

LFC AERODROME OPERATIONS MANUAL

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PART 1: GENERAL

1.1 PURPOSE OF MANUAL:-

The principal aim of this manual is to establish safe codes of practice for aircraft operations by members of the Limerick Flying Club based in Coonagh. It should be noted that club rules, regulations and bye-laws are published separately.

Part 1 of this manual outlines how the club is run and establishes club policy. Part 2 amplifies the Rules, Regulations and Guidelines for aircraft operation and Part 3 deals with running the airfield.

It is the responsibility of each individual club member to become familiar with this manual as well as the rules, regulations and bye-laws of the club. In addition, all relevant IAA rules and regulations concerning the operation of light aircraft should be adhered to. In case of contradiction or ambiguity between this manual and any IAA regulation or between this manual and the club rules and regulations, the precedence is as follows:

1. IAA Rules and regulations.
2. Coonagh Rules Bye-laws and regulations.
3. This document, the LFC Operations manual.

Any errors or omissions in this manual should be brought to the attention of a member of the club committee.

1.2 THE CHAIN OF RESPONSIBILITY

Club Committee

The business and affairs of the club are managed by the club committee, which consists of a chairman, secretary, treasurer and between 1 and 3 other club members. Any extraordinary decisions must be approved by the wishes of the majority of the Club members, determined by vote at the Annual General Meeting or at an Extraordinary General Meeting called for this purpose

Chief Flying Instructor

The Chief Flying Instructor is charged with responsibility for the operational decisions of the Club. He also liaises with and advises the Committee. For this reason he is an Ex-officio Member of the Committee.

The Chief Flying Instructor, by virtue of his responsibilities, must carry out the following duties:-

1. Approve and implement all operational procedures.
2. Check, approve and appoint all Flying Instructors. (Regardless of qualifications or Class of Rating held, all club Instructors must comply absolutely with directives from the C.F.I)
3. Implement corrective action or disciplinary procedures when necessary.

The Duty Instructor

During club operating periods, a Duty Instructor (DI) and one or more assistant instructors will be appointed. Should the DI not be present, his authority falls to the most senior assistant instructor present.

Operations Assistant

During operating times, a club member acting as Operations Assistant (OA) should, whenever possible, be present. The OA's primary function is to run the airfield in accordance with the advice and guidelines in part 3 of this manual so that flying operations can run efficiently and safely. Instructions for the OA are at Annex 2; briefly these include:

- (i) Monitoring the airfield (runway, windsock, operating surfaces, fuel pumps, hangar etc.)
- (ii) Running the club ops desk (monitoring weather, manning radios and phones and keeping ops paperwork updated)
- (iii) Implementing the club's planned procedures in the event of an accident.

The OA should, in consultation with the DI, make any decisions necessary concerning operations at the airfield.

1.3 OWNERSHIP OF FACILITIES:-

The Club assets include aircraft complete with all fittings, some buildings, fire fighting equipment, fuel and refuelling facilities. In addition there are some items of ancillary equipment such as office furniture, radios, kitchen equipment etc. These assets are the property of the Club, notwithstanding that loans or other deferred payments may be in progress at any time. No one individual has absolute rights to any of the Club property, and may not take any steps to claim it in lieu of payment owed.

The Airfield is the Private Property of Mr. Dan Lehane. The Club is resident on the Airfield with his express consent and authority, in compliance with any understandings existing between the two parties which are current and valid at any point in time.

1.4 GENERAL POLICIES:-

The Club operates a non-discriminatory policy whereby membership is offered to all regardless of race, creed sex or age (subject to parental consent in the case of minors). Any reference in club documentation suggesting the male gender shall apply equally to females.

The club can only succeed through the combined efforts of the membership. **All** members should seek to contribute something to the club's wellbeing. Whether this involves spending time on maintaining the club ground facilities, helping with the administrative running of the club, fundraising or simply supporting club social functions will depend on individual circumstances.

The most important activity of the Club is Pilot Training. The allocation of aircraft booking times may from time to time be restricted to achieve this priority. For example, training aircraft will not be available for touring flights when they are needed for their primary function.

The committee will endeavour to provide sufficient serviceable aircraft to meet the demands of the members. The Chief Flying Instructor and Assistant Instructors shall make every effort to provide and maintain instruction at a high standard.

The Club shall provide a space, which is reasonably private, for Instructors to brief and debrief their Students without undue intrusion. Members should make every effort not to interrupt briefing sessions.

Private Owners and Operators who base Aircraft on the Airfield and use the Club facilities must be Full Members and must conform to the Club rules and regulations. Club Members carried on board Private Aircraft based on the Field are personally responsible for ensuring that they are adequately covered by Insurance. Private Owners are reminded that they may not instruct students at the Club except under the Supervision of the Chief Flying Instructor, given that they hold the required instructor's rating.

The Clubhouse is made available and furnished with a view to providing a comfortable area where Members and their guests may meet and socialise.

Members are expected to behave with dignity at the Club. Good conduct shall also extend to the disciplined use of Aircraft.

The Pilot in Command shall take all possible care of any Aircraft while it is under his command. The Pilot in Command is responsible for all aspects of the aircraft and its operation when it is under his command. The Pilot in Command is also responsible for the conduct of all Passengers on board. Children must not be carried without the express permission of their parents or guardian, and extra care should be taken with children on board as they may not react to unfamiliar or emergency situations in a reasonable manner.

1.5 INSURANCE COVER:-

All Club Aircraft are adequately covered by Insurance for ground and flying accidents. The level of cover is reviewed regularly.

In general each Aircraft has hull cover which represents its market replacement value.

Third party cover up to a limit of €(Eur) 2,540,000 for any one incident is included.

Each Pilot's seat has a cover of €(Eur) 63,500.

All Insurance Policies have an excess which means that an initial amount of damage cost must be covered by the Club. This is in the order of some hundreds of pounds and means that the Club has to cover the cost of many minor incidents out of funds rather than by Insurance.

1.6 DOCUMENTATION:-

The Committee is responsible for ensuring that all the necessary documents are provided, kept current and made available at the Club headquarters. The Committee is also responsible for the safe keeping of all the documents. Relevant documents include the following:

Airfield Licence. The Airfield licence is issued to the Airfield owner Mr. Dan Lehane. A confirmation of renewal, or the licence, should be available for inspection.

Aircraft Documents *(for each Aircraft — normally kept in the aircraft):*

Certificate of Airworthiness.

Certificate of Registration.

Maintenance Release (if necessary).

Flight Manual.

Radio Licence (if fitted with radio).

Certificate of Insurance (if required by foreign authorities).

Engineering Documents *(for each Aircraft — normally held in the Club HQ).*

Airframe Logbook.

Engine Logbook.

Propeller Logbook (when necessary).

Information Publications. *(Held in the club HQ Library)*

A current Irish A.I.P.

A file of current NOTAMS.

A file of current A.I.C.s.

Relevant Statutory Instruments pertaining to Private Pilot Licence holders.

Relevant ICAO and JAR documents.

Should one of the clubs Aircraft be made available for IFR flight, the Club must hold a current set of Airway and Approach plates.

Operational Logs. *(Held in the Club Ops room)*

Flight Operations Log, for each Aircraft. (See Note 1).

Fuel System Documentation (See Note 2).

Fuel Sample Book.

General Certificates and Licences. *(Held in the Club HQ)*

Certificate of suitability of fuel for Aviation use.

Certificate of inspection of the refuelling installation.

Certificate of inspection of the fire fighting equipment.

Ground Station Radio Licence.

Ancillary Documents: *(Kept in the Club Ops Room)*

Records of Pilot checkouts.

Records of type and expiry date of Pilots Licences.

Student Progress records.

Records of Membership.

The club also aims to hold up to date Application Forms for the following :-

Club Membership.

Student Licence.

Private Pilots Licence.

Private Pilots Licence Written Exams.

Medical Examination.

Radiotelephony Endorsement.

Commercial Pilot's Licence.

Instrument Rating.

Notes.

1. Each flight Log must be clearly identified with a particular Aircraft and include details of crew, date, time, destination, any defects discovered, the duration of flight together with flight time remaining to next engineering check.

- Careful attention must be paid to any reported defects, and a record of corrective action must appear. The person who performs the corrective action must be identifiable.

- In order to simplify entries and subsequent readings of the Log, the page columns are to be laid out in a standard and identical form.

2. The Fuel Log must include date, aircraft, amount delivered, amount remaining in stock and the identity of the refueller.

PART 2: FLIGHT OPERATIONS

2.1 INTRODUCTION:-

The Club permits flights to operate in VMC conditions day and night. Instrument Rated Pilots are permitted to operate in IMC conditions - it is the Pilot's responsibility to ensure the aircraft meets all the requirements for Instrument Flying. All Pilots must comply with all of the Club restrictions appropriate to their qualifications and experience.

All operations must be carried out within the weather limitations that have been established by the Club. Should a Pilot be observed flying in weather conditions which are outside limits, disciplinary action may be initiated. Particular attention is directed to the fact that non-instrument rated pilots must remain VMC at all times.

Occasionally, due to lack of experience or currency, it may be imprudent for pilots to operate to the extremes of permitted weather limitations. In such cases the C.F.I. or his delegated representative may impose more severe restrictions.

All flights operate as Private Flights or Training Flights. In the case of a Training Flight, only the Student and the Instructor are permitted on board. All Students carried must be Club Members. In the case of a Private Flight, the Pilot in Command may carry guests. It is permitted that the guests of the Pilot share the cost of the flight with the Pilot.

There is no Legal basis on which the club can accept a Charter from an outside Third Party. Requests for Aerial Photography Sessions, any form of Pleasure Flying, Advertising Flights or any other Ariel Work which would result in a direct payment for the service to the Club, or to the Pilot in Command, must be refused.

2.2 DEFINITION OF TERMS:-

Pilot: is any person in command of an Aircraft, regardless of qualifications.

Club Instructor: the Chief Flying Instructor and any Assistant Instructor who is authorised by the CFI and named on the Club Panel of Instructors.

Dual Flying means specifically any training operation where the Pilot in Command is a Club Instructor. Under no circumstances will two qualified Pilots flying together be considered as Dual Flying. In any such case only *one* Pilot is the Pilot in command.

2.3 VFR OPERATIONS:-

When operating VFR the Pilot is responsible for implementing the Rules of Collision Avoidance in order to *see and avoid*.

He shall maintain an adequate lookout and operate the Aircraft only in such weather conditions that permit safe separation from other aircraft, the ground or any obstacles. Nothing, including an ATC Clearance, takes this responsibility away from the pilot.

2.3.1 VFR Daytime Operation

1. The Pilot must observe all Civil Regulations at all times.
2. Weather Forecasts must be obtained and understood before any cross-country flight is undertaken.
3. An operational flight plan shall be completed for all cross-country flights that land away from base (except flights between Coonagh and Shannon).
4. An ATC flight plan must be completed and filed for any cross-country flight that will enter controlled air space. On the ground it must be filed at least one hour before the planned departure time, or in the air, at least 10 minutes before reaching Controlled airspace.
5. The fuel quantity at takeoff shall be calculated in such a way as to allow a reserve of at least 45 minutes at normal cruise power on arrival at the destination.
6. On all flights, but especially when operating from unfamiliar fields, the weight and balance of the aircraft must be confirmed to be within the limits laid down by the Flight Manual. It should be ensured that take-off and landing distances available are sufficient for the aircraft configuration, the runway surface, and the weather conditions. When it is intended to land at an unfamiliar field, especially one with a grass operating surface, pilots are to obtain an up to date briefing from a local operator.
7. The Operations Log for the aircraft to be used must be checked for any defects that may have been recorded in the past. The known details of the intended flight should be recorded in the Operations log before the flight commences.

2.3.2 VFR Night Operation.

1. Flights must conform to Civil Regulations and therefore must be filed and operated as special VFR.
2. Each Pilot flying at night must have a current Night Rating.
3. Walkround and pre take-off engine checks must be carried out with special care. If there is the slightest doubt about the reliability of the aircraft the flight must be cancelled because of the very serious implications of an engine failure or any other fault which may require a forced landing in the dark.
4. Pilots are reminded to include the Mandatory Lights in the walkround check.
5. Dual operations must be carried out with a Night Rated Club Instructor on board.
6. All pilots must carry a suitable torch to allow cockpit instruments to be read in the event of an in flight electrical or instrument lighting failure.

2.4 IFR OPERATIONS:-

1. Flights must conform to Civil Regulations.
2. The Aircraft, its Instrument and Radio Navigational equipment must fulfil all the Mandatory Requirements.
3. No flight may be undertaken if any vital Instrument or any item of Navigation equipment or Radio Communication equipment is found to be faulty prior to take-off. (Single equipped systems).
4. No Pilot may operate an IFR flight unless in possession of a valid Instrument Rating.

5. Fuel calculations must conform to the Civil Regulations.

2.5 WEATHER RESTRICTIONS:-

2.5.1 General

Weather Limitations have been established by the club so that Pilots do not find themselves in conditions beyond either their own or their aircraft's capabilities. It is stressed that the following weather limitations apply regardless of Aircraft location. Each Pilot has a personal responsibility to the Club to comply with the stated conditions.

Flying is **prohibited** in the following circumstances:

1. When surface wind speed is in excess of 30 Knots.
- 2 In the vicinity of active CBs.
3. In Wind Shear conditions known to be severe.
4. In sub-zero conditions which will result in Airframe Ice.
5. In areas of known severe turbulence at low levels.
6. Flight over high ground when Mountain Waves are in operation.

Most of the above conditions will have current SIGMETs issued. Operation is prohibited when SIGMETs apply to an area of intended operation.

When winds are gusting, an allowance of 50% of the Gust Value should be added to the Climb and Approach speeds.

When Turbulence is encountered the Aircraft shall be flown at or below the Rough Air Speed in the Aircraft Flight Manual.

When runways are wet, the safe crosswind component should be considered to be 50% of the normal limit. This is mandatory on grass runways that are wet.

2.5.2 VFR Weather Limitations

	Student	Qualified Pilot	Instructor
Max Wind Speed	20 Kts	25 Kts	30 Kts
Max Cross Wind	10 Kts	15 Kts	20 Kts
Min Visibility Circuit	5 Km	3 Km	3 Km
Minimum Ceiling	1000 Ft	800 Ft	600 Ft
X Country Ceiling	2000 Ft	1000 Ft	800 Ft

Note:-

1. Solo Students - these limitations may be waived at the instructor's discretion, depending on the experience and ability of the student.
2. Qualified Pilots - these limitations may be waived at the CFI's discretion, depending on the experience and ability of the pilot.

2.5.3 IFR Weather Limitations

Maximum wind speed 30 Knots.

Maximum cross-wind 20 Knots.

The following procedure shall be used to establish Club Operating Minima for all approaches and circling:-

The Minimum Descent Altitude/Decision Height and Min. Visibility shall be:-

Club MDA/DA = Published Plate MDA + 100 Feet.

Club Min Vis = Published Plate Min. Vis + 500 Metres.

Club MDH/DH = Published Plate MDH + 100 Feet. (Using QFE).

Flight above the Freezing Level is not permitted without ice protection, except when at the Pilot's discretion the flight can be continued without any hazard caused by ice accumulation.

2.6 LOCAL OPERATION SPECIAL PROCEDURES:-

2.6.1 Airspace:-

Coonagh Airfield, its Circuit Patterns and Training Area are all in un-controlled Airspace. However due to the proximity of Shannon Zone and Shannon Area, both of which totally surround and exist overhead our Airspace, care shall be taken to remain in our Allocated Corridor in both Lateral and Altitude dimensions. To assist in this, details of our Allocated Corridor are displayed on a map in the club operations room and should be clearly marked on all club pilots' maps. When it is necessary to enter Shannon Zone, a Flight Plan must be filed either on the ground or in the air, in accordance with the normal filing procedures contained in the Regulations. Special attention is drawn to the Requirement to contact ATC ten minutes before estimated time of entry into a Zone.

2.6.2 Noise Abatement and Nuisance Prevention.

No flight shall be deliberately operated overhead the Limerick Regional Hospital.

When practising forced landing procedures or for any other reason when low level operations are carried out away from the circuit, special care must be taken to avoid persons, animals, buildings or structures.

All Aircraft shall be operated so as not to interfere with the proceedings of any sporting event, especially when large crowds are participating or attending at a venue.

In order to minimise noise in the built-up suburbs of the City after take-off from runway 10, the power shall be reduced as soon as is practicable after reaching 300 Feet. As soon as practicable, a turn to the right shall be started so as to minimise the over-flight of houses. Left turns and practice engine failures are actively discouraged after take-off from runway 10.

All Private Operators based on the Field are required to operate their aircraft in compliance with these Directives.

2.6.3 Local area Hazards.

The strip at Coonagh is relatively short, with less than ideal features at either end. There is a deep drain running NW — SE approx 30m off the end of Runway 10. Aircraft over-running the eastern end of the runway should be steered right (south) to minimise risk of entering the drain. There is a public road approximately 50m to the west of the strip, the airfield boundary is a frangible fence, however, there is a stone wall at the far side of the road.

The normal obstacle limitation surfaces are penetrated by a house and some trees situated slightly to the right (North) of the extended centreline or Runway 28. Care must be taken on take-off to avoid these by using appropriate techniques and

performance margins. In addition, the club buildings to the south of the Rwy 10 threshold penetrate the normal obstruction-free lateral limitations. Care should be taken to avoid these buildings during any circling or non-standard operations at the western end of the airfield.

There is a known area of high bird concentration along the bank of the river Shannon to the south and west of the field.

2.7 PRE-TAKEOFF PROCEDURES

Pilots are reminded that for safety reasons, the Club must be aware of the location of all its Aircraft at all times. Flight Plans should state the intended destination precisely. (Note "Aran Islands" is not a destination - merely one of three individual Airports)

The Pilot is responsible for checking the Defects Column in the Flight Log to ascertain if the Aircraft is serviceable.

The Pilot must satisfy himself by a walkround Check that the Aircraft is free from Visible Defects. The proper procedure for the walkround is given in the Flight Manual for the Aircraft in question. When there is a doubt about anything an Engineer's Opinion must be obtained before any flight is operated.

The Pilot is responsible for fuel calculation and also for ensuring that the required amount is on board. The fuel system must be cleared of condensation as part of the walkround Check.

It is impossible to accurately dip the fuel level in Rallye Aircraft. The Cockpit Fuel Guages may not be accepted as an accurate guide to the fuel quantity on board. The only safe method for calculation of Endurance is to record the amount of fuel loaded converted into the amount of flight time. (Nominal fuel flow on Rallye 100 is five (5) Imperial Gallons per hour, and that on Rallye 892 is seven (7) Imperial Gallons per hour).

The Pilot is responsible for ensuring that there is sufficient engine Oil in the sump for the flight. A note should be made in the Flight log each time oil is added so that abnormal oil consumption can be detected. Individual Pilots are responsible for notifying the club authorities if they suspect any engine has an abnormal Oil Consumption Rate by entering the information clearly in the Defects Column of the Flight Log.

2.8 AIRCRAFT LOADING AND BALANCE.

The Pilot has sole responsibility for the correct loading and balance of the Aircraft. The Aircraft shall not be loaded in excess of the all up weight as given in the Flight Manual under any circumstances.

The Centre of Gravity shall be checked and confirmed to be within limits before take-off.

2.9 CHECKLISTS.

For a given aircraft, a checklist specially prepared and approved by the CFI will be stored on board for use by the Pilot. The Pilot is responsible for ensuring that such a Checklist is present in the aircraft before commencing operations. The appropriate sections of the checklist must be followed during the preparation for the flight, during the flight itself and after the flight.

2.10 ENGINE HANDLING RECOMMENDATIONS

No unqualified person shall be allowed to start an engine.

The Pilot is responsible for ensuring that the Propeller area is clear before any engine is started and that no persons, aircraft or buildings will be in danger from the prop-wash after the engine has been started.

Hand starting of an engine is expressly forbidden without clearance from the Chief Flying Instructor and training having been received by the person concerned.

Particular attention should be paid to the engine warm up time, and this should not be skipped to save on tacho time. The warm up should be performed at the power setting recommended by the flight manual. Throttle movements should be smooth

and unhurried, avoid large sudden movements which can cause excessive wear in the engine.

Avoid unnecessary prolonged ground running; this is both from a safety point of view (a spinning propeller is extremely hazardous) and from a maintenance point of view, as the engine may not cool properly and begin to over heat. To prevent overheating, the aircraft should be faced into wind.

The engine should never be shutdown immediately after landing or ground running, but should be run for a short period at a low power setting to stabilise the temperatures of all the cylinders.

2.11 TAXIING

All aircraft shall be taxied slowly and carefully, especially in strong winds. The taxiing speed shall be controlled by the throttle, not by the brakes. Power should be applied gradually, and the aircraft given time to respond.

All turns shall be made towards the wind. Extreme care should be exercised when turning into a strong wind, as this is the most likely time to overturn the aircraft.

When taxiing in a crosswind, the stick or yoke should be held into wind in normal crosswind technique. When taxiing with a strong tailwind, the stick or yoke should be held fully forward.

When on the ramp, extreme caution should be exercised as there may be other aircraft or persons about. On the ramp, the aircraft should not be turned in tight quarters under power. After the engine has been shut down, the aircraft can be turned or parked using the tow bar.

2.12 TAKE-OFF:-

Short field take off technique is the norm at Coonagh, in the Rallye half flap and full power are used. Once the aircraft is rolling and sufficient control available from the rudder, the pilot should remove his feet from the brakes and steer by rudder alone. With toe brakes, it is very easy for the brakes to be partially engaged, resulting in an extended take off roll with excessive wear and tear on brakes and tyres.

A take off shall be aborted immediately if:

1. The engine fails to achieve full power when full throttle is applied.
2. The aircraft responds sluggishly to power, indicating that brakes are binding.

Should an engine failure occur on climb-out, ***NO attempt should be made to return to the field***, but an emergency landing should be made in the best available location ahead within an arc of no more than 30 degrees to the left or right.

2.13 GENERAL AIRWORK.

Low Altitude Flying

Low flying is expressly prohibited by the club, except in the area of an aerodrome whilst in the process of taking off or landing following established lanes of approach and departure. National regulations prohibit flying below 500ft above ground or water level.

Area of Operation

Pilots should familiarise themselves with the restricted airspace and danger areas in any proposed area of operation. In addition sector safety altitudes should be calculated and noted.

Operation of the Aircraft

Pilots should be familiar with speed limitations and restrictions for the aircraft they are flying. In particular they should be

aware of the aircraft's stall speed and how it varies with aircraft configuration, all up weight and when manoeuvring.

When operating the aircraft at speeds above the maximum manoeuvring speed, care must be taken not to apply full or abrupt control deflections.

Extreme manoeuvres involving unusually high angles of pitch roll or yaw should not be undertaken close to the ground. Permitted semi-aerobatic manoeuvres are listed on a placard displayed in the cockpit. These manoeuvres must not be performed in club aircraft without express authorisation from the CFI. When authorised, a minimum height of 1000ft above ground level should be maintained at all times.

Pilots are reminded not to become complacent in tight turns — especially at low level. In a tight turn, the stall speed of the aircraft increases considerably. Particular attention is drawn to performing tight turns about a point. In an effort to maintain the turn about a point when drift due to wind occurs, the pilot may unconsciously increase the angle of bank and the degree of elevator deflection in an effort to keep the radius constant. As a result, the airspeed can bleed off, resulting in a stall or spin situation.

Navigation

Before tackling a cross-country, the pilot should have thoroughly planned and studied the proposed route. Pilots should familiarise themselves with the Directional Indicator and be aware of the rate of drift of this instrument and how often it must be updated from the compass. Should the pilots use GPS or other form or hand held electronic navigation means, they should be aware of the limitations of the instrument, the battery lifetime (carry spare batteries) and have as backup the normal navigation techniques and equipment.

Division of Duties.

Where more than one PPL is on board, members are reminded that there can be only one Pilot in Command. Should the members on board decide to divide some of the duties (e.g. radio work, navigation) during the flight, this should be agreed on before the flight takes place, and confirmed early in the flight.

In particular there should never be any doubt as to who is in control of the aircraft at any given time, this should be achieved by always using the phrase "**you have control**" when handing over control, answered by the phrase "**I have control**" when taking over.

2.14 APPROACH & LANDING:-

Before Landing, pilots must make sure that the aircraft brakes are not engaged — this is particularly important when a passenger is in the front seat. With toe brakes, it is very easy for the brakes to be engaged at the point of touch down, resulting in, extreme wear to the tyres, brakes and undercarriage.

Aircraft shall be handled so as to land in the first third of the available Runway. In Coonagh or on any other short runway, once this point has been passed without touching down, the pilot must go around.

The aircraft landing configuration should be as per the Flight Manual for the aircraft in question. It is normal to land at Coonagh with full flap, if flaps cannot be extended for any reason, the pilot in command should consider a diversion to Shannon.

Any incident which occurs during landing should be reported. If there is anything whatsoever unusual about the aircraft handling at touchdown or during the Landing roll, the aircraft should be grounded and the matter reported immediately.

2.15 OPERATION OVER WATER AND BY THE SEA:-

When operating over water beyond gliding distance of land, each occupant of a single-engined aircraft must wear a Life Jacket.

Whenever possible a serviceable Life Raft of sufficient capacity to accommodate all Aircraft Occupants shall be carried on long overseas flights..

Pilots should be aware that the air may be much more humid at airfields by the sea, and that carburettor ice may form more easily than usual. The engine should be given an extended warm up period, and consideration be given to selecting carburettor anti icing on for take off.

2.16 PILOT CHECKOUT PROCEDURE:-

The Chief Flying Instructor is responsible for ensuring that all pilots are competent to act as pilot in command of club aircraft

The Club requires a mandatory checkout if a Pilot or Instructor has not flown in command in of a club aircraft in the Coonagh circuit within a period of eight (8) weeks. The Club especially requires that a checkout be carried out on any visiting Pilot who wishes to use Club Aircraft. The Club may also require a checkout at any time before allowing any Pilot to fly in command if any abnormal behaviour has been observed in a Pilot's recent flying.

Only a Club Instructor may act as a check Pilot. The checkout shall be performed as per the checkout-form and the duration shall be until the instructor is completely satisfied that the pilot is competent in all areas of the checkout-form.

A checkout shall be carried out on each individual type of Aircraft. The Club shall not be under any obligation to allow access as Pilot in command on all types of Aircraft to every Pilot. In particular the Club reserves the right to decline a checkout in higher performance aircraft to inexperienced pilots until they gain the necessary time on club trainers.

The checkout-form covers the following:

1. The Pilot is competent to safely operate at all times within the stated Club weather limits.
2. The standard of airmanship displayed by the Pilot shall completely satisfy all the Club requirements.
3. The pilot can competently operate the aircraft in the circuit.
4. The pilot can competently carry out Emergency Landing Procedures.
5. The pilot can demonstrate competent stall recovery with and without power in both clean and landing configurations.
6. All Pilots shall be checked for competency to handle cross winds up to the stated Club cross wind components.
7. If an Aircraft has a large disposable load, the Pilot shall be checked with a full passenger and fuel load, preferably in challenging weather conditions.

The pilot shall not be permitted to fly in command until cleared in the relevant exercises, and shall not be permitted to fly cross country until cleared for crosswind take-off and landing.

The checkout form shall be kept on file to form part of a Pilot's record within the Club, and shall include details of Licence held, expiry date of the Licence and all Ratings. Each section of the checkout-form should be signed off and dated by the instructor when he is satisfied with the competency of the pilot in that exercise.

2.17 DEFECT PROCEDURE:-

1. If a minor defect is noticed on the ground or in the air aircraft operation may continue (for example, a serviceable transponder is not mandatory for flying in the Coonagh Circuit). A note should be entered in the flying log afterwards. If there is any doubt about how serious a defect is, an experienced pilot or aircraft engineer's opinion should be obtained and appropriate action carried out.
2. If a serious defect is found before take-off the Aircraft shall not be operated and should be grounded as per the Procedures for Grounding laid out below.

An Aircraft shall be grounded immediately if:-

1. Magneto drops exceed the stated limits of maximum drop specified in the individual Aircraft Manual.
2. The engine is running rough or erratically.
3. Indications of Oil Pressure are abnormal.
4. Indications of Fuel Pressure are abnormal.
5. There is any evidence of Fuel Contamination.
6. Controls do not move fully, freely and correctly.
7. Any defects are found in the undercarriage or tyres.
8. Obvious serious oil or fuel leaks are noticed.
9. Any hatches or access panels cannot be successfully secured.
10. Any evidence of fire or heat damage in any part of the Electrical System.
11. There has been a heavy landing or any landing which displayed abnormal characteristics at touchdown or during the Ground Roll.

2.18 PROCEDURE FOR GROUNDING AN AIRCRAFT.

EACH of the following steps must be carried out in order to ground an aircraft.

1. An entry must be made in the aircraft's Flight Logbook stating that the aircraft is grounded, the reason for grounding and the name of the pilot who is grounding the aircraft.
2. The key to the aircraft must be removed and stored in a safe place.
3. A placard stating that the aircraft is grounded should be placed in plain view in the aircraft itself.
4. Should it be necessary to ground an aircraft away from base, the pilot should remove the keys, and place a prominent notice in the cockpit stating that the aircraft is unserviceable. A member of the committee at Coonagh should be informed as soon as possible.

2.19 CLEARANCE OF GROUNDED AIRCRAFT:-

A grounded Aircraft may not be used again until it has been cleared by an Aircraft Engineer. This clearance must be clearly indicated in the Flight Logbook and any placards indicating the aircraft is grounded must be removed.

2.20 CLEARANCE OF MINOR DEFECTS:-

Once an Engineer or his designated Agent has fixed a defect or defects on the aircraft, the Flight Log Book should be signed to that effect. After subsequent flights, the pilot can now write "NIL" under the defects column if ALL defects have been cleared or, should only some of the defects have been cleared, the remaining defects must be carried on down the defects column.

Under no circumstances may anybody but an Engineer or his designated Agent remove defects entries from the Flight

Logbook. This means that no person shall write "NIL" in the defects column if defects have been reported from a previous flight, unless and until the defects clearance has obviously been carried out.

PART 3: AIRFIELD GROUND OPERATIONS

3.0 Introduction.

Coonagh airfield is an essential facility for the Limerick Flying Club, which needs to be run in a professional manner so that safe flying operations can be carried out by the club. The committee appoints an operations officer to oversee all aspects of airfield ground operations. The purpose of this part of the club operations manual is to lay down procedures, responsibilities and codes of practice to ensure that the airfield is run safely and efficiently.

3.1 Chain of Responsibility

The committee delegates responsibility for the day to day Operational Safety of the airfield to the Duty Instructor (DI) during normal operating hours. As such the DI is charged with making all decisions relating to aircraft operations at the field. Any club member present at the field when flying is taking place should assist the duty instructor to manage the airfield by acting as Operations Assistant (OA). The OA acts as deputy for the DI when the instructor is absent and if necessary, is empowered to make airfield operational decisions on the DI's behalf. Outside normal operating hours or when there are no duty staff present, it is the responsibility of individual aircraft captains to ensure that safe ground operations are carried out. There should be a minimum of 2 competent persons present for aircraft startup in case it is necessary to operate any emergency equipment.

All club members must comply with any decisions made by the Duty Instructor or his authorised deputy concerning airfield operations. All members have the right to bring before the Committee any decisions they may have a grievance with, but when issued, that decision must be complied with.

3.2 Airfield Guidelines.

a) The Hanger

The Hanger is a restricted area. The general public is not permitted to enter this area unless accompanied by a member who is fully conversant with the hazards involved both to the public and to the aircraft. The member is responsible for the visitors he accompanies and must not leave them unattended. Every club member should consider it their responsibility to intercept any unauthorised person entering the hanger and ascertain their purpose.

The hanger must be securely locked at night or when the Airfield is unattended. No fuel shall be stored in any containers within the hanger, nor shall "empty" fuel containers be stored there in order to avoid the danger of fuel vapour exploding.

b) The Ramp Area

The Ramp consists of the tarmac and taxiway area in front of the hanger. This is potentially the most hazardous area on the field where aircraft must manoeuvre in fairly close proximity to people, fuel pumps, buildings and other aircraft.

The Ramp is a restricted area. Access gates are normally locked, keys are kept in the ops room. The general public is not permitted to enter this area unless accompanied and closely supervised by a club member who is fully conversant with the dangers involved. Accompanied visitors should only be brought onto the ramp in order to board an aircraft and only when ready to do so. The member is responsible for the visitors he accompanies and must not leave them unattended.

Particular danger to children and animals exists on the ramp, as they may not recognise the danger of a turning propeller. They should be removed from the ramp immediately when noticed.

c) The Runway

The runway measures 416m long by 10m wide and is 18 ft amsl at both thresholds. The take-off run available for both

runways and the landing distance available for Rwy 10 is 416m. The threshold of Runway 28 is displaced, the Landing distance available is 400m. The load carrying capacity of the runways and taxiways has not been formally assessed, however, the airfield surfaces are only suitable for light aircraft operations. The Runway is a restricted area. The general public is not permitted to enter this area at any time. Only members fully conversant with operations in the Coonagh Circuit Pattern are permitted to enter the Runway. If it is necessary to enter the runway (eg for inspection or maintenance purposes) the DI or his deputy should be informed, time on the operating area should be kept to a minimum and aircraft should always be given the right of way. The Runway surface should be inspected daily and stones and any other hazardous material removed from the surface. The Tarmac surface shall be kept free from livestock by an electric fence or other means. Heavy vehicles such as trucks and tractors are not permitted on the tarmac of the runway to prevent damage.

d) Public Road

Occasionally members of the public park cars or stand on the road at the end of runway 28 to watch aircraft take off and land. This is potentially hazardous, club members should ask those involved to move to a safer area. Notices are displayed warning the public of the danger posed by aircraft taking off and landing.

e) The Fuel Installation.

Under no circumstances whatsoever shall smoking be allowed in the vicinity of the fuel installation. The Fuel Installation should be kept locked at all times when it is not in use. Electrical power shall be switched off when the pump is not in use, especially at night. Regulations concerning the operation of the fuel system will be published separately.

f) Club buildings

The Club has 2 buildings for use by members. The club operations building is a pair of portacabins which contain the operations room, club office/instructors room, a small kitchen and a briefing room. The clubhouse is a renovated nissen hut for use in social and training activities, as well as a shelter for members and their guests during bad weather. Care should be exercised when going to and from the clubhouse during flying operations as it is accessed via the ramp area. It should be noted that the clubhouse is not a licensed premises and is therefore strictly for the use of club members, their families and accompanied guests only.

g) The Windsack.

The windsack is the only positive means of wind indication for the airfield. The sock, pole and swivel should be maintained in good condition.

h.) Safety Equipment

The club has a safety vehicle which contains fire fighting, rescue and first aid equipment. An emergency plan has been published and promulgated to local fire and ambulance services. A committee member is appointed as club safety officer, his duties are listed at Annex 3 to this manual.

3.3 Movement of Aircraft by Hand

Extreme care must be taken while moving an aircraft to ensure no harm comes to it or to other aircraft. Single handed towing of aircraft should be avoided whenever possible. All Aircraft should be towed using the correct tow-bar. The person using the tow-bar is responsible for the direction of any helpers.

Towing of Aircraft by the pulling or pushing on the propeller is discouraged. Should it be unavoidable, ensure that all switches are off and the mixture is in the Engine Cut-off position. The propeller should be grasped as close to the crankshaft as possible, and equal pressure applied on both sides.

Under absolutely no circumstances may anyone attempt to move an aircraft by applying pressure to the wings, tail fuselage or control surfaces or an aircraft.

3.4 Parking of Aircraft.

a) Parking in the Hangar.

The hatches must be closed to prevent soiling by bird droppings or any rain that may drip through the roof. No brakes shall be applied to any aircraft in the hangar, as it may be necessary to move them in a hurry in the case of a fire. All aircraft in the hangar should be chocked to prevent movement.

b) Parking Aircraft outside.

The Hatches shall be closed to prevent damage from rain. The Aircraft should be faced into wind, with the parking brakes applied. If the aircraft does not have parking brakes it must be chocked. The aircraft should be securely tied down to picket points, or some heavy articles that will perform the same function. The Control Surfaces must be restrained; if control locks are not available, the safety harnesses should be used to immobilise the stick. .

If an aircraft is to be left out for a prolonged period of time, it must be remembered that the wind direction changes and it may be necessary to reposition the aircraft periodically. If bad weather is forecast, then every effort must be made to hangar the aircraft.

c) Parking Aircraft away from Base.

Aircraft parked away from base shall be locked or disabled when the Pilot is not present. Portable equipment such as headphones, radios and life jackets shall be removed. Club aircraft should be hangared whenever possible, where overnight parking outside is unavoidable the procedures in para (b) above should be followed.

3.5 The Refuelling Operation

Procedures to be followed concerning the storing and dispensing of AvGas will be issued separately in due course.

3.6 Adding Engine Oil to an Aircraft

Should it be found from the dipstick that an engine requires oil, the pilot should:

- a) ensure that he knows the correct oil to be used. The usual oil used in the aircraft is Shell W-80 or equivalent. Under certain circumstances, for example after a new or reconditioned engine has been installed, a special oil is required. This will be indicated by a placard in the aircraft, and will be noted in the aircraft's operations log.
- b) Take care not to spill oil in the engine compartment area or overfill the sump.
- c) Record how much oil was added in the appropriate flight operations logbook.
- d) In the Oil book, check that the engine is not consuming an unusual amount of oil.

Anybody using the oil store should ensure that funnels and filling cans are kept free from dirt and water.

3.7 Passenger Boarding.

The Pilot in Command is responsible for the safety of all passengers whilst boarding or disembarking from the aircraft. Passengers should be thoroughly briefed on safety features of the aircraft, operation of the restraining harness and what to do in the event of an emergency.

Passengers should only be taken to the aircraft when ready to board. The aircraft must be positioned at the correct location on the taxiway with the engine stopped. Only one passenger shall board at a time and the Pilot must supervise. Hardpoints should be pointed out to prevent any passenger from putting weight on an unstressed area of the aircraft.

3.8 Radio Operation.

The Coonagh Base Radio, although fully licensed, is strictly for informational purposes only. The Club does not have an Air

Traffic Control Unit and therefore cannot issue clearances. Aircraft operating in the Circuit or entering the Club airspace may report their position and may be given the position of any known traffic. Privately owned hand-held radios should not be used for club ground to air transmissions.

3.9 Airfield Appearance and maintenance

Members should make every effort to keep the airfield clean and tidy. Rubbish should be deposited in the available bins. Any rubbish generated during a flight should be removed directly after the flight. Any aspect of the airfield or buildings needing attention or maintenance (eg weeds, painting, etc) should be brought to the attention of the committee for action.

In particular the clubhouse and operations area should be kept clean and tidy. It should be remembered that this is the area of the club the public and prospective members will see first and we would like to project a professional image.

3.10 Airfield Security.

For ease of use, the lock on the clubhouse, and the two locks on the hanger doors can be opened with the same key. It is the policy of the club to issue PPL (or higher) licensed members with a copy of this key. All other keys necessary for daily operations shall be carefully labeled and hung on the board supplied. It is particularly important that the key which opens the gate to the airfield from the road is always readily available to allow access to emergency services.

The last member leaving the club must perform the following security checks:

- a) All electrical appliances unplugged.
- b) All lights switched off.
- c) Fuel installation locked and power to it switched off.
- d) Hanger, ops building and clubhouse locked and windows secure.

LFC Ops Manual Annex 1 - Club Operations Officer Responsibilities.

The committee will appoint a Club Operations Officer who will have the following responsibilities:

- a) Supervise the operation and maintenance of all airfield ground facilities including the Hanger, airfield operating surfaces, fuel supply and any Fire Fighting Equipment in accordance with the guidelines laid down in Part 3 of the club's operations manual.
- b) Supervise all club aircraft maintenance records, Aeronautical Information Publications club library and files. Ensure all documents are kept secure, updated and available whenever required.
- c) Order Fuel and Oil supplies as necessary.
- d) By reference to planning applications and by paying regular visits to the Limerick County Council Offices to examine the master planning application map, endeavor to keep the runway approaches clear of obstacles such as houses, wires masts and tall trees which could present a hazard to aircraft.

LFC Ops Manual Annex 2 — Operations Assistant Responsibilities.

Club members should assume the role of Operations Assistant (OA) on an opportunity basis. The primary function of the OA is to assist instructors in order that the flying program should run as smoothly as possible.

Ops Assistant tasks include the following:

- Obtain and display up-to-date weather and NOTAM information (Met Shannon 471333, AIS 471233).

- Check the airfield operating surfaces for serviceability and remove any foreign objects.
 - Check the windsock for serviceability.
- Check all fire fighting and safety equipment is present and serviceable as detailed in the club emergency plan.
- Deal with any Aeronautical Information updates that are received by the club (AICs, NOTAMs etc.)
- Monitor the flying program to ensure efficient use of the club aircraft
- Assist crews in preparation and transmission of flight plans
- Fill in and keep updated all ops logbooks (members' booking sheets, aircraft ops logbooks, fuel & oil logbooks, visiting aircraft book, etc.)
- Check all payment dockets are filled in clearly and correctly.
 - Deal with phone calls and visitors.
 - Operate the club radio noting that transmissions should be kept brief and can only be advisory.
 - In case of an aircraft accident implement the club's emergency plan.
 - Ensure that the club facilities are kept tidy

LFC Ops Manual Annex 3 — Safety Officer's Responsibilities

The committee will appoint a Safety Officer from the membership who shall be responsible for the following duties:

- a) Establish that the Emergency and First Aid Equipment that should be available on the airfield according to the guidelines laid down by the IAA is available.
- b) Establish and update a map showing the locations of the safety equipment in the club to be displayed in a prominent place in the club house.
- c) Establish regular training for club members in the use of Emergency and First Aid Equipment.
- d) Ensure that the correct fire extinguisher and a suitable first aid kit are fitted to every club aircraft.
- f) Delineate public and danger areas around the airfield, and ensure signs and barriers are installed and kept maintained.
- g) Establish an aircraft crash map to include the airfield, surrounding areas and all access points. The map should be overlaid with a grid for easy reference and copies distributed to local emergency agencies.
- h) Ensure that all emergency and safety equipment is checked at regular intervals and maintained in a serviceable condition.
- i) Review the club's accident plan annually to ensure its accuracy, relevance and clarity.
- j) Ensure the Club's accident plan is displayed in a prominent places throughout the club to enable it to be used in the event of an emergency.