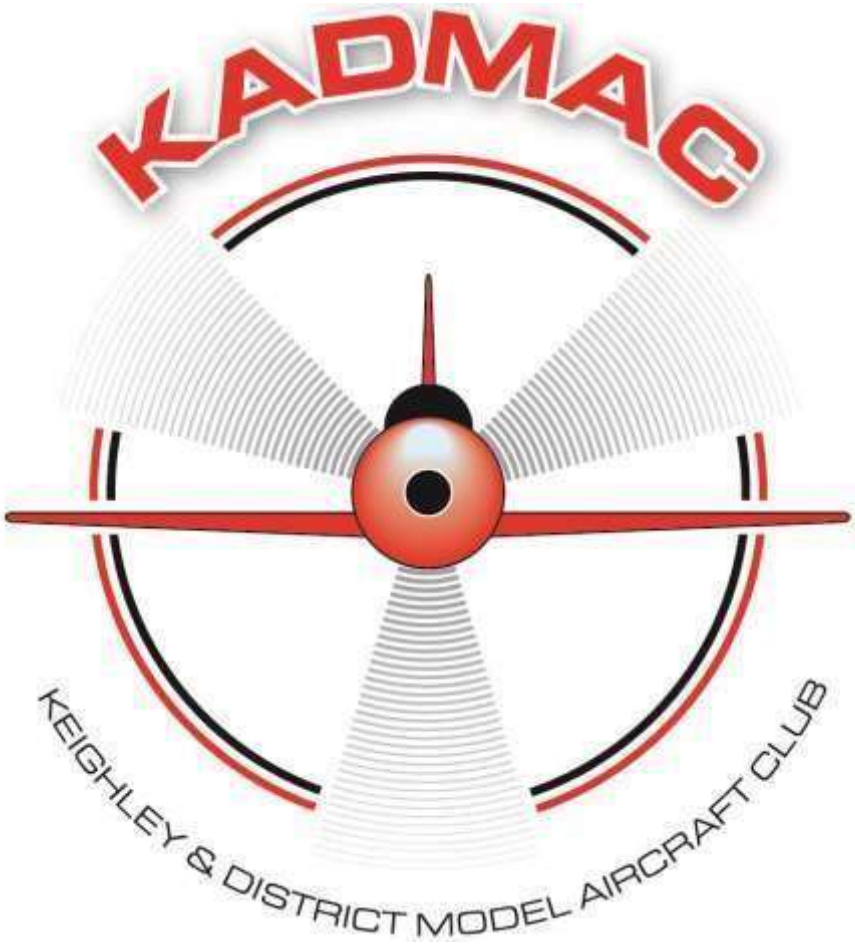

HANDBOOK

ISSUE 5.6 November 2021

KADMAC Subscription Rates

Issue No.	Date	Comments
1.0		Original type-written document.
2.0	9/95	Scanned using OCRAII by M. Sokald.
2.1	12/96	Corrections by M. Sokald. Additions by G. Richardson.
3.0	3/99	Complete revision and additions by S. Griffiths.
3.1	12/00	Revisions and additions by S. Griffiths
4.0	8/02	Reorganisation, revision and additions by S. Griffiths
5.0	11/08	Full revision
5.1	02/14	Update
5.2	01/15	Update
5.3	07/17	Update
5.4	06/18	Update, Concessions voted out, Subs Increase, at EGM

	Subscription Rates (£)				
Year	***Senior***	***Junior***	***Social***	***Associate***	***Joining Fee***
2016	£30	£10	£10	N/A	£18
2017	£33	£11	£11	N/A	£18
2018	£34	£11	£11	N/A	£18
2019	£40	£5+ BMFA	£11	£5	£18
2020	£40	£5+ BMFA	£11	£5	£18
2021	£40	£5+ BMFA	£11	£5	£18

All full members are required to hold BMFA membership. BMFA membership fees may be paid through KADMAC, in other circumstances proof of BMFA membership must be shown prior to KADMAC membership being approved.

A reduction in club and BMFA fees is available to new members who join part way through the year.

Revision History

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Glossary

KADMAC Keighley and District Model Aircraft Club

BMFA British Model Flying Association

CAA Civil Aviation Authority

ANO Air Navigation Order

DBS Disclosure Barring Service

R/C Radio Control

I/C Internal Combustion

ARTF Almost ready to fly

MHz Megahertz electromagnetic wave frequency

GHz Gigahertz electromagnetic wave frequency

FPV First Person View

CONTENTS

FOREWORD

Firstly, your Committee would like to thank you for your membership and hope that you will be associated with KADMAC for many years to come.

The purpose of this handbook is to provide you with as much information as possible about YOUR Club, its aims, amenities rules and guidelines for both new and existing members. We would suggest that you read this book and keep it for future reference.

KADMAC has been in existence in different forms since the mid 1930's, but has been in its present form since 1976.

Towards the end of 2011 KADMAC became an affiliate organisation to the British Model Flying Association with the dual aim of furthering the progress of KADMAC and its members as well as furthering aero modelling as a whole.

For many new members, matters that may have been highlighted in discussion and in our newsletter, or that are taken for granted, may need stating or explaining. Common sense and many years' experience have helped the Club evolve into the body it is today. One of the aims of this handbook is to cover this ground for new members.

CONSTITUTION

GENERAL

1. The club shall be called Keighley and District Model Aircraft Club and will be affiliated to the British Model Flying Association.
2. The club's principal aim shall be the promotion of all aspects of safe and responsible model aircraft flying.
3. Alterations to this constitution can only be made at an Annual General Meeting or at an Extraordinary General Meeting called for that purpose

MEMBERS

4. A "member" means any class of membership unless described as under "Definitions".
5. The Committee has the right to refuse membership to new applicants.
6. New members will be required to serve an initial probationary period of 6 months. During this time they will not be eligible to serve on the Committee and may have their membership terminated at the discretion of the Committee for unsatisfactory conduct.

7. All members except social? Associate members must be members of the British Model Flying Association and must be able to provide evidence of such on request.
8. All members, without exception, must comply with all club rules. Failure to do so may result in disciplinary action by the Club which may lead to dismissal.
9. Members may invite guest fliers to any club managed site on arrangement with the Committee but they must have BMFA approved insurance or equivalent and the club member must assume total responsibility for the actions and safety of the guest. Guests must fly under the supervision of instructors if their ability requires it, and such arrangements must be made in advance of the visit.

SUBSCRIPTIONS

1. New members' subscriptions shall be dependent on membership class, plus the joining fee as decided at the Annual General Meeting.
2. Subscriptions are due at the AGM each year. Any member, who has not paid their subscriptions for the ensuing year by the 1st meeting in March, in full, will not be permitted to fly model aircraft on any site until they have done so.
3. BMFA membership must be in place before flying.
4. Members who have allowed their membership to lapse for less than 3 months will not normally be asked to re-apply for membership or pay the joining fee, but will be required to pay a full 12 months subscription.
5. Members who have not renewed their membership by 1st April will be deemed to have left the club and a renewal after this period will be treated as a new membership application at the discretion of the membership sectary.

The above is just an extract of the full constitution which can be found at http://keighleymodelflyers.co.uk/about-kadmac/constitution/

The full constitution is also available on request to a member of the committee.

AIMS AND AMENITIES OF KADMAC

Our stated aim in our Constitution includes the words 'promote', 'co-ordinate', 'encourage', and 'assist' and this section summarises the amenities within your Club to achieve these aims.

Possibly the most important provision the Club makes for its members is Public Liability Insurance against model flying risks, included in your annual subscription to the BMFA

Within your Club, great emphasis is placed upon a safe and responsible approach to the training and encouragement of beginners in all aspects and disciplines of our sport. To this end all beginners are encouraged to make themselves known to their more experienced club mates who will make arrangements for a suitable instructor to assist them. Our success rate is very encouraging, most new modellers learning steadily and suffering only minimal damage to their first models.

For many years KADMAC has used a part of Harden Moor for its flying activities and a prepared grass strip of approximately one acre is in use. Regular mowing and other maintenance is carried out, with all members encouraged to assist.

Control-line, slope and thermal soaring, helicopters, electric models and indoor flying are also catered for at this and other suitable sites, the Club having experienced and enthusiastic devotees of each of these branches of the sport.

Annual competitions are organised for the benefit of all members, encouragement and assistance are readily available, and the main intention is enjoyment rather than competitiveness. Monthly Club meetings are held, with a minimum of formality, usually followed by some form of social or aeromodelling activity.

The monthly club meetings will convey news of the clubs activities and any changes in guidelines. This will also be available on our website and FaceBook pages.

A hidden benefit, sometimes overlooked, is contact with other experienced enthusiasts. Within the Club, most modelling (and other) problems are often solved from informal discussion.

FEES

To become a member of the Club requires the payment of a joining fee and one year's subscription. The joining fee is also to be paid on rejoining the Club after a lapse of membership. The annual subscription rate is set for the coming year at each Annual General Meeting.

Junior members are those who are under the age of 21 at the date of the Annual General Meeting. These pre-requisites must also to be in effect at the date of the Annual General Meeting.

The joining fee is set by the committee.

The table inside the front cover shows subscription rates from 2016 for all classes of membership, and space is provided there to allow amendments to be inserted for each year until 2023. Members will be notified of changes through the Club website.

JUNIOR MEMBERS

All junior members should be supervised at all times by a parent or guardian

CLUB OFFICERS

The Club Committee includes the following posts which are listed here, together with a brief description of their functions.

All serve for a two year term on election, and all members are entitled and encouraged to stand as candidates for election. Other posts may be created as necessary from time to time.

CHAIRMAN: Chairs all General and Committee meetings of KADMAC, ensuring the smooth and fair handling of proceedings.

TREASURER: Collects all moneys due to the Club, authorises and issues payments and keeps full records of the Club's assets. Presents a balance sheet annually at the Annual General Meeting for approval by the membership.

MEMBERSHIP SECRETARY & VICE-CHAIRMAN: Takes moneys from members and issues membership cards in return. Keeps full records of current members' details. Gives or arranges introductory briefings to new members.

SECRETARY: Maintains records of the proceedings of the Club, is responsible for all official Club correspondence and provides an address for Club mail.

NEWSLETTER EDITOR: Invites, collates and generally organises material for the Club magazine 'COCKPIT', besides arranging printing and distribution of same.

PUBLIC RELATIONS OFFICER: Organises favourable publicity for the Club. The PRO is 'The Acceptable Face of KADMAC'

CLUBMEN: Are co-opted by the committee members for a period of one year without specific areas of responsibility.

SAFETY

ACCIDENTS occur extremely rarely, and this record can be maintained with care, thoughtfulness and good flying.

The following section must be read by ALL members, regardless of experience. We are all guilty, on occasion, of making mistakes and the awareness of the potential danger of our models cannot be over-estimated.
Your attention is drawn to Article 240-241 of the CAA regulations CAP 393, which applies equally to model and full sized aircraft.

Basic safety rules take into account three main areas of our operations:
1. Airframe construction and maintenance.
2. Radio Equipment and Frequency Control
3. Safe Flying.

Taking each of them in turn:

AIRFRAME INTEGRITY

This aspect of safety begins at the design stage and does not end until the ultimate disposal of the model.

Most beginners start with a kit or ARTF model, and most well-designed models are adequately strong for their intended use, including some rough handling.

For the modellers who design their own models, an amount of thought must be given to the stresses to which the model will be subjected.

When building or assembling the model, pay close attention to the suitability and fit of individual components, replacing any of dubious quality. It is far easier to replace them at this stage than to have to perform a complete rebuild due to failure later.

Before and after each flying session, or after any 'heavy' landing, a thorough check should be conducted and a note made of any repairs needed. A regular inspection of your model should ensure that any ‘wear and tear' is remedied before anything disastrous occurs.

IF IN DOUBT DO NOT FLY

RADIO EQUIPMENT AND FREQUENCY CONTROL

Modern radio equipment is built to very tight specifications and is very reliable. It is so reliable that it is very easy to neglect.

Wear and tear on batteries, servos and leads cause the largest amount of problems, yet they are the simplest to check. Proper insulation from vibration, mechanical shock and moisture should be ensured in both the transmitter and airborne components. Crystals can also fail due to mechanical failure.

Frequency control is another possible cause of danger and this varies with regard to the frequency band in use. There are three frequency bands available:-

1) **27MHz**. Traditionally the oldest band in use, and not as secure or as safe as the others. Even though very few of our members use this band, all users must display the correct pennant (either the Tx colour or channel number on a white pennant), plus a peg with the same information, and liaise with any other user of this band to ensure no frequency clashes occur.
2) **35Mhz**. Until recently the most popular band, as it is a dedicated band for model aircraft only, and hence very safe. Frequencies are allocated by 'channel number', and every transmitter must have a peg marked with their channel number, and usually an orange pennant with the channel number.
3) **2.4GHz**. The newest allocated band, where frequency control is now generally unnecessary, except to ensure that users are aware that others are also using this band and to ensure excessive numbers of aircraft are not flying simultaneously.

SAFE FLYING

Common sense is the greatest asset when discussing 'Safe' flying.
Obeying the Flying site guidelines and your legal responsibilities will also assist in this aim.

The basic rules are always to fly within your abilities, to avoid flying over anyone, and to be prepared to sacrifice your model rather than cause injury to persons or animals, or damage to property.

To summarise:

REMEMBER - SAFETY IS NO ACCIDENT!

THINK, LOOK, LISTEN.

IF IN DOUBT -- DON'T DO IT!

INSURANCE AND ACCIDENTS

INSURANCE

The Club now obtains its insurance cover through its affiliation with the BMFA, every flying member of the Club must be a fully paid up member of the BMFA to fly. Club members who do not pay their BMFA subscriptions via KADMAC will be asked to show evidence of BMFA membership whether this is as a country member or through another club prior to joining, or re-joining, the club.

Actual levels of the Insurance cover will vary over time and members should consult their BMFA membership details and the BMFA website to confirm exactly what cover is provided.

Insurance is a complicated business and does not lend itself to simplification, however the BMFA website and helpline facilities should enable any member to fully comprehend the implications for each member in any circumstances.

ACCIDENTS

All accidents involving a Club member must be reported to a committee member at the earliest opportunity, regardless of whether an insurance claim is likely to arise. Although rare, accidents do occasionally occur which necessitate submitting an insurance claim.

It is VERY IMPORTANT, in such cases, to adopt the following procedure:

1. If any injury is caused, obtain medical attention.

2. Record the names and addresses of any witnesses.

3. If damage is caused to property or livestock, contact the owner and report the occurrence.

4. Clear the site of the incident of any debris, unless serious injury or death has been caused, when the site should be left untouched in case forensic examination is needed, and debris removed only when cleared to do so by the police or other authority.

5. Contact a member of the committee www.keighleymodelflyers.co.uk IMMEDIATELY, this will enable appropriate action to be taken in notifying the insurers, BMFA and the authorities as appropriate.

CLUB COMPETITIONS

The Club holds several annual competitions, for both the flying and building of models. These are intended for enjoyment rather than as cut-throat competition. All members are entitled and encouraged to enter, and trophies are awarded for both the winning entrant and the best-placed junior member.

The date and venue of each competition are published in advance on the website www.keighleymodelflyers.co.uk . And KADMAC Facebook page Entry is on the day, at no charge, up to 45 minutes after the published start of the competition. Later

entries are at the discretion of the contest director. However, it should be noted that, if the venue is announced as 'Meet at……', the competition may take place elsewhere and a late-comer may not know where!

Stanley Parkington Trophy

Awarded annually to the best all-rounder, as determined by the results of the Club competitions. Nominated competitions are announced in advance and competitors' total scores decide the placings for this Trophy.

Graham Wademan Memorial Trophy
Awarded annually by Richard and Eileen Wademan to the winner of the power funfly competition held in the summer.

Derek Turner Trophy

Awarded annually to the winner of the electric competition.

Mick Hill Memorial Trophy

Awarded annually to the winner of the powered aerobatic competition.

Chairman's Award

Awarded annually to a member of KADMAC by the Chairman.

Clubman Award

Awarded annually to a member of KADMAC by the Committee.

Team Glider Event
Awarded annually to the winners of the team tug/glider event.

Mick Banks ARTF Building Competition Trophy
Awarded annually to the winner of the best built artf model
Tom Toll Memorial Trophy
Awarded annually to the winners of the target bomb drop competition.

LEARNING TO FLY WITH KADMAC

The club operates training schemes for fixed-wing power, slope soaring and helicopter fliers, and tuition in thermal soaring and control-line can be arranged on a less-formal basis. Learning to fly under the guidance of a Club instructor is the best way to minimise the damage and disappointment which ensue from most attempts to learn unaccompanied. Besides this, and of at least equal importance, Club instructors will

also teach you the essential aspects of safety and general behaviour which you will need to learn if you are to become qualified to fly without supervision.

Any committee member, and indeed most ordinary members, will be able to put you in touch with an instructor for the discipline which you wish to learn, a list of instructors and their telephone numbers is available from our training officer.
www.keighleymodelflyers.co.uk

It is important to try to make such contact before you purchase a model and equipment, as the instructors will be able to recommend to you those which are most appropriate before you make a possibly unwise investment of a potentially considerable sum. You will also be able to get advice on all aspects of construction, equipment installation, and radio-control operation, and make arrangements to meet to begin flying training.

Students will also need to decide what 'mode' they use at their transmitter to fly with. The club uses two modes, Mode 1 (throttle right) and Mode 2 (throttle left). Naturally each proponent believes their mode choice is the best, it is there for recommended that beginners talk to flyers of both 'camps' before they make their choice, they also need to bear in mind that most instructors in the club fly Mode 2 and nationally most other clubs and flyers fly Mode 2, also that helicopter flyers are predominately Mode 2.

If you intend to start by learning to fly gliders, it is strongly recommended that you begin with slope soaring, even if your ambition is to fly thermal soarers. The convenience of slope soaring offers more opportunities to fly, and as you progress you will be able to practise alone more easily.

Finally, please remember that Club instructors give their time freely; time that they could be using to build or fly their own models, so try not to impose undue burdens upon them. Whilst they will make every effort to accommodate you, you should expect that they will be available for training sessions only when mutually convenient.

FLIGHT TRAINING SCHEMES

FORMAL TRAINING

Training schemes leading to the awarding of a BMFA 'A' or KADMAC Solo certificate operate for fixed-wing power, helicopter and gliding. The Harden Moor site is the venue for fixed-wing power and helicopter training and the local hills for slope soaring.

KADMAC solo is a test of your flying ability and knowledge. This test will show that you are fit to fly solo and you will not be a danger to fellow flyers and users of Harden Moor.

BMFA A is a test similar to the KADMAC solo but with a wider knowledge base required to allow you to fly on other sites. This will show to other clubs and flying sites around the country that you have both the skills and confidence to operate in a safe manor.

The training process is intended to allow the student to build up his skills and confidence through a structured program, beginning with the simplest operations and working up to the more difficult aspects of controlling a flying model. Through this process the student should acquire the necessary abilities and reflexes. Progress can be checked, and a change of instructor facilitated, by reference to the Flight Check Record which should be maintained by each student during training. In this, lessons are logged by the student, and performance noted and signed off by his instructor on completion of each session. A record sheet is reproduced following the 'A'/Solo certificate test schedule to be photocopied for use.

Students should recognise that opportunities for flying are determined in part by the weather, and they may therefore experience frustrating but unavoidable periods of enforced inactivity, leading to an extension of the training period. No precise timescale can be given for the training process, as it is dependent upon the ability of the student, the availability of instructors, and of course the weather. A reasonable expectation would be for it to take several months to reach 'A'/Solo certificate level.

When the instructor considers that an acceptable level of competence has been reached, the student may take a test which, if passed, will result in the award of an 'A' certificate, permitting further flying to be done unsupervised. Instructors and indeed all experienced Club members will of course still be prepared to give advice and guidance at all times.

The 'A' certificate test entails more than just demonstrating the student's ability to control a model. Pre- and post-flight checks must be carried out properly, to show an understanding of the importance of ensuring that a model is structurally sound, that the controls are functioning correctly, and hence the model is safe to fly. Other essentials such as Club rules, further safety considerations, and a basic understanding of flight-related matters are tested by questioning. The flight schedule for the A certificate test is given later.

Details of the full content of the formal training schemes may be obtained by application to any committee member or instructor.

The length of time to achieve 'A' certificate status varies from weeks to months. A few hints, from practical experience, follow:

1. If possible, stick with one instructor. Everyone has their own individual approach and frequently changing instructors can cause confusion.

2. Read the BMFA flight training scheme handbook: it is always helpful to know the next stage in your training in advance.

3. Make use of the flight check records: your instructor will then know what training you require.

4. PRACTISE - as often and for as long as possible.

5. Talk to other modellers when you are not flying - a great deal of advice and experience can be gained in this way.

6. Remember that your instructor is not charging for his time or advice. A word of thanks is all that is needed. The best form of repayment is for YOU to instruct as you become more experienced.

7. **REMEMBER. Training is a never-ending process. We are all gaining experience and knowledge every time we have a flight.**

INFORMAL TRAINING

For control-line, informal training can be arranged. There is no certification for competence in this discipline.

Students contemplating thermal soaring are strongly recommended to master the control and management of model gliders by first undergoing training in slope soaring.

FIXED-WING POWER FLYING

The Club's fixed-wing powered flying site is located at Harden Moor, about two miles south of Keighley. Access is via the bridle-path opposite the Guide Inn, and keys for the locked gates are available from the Club treasurer on payment of a refundable

deposit. Flying site regulations are given on Page 19 of this handbook. All members must abide by these regulations, and so are strongly recommended to read and study them. Due to local sensitivities to noise pollution, I/C flying times are restricted. Permitted flying times and primary rules currently in effect are published bi-monthly in the Club newsletter.

There is a large variety of models flown within this group, ranging from 1cc powered gliders up to 1/3 scale petrol-engined models. However, beginners are advised to start with a sturdy trainer model that will be able to take the rough handling of learning to fly; Club instructors and local model shops will be happy to advise on a suitable model and engine combination.

Even with the flying of a humble trainer, there are risks involved, which all users must be aware of, with this in mind flight training for beginners is essential. A training program has been running successfully for many years. A certificate of competence based on the BMFA 'A' certificate can usually be obtained after a relatively short period of training. Until this certificate is obtained the beginner must only fly under supervision from an instructor. Disaster is guaranteed for those who try to go it alone.

HELICOPTER

Helicopters are flown at various sites indoor and outdoor within the local area, it is recommended that you contact our Helicopter representative for the latest information on flying times and location.

A visit to a flying site prior to any purchase is recommended, as advice on all aspects of helicopter flying can be obtained, such as choice of machine, costs, etc.

The Model helicopter is a finely balanced piece of machinery, and assistance in setting up the model is usually required to ensure your machine runs smoothly and reliably from the outset: this help will gladly be given by the experienced helicopter flyers. Fight training can be obtained from our friendly team to help you master one of the most difficult and challenging types of radio controlled flying

SLOPE SOARING

Within our local area there exists an abundance of usable slopes. Nearly every wind direction is catered for and a list of these sites, together with any relevant comments, is included later.

The unpredictability of our British weather dictates that arrangements for meeting other Club members cannot be made very far in advance. Novice slope-fliers should determine the active slope soaring Club members through any committee member, or from the reference information given in the Club newsletter. Contact can then be made, either by telephone or at Club meetings, so that further arrangements can be discussed.

Flight training for the beginner is certainly advisable. Much expense and sorrow can be avoided by the simple expedient of asking for assistance.

As many slope soaring sites are situated in very beautiful countryside, the general public will be encountered often, and you will find that many are pleasantly impressed by our hobby. Please treat any enquiries seriously; you may be talking to a potential modeller. When flying, try to be aware of the approach of any animal or human being, and plan your flight path to avoid endangering them. A silent model gives no warning of its approach!

TREAT THE COUNTRYSIDE WITH RESPECT:

CLOSE ALL GATES; LEAVE NO LITTER; AVOID BULLS AT ALL TIMES; AVOID ALL LIVESTOCK AND WILDLIFE DURING NESTING AND BREEDING SEASONS; STAY CLOSE TO PATHS, DO NOT TRAMPLE CROPS

CONTROL-LINE

Currently, control-line flying takes place on our Harden Moor site on Mondays and Thursdays, with a small, but very active and experienced group. The control-line group flies regularly and successfully in competition, and encouragement in that direction is given.

Training and the use of a training model are available, on the usual system of approach through the Club.

THERMAL SOARING

Interest in this branch of our hobby has decreased quite substantially in recent years. Currently, no formal fixed times for flying sessions exist, but, as with slope soaring, an approach to any Club official should result in the establishment of contact with the active thermal soaring group. Arrangements for future meetings can thus be made.

Within the Club, several members possess such launching equipment as is needed and all will permit a novice to have the supervised use of it as available.

The Club owns a top quality electrically-powered winch, which will be available to members, individually or as a group, by prior arrangement. Instruction in its safe use and any necessary maintenance will be a condition of use.

Flight training is again offered, via the usual channels. Thermal soarers, although often gentle and slow models, can be fast and dangerous when out of control. The potential for causing damage is enormous, when flown badly. Again, your Club fully recommends flight training for any beginner.

ELECTRIC POWER

Information on the bmfa website (link) + flying start reg remove below

Advances in battery and motor technology in recent years have made electric power for aircraft a fully viable proposition. Models of all types can now take advantage of this quiet and clean motive power, whilst giving performance directly comparable to, or even superior to i.c. power.

Motors range in price from a few pounds for the smaller, less powerful units, to a few hundred pounds for those which can be used to power competitive or large and heavy models.

Battery packs are now typically composed of a number of rechargeable Lithium Polymer (Li-Po) cells, although nickel metal hydride and Nickel cadmium cells are still used. Battery technology is progressing very rapidly and it is not possible to give detailed information which remains valid for more than a few weeks at a time. Therefore it is vital that manufacturer's instructions are followed closely to ensure safe charging, operation and storage of all types of cells.

All electrically powered models present some small risks which are not present with i.c. motors, and extra care is needed to avoid injury. These relate firstly to the potential for an electric motor to start as soon as power is applied, unlike an i.c. motor which requires mechanical action before it will start. However, most modern speed controllers have a safety circuit to prevent the accidental starting of the motor, and it is recommended that only those with this feature are used. Secondly, an electric motor will continue to rotate as long as power is supplied to it, and will not necessarily stop if it meets an obstruction. For example, should your hand enter the arc of the propeller blade, it will be struck repeatedly by the propeller, not just once. This can lead to extremely severe injuries, particularly with motors which may be consuming upwards of a kilowatt of power. Great care is needed to ensure that this situation does not arise, and electrically powered models should never be approached from the propeller end.

It is therefore particularly important when operating any electric powered aircraft or helicopter, that the Tx MUST BE SWITCHED ON FIRST, and that the throttle stick is doubly checked to ensure it is at engine STOP, and only then is the model switched on, taking due care to keep well clear of the propeller or the rotor, in the case of a helicopter, to prevent it rotating. It is also particularly important that switching off starts with switching off the model (even if it has landed away from you), and only then switching off the transmitter. Failure to follow these important steps can easily result in an extremely dangerous uncontrolled start of the main motor, to the obvious detriment to anyone close to rotating parts, or the model itself!

An increasing number of fliers are turning to electric power, often as an adjunct to their main specialisation. It is likely that this trend will continue, not just in KADMAC, as it presents a form of power which causes little or no noise nuisance to those in the vicinity of a model flying site. Please note that not all electric model will meet the term ‘silent flight’; indeed some, by virtue of power, design, or even the use of on board sound systems may need to be restricted to ‘power flying’ times only.

FIRST PERSON VIEW

First Person View. FPV flying whether by goggles or by open screen may take place, on the condition that the flyer is supported by a competent person and that the aircraft being flown be kept within unadded line of sight at all times. It is also recommend that the flying of an FPV aircraft does not take place alongside non FPV flying.

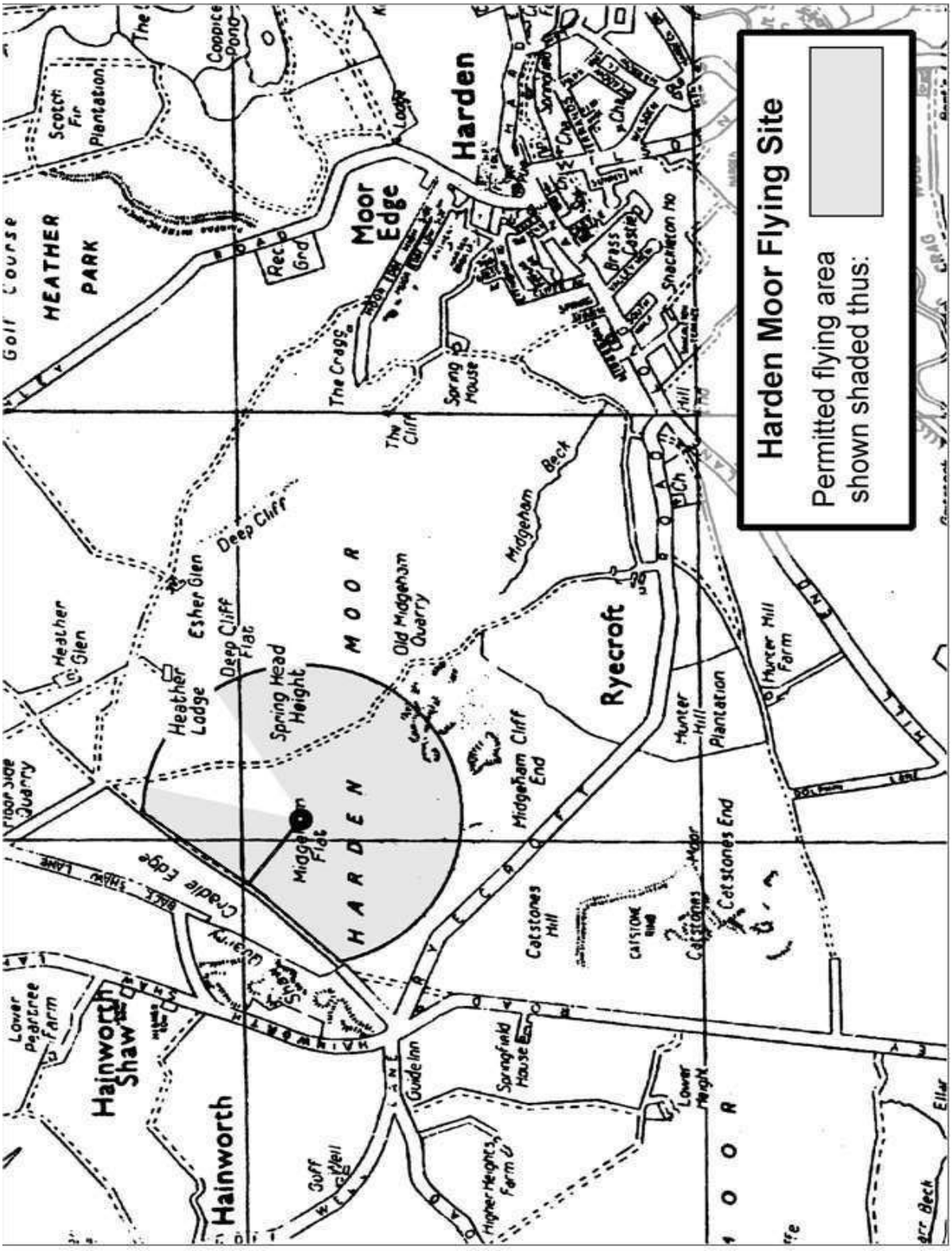
INDOOR FLYING

In recent years, KADMAC has provided facilities for members interested in indoor flying, for both fixed and rotary wing models. This consists of hiring a sports hall at a local school on approximately a monthly basis, see website for more information. Members are required to pay on the day a modest fee for these events.

Currently a wide range of models are flown, from ultra-lightweight rubber powered free flight models, to full house electric powered aerobatic models weighing up to 240g, and helicopters up to '450' size. If there is any doubt about the suitability of any model then the advice of an experienced participant should be sought. Remember any model can cause injury and safety must be paramount at all times.

Notice of these events is announced on the website www.keighleymodelflyers.co.uk and at club meetings.

FLYING SITE LOCATION MAP



HARDEN MOOR FLYING SITE REGULATIONS

(GPS 53.846191, -1.894627)

1. The permitted flying times for I/C powered models are as below, and must be strictly observed.

   Non I/C flight is permitted at any time during day light hours

Monday	Helicopter Multi Rotor Control Line	12:00-21:00	Friday	No I/C Power flying	
Tuesday	No I/C power flying		Saturday	Helicopter Multi Rotor	09:00-12:00
Wednesday	I/C power flying Helicopter	12:00-21:00	Saturday	I/C power flying	12:00-18:00
Thursday	Helicopter Multi Rotor Control Line	12:00-21:00	Sunday	I/C power flying	09:00-13:00

2. Where different disciplines are to be flown at the same time the scheduled discipline shall take precedence.

3. All models must ALWAYS remain within 300 yards of the centre of the strip, and NEVER fly beyond the bridleway wall.

4. A maximum of six (6) models may be in the air at any one time, with no more than five (5) powered.

5. To use the pegboard, fliers must provide their own peg, with name and channel number clearly marked. Spare pegs are usually available on site.

Pegboard operation is as follows:

Before flying, first place your peg on board and then switch on Tx.
After flying, first switch off your Rx, followed by Tx and then remove your peg from the board.

When wishing to use a 27Mhz or 35Mhz transmitter in order to check a model or to fly, the pilot must put his peg on the board in the appropriate spot, indicating the channel is in use. A peg already present indicates that the frequency is in use.

The pilot must remove his peg, freeing the frequency for use by others, as soon as his Tx is switched off, but not before.

REMEMBER - IF YOUR PEG IS NOT ON YOUR SPOT DO NOT SWITCH ON.

Never switch on your 27Mhz 35Mhz transmitter unless your peg, marked with your name, is on the board on the correct frequency. Failure to comply with this procedure could have disastrous consequences.

When your peg is not on the pegboard, keep your transmitter aerial retracted.

5. Transmitter pennants, displaying the correct 35MHz frequency or 27MHz colour and number, must be flown at all times.

6. Pit areas are to be set out, behind the flight line. MODELS MUST NOT BE FLOWN BEHIND THE ACTIVE FLIGHT LINE. The flight line direction will be marked out by the supplied tape as to where the pilots will stand, but in effect stretches the full length of the grass strip giving protection to everyone in the pits.

7. Article 241 of the Air Navigation Order applies to all aircraft flown in the United Kingdom, including models. It states that **"A person shall not recklessly or negligently cause or permit an aircraft to endanger any person or property."**

8. All powered models shall be flown from one of the recognised flying sites.

9. Where different disciplines are flown at the same time the scheduled discipline shall take precedence.

10. All motor vehicles are to be parked in the parking area on the bridle-path at rightangles to the fence wherever possible.

11. The gate to the bridle path must be kept locked except when members' vehicles are entering or leaving.

The following are conditions of our use of the bridleway imposed on us by Bradford Metropolitan Council.

a) Vehicular access to the bridleway from Ryecroft Road shall be strictly for

KADMAC Members and their appointed grounds' maintenance contractors only.

b) Vehicular access is permitted at agreed flying times only, with the exception of grounds' maintenance vehicles, which will be permitted access as necessary for maintenance purposes.

c) The barrier must remain closed at all times whilst the site is in use, to prevent unauthorised vehicles entering on flying or maintenance days.

d) **Breach of any of the above conditions may lead to permission for vehicular access being withdrawn**.

e) Disability access to Harden Moor flight line and pit area is available through the main car park gate and down the path, by car or mobility scooter. Drivers must keep to the hard ground within the path and pit area at all times.

In the event of another flyer already being on the flight line or in the pit area, please sound your horn and only continue once you have acknowledgement that is it safe to proceed.

Please support this facility by keeping Moor Side time with your car to a minimum and allow your fellow flyers the maximum flying time. If you need help with this please ask.

New map

12. The permanent flight line and pit area should be set out in a safe and sensible way to allow flyers the maximum amount of field for taking off and landing away from the flight line.

13. Warning flags must be set up at every flying session.

14. All powered models must be restrained when starting engines, by tethering, or by a cradle, or with the assistance of another person.

15. Mufflers must be fitted to all glow engines over 1.5cc (0.09cu.in.) and all diesels over 2.5cc (0.15cu.in.). Engines of any size, with or without muffler, which are considered to be excessively noisy will not be tolerated. Running-in of engines must be carried out well away from flying operations. Muffled engines must be muffled effectively, to no more than 80dB(A) at seven (7) metres.

16. Spectators not accompanying a member are to be kept well clear of running engines, landing and take-off areas, and preferably should be watching from the bridle-path. Members should be especially vigilant when small children are present.

17. All members must leave the flying site area and car park area in a clean and tidy condition, by taking away litter, broken propellers, plug wrappings, old elastic bands, etc. Burning of models on the moor or bridleway is prohibited.

18. Flight control.

    All flying is to be carried out from one control point.
    Whenever necessary, a transmitter control should be established, A peg-board is provided.

When it is necessary to hand-launch a model, a launch line should be decided by mutual agreement and all spectators and others must stay behind this line to provide a clear, hazard free area.

Under no circumstances should models be launched over the heads of other flyers or spectators or from the pit area.

There must be no low flying over pit or control areas, the car park or spectators.

No model is to be flown over the wall along the bridle-path or behind the pits or flight line in use at the time.

2.4ghz Transmitters may be taken out onto the moor, take-off and landing area when retrieving a model after a flight. Non 2.4ghz transmitters should be left in the care of a competent person.

19. Visiting flyers may operate as guests, providing that they show proof of insurance and willingness to comply with KADMAC flying site rules, and are in possession of at least a BMFA A certificate or equivelent.

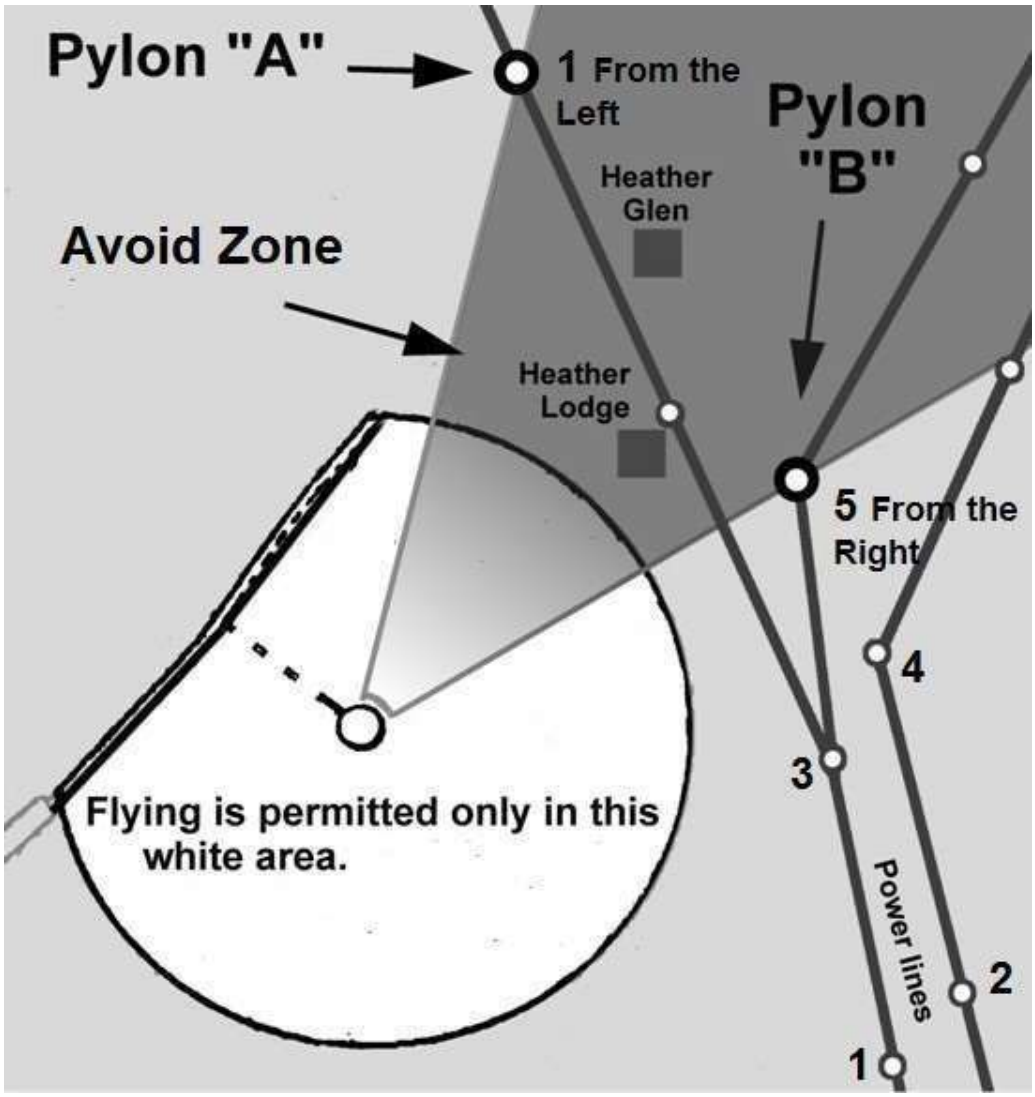
20. It is the responsibility of ALL Club Members to ensure that site rules are complied with, in the interest of both safety and good public relations.

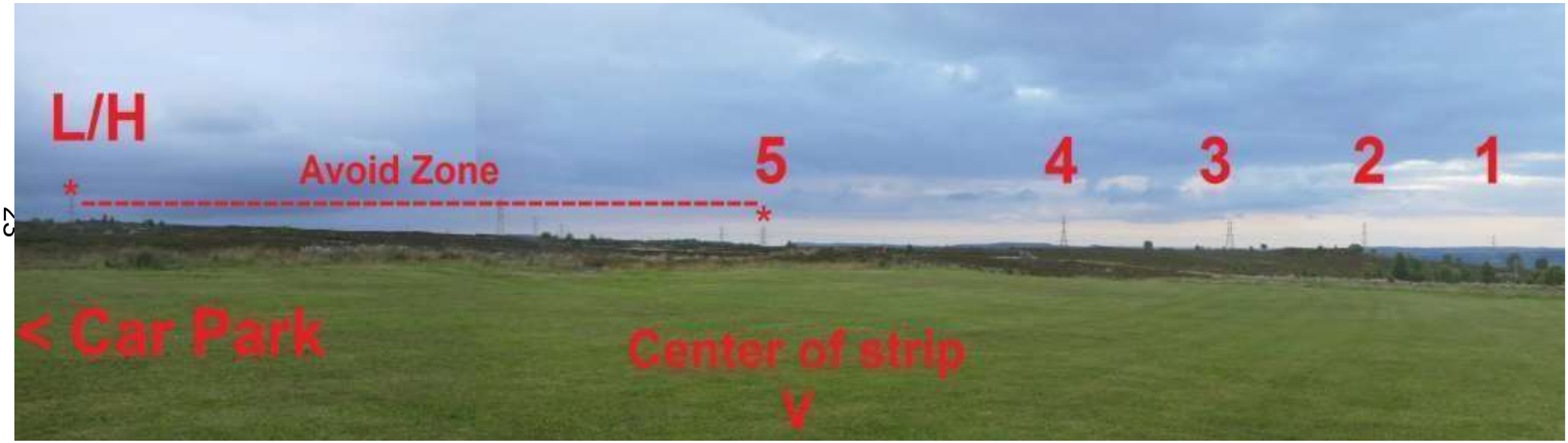
21. Prospective members.

    Any prospective member of the Club must join KADMAC & the BMFA after a maximum of 3 ‘flying’ visits, and must attend the next Club meeting to be issued with a membership number and Flying site permit.

22. New members purporting to be able to fly must demonstrate their skills to the satisfaction of a Club instructor, or provide documentary evidence of flying ability (e.g. BMFA or other club certificate), in order to avoid having to take the KADMAC ‘solo’ or BMFA ‘A’ certificate flying test. They must nonetheless still take the verbal part of the test to prove their knowledge of KADMAC rules and regulations.
23. An area to the North of the strip is deemed to be an Avoid Zone to all models, preventing all models overflying sensitive properties. The edges of this area are defined by two. Pylons A first from the left and Pylon B fifth from the right when looking north from the centre of the strip.

Plan View of Fly Zone


Pylon "A"
1 From the Left
Pylon "B"
Heather Glen
Avoid Zone
Heather Lodge
5 From the Right
4
3
2
1
Power lines
Flying is permitted only in this white area.


L/H
Avoid Zone
5
4
3
2
1
< Car Park
Center of strip
V

HELICOPTER SITE GUIDELINES

(GPS 53.870885 , -1.883082)

Helicopters can be flown at Marley Playing Fields, when it's not being used by the Sports Activities and Coaching centre. If you would like to fly at this venue, it's recommended that you contact www.keighleymodelflyers.co.uk

SLOPE SOARING SITES

The slope soaring sites listed here have all been used by Club members. All are publicaccess sites, and therefore use cannot be restricted only to KADMAC members. Nevertheless, you are required to observe ALL appropriate Club rules when flying at these locations.

Inclusion within this list is not an indication that specific permission for use has been granted. Therefore, if you are approached by any official authority, you are requested to act with due courtesy and report back to a Club official as soon as possible. It cannot be over-stressed that we share these sites with other country users, therefore due consideration and courtesy should be shown.

It is always advisable, when visiting an apparently deserted slope for the first time, to check the surrounding area. There may already be someone else flying around the next corner and it is possible that he/she will be on your frequency.

All slopes listed are accompanied by an Ordnance Survey grid reference and, with the exception of Cowling Pinnacle (Sheet 103), are on Sheet 104.

BAILDON MOOR

This is a very popular slope site, bringing the benefits and drawbacks associated with an uncontrolled site. Frequency control is haphazard and great care is required. Occasional power-flying takes place, often at considerable distance from the slopes, and the flat area beside the track before the spoil-heaps is used frequently for electric models. Having said that, with care enjoyable slope soaring is usually possible. Four slopes are usable: **a) West Slope**

Grid ref. 138403. A very useful slope, catering for wind directions W-NW. A very large and clear landing area exists, giving any novice a better than average chance of survival! All wind speeds.

b) East Slope

Grid ref. 145403. Usable for winds ESE-ENE. Landing area similar to West Slope. Lower wind speeds preferred.

c) North Slope

Grid ref. 156404. Winds N-NE. Restricted landing area, well-used by the general public and hence great care is needed; not for the novice. Car park extends nearly to the slope face! All wind speeds.

d) South-west slope

Grid ref. 139399. Winds SSW-WSW. Much low-level turbulence, with a caravan park below and another to the right, and danger of damage to property in these areas. Not a good slope for novices.

BROW MOOR (Nr. Haworth). Two slopes: **a) West Slope**

Grid ref. 040368. Winds NW-SW. A very useful local slope, but it can be very turbulent in a good blow. Landing area is large, but a power line exists along the ridge top - to be avoided at all costs, as is the wind-turbine.

b) North Slope

Grid ref. 042372. Winds N-NE. Little used slope, approached from parking area at roadside. Landing area rough and restricted, often best to cross the road and land on the moor itself. Works well in all wind speeds, but not really for the unaccompanied novice.

NAB END (Nr. Silsden)

Grid ref. 063471. A very good slope for SW-NW winds. If you enjoy solitary sloping, this could be the one for you. Exceptionally smooth lift in all wind speeds, but with a fairly narrow landing area, with trees and a wall on one side. Very rocky below the edge, not good for landing out.

ADDINGHAM MOORSIDE

Grid ref. 073472. Slope is approached via Nab End, involving a good hard walk of approx. 1 mile. Marked on O.S. map as 'Windgate Nick'. Works well in northerly winds of all speeds. Some rocks to avoid on landing.

PANCAKE STONE (Nr. Ilkley)

Grid ref. 136462. A great deal of this ridge can be soared successfully. All wind speeds and directions from N-NE work. Flying is restricted to the west side of the line of yellow posts that come down from the top of the moor.

COWLING PINNACLE

Grid ref. 984428 (sheet 103). An excellent ridge working in all wind speeds for NW-N winds. At a pinch it will work with a degree of easterly, but not a lot. Landing area is very large but rough, and if insufficient wind is available there is room to lay out a bungee. This would be the best slope in the area if we could turn it to face the more frequently occurring westerly winds.

NAB HILL (Nr. Oxenhope)

Grid ref. 033326. A very useful ridge. Works in all wind speeds, NE-W. The drawback is that the landing area is VERY rough and rocky. Not for the inexperienced! The best idea may be to have only one launch and land at the bottom of the slope.

COLD EDGE (Nr. Mixenden)

Grid ref. 053303. Suitable for NE-SE winds of all speeds. Landing area is tussocky. A good walk around the area is advised before launching. This site is not to be used in the lambing season. In winter, it is very well named.

DRUID'S ALTAR (Nr. Thwaites Brow)

Grid ref. 092400. Useful for wind direction NE, all speeds. Access from Bingley. Landing area restricted.

NONT SARAH'S (also known as Buck Stones)

Superb South facing site with good landing area and ample parking. Located at junction of A640 (Huddersfield to Rochdale) and B6114. Good landing area and parking. Site shared with hang-gliders, so observe the site rules. KADMAC flies by permission of the National Trust: be prepared to show your KADMAC membership and insurance if challenged.

RADIO-CONTROL SYSTEMS

Three bands are available for use by radio-controlled aircraft. However, it is recommended that either 27Mhz 35MHz or 2.4 GHz are used.

A radio-controlled model is at the mercy of its radio equipment. Even when functioning correctly, signal strength reduces rapidly with range, according to the inverse square law. At twice the range, the signal is 1/4 the strength; at three times the range, 1/9th, etc. This emphasises the importance of maintaining radio equipment in peak condition. All our equipment is battery operated, and it follows that the care and use of our batteries is a vital part of safe operation. Rechargeable batteries are used almost universally, and must be fully charged before any flying session, usually over the previous night. During the flying session, it is good practise to monitor the state of the flight battery, possibly using an onboard monitor. Electric flight batteries are a different matter, and a safety system must be available that enables the flight controls to remain operable even when the main flight battery is almost fully discharged. Other visual checks should normally be done for obvious faults, or developing faults, every time the model is assembled or dismantled. But one obvious check that must be done, is a full control check of every surface in all directions, before every take-off. This is of vital importance for the safety of all club members and spectators. If there is the slightest hint of a problem, DO NOT FLY!

Where a wiring-joint is unavoidable, it should be soldered and insulated; wires twisted together can come apart easily, especially when subjected to vibration, and rarely make good contact. Radio-control equipment consumes high current at low voltage, and the extra resistance due to a bad joint can have a serious effect on performance.

35 MHz waveband – for use only by model aircraft Channel spacing 10KHz Orange pennant bearing channel number in white					
Channel	Frequency	Channel	Frequency	Channel	Frequency
55	34.950	67	35.070	79	35.190
56	34.960	68	35.080	80	35.200
57	34.970	69	35.090	81	35.210
58	34.980	70	35.100	82	35.220

59	34.990	71	35.110	83	35.230
60	35.000	72	35.120	84	35.240
61	35.010	73	35.130	85	35.250
62	35.020	74	35.140	86	35.260
63	35.030	75	35.150	87	35.270
64	35.040	76	35.160	88	35.280
65	35.050	77	35.170	89	35.290
66	35.060	78	35.180	90	35.300

27 MHz waveband – for use by all types of model

Channel spacing 20KHz; split colours at 10KHz from solids

Pennant showing channel colour-code and number

Solid	Frequency	Channel	Split	Frequency	Channel
Black	26.975	2			
Brown	26.995	4	Brown/Red	27.025	7
Red	27.045	9	Red/Orange	27.075	12
Orange	27.095	14	Orange/Yellow	27.125	17
Yellow	27.145	19	Yellow/Green	27.175	22
Green	27.195	24	Green/Blue	27.225	27
Blue	27.245	29			
Blue (alt)	27.255	30			
			Purple/White	27.275	32

N.B. Blue is very close to CB channels and more prone to interference.

Changes to the 27MHz band are proposed, to give 32 channels at 10KHz spacing. Existing 27MHz equipment is not capable of operating at such a narrow bandwidth, and crystals for 10KHz spacing are not available. Anyone using this equipment should be aware of the possible difficulties and proceed with caution. Further details can be found on the JRCUC website at www.bmfa.org/JRCUC/

KADMAC 'SOLO' OR BPC TEST FLIGHT SCHEDULE AND FLIGHT CHECK RECORD SHEET

1. Carry out pre-flight checks as required by the BMFA Safety Codes.

2. Take off and complete a left- or right-hand circuit and over-fly the takeoff area.
3. Fly a “figure-of-eight” course with the cross-over in front of the pilot, height to be constant.
4. Fly a rectangular circuit and approach with appropriate use of the throttle, and perform a landing on the designated landing area.
5. Take off and complete a left- or right-hand circuit and over-fly the takeoff area.
6. Fly a rectangular circuit at a constant height in the opposite direction to the landing circuit in item 4 above.
7. Perform a simulated dead-stick landing with the engine at idle, beginning at a safe height (approximately 200 feet) heading into wind over the take-off area, the landing to be made in a safe manner on the designated landing area.
8. Remove model and equipment from the take-off or landing area.
9. Complete post-flight checks as required by the BMFA Safety Codes.

FLIGHT CHECK RECORD

Student……..

Date	Lesson	Pass/Repeat	Instructor


KADMAC
KEIGHLEY & DISTRICT MODEL AIRCRAFT CLUB