prohibited, Restricted and Danger Areas in the area of operation which presently include:

D136 Southend, D138 / D138a / D138b Nr Southend, D146 Sheerness, D139 Nr Colchester, D208 Nr Honington, D141 Nr Hythe and D044 which is within the Lydd Traffic Zone and Circuit.

Avoid or overfly above 2000 feet the Restricted Areas of Sizewell and Dungeness.

7.5.13 When there has been a period of rain, the risk of water logging at grass airfields is high. Before considering a landing at a grass airfield, PRIOR PERMISSION with particular attention to the surface conditions, shall be obtained before departure.

7.5.14 Before the PPL Skill Test is conducted, which will include a cross-country section involving VOR tracking and fixes, all the Part-FCL syllabus items must have been met. This includes all written examinations completed, a minimum of 45 hours training to include at least 25 hours Dual and 10 hours solo flying which includes five hours solo cross-country. The oral test for a Flight Radiotelephony Operator's Licence (FRTOL) also is strongly recommended.

7.5.15 The following approved qualifying solo cross-country routes satisfy Part-FCL requirements. They may also be conducted in the reverse direction.

Stapleford to	Seething or Norwich to	Southend to	Stapleford
Stapleford to	Shoreham to	Lydd to	Stapleford

Stapleford to	Rochester to	Old Buckenham to	Stapleford
Stapleford to	Southend to	Beccles to	Stapleford
Stapleford to	Lydd (via Bexhill) to	Earl's Colne to	Stapleford

7.5.16 Airfields approved for away landings during training are:-

Andrewsfield
Beccles
Biggin Hill
Bourn
Cambridge
Denham
Earls Colne
Elstree
Headcorn
Lydd
Norwich
Old Buckenham
Rochester
Seething
Shoreham
Southend
Wattisham
Wycombe Air Park
Use of any other airfields must be approved by the CFI.

7.6 Low flying regulations

7.6.1 All flights shall be operated in accordance with Rule 5 of Rules of the Air. On such a flight, ensure that residents are not annoyed or animals frightened. See relevant AICs regarding avoiding action.

7.6.2 School aircraft shall not be flown below 500 feet agl except when taking off and landing.

7.6.3 Before any low flying detail, contact CANP, the Low Flying Booking Cell on phone 0800-575544, or leave a message on 0800-515544 about the detail to prevent confliction with military exercises which may be flown without notice below 1000 feet agl. See AICs.

7.6.4 Pilots on cross country flights are to comply with the 1000 feet and glide clear parameters of Rule 5. Pilots flying over a built up area are to ensure that there are suitable fields within the arc prescribed by the aircraft wing tips for a forced landing to take place. Pilots who cannot comply with this requirement shall adjust either their altitude or track to ensure that they can glide clear should an engine failure occur.

7.7 Safety Altitude

7.7.1 All flights conducted under IFR shall be planned to operate at least 1000 feet above the Safety Altitude which shall be based on the highest obstacle within 5nm of the aircraft and if this is above the transition altitude, at a quadrantal level above that Safety Altitude.

7.7.2 The Safety Altitude does not apply to VFR flight, however pilots are to calculate the Safety Altitude for all flights as this will lead to an awareness of any high ground or obstacles. Pilots shall not plan to fly lower than 500 feet above the highest ground or obstacle within 3nm of the aircraft.

7.7.3 The Power Lines running East-West to the North of the airfield are approximately 550 feet AMSL at the highest point within half mile of the runway centre line, and 1.2 NM from the displaced threshold of runway 21. When approaching runway 21 into sun, these cables and associated pylons are not easily seen, also due to the runway

upslope, the approach path will be lower than would be perceived for a level runway. Maintain at least 700 feet QNH until you are certain you have passed these Power Lines.

7.7.4 Aircraft in the circuit will normally turn base leg for runway 21 to the North of the cables, however, when another aircraft is ahead, the downwind leg would most likely be extended - in these circumstances, descent below 700 feet QNH is not to be commenced until visually passing the cables.

7.7.5 When taking off from runway 21, the flight path shall be to the east of the village which can then be kept in sight. This will minimise the noise generated over Lambourne.

7.7.6 When taking off from runway 03, after the motorway track 060°, ensure that an altitude of at least 800 feet QNH is achieved to pass over the cables to the North, particularly when practising engine failure after take-off.

7.8 Action when uncertain of position

7.8.1 The difference between being uncertain of one's position or being lost is simply a matter of time. If it is less than 20 minutes since the last known position then the pilot may be considered to be Uncertain of his position. If more than 20 minutes has elapsed, the Lost procedure is to be adopted.

7.8.2 The pilot should not panic and should adopt a logical approach to resolving any degree of uncertainty. Bad weather may be an important factor in determining the course of actions.

7.8.3 The principal cause of uncertainty of position is human error and can occur because the pilot believes he is lost because of the non-appearance of some ground feature which may have passed undetected in poor visibility or which may actually be directly under the aircraft. Other causes are:

a) Directional gyro incorrectly set in relation to the compass
b) Steering an incorrect heading, e.g. steering the ground speed figure instead of the compass heading or steering the calculated track instead of the drift angle etc
c) Failure to steer an accurate heading
d) Incorrect use or failure if radio navigation equipment
e) Failure to time from the last turning point
f) Continuing flight in unsuitable weather.

7.8.4 Pilots who are uncertain of their position are to:

a) Maintain VMC
b) Check the correct heading is being flown, i.e. directional gyro against the compass and reset if necessary. Check the magnetic heading is correct either to the flight log or intended track and consider fuel contents
c) Check time/distance flown since last known fix and on the intended track, mark the map at the DR position. In a C152 at 90 kts still air, time in minutes X 1.5 will give the approximate distance flown
d) Draw a 'Circle of Uncertainty' about 3 miles radius or 10% of the distance flown whichever is the greater and look on the map for any ground features seen. Do not change heading at this stage unless the feature is positively identified, this will enable you to align the feature with your heading – turn onto your next track if you cannot identify your position
e) Look for recognisable features on the ground to the map
f) Climb if possible to enhance visual range, if necessary to the appropriate safety altitude, but not into cloud or controlled airspace
g) Do not continue in deteriorating weather
h) Squawk 7700
i) Make a PAN call and seek assistance from one of the following Ground Stations:

7.8.5 Within the training area, Radar assistance is available from D&D on 121.5, Farnborough on 132.8 or 123.225, Stansted on 120.625, Luton on 129.550, Thames on 132.7, Southend on 130.780 and Heathrow on 125.625. In the event of being uncertain of your position, contact the most relevant of these frequencies or D&D on 121.50 as soon as possible to avoid infringing controlled airspace.

7.8.6 If likely to infringe controlled airspace, contact the appropriate ATC unit immediately

7.9 Action when lost

7.9.1 Proceed as detailed in 7.8 above, then:

a) If still unable to establish a position fix, fly on the same planned magnetic heading until a very reliable ground feature is seen and record the time flown since the last known fix to establish a new DR position. Draw a 'Circle of Uncertainty' around this new DR position with a 5 mile radius or 10% of this distance flown whichever is the greater

b) Orbit this fix at a safe altitude, keeping it in sight at all times, searching the map within the Circle of Uncertainty

c) Check the fuel state/daylight hours available and consider a precautionary landing if necessary

d) If unable to obtain ATC assistance or still unable to confirm a position fix, recheck the Gyro with the compass and fly a track which from the DR position, will take you towards a ground feature which can be positively identified - i.e. a coastline, major river, motorways or railways which converge or cross, a very large town or city, range of hills etc.

7.10 Landing at unauthorised or unintended destination

7.10.1 Pilots who land at an unauthorised or unintended destination are to inform the School at the earliest opportunity of their location, but shall not depart unless specifically authorised by the CFI. Pilots are responsible for reporting their arrival to the nearest ATSU and where necessary pay any landing fees due.

7.10.2 In the event of a forced or precautionary landing, the pilot of the aircraft shall:

a) NOT ATTEMPT to take-off again even if the position has been established, but notify Stapleford Flight Centre by the quickest possible means. If a flight plan has been filed, make sure someone contacts ATC to close the plan

b) Notify the local Police and the landowner

c) The pilot shall ensure that the aircraft and its controls are properly secured and subsequently parked in such a position that it will not incur any weather damage, also remove all loose contents for safe keeping.

d) If cattle are nearby, try and get help to keep them away to avoid damage to the aircraft.

7.10.3 Subsequent to any forced or precautionary landing, the pilot in charge shall be responsible for the aircraft until it has been handed over to an authorised official of Stapleford Flight Centre. See AICs relating to hazards landing away.

7.10.4 No information concerning the forced or precautionary landing shall be given to the press or any other unauthorised person without express permission from either the Head of Training or a Director of Stapleford Flight Centre.

7.11 Night flying – supervision

7.11.1 Night flight in the UK shall be conducted in accordance with VFR but shall remain clear of cloud and in sight of the surface. All solo night flying being undertaken to gain a Night Qualification shall be supervised by a Stapleford Flight Centre Instructor who is qualified to give night flying instruction. The Instructor supervising the flying shall sign the pilot's log-book to certify that the number of take-offs and landings claimed is correct.

7.11.2 Pilots are to ensure that suitable diversion aerodromes are available during the hours of any planned night flights plus one hour.

7.11.3 Pilots shall not carry passengers at night unless they have carried out at least 3 take-offs and landings as PIC in the preceeding 90 days in an aeroplane of the same type or class. At least one take-off and landing shall have been conducted at night unless the pilot holds a current IR.

7.11.4 Pilots who are not within 90-day recency shall conduct any necessary take-offs and landings under the supervision of a School Instructor. These may be flown dual or solo.

7.11.5 The weather minima for Club night flying shall be:-

a)	Circuits:	Flight Visibility 5 Km	Cloud Base 1500 feet amsl
b)	Cross Country:	Flight Visibility 8 Km	Cloud Base 2000 feet amsl

In addition to the regulatory requirements, it must be possible to plan the flight clear of cloud at an altitude 1000 feet above any obstacle within 20nm of the intended tracks.

7.11.6 If normal Club night flying is not in progress, an early request must be made to ensure full facilities are available.

7.11.7 Qualified pilots wishing to hire Club aircraft must be possession of a night qualification, and if they have not flown at night in the previous 62 days, will be required to fly a dual check circuit.

7.11.8 The runway lighting must be on and a runway check carried out before the detail commences.

7.11.9 The Pilot in Command will be responsible for ensuring that the navigation lights, taxi/landing lights, beacon and cabin lighting are all serviceable.

7.11.10 A serviceable torch shall be readily available at all times.

7.11.11 The aircraft shall be properly de-iced if hoarfrost is present.

7.11.12 The beacon and navigation lights shall be ON before engine start.

7.11.13 During taxi, the taxi and/or landing light shall be ON. If backtracking adjacent to the runway, stop and switch the taxi and/or the landing light off if an aircraft landing may be dazzled. Switch off taxi/landing lights when stationary to avoid overheating.

7.11.14 R/T communication will be maintained at all times in the circuit.

7.11.15 After landing on R/W 03R, vacate to the left - on R/W 21L, vacate to the right

7.11.16 Aircraft must be properly tied down on completion of the detail.

7.12 Care of aircraft away from base

7.12.1 If it is intended to land away from base, be sure to take a pair of chocks in case there are none available – remember that hydraulic brakes do not always remain firm when parked and the aircraft could move if a wind or slipstream were to affect it.

7.12.2 When landing away from base, ensure that the aircraft is parked and tied down properly in a suitable position to protect it from the weather or other aircraft.

7.12.3 If fuel will be required, it is best to refuel on arrival because water could collect in low tanks due to condensation. Checking the fuel before moving the aircraft after it has been parked and water separated for a period of a few hours is more likely to reveal any water or other contamination present.

7.12.4 All charges, except for fuel and oil, incurred as a result of landing at an airfield other than Base are the responsibility of the pilot, and shall be paid for at the time incurred. Fuel and Oil shall be paid for at the time of purchase but such costs may be deducted from the pilot's invoice on production of the relevant receipt.

7.13 Forced landing – aircraft damaged

7.13.1 In the event that the aircraft is damaged as a result of a forced or precautionary landing it shall not be moved except in order to save life or avoid further injury until the Air Accident Investigation Branch has given permission. In the event that the aircraft has directly or indirectly caused injury or damage to the person or property of third parties, neither the pilot nor any passenger shall make any admission of liability or offer or promise of payment. The local Police shall also be informed.

7.13.2 Avoid leaving the site of the damaged aircraft until assistance arrives if at all possible to ensure that it is not tampered with or contents removed by unauthorised persons.

7.14 Aircraft loading and mass and C of G limitations

7.14.1 The pilot in command of the aircraft is to ensure that the aircraft is correctly loaded in accordance with the ANO and that it is operated in accordance with the weight and performance limitations specified in the Flight Manual.

7.14.2 The pilot is to ensure that the maximum allowable all up weight is not exceeded and that the centre of gravity remains within limits for all stages of the flight. Seatbelts are to be secured and the PIC is to ensure that any freight or baggage is securely fastened.

7.14.3 Weight and Centre of Gravity calculations are to be made for all flights:

a) Where more than two persons are carried
b) If baggage is carried
c) If any person of above average size and weight is carried
d) For all flights where operation in the utility category is anticipated.

7.14.4 Care shall be taken to ensure that the forward C of G is not exceeded even though the Maximum AUW may not have been reached.

7.14.5 Take-off and Landing Performance shall be calculated:

a) For all flights using grass runways
b) At all aerodromes where the runway length is less than 3000 feet
c) On all days when the surface temperature exceeds 25 degrees C.

7.14.6 Pilots are to read Safety Sense Leaflets relating to Aeroplane Performance.

7.15 Externally mounted equipment

7.15.1 Mounting of external equipment is prohibited at any time as this poses a significant safety risk if it becomes detached and the mounting methods can tarnish and damage the airframe. Examples of such equipment include but are not limited to cameras (including action cams/GoPros), data recording devices, receivers/transmitters for ADSB/similar, etc.

7.16 Flying over the sea or wide estuaries

7.16.1 All pilots planning to fly across the English Channel shall undertake a check flight with a Stapleford Flight Centre Instructor.

7.16.2 Flights over wide estuaries are to be avoided by detour, and flights across the Channel will be planned over the shortest distance. Life Jackets will be worn on all flights where it is intended to fly outside gliding distance of a safe landing area, see relevant AICs.

7.16.3 Lifejackets are to be carried for each person on board, and in the case of single engine aircraft they shall be worn throughout the time the aircraft is over the sea. Whenever possible a dinghy shall be carried.

7.16.4 In addition to the normal briefing given to passengers the pilot in command of the aircraft shall ensure that they have been briefed in the donning and use of the lifejackets, and operation of the dinghy if carried. Lifejackets shall not be inflated inside the cabin.

7.16.5 Pilots are to read Safety Sense Leaflets relating to ditching before flying overseas.

7.16.6 For all flights planned to exceed 10 nm from the coast or when crossing an international FIR boundary, a flight plan shall be filed prior to departure.

7.17 Consumption of alcohol and taking of other drugs before flight

7.17.1 A pilot shall not fly a Stapleford Flight Centre aircraft within a period of eight hours after consuming any alcoholic drink. Pilots are to increase this period if anything other than moderate amounts of alcohol have been consumed. See ANO relating to drink and drugs and AICs regarding Medication, Alcohol and Flying.

7.17.2 Many drugs, even common non-prescription drugs such as aspirin, may have an adverse effect that may not be apparent at the time they are taken. If for any reason it is necessary to take drugs, then advice from a doctor approved by the CAA shall be obtained before flying, Evidence of drug taking could be detected during a medical examination at some future date which could lead to medical suspension by the CAA.

7.17.3 The use of recreational drugs is incompatible with flying and any pilot who has used such drugs shall not fly a Stapleford Flight Centre aircraft until he has been certified as fit by a CAA authorised doctor.

7.17.4 Passengers shall not be permitted to fly in any Stapleford Flight Centre aircraft when under the influence of alcohol or drugs.

7.17.5 Only Club members are permitted to purchase alcoholic drinks from the bar in order to satisfy Licensing regulations.

7.17.6 Pilots flying private or group aircraft operating at or into Stapleford Aerodrome shall also comply with these requirements.

7.18 State of health

7.18.1 A Pilot shall not fly a Stapleford Flight Centre aircraft if he knows or suspects that his mental state or physical condition renders him temporarily or permanently unfit to act in that capacity.

7.18.2 Pilots who suffer any illness or injury which causes incapacitation for a period greater than 21 days, shall notify the CAA and shall not act in any capacity until cleared to do so by the CAA medical department.

7.18.3 The ANO details the requirements relating to drink and drugs.

7.18.4 The ANO specifies various requirements with respect to obtaining and retaining a valid medical certificate together with reporting certain injuries or illnesses involving incapacity to undertake the functions as a member of the flight crew. Additionally, in the case of a woman, the requirements if she has reason to believe that she is pregnant.

7.19 Charity Flights

7.19.1 The carriage of a passenger on a private flight assumes that no money has changed hands for the purpose of the flight, other than cost sharing as described in the ANO. Occasionally, unsuspecting pilots may offer a flight as a raffle prize at the local school or fete. Such a flight then becomes a public transport flight under UK law. Where the money paid for the ticket goes to a registered charity, and then subject to meeting certain requirements a private pilot may conduct this flight. The circumstances and requirements for Charity Flights are published in AICs.

7.19.2 Any pilot wishing to conduct a Charity Flight in a Stapleford Flight Centre aircraft shall obtain the permission of the Head of Training in writing. Prior to such permission being considered, the pilot shall have read and understood the ANO and relevant AICs.

8 Rules of the Air and ATC

8.1 Aerodrome opening hours

8.1.1 The normal Stapleford Aerodrome operating hours are 0800 Hrs local time until 1800 Hrs local time daily except Xmas Day and Boxing Day. When flying training is taking place outside these hours, the duty crew must be rostered to cover the required period in order to satisfy the Aerodrome Licence requirements.

8.1.2 Qualified pilots may fly outside the operating hours of the aerodrome. Such flights shall only be conducted when authorised by a Stapleford Flight Centre official or Instructor.

8.2 Requirements to abide by conditions of the Aerodrome Licence

8.2.1 Pilots are to be familiar with and comply with the terms of the Aerodrome Licence. A Copy of the Licence is held in Operations. The Stapleford 'Aerodrome Manual' details all conditions of the Licence and the manner in which it will be satisfied.

8.3 Signals square and signals/information from an A/G Radio

8.3.1 Signals may be given to an aircraft at any aerodrome by the use of lights. Pilots are to be familiar with all light signals and shall comply with all light signals given by the ATSU, AFISO or Air/Ground (A/G) Radio.

8.3.2 An A/G service only provides basic information and may not give instructions. Pilots shall notify the A/G station of their intentions at all stages of the taxi, take-off and whilst in the circuit or ATZ. Pilots are responsible for deciding the course of action in all circumstances.

8.3.3 Stapleford does not have a signals square.

8.4 Prohibited and danger areas

8.4.1 The location of all prohibited and danger areas are displayed in the flight planning room. All pilots must make themselves acquainted with their locations.

8.4.2 Pilots are to avoid all prohibited areas by at least half a mile horizontally and 500 feet vertically.

8.4.3 Notams are to be checked before flight to ensure there are no further locations established or changes to those already notified. See relevant AICs.

8.5 Communication, Navigation and Electrical Failures

8.5.1 Communications Failure:

The procedures to be adopted by pilots experiencing two-way radio communication failure are:
a) If the aircraft is suitably equipped, operate the Transponder on Code 7600 with Mode C if available
b) if it is believed that the radio communication transmitter is functioning, transmit blind giving position reports and stating intentions
c) if, when radio communication failure occurs, the aircraft is not yet in the CTR, the pilot must in all cases remain clear even if Special VFR clearance has been obtained
d) if Special VFR clearance has been obtained and the aircraft is in the CTR when the radio communication failure occurs, proceed as follows:

i) Aircraft inbound to an aerodrome in the CTR – proceed in accordance with Special VFR clearance to the aerodrome and land as soon as possible. When in the aerodrome traffic circuit watch for visual signals

ii) Aircraft transiting a CTR – continue flight not above the cleared altitude to leave the CTR by the most direct route, taking into account weather limitations, obstacle clearance and areas of known dense traffic.

NOTE: In I) and ii), if flying on a heading advised by radar, when radio communication failure occurs, resume own navigation and carry out the appropriate procedure described. In all cases, notify the ATC Unit concerned as soon as possible after landing.

8.5.2 Navigation Light Failure:

a) Should navigation lights fail whilst in flight at night, all other external lights should be switched on immediately and an early landing made.
b) Contact the nearest ATC unit and inform them of the failure and if possible, obtain radar identification and separation from other aircraft.
c) After landing, beacons, strobes and landing/taxi lights must remain on until parked in a safe area.

8.5.3 Failure of Radio Navigation Equipment:

a) If part of an aircrafts radio navigation equipment fails but two-way communication can still be maintained with ATC, the pilot must inform ATC of the failure and report his altitude and approximate position. ATC may, at its discretion, authorise the pilot to continue his flight in or into Controlled Airspace. When radar is available it may, subject to workload, be used to provide navigational assistance to the pilot. See AICs on advice to pilots.

8.5.4 If no authorisation to proceed is given by ATC, the pilot should leave, or avoid Controlled Airspace and areas of dense traffic, and either:

a) Go to an area in which he can continue his flight in VMC or (if this is not possible)
b) Select a suitable area in which to descend through cloud to MSA, fly visually to a suitable aerodrome and land as soon as practicable. But before doing so, however, he should consult ATC who may be able to give him instruction or advice. He shall also take into consideration the latest meteorological information and terrain clearance and should make full use of ground VHF D/F stations. He must at all times keep ATC informed of his intentions.

8.5.5 Total Electrical Failure:

a) Endeavour to remain VMC or if in IMC, descend to the MSA and attempt to become VMC.
b) If unable to become VMC and a mobile phone is on board, to avoid the possibility of an incident or even an accident, consider telephoning the nearest ATC unit with radar facilities and attempt to get a service to guide you to a safe area for a subsequent landing.

8.5.6 Transponder Failure before intended departure:

If the transponder fails before departure and cannot be repaired, the pilot shall:-
a) Plan to proceed as directly as possible to the nearest suitable aerodrome where a repair can be made
b) inform ATC as soon as possible preferably before the submission of a flight plan. When granting clearance to such aircraft, ATC will take into account the existing and anticipated traffic situation and may have to modify the time of departure, flight level or route of the intended flight
c) insert in item 10 of the ICAO flight plan under SSR the letter N for complete unserviceability of the transponder, or in the case of partial failure, the letter corresponding to the remaining transponder capability as specified by ICAO.

8.5.7 Transponder Failure after departure:

a) If the transponder fails after departure or en-route, ATS units will endeavour to provide for continuation of the flight in accordance with the original flight plan. In certain traffic situations this may not be possible particularly when the failure is detected shortly after take-off. The aircraft may then be required to return to the departure aerodrome or to land at another aerodrome acceptable to the operator and to ATC. After landing, the pilot shall make every effort to have the transponder restored to normal operation. If the transponder cannot be repaired then the provisions in paragraph 8.5.6 apply.

b) The temporary failure of SSR Mode C (Charlie) alone may not restrict the normal operation of the flight when traffic is light if ATC accept it.

8.6 How to use a Transponder (SSR)

8.6.1 When set to the requested Squawk Code, the transponder (SSR) will send out a secondary radar signal which will display on the Controllers consul. All Club aircraft are equipped with Mode S.

8.6.2 When instructed by ATC to change the Code, select Stby first. Note that when the control is moved to Stby, returns are lost and ATC cannot see you if they are using secondary surveillance radar only.

8.6.3 The transponder must be selected to Stby on the ground, particularly with no Mode C, to avoid unwanted detection by large Public Transport overflying aircraft, which now carry TCAS, a traffic avoidance system.

8.6.4 In airspace where the operation of transponders is not mandatory, pilots of suitably equipped aircraft should comply with paragraph 8.6.8 except when remaining within an aerodrome traffic pattern below 3000 ft agl.

8.6.5 With the exceptions detailed in paragraph 8.6.6 pilots shall:-

a) If proceeding from an area where a specific code has been assigned to the aircraft by an ATS Unit, maintain that code setting unless otherwise instructed
b) select or reselect codes, or switch off the equipment when airborne only when instructed by an ATS Unit
c) acknowledge code setting instructions by reading back the code to be set
d) select ALT at all times when airborne unless otherwise instructed by an ATS Unit
e) when reporting levels under routine procedures or when requested by ATC, state the current altimeter reading to the nearest 100ft. This is to assist in the verification of Mode C data transmitted by the aircraft.
NOTE: If, on verification there is a difference of more than 200 ft between the level readout and the reported level, the pilot will normally be instructed to switch off Mode C. If independent switching of Mode C is not possible the pilot will be instructed to switch off the transponder or select Code 0000 to indicate a transponder Mode C malfunction.

8.6.6 Some codes are reserved internationally for special purposes (Special Purposes Codes) and should be selected as follows:

a) Code 7700. To indicate an emergency condition, this code should be selected as soon as is practicable after declaring an emergency situation, and having due regard for the over-riding importance of controlling aircraft and containing the emergency. However, if the aircraft is already transmitting a discrete code and receiving an air traffic service, that code may be retained at the discretion of either the pilot or the controller
b) Code 7600. To indicate a radio failure
c) Code 7500. To indicate unlawful interference with the planned operation of a flight, unless circumstances warrant the use of Code 7700.
d) Code 2000. When entering United Kingdom airspace from an adjacent region where the operation of transponders has not been required
e) Code 7007. Not to be used by General Aviation as it has a special priority category status.

Mode C should be operated with all of the above codes.

Pilots shall not pre-select code settings for discrete codes until instructed to do so by the appropriate controlling agency.

8.6.7 Conspicuity Code when operating at or above FL100 pilots shall select Code 7000 and Mode C except:-

a) When receiving a service from an ATS Unit or Air Defence Unit which requires a different setting

b) When circumstances require the use of one of the Special Purpose Codes
c) When a listening watch is established in the vicinity of a major airport with a published listening squawk code
d) When entering a Transponder Mandatory Zone (TMZ).

8.6.8 Conspicuity Code when operating below FL100 pilots should select Code 7000 and Mode C except as above.

8.6.9 Pilots are warned of the need for caution when selecting Code 7000 due to the proximity of the Special Purposes Codes.

8.7 Radio Telephony phraseology

8.7.1 No person shall operate an aircraft radio either in the air or on the ground unless that person holds a valid "Flight Radiotelephony Operators Licence" (FTROL), or is operating under the supervision of the holder of a FTROL. Student Pilots on solo flights are exempt under the ANO from the requirement to hold a FRTOL whilst undergoing training for a pilot licence.

8.7.2 R/T Phraseology shall at all times be in accordance with ICAO standards and as detailed in Radiotelephony Manual CAP 413.

a) Pilots are to be familiar with the differences between ATC, AFIS and A/G radio communication services. Pilots shall not request instructions from AFIS or A/G stations as they are only licensed to give information. AFIS may issue instructions up to the holding point prior to departure, and after the landing roll.
b) The phrase "at your Discretion" may be used by a FISO to indicate that he has no controlling responsibilities. Pilots are not to use the phrase "…at my discretion". Pilots shall acknowledge with either the aircraft call-sign, or Roger and the aircraft call-sign.

8.7.3 Rule 39. Pilots of radio-equipped aircraft shall notify entering and leaving an ATZ and shall maintain a listening watch on the nominated aerodrome frequency whilst they are in the ATZ.

8.7.4 Pilots are to read and comply with the relevant AICs.

8.7.5 Additionally, messages containing any of the following items must be read back in full:-

Level instructions	Heading instructions
Speed instructions	Airways or Route clearances
Runway in use	SSR operating instructions
Altimeter settings	VDF information
Frequency changes	Airfield Elevation

Confirmation of Service being provided, i.e. FIS, RIS etc.
Clearance to enter, land on, take-off, backtrack or cross an active runway.

8.8 Radio Telephony phraseology at Stapleford

8.8.1 An air ground (A/G) communications service is a service detailed in the UK AIP which is provided at Stapleford. The service, which includes alerting, emergency and rescue services, is made available to aircraft during the notified hours.

8.8.2 Radio operators shall ensure that the full callsign, including the suffix "Radio" is used in response to the initial call from an aircraft and on any other occasion that there is doubt. The table below shows examples of typical RTF exchanges at A/G units:

EVENT – AIRCRAFT	RESPONSE FROM GROUND STATION
Stapleford Radio G-ABCD request radio check on 122.8 and taxi information	G-ABCD Stapleford Radio readability 5 runway in use 21 left QNH 1022
G-ABCD readability 5 also, taxiing for runway 21 left hand 1022	G-CD Stapleford Roger
For IR Airways Flight STL01 request Airways Clearance	STL01 London clears you flight planned route to Southend to remain clear of controlled airspace Squawk 6262 Contact London 118.82 for join
STL01 reads back clearance in full as given and proceeds as for normal A/G calls	STL01 read back correct – report ready for departure
G-CD ready for departure	G-CD roger. No reported traffic, surface wind 230 degrees 10 knots or G-ABCD there is reported traffic at 2 miles etc
Roger taking off G-CD or Roger holding position G-CD Once aircraft has landed and vacated G-CD lining-up and taking off	G-CD roger surface wind 230 degrees 10 knots
G-CD leaving the circuit to the East. Will report when re-joining or G-CD changing frequency to Southend 128.95	G-CD roger two other aircraft reported to be operating VFR to the East Roger G-CD
Stapleford Radio this is G-BCDA	G-BCDA Stapleford Radio pass your message
Stapleford Radio G-BCDA is a PA28 Elstree to Southend position 5 miles West heading 090 at 2000 feet QNH 1021 request traffic information	G-DA Stapleford, roger. Runway 21 is active left hand circuit 1200 feet QNH 1022 – circuit is busy – There is no reported transit traffic etc
QNH 1022 will report overhead G-DA	
G-DA overhead at 17 will report leaving the frequency	G-DA roger
G-DA is now clear of your ATZ changing to en route frequency	G-DA roger
Stapleford this is East Air 22	East Air 22 Stapleford Radio pass your message
Stapleford Radio East Air 22 PA31 Birmingham to you 5nm NW 1500 feet request permission to land	East Air 22 roger. Runway 21 is active left hand circuit 1200 feet QNH 1022 permission granted subject to compliance with UK AIP, two aircraft in the circuit.
Stapleford East Air 22 understood, Wilco	A/G answer thereafter as for normal joining traffic
Stapleford Radio G-ABCD 6 miles East of the airfield request airfield information	G-CD Stapleford runway 21 left hand, QNH 1022 there are two aircraft in the circuit
Roger. Runway 21 left hand QNH 1022 G-DA	
Or G-CD downwind	G-CD roger no reported traffic Or G-CD roger Cessna reported turning left base etc
G-CD final	G-CD roger surface wind 220/11 There is one Cessna lining up to depart
G-CD roger	
G-CD vacating to the left and returning to Club	G-CD roger
G-CD ready to cross runway	G-CD roger no reported traffic
Roger G-CD	

8.9 Infringements of Controlled Airspace

8.9.1 Infringement of controlled airspace could at the worst lead to a fatal accident. In any event, even a minor incursion observed by a controller may result in redirection of a public transport aircraft causing delay and considerable expense to the operator(s). Pilots are to use all available navigation aids to ensure that they remain clear of controlled airspace unless they have obtained a clearance to enter.

8.9.2 Pilots flying in close proximity to controlled airspace are to obtain at least a Basic Service from the controlling authority whenever possible. The transponder is to be selected to MODE C (alt).

8.9.3 In the event that a pilot enters controlled without clearance he shall:

a) Leave controlled airspace by the quickest safe means
b) Attempt to contact the controlling authority, any nearby ATSU or if unsuccessful London/Scottish Centre, and report the occurrence, Squawk 7000 with Mode C
c) Report the occurrence to the CFI on landing.

8.9.4 When such an infringement has occurred, the Pilot shall phone the SATCO at the aerodrome concerned with such airspace as soon as possible after landing to explain the infringement.

8.9.5 The CFI will consider what action to take with the offending Pilot to ensure further infringements do not occur, also what disciplinary action may be taken.

9 Emergency Drills

9.1 Use of Check Lists

9.1.1 All pilots shall be in possession of a Stapleford Flight Centre Check List for the aircraft they are flying.

9.1.2 Pilots shall abide by the handling notes and Check List for each specific aircraft type flown.

9.1.3 The handling notes or Check Lists shall not contradict anything set out in the Pilots Operating Handbook, the Engine Manufacturers Handbook or the Flight Manual which form part of the aircraft Certificate of Airworthiness.

9.2 Fire on the ground

9.2.1 Observe the contents of the applicable Check List 'Engine Fire on the Ground'

9.2.2 Should an engine fire occur on starting, keep the engine turning over with the starter, turn off the fuel and open the throttle. If the engine starts, keep it running at 1000 to 1500 rpm until it runs out of fuel. A fire usually occurs due to over priming. Keeping the engine turning will take the flames into the engine until that fuel is burnt off.

9.3 Engine failure after take-off

9.3.1 Observe the contents of the applicable Check List 'Engine failure after Take-off' which should be done from memory but generally for most S/E aircraft is:

a)	Mixture	ICO
b)	Fuel Selector	OFF
c)	Magnetos	OFF
d)	Master Switch	OFF
e)	Set up an approach attitude to hold a safe speed whilst taking the above actions	
f)	Select a suitable landing site into wind if possible	
g)	Note Crash landing instructions in para 9.7 below.	

9.4 Fire in the air S/E

9.4.1 Observe the contents of the applicable Check List 'Engine Fire in the Air' which should be done initially from memory, but for most S/E aircraft is:

9.4.1.1 Shut down the Engine:

a)	Mixture	ICO
b)	Fuel Selector	OFF
c)	Fuel Pump	OFF
d)	Magnetos	OFF.

9.4.1.2 MAYDAY CALL – FORCED LANDING, DO NOT RESTART:

a)	Door C152 /C172 only	UNLATCH
b)	Harnesses	SECURE
c)	Flaps	EXTEND AS REQUIRED
d)	Battery Master Switch	OFF.

9.4.2 In the event of a Cabin Fire in the Air the following should be done initially by memory but for most S/E aircraft is:

a) Commence an emergency descent at the maximum rate of descent that can be achieved Full Flap extended once below the flap limiting speed
b) Electrics (if cause of fire) OFF
c) Heater/Demister OFF
d) Air Vents OPEN
e) Fire Extinguisher OPERATE AS REQUIRED.

9.5 Forced landing without power

9.5.1 To be conducted as detailed in the PPL Training Syllabus and with reference to paragraphs 6.18 and 7.13 of this Flying Order Book.

9.6 Forced landing with power

9.6.1 A forced landing with power, or a precautionary landing, is usually made necessary due to deteriorating weather, the approach of darkness or a low fuel state. With proper pre-flight planning and in-flight monitoring, precautionary landings can normally be avoided.

9.6.2 If a precautionary landing is necessary, then the decision to conduct such a landing shall be taken early enough to allow as much time as possible for executing the landing.

9.6.3 Pilots shall take the following actions in the event of making a precautionary landing:

a) In the event of deteriorating visibility, approach flap shall be lowered and the aircraft flown at a safe slow speed
b) In the event of lowering cloud, the aircraft shall be flown below cloud but at or above the minimum safe altitude and towards the direction where the cloud is highest

9.6.4 The following procedure for landing shall be adopted once a safe landing site has been found:

a) Select flap to the approach setting and fly the aircraft at a safe slow speed descending to 500 feet agl
b) Over fly the landing site in the likely landing direction, preferably into wind, setting the Bug if fitted or selecting the Heading on the CDI, RBI, or OBS as a reminder and for orientation, examining the site for any obstructions which might preclude over flight at a lower altitude
c) On reaching the upwind end of the landing site, conduct a circuit at 500 feet agl and at that altitude, repeat steps b) and c)
d) On final to the landing site, descend to 50 feet agl and at that altitude repeat steps b) and c) but this time also examining the suitability of the surface for landing
e) Select landing flap as required – on a C152/C172, open the door(s)

9.6.5 If on any of the flypasts it is discovered that it is not safe to make another approach at a lower altitude, then abandon this landing site, find another, and restart from 9.6.4 above.

9.7 Forced landing action

9.7.1 If time permits, observe the contents of the applicable Check List prior to a forced landing, including:

a) Turn off fuel and master switch
b) Check harnesses are as tight as possible
c) Advise all passengers to remove glasses and false teeth and to adopt the brace position with the head held in the arms prior to impact
d) For a Cessna 150/172 high wing aircraft, open the cabin door
e) For a low wing or one of monocoque construction, ensure the door is properly latched is this forms part to the cabin integrity
f) After the aircraft comes to rest – Evacuate Upwind.

9.8 Ditching

9.8.1 Pilots planning flight over water are to read the Safety Sense Leaflet relating to ditching. A copy of this leaflet is included in the aircraft flyaway packs. In the event of ditching, pilots are to comply with the procedures laid down in the SSL. Where specific procedures are included in the aircraft manual then those techniques shall override all others.

9.8.2 Where detailed procedures do not apply, the following procedure is recommended as being the most likely to result in a successful emergency landing on water:

a) Locate the best possible ditching site. Different locations in the same general area can have different sea conditions. Shadows and White Caps are signs of heavy seas. If the Shadows and White Caps are close together, the area is rough. Try to locate an area where the Shadows and White Caps are not so numerous and select that as your ditching site. If the wind is negligible or parallel to the swell, select a heading into the wind. This is the preferred ditching method and should be used when conditions are favourable. If the wind direction is at an angle to the swells, but blowing at a velocity of less than 25 kts, a crosswind ditching may be made. When winds exceeding 25 kts are encountered, it is recommended that the landing be made into wind disregarding the swells.

b) Waves and swells should not be confused. Swells are a condition of the water surface and are caused by strong winds blowing over the sea for a period of time and originating often hundreds of miles away. Waves are caused by local winds.

d) Turn off all the unnecessary electrical equipment, and trip the undercarriage warning horn circuit breaker if possible.

e) The approach configuration is gear up, 10 degrees flap selected, speed approximately 10 kts above the stall whilst the final approach should be straight and level, although roll angles up to 10 degrees and yaw angles up to 5 degrees are acceptable.

f) Attempt to approach to the back of the swell near the crest, touching down as the swell falls away.

g) When the aeroplane stops, move mixtures to ICO and abandon through the Emergency Exit or Main Door. On the PA34, do not open the rear cabin door unless evacuation through the main door cannot be made.

h) Life jackets must not be inflated until outside the aircraft, and all persons should be kept as near together as possible.

i) Warn all persons on board not to jump into the water with a life jacket inflated since this may wrench it from their bodies.

9.9 Radio failure and Transponder actions

9.9.1 In the event of radio failure, follow instructions detailed in the Aerad Emergency Section, or those in para 8.5.1 of this manual.

9.9.2 All emergency transponder codes are detailed in Radio Aids Section of the Aerad Manual and in paragraph 8.6 of this Flying Order Book.

9.10 Total electrical failure at night

9.10.1 See para 8.5.5 of this manual. Maintain a very good lookout for other aircraft and take avoiding action if necessary

9.10.2 Approach the airfield on the dead side

a) Join and carry out a low level circuit
b) fly past the Tower about 300 feet agl
c) open and close the throttle to attract attention and flash the torch
d) look out for any lights given by the Tower
e) repeat b) and c) above if no reaction
f) if no response, ensure no other traffic likely to land or take-off
g) make an approach to land, looking for any lights from the Tower
h) vacate the runway to a safe area as quickly as possible.

10 Accident, Incident and Airprox Reporting

10.1 Safety reporting

10.1.1 All Instructors shall keep a general watch on landings and take-offs in order that an aircraft can be recalled if that appears necessary.

10.1.2 All Instructors shall keep a general watch on pilot airmanship and will raise any concerns with the pilot or escalate serious incidents to the Head of Training or his Deputy.

10.1.3 All pilots shall make sure that the Head of Training or the CFI is informed of any incident or accident as soon as possible, also any noise or other reports from the neighbourhood which need an early response.

10.2 Definition and reporting of serious accidents

10.2.1 A reportable accident means an occurrence associated with the operations of an aircraft which take place between the time when any person boards the aircraft with the intention of flight, and such time as all persons have disembarked, in which anyone associated with the aircraft, or a third party, is killed or injured or the aircraft sustains damage or structural failure which requires major repairs or replacement of the affected component.

10.2.2 The Captain or, if he is incapacitated, School Operators shall immediately notify:

The Chief Inspector
Air Accident Investigation Branch
Department of the Environment, Transport and the Regions
Tel: 01252-512299

10.2.3 Notify the local Police Authorities and Personnel Licensing Department (Head of Standards)

10.2.4 Pilots are to read relevant AICs

10.3 Requirement to report occurrences and use of local system

10.3.1 Any person should report occurrences incidents or accidents if mandated in CAP 382 (The Mandatory Occurrence Reporting Scheme: Information and Guidance) or the ANO.

10.3.2 Safety Incident reporting is encouraged for all incidents or accidents irrespective of the need to comply with the order 10.3.1 above/ Details of how to report can be found on how to report can be found on the company website under the ‘Tools’ banner using the SFC Hazard Reporting Tag, or by the use of the QR code for mobile devices displayed in reception. The purpose of the Stapleford SMS (Safety Management System) is to provide a safe as reasonably practicable environment for all aspects of the flight centre operation. The SMS and associated reports will be processed in light of the ‘Just Culture’ approach, which seeks not to punish actions, omissions or decisions taken in good faith but rather by identifying and minimising risk.

10.3.3 Pilots are to read the relevant AICs.

10.3.4 The Head of Training, the Flight Safety Officer or the Chief Engineer will give guidance for the completion of Occurrence Form CA1673 (see Sample Appendix No 26).

10.4 Requirements to report an AIRPROX

10.4.1 An AIRPROX report shall be made whenever a pilot or controller considers that the distance between aircraft as well as their relative positions and speed have been such that the safety of the aircraft involved was or may have been compromised.

10.4.2 Pilots wishing to report an AIRPROX should whenever possible, make their initial report by RTF to the appropriate ATSU with the follow-up report on form CA1094 to the United Kingdom AIRPROX Board. This will help to ensure that all parties are identified, thus enabling a prompt investigation to be carried out. Initial reports must be confirmed in writing within seven days by completing the full AIRPROX reporting procedure.

10.4.3 The AIRPROX reporting procedure is mainly designed to investigate incidents occurring inside controlled airspace, all report forms shall be sent to:

UK Airprox Board
RAF Northolt
West End Road
Ruislip
Middlesex
HA4 6NG

Tel: 0208-842 6051
FAX: 0208 842 6056

10.4.4 Refer to relevant AICs for reporting instructions.

10.4.5 The AIRPROX procedures are detailed in UK AIP ENR Section and the UK Manual of Air Traffic Services (MATS) Part 1.

10.5 Notification of Accidents, Occurrences and Airprox and Birdstrikes

10.5.1 External reporting of MORs etc, should be actioned utilising the ECCAIRS (European Co-ordination centre for accident and reporting systems) aviation reporting portal online.

11 Local Regulations

11.1 Letter of agreement

11.1.1 The Airfield is owned by Herts & Essex Aero Club Ltd and the Stapleford Flying Club Ltd has the same senior management. No letter of agreement is necessary.

11.2 Flying Club membership

11.2.1 All Student and Private Pilots must be members of the Stapleford Flying Club Ltd before they are allowed to fly in Club aircraft.

11.2.2 All Pilots flying privately or group owned aircraft based at Stapleford must be members of the Stapleford Flying Club Ltd.

11.2.3 All passengers carried in Club aircraft must be members of the Stapleford Flying Club Ltd.

11.2.4 All pilots shall read this flying order book when joining, when Certificates are signed and at least annually thereafter. The amendment list must be checked from time to time to ensure knowledge of the rules remains current. The acknowledgement of reading this flying order book is to be signed on each of the above occasions on the form provided in the Operations Department.

11.3 Smoking prohibitions

11.3.1 If there is no prohibition on smoking placarded in the aircraft, pilots are requested to refrain from smoking or vaping and to request their passengers to refrain also. Remember that other pilots and passengers who do not smoke object to the smell and dust left by smokers, further, it does constitute a fire risk.

11.3.2 Pilots must ensure they and their passengers do not smoke within 50 metres of any aircraft or fuel installation.

11.4 Care of flying equipment

11.4.1 The PIC shall be responsible for all equipment loaned or borrowed from the School. Equipment whether or not included as part of the hire of an aircraft shall be returned to the School in the same condition that it was supplied in.

11.4.2 Flight manuals including the Aerad Airways Manuals are to be carefully handled, and where it is necessary to remove pages for the purpose of the flight, they must be re-inserted in their proper places in numerical order, at the end of the flight.

11.4.3 Any loss of damage, whether accidental or otherwise, shall be reported to the Head of Training. Any loss or damage that is deemed not to be fair wear and tear may be charged to the borrower.

11.5 Disciplinary action for breach of local orders and regulations

11.5.1 The Head of Training and/or his appointed Deputy have authority to suspend, pending investigation, any pilot whom in their opinion acts in such a manner prejudicial to safety.

11.5.2 Suspension could be taken for fast taxiing, alleged low flying, unauthorised aerobatics, incorrect circuit procedures which could or do lead to an airprox, not giving way to landing aircraft when it has right of way and any serious indication of bad airmanship.

11.5.3 Suspension will be taken against a pilot who violates rules and regulations or returns false flying times, where it is an offence under the ANO.

11.5.4 Suspension will be taken for consumption of alcohol in contravention of the ANO.

11.6 Illegal activities

11.6.1 Aircraft owned and/or operated by Stapleford Flying Club Ltd are hired, leased or operated on the express understanding that the hirer, lessee or operator shall observe and comply with all mandatory regulations, restrictions and requirements promulgated by the CAA, EASA, HM Customs and Excise, Immigration Authorities or any Government Department or Competent Authority in whichever country the aircraft may be operated.

11.6.2 By signing these rules the hirer, lessee or operator acknowledges his responsibility for a complete understanding of the said regulations, restrictions and requirements and expressly indemnifies the Stapleford Flying Club Ltd fully in respect of any damages, claims, demands, losses, liabilities or responsibilities whatsoever arising from any breach or infringement of the said regulations, restrictions and requirements.

11.7 Indemnity for personal injury

11.7.1 It is the individual responsibility of pilots to ensure that adequate insurance is carried and that all such policy certificates are valid and current. Details of the precise terms of the insurance cover under which Company aircraft are covered is carried in the aircraft document folder and if required, will be supplied on request.

11.7.2 Pilots are reminded that, in line with most aircraft insurance policies, personal injury cover is only extended to third parties and passengers. Pilots shall make their own arrangements for personal accident insurance. Instructors are not covered for personal liability claims or under the 3rd party accident liability and must make their own arrangements.

11.7.3 When passengers are carried, the Club Membership/Indemnity form shall be signed and countersigned before the flight commences.

11.8 Movement of vehicles

11.8.1 Vehicles are not permitted to be driven on the manoeuvring area except by authorised drivers in authorised vehicles.

11.8.2 Drivers of vehicles are to use extreme caution whilst driving on the airfield, giving way to aircraft at all times.

11.8.3 Driving of vehicles by drivers who do not hold a Driving Licence is not permitted.

11.8.4 Vehicles are not to be parked in front of SFC Reception Area which is reserved for Management and Reception Staff cars. Other vehicles are to use the parking area near the main entrance. Owners will ensure that their vehicle is not left in a position which impedes the movement of other cars or aircraft.

11.8.5 Parking is PROHIBITED in front of the Western Hangars where they could infringe the Western Perimeter Track. Any infringement affects the Aerodrome Licence.

11.8.6 Parking of vehicles on the Western side must be on the aircraft picketing area. Owners moving aircraft from the individual hangars may park their cars between the hangars near the hedge but shall not hinder movement of other owner's aircraft.

11.9 Check Lists

11.9.1 The following checks lists are detailed in the appendices to this Flying Order Book, together with two complete check list folders which are held in each aircraft navigation bag. PA34-200 Airborne Flip Check Lists are also provided for training in the Alsim ALX FNPT2 and Synthetic Flight Trainers and in the aircraft.

Cessna 152/172 Check List
Piper PA28-161 Warrior Check List
Piper PA28R Arrow Check List
Piper PA34-200 Seneca 1 Check List
Diamond DA42Twinstar Check List
Slingsby T67M260 Firefly Check List
Tecnam P2008 Check List

11.10 General administration

11.10.1 All Pilots flying privately or group owned aircraft based at Stapleford must be members of the Stapleford Flying Club Ltd and shall be required to sign as having read and understood these Flying Orders.

11.10.2 All passengers carried in Stapleford Flight Centre aircraft must be members of the Stapleford Flying Club Ltd.

11.10.3 All Flight Instructors must hold a valid Professional Pilots Licence including an Instrument or IMC Rating, a valid Flight Instructor Rating and a valid Certificate of Validation or Revalidation annotated SPA - SE Piston (land) or ME Piston (land) as applicable.

11.10.4 All Flight Instructors shall be responsible for maintaining their licences valid with Medical Certificates, Certificates of Validation or Revalidation as may be applicable to their Pilots Licence as specified in Part-FCL.

11.10.5 All Flight Instructors shall be responsible for arranging and paying for their own Instructor renewal/revalidation tests.

11.10.6 Examiners shall be responsible for maintaining their examiner authorities valid.

11.10.7 Before conducting a PPL(A) Skill Test, the Examiner shall ensure that all the requirements of the syllabus, ground examinations, minimum total and specified flight hours and completion of the R/T Licence have been satisfied. The Skill Test form and/or other specified documents can then be completed, signed, dated and forwarded to the Authority.

11.10.8 A board will be maintained showing the names, licence numbers and the various test and expiry dates for each Instructor/Examiner.

12 Part 2 - List of Appendices

1	UK ATS Airspace Classifications
2	Student Flight Training Record Form
3	FNPT2 Simulator Student Training Record Form
4	Solo Navigation Briefing Certificate
5	PPL Qualifying Cross Country Certificate
6	Technical Log Sheet – Club Training Aircraft
7	Technical Log Sheet – AOC Aircraft
8	Acceptable Deferred Defects Record
9	Minimum Equipment List (MEL) Cessna 172
10	-
11	-
12	Minimum Equipment List (MEL) Piper PA34 Seneca 1
13	Minimum Equipment List (MEL) Diamond DA 42
14	Certificate of Release to Service
15	Airworthiness Review Certificate
16	-
17	Trial Lesson Questionnaire
18	Application for Membership
19	Weight and Balance Form Cessna 152 & Piper PA28-161 Warrior
20	Weight and Balance Form Cessna 172
21	-
22	-
23	Weight and Balance Form Piper PA34 Seneca 1
24	Weight and Balance Form Diamond DA 42
25	-
26	CAA Occurrence Report Form
27	AIRPROX Report Form
28	CAA Birdstrike Occurrence Form
29	Check List Cessna 152 and 172
30	Check List Piper PA28-161 Warrior
30A	Check List Piper PA28-161 Warrior CPL
31	Check List Piper PA28R Arrow (VFR)
32	Check List Piper PA34 Seneca 1
33	Check List Slingsby T67M260 Firefly
34	Check List Diamond DA 42 Twinstar
34A	Check List Tecnam P2008
35	PPL Student Training Record Summary
36	PPL Student Training Record Checklist
37	CPL Student Training Record Form
38	I/R Student Training Record Form
39	Safety Instructions Cessna 172
40	Safety Instructions PA34 Seneca 1
41	Safety Instructions Diamond DA 42
42	Commanders Discretion Report
43	VFR Flight Plan
44	IFR Flight Plan