

B.M.I.S.S.

AERIAL APPLICATIONS MANUAL

Issue 4 November 2013
306926

“Bearly Made It Sky Dive Squad”

OPERATIONS MANUAL

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PREAMBLE

The specifications and rules within this manual are the required minimum levels to be observed by all Members, Attendants and the recovery crew During Aerial operations involving members of the B.M.I.S.S., whether operating in display, practice or trial modes.

All Rules, Regulations and by-laws currently in effect and appertaining to the use of the area described as Flight Operations Area shall, together with any amendments be strictly complied with.

It shall be the responsibility of each attendant to be fully aware of such Rules, Regulations and By-laws and amendments.

Notwithstanding the contents of this Manual, it shall be the sole duty of each attendant to ensure that all activities of the B.M.I.S.S. shall be conducted in a safe and responsible manner with due regard for Persona and Property.

A copy of this manual shall be made available to all attendants and such officers of Her Britannic Majesty's armed forces, Officials of The Civil Aviation Authority or Police Force as may make an application in writing for a copy.

This manual is issued by :-

The Co-ordinator
BRIGHTON KITE FLYERS
for and on behalf of
"The Bearly Made It Sky Dive Squad"

All enquiries should be addressed to :-
B.K.F. Co-ordinator

DEFINITIONS

Member	An object shaped to represent a type of fauna (e.g. Ursa Edwardius) equipped with harness, rigging and a parachute to enable it to make safe parachute descents.
Attendant	A person who by the act of creating a Member, becomes the means by which a Member participates in the sport.
Recovery Crew	A person delegated by an Attendant to recover a Member on completing its decent.
Flight operations area	An area within which all the necessary operations to effect a member's parachute decent shall take place.
Safety Zone	An area within which a member may descend if the parachute should fail to deploy correctly.
Drop zone	An area with in which a member may descend with a fully functional parachute.
Lift rig	The equipment which comprises the anchor point, cable, release units and kite(s), used to place one or more Members at sufficient height above the ground to allow them to make a safe parachute descent.
Release unit	The equipment that will initiate the Member's parachute descent.
Lift Line	The line or cable which tethers the aerodyne to the earth and to which is secured the Release Unit.
Drop Line	The line which (if used) controls the release of Member(s) from the Lift Line / Release Unit..
Anchor Point	An object that is securely attached to the earth to which the Lift Line is attached.
Harness	The assembly to which the rigging lines are securely attached to the member's body.
Rigging Lines	Those lines/cables by which the the parachute canopy is securely attached to the harness.
Canopy	A flexible surface by which the member's descent to earth is controlled so as to permit a gentle landing.

SPECIFICATIONS

1. MEMBER

- a) shall be a soft toy in the shape of a species of fauna (eg. Ursa Edwardius)
- b) shall not weigh more than 5kg complete with Harness, Pack, Rigging Lines, Canopy, Static Line, Controls (if any) clothing and safety gear.
- c) shall not have any object or projection capable of inflicting a puncture upon contact with a person or object.
- d) shall have an Attendant.
- e) shall be registered as a member of B.M.I.S.S.

2. ATTENDANT

- a) shall be any person creating a Member and operating within the Rules and specifications laid down in this Manual.
- b) shall be a member of Brighton Kite Flyers (or other reputable club with suitable insurance cover)
- c) shall comply with Articles 40(1), 47, 48, 52 64(2), 70(1a,1b) of the Air Navigation Order 1985.

3. RECOVERY CREW

- a) shall be a person designated by an Attendant to recover a Member upon landing
- b) shall conform to the specification 2© of this Manual.

4. FLIGHT OPERATIONS AREA

- a) shall be that area within which the operation of the Aerodyne, Lift Rig, Release Unit and Member(s) shall have either direct or indirect effect.
- b) shall be clear of all overhead wires or cables.
- c) shall have on it no building or structure higher than 2 metres
- d) shall be used only with the permission of the owner of the land or, in the case of multiple events, the permission of the overall organiser responsible for such events taking place upon the said land.
- e) shall, if the said Aerodyne is to fly at a height above 60 metres, be within the area for which permission to fly above 60 metres has been granted by the Civil Aviation Authority.
- f) shall have a perimeter no nearer than 20 metres to a public highway.
- g) shall be of sufficient size to comply with the Regulations laid down in this Manual.

5. SAFETY ZONE.

- a) shall be an area 10 metres in diameter whose centre is directly below the release unit.
- b) shall be kept clear of all persons or disagreeable objects while members are attached to the Release Unit.

6. DROP ZONE

- a) shall be that area covered by a 30⁰ arc, the apex of which is the upwind extremity of the safety zone, of a radius of not less than 100 metres.
- b) shall be monitored by the recovery crew to ensure that Member's descents do not infringe Article 40 (1) of the Air Navigation Order 1985

7. LIFT RIG

- a) shall be an assembly comprising an Anchor Point , Lift Line, Release Unit, and Aerodyne together with such methods of activating the Release Unit as shall be practicable and safe.
- b) be so constructed as to be stable and safe.
- c) shall be operated within wind speed parameters that comply with the Rules and Safety aspects either stated or implied.

8. ANCHOR POINT

- a) shall be so constructed that it shall withstand at least twice the tension forces upon it that may be reasonably expected in the event of a two-fold increase in wind speed.
- b) the stresses upon the Anchor Point shall be deemed to be the sum of the wind forces upon the Lift Line, Members, Release Unit and Aerodyne.

9. LIFT LINE

- a) shall comply with Paragraph 8.

10. RELEASE UNIT

- a) shall be so constructed as to be able to be securely attached to the Lift Line.
- b) shall not be capable of movement along the Lift Line.
- c) shall have no attachment or appendages capable of becoming detached and falling to earth.
- d) shall have sufficient static line attachment points securely affixed to it.
- e) shall fully retain the full complement of Members for which it is designed when such Member's weight is at a maximum.
- f) shall have a positive and safe release mechanism.
- g) where radio frequency waves are used to control either the Release Unit or the Member's apparatus, then the Attendant must hold the relevant Transmission Licences and authority to operate the equipment.
- h) Radio controlled equipment must, in the event of interference from other radio frequencies, fail to safe.

11) CANOPY

- a) shall be of a design which, when fully deployed, shall permit the Member to drop (in still air) at a speed not exceeding 5 meters per second, nor less than 1.5 meters per second.
- b) shall be an integral unit complete with Rigging Lines, Primary Risers and any deployment aid (i.e. spring or drogue parachute).
- c) shall be so constructed as to withstand at least twice the expected deployment forces.

12) PRIMARY RISERS

- a) Where two-part Risers or Capewell-type Quick Release Fasteners are fitted, the Primary Risers must be integral with the rigging lines (or shrouds and canopy).
- b) where two-part Risers are used, the method of securing both sections shall incorporate a safety pin or clip.

13) HARNESS

- a) shall be securely attached to the Member.
- b) where removable, shall incorporate within the release or opening mechanism, a safety pin or clip.
- c) shall have securely attached container bag or pack for the canopy and (where used) a canopy static line bag.
- d) shall be securely attached to the Primary (if one-part) or Secondary (if two-part) Risers.

14) INCIDENTS

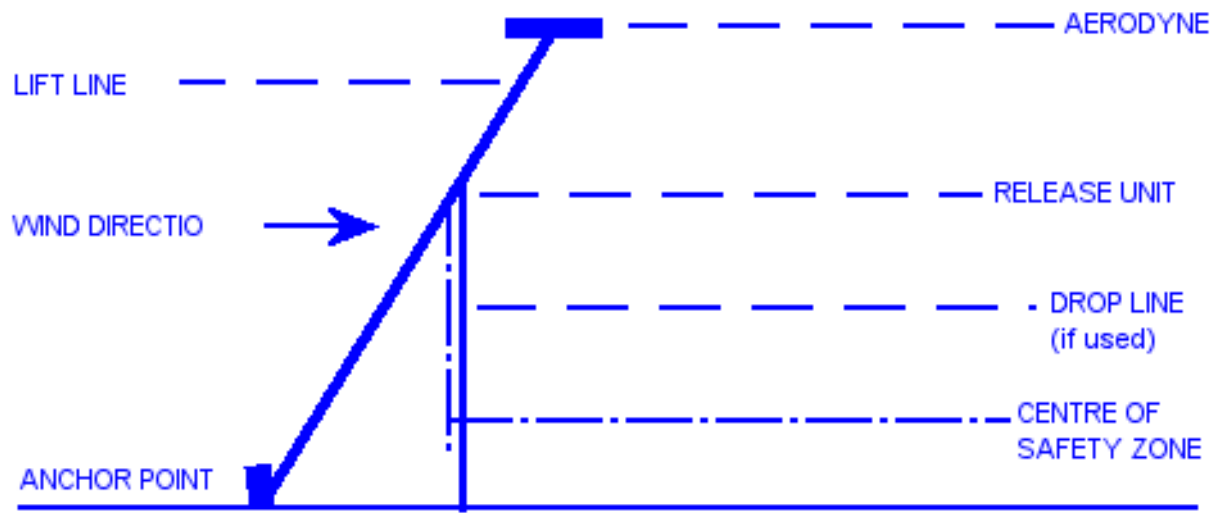
- a) it shall be the duty of each and every Attendant to report to the B.K.F. (or other reputable club) Co-ordinator all incidents involving their Member(s), which involve damage to people or property or complaints in regard to B.M.I.S.S. operations.
- b) such reports shall be made within 10 working days using the accompanying report form.

For Specifications 4 to 6 (inclusive) see also Appendix A.

For Paragraphs 11 to 13 (inclusive) see also Appendix C.

APPENDIX A

FLIGHT OPERATIONS AREA



ELEVATION.

SAFETY ZONE

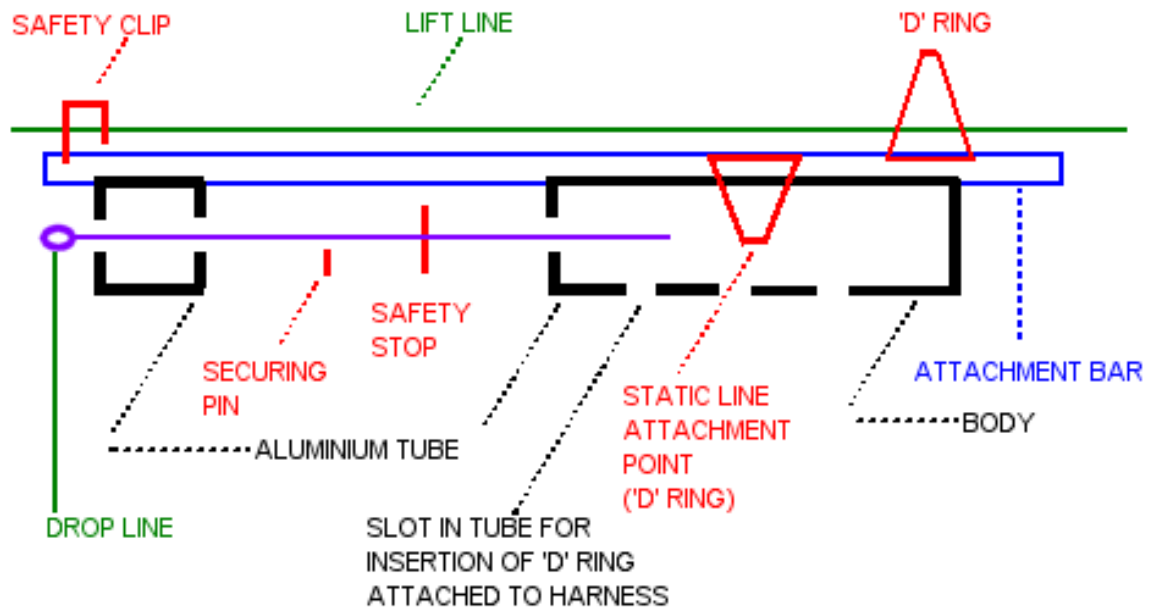
PUBLIC
HIGHWAY

20 METERS
MINIMUM

PLAN.

APPENDIX B

SUGGESTED MANUALLY OPERATED RELEASE UNIT



NOTES

- 1.) The Safety Stop and Rear Tube MUST prevent the Securing Pin from being withdrawn completely and falling to earth.
- 2.) The Attachment Bar must be securely fixed to the Body and the Static Line Attachment Point(s).
- 3.) Any use of Radio Control Equipment must be covered by Home Office Regulations.

APPENDIX C.

Canopy – Harness (General)

Details of the various designs of these can be found in “The Big Book of Parachuting Teddy Bears” by John Barker and Hugh Andrew. This is available from the B.M.I.S.S.

INCIDENT REPORTING FORM

Name of Person making Report DATE.....

Address.....

.....

Date of Incident.....Grid Ref of Incident Location.....

OS Map Number..... Nearest Town.....

Description of Site

.....

Type of Aerodyne..... Wingspan.....metres. Weight.....Kg

Altitude of Aerodyne.....ft AGL. Altitude of Release Unit.....ft.

Name of Member(s)..... Weight(s).....Kg

.....

Description of Damage/Injury.....

.....

Name of Injured/Person to whom the damaged property belongs

And Address

.....

Name of Witness(s).....

And Address

.....

If Police/Ambulance/Fire Brigade involved then give names and Numbers.

.....

Wind speedKts. Visibility (Horizontal)Km. Cloud Cover%

Visibility (Vertical to Cloud Base)Km. Rain Y/N Snow Y/N

Over page: Describe Incident and supply sketch map of the area showing all salient details.

AMENDMENTS and HISTORY.

Issue 1 - June 1984

- | | |
|-------------|---|
| Amendment 1 | Specification Para 11a
8 m/s reduced to 5 m/s |
| Amendment 2 | Specification Para 12a
Cakewell replaced by Capewell |

Issue 2 - March 1987

- | | |
|-----------|---------------------------|
| Addition | Specification Para 10g |
| Addition | Specification Para 10h |
| Addition | Specification Para 10i |
| Addition | Specification Para 14 |
| Addition | Incident Report Form |
| Addition | Members registration Form |
| Amendment | Due to A.N.O. 1985 |

Issue 3 - May 1987

Spelling and Layout amended.

Issue 4 - November 2013

Retyped in "Word.doc" format
Drawing redrawn in ".jpg" format
Specifications 2: Attendant b) (or other reputable club with suitable insurance cover) added.
Specifications 14: Incidents (or other reputable club) added.