

Sport Parachutist

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Sport Parachutist

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*Ron Griffiths, Leigh Allison and Helen Flambert over
Netheravon.*

(*Photo : Charles Shea Simmonds*)

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"COPY-DATE" FOR SPORT PARACHUTIST

The following dates are the FINAL dates on which
"Copy" will be accepted by the Editor;

Spring Edition: January 31st Summer Edition: April
30th Autumn Edition: July 31st Christmas Edition:
October 31st

With regret, the Editor will not be able to undertake the
return of any material printed in the Magazine. All such
material will remain with the B.P.A.

*Articles, statements and all other matter printed in SPORT
PARACHUTIST are correct as far as the Editor and the
British Parachute Association are aware at the time of
publication.*

EDITORIAL

The current year promises to be a particularly busy one for the world of Sport Parachuting.

At home we have an increased demand for performances at Air Displays, County Shows, Fêtes, etc., and abroad there are several International Meetings—not least of which is another Scottish event!

The standard of performance among British participants increases rapidly year by year until quite a few of our more expert sport parachutists are competing at near level terms with some of the world's best.

During the winter months, your Council have been extremely busy consolidating the Association's leadership and authority by forming a limited liability company—to be known as The British Parachute Association Limited, in order to make a greater progress for its members in all matters connected with the Sport.

The Government have agreed to provide generous financial support for the appointment of a full-time Secretary General and continued efficient Secretariat. Here I should like to say a word of thanks on your behalf to the Chairman, Deputy Chairman, Group Captain Caster and Sir Godfrey Nicholson for an inspired and unflagging effort in gaining this very important recognition and backing. With the Government behind us, British Sport Parachuting will increase very rapidly over the next few years, and in return produce reward and prestige which other nations presently enjoy.

After a long and diligent search we have found at last a full-time Secretary General, and it would only be fair to say that the final selection was made very difficult by the high standard of candidates involved. We have selected a well-qualified, forceful personality who will serve the Association very well, and no doubt many of you will meet him at your clubs in the near future. Meanwhile, our thanks are due to Mr. Albrecht, who at short notice took on the job as Secretary General and piloted us through the most complicated phases of our short history—namely our becoming a company, and final acceptance by the Government.

Finally—the future of SPORT PARACHUTIST, the editorship, production, distribution and everything else to do with it, will be in the capable hands of David Drake, who runs a printing works at Ipswich. He also produces and helps to edit *Pegasus*—which some of you will know is an Army Airborne Forces magazine. In his professional hands, the B.P.A. should make a profit, and acquire a more polished and professional journal together with all the advantages which an amateur producer cannot give.



How not to do a water-drop!

Sander. Panton.

BRITISH PARACHUTE ASSOCIATION

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FOOTNOTE: All instructors are requested to notify the B.P.A. in writing when they are no longer complying with the Association's instructor status requirements, in order that their names shall be removed from this list.

(P) Member of the Panel of Examiners. This list cancels all previous lists of B.P.A. Approved Instructors, and is correct at 1st April, 1966.

"TAKING THE MICKEY"

(with apologies to William Hickey)
Dave Waterman



Mrs. Marley, then Sylvia Boyden, during the week-end of her first three jumps from a balloon at Richmond Park in 1919.

My column this edition is entirely devoted to two charming ladies. Both are not active at present in the Sport, "Jump wise".

The first is a lady I had the pleasure of meeting some 18 months ago at Stapleford . . . Her name . . . Mrs. Marley who, although I shall not be a cad and give away her age, made her first jump from a balloon at Richmond Park at the age of 17 in 1919.*

A friend of her family invited her to the Park to watch members of the Royal Flying Corps testing a new parachute called the "Guardian Angel". Straight away she asked if she could have a go. Well . . . after a bit of conning on her part and putting her age up to 21, Mrs. Marley very soon had three balloon jumps to her credit. No such thing as a permit in those days! She used the name of her Grandmother, Silva Boyden, as she did not want her parents to know at that point of her unlady-like pastime. Remember, this was in 1919. The majority of our readers I am sure will understand when I say Mrs. Marley then got the "Bug". Jumping at air shows, etc., including the first R.A.F. Pageant in 1920 from a Handley Page Bomber, she was the only girl in the show.

Ending up with approximately 150 jumps, including a display in Sweden in a 50 m.p.h. wind when, in her own words, she went "sideways, instead of down", Mrs. Marley now lives a quiet life in Southampton, but when



Mrs. Marley with Tracey Rixon at Jenkins Farm in 1965.

Photographs on this and facing page are by Dave Waterman.

she was at Stapleford watching the parachutists of the 60's partaking in what is now, relatively speaking, a much safer sport than when she was jumping, I did detect a little gleam in her eyes.

Last and by no means least the second lady . . . Mrs. Peggy Green (no relation to Sir Bernard), a very pleasant housewife living in a 16th century cottage in Slough. Her favourite pastime . . . putting mods in canopies and other repairs. Both of which she does rather well. Her husband, a member of the British Parachute Club, started jumping many years ago when any kit was used. Sleeves and mods were unheard of. Then from the U.S.A. came the "mod" (no relation to the mod of "rockers" fame). But nobody had any experience. Peggy, a Machinist, was approached, to mod a chute and hasn't looked back since. For Peggy it was a case of "if you can't beat 'em, join 'em" but under her own terms. She has since had pointers from the GQ Parachute Company, and is officially recognised by the Irving Parachute Company. Peggy asked me to mention in this column that there have been many times she has been amazed at the lack of knowledge of the size, shape, spread, etc., of mods, by the lay members of the sport. There is quite a lot of science involved in the modification of a canopy and perhaps an article in this magazine touching on the subject would not go amiss. . . . Any offers?!

(* but Dave, I thought you said . . . !?!?!?!—Editor.)



Group Captain Caster, M.C., being presented with a cheque for £200 by the Chairman of the B.P.A. at the London Office of Grants Standfast Whisky.

Ron Griffiths puts young Eton College boys through their exit drill at Thruxton.



THE ARTICLES OF ASSOCIATION AND MEMORANDUM OF THE BRITISH PARACHUTE ASSOCIATION LIMITED

*(A Company limited by Guarantee and not
having a share capital)*

ARTICLES OF ASSOCIATION OF BRITISH PARACHUTE ASSOCIATION

PRELIMINARY

1. In these presents the words standing in the first column of the Table next hereinafter contained shall bear the meaning set opposite to them respectively in the second column thereof, if not inconsistent with the subject or context :

Words	Meanings
The Act	The Companies Act, 1948.
These presents	These Articles of Association and the regulations and bye-laws of the Association from time to time in force.
The Association	The above-named Association.
The Council	The Council of Management for the time being of the Association.
Office	The registered office of the Association.
Seal	The Common Seal of the Association.
Month	Calendar month.
Year	Twelve calendar months.
In writing	Written, printed or lithographed, or partly one and partly another, and other modes of representing or reproducing words in a visible form.

The expression "Secretary-General" shall include a Temporary or Assistant Secretary-General and any person duly appointed to perform any of the duties of the Secretary-General. Where the Act refers to the office of "Secretary" such references shall apply, to the office of the Secretary-General.

Words importing the singular shall include the plural, and vice versa.

Words importing the masculine gender only shall include the feminine gender.

Words importing persons shall include corporations.

Subject as aforesaid, any words or expressions defined in the Act or any statutory modification thereof in force at the date on which these presents become binding on the Association shall, if not inconsistent with the subject or context, bear the same meaning in these presents.

2. Reference herein to any provision of the Act shall be a reference to such provision as modified by any Statute for the time being in force.

BUSINESS

3. The Association is established for the purposes expressed in its Memorandum of Association.

4. Any branch or kind of activity which the Association either expressly or by implication is authorised to undertake may be undertaken by the Council at such time or times as it may consider expedient and further may be suffered by it to be in abeyance, whether such branch or kind of activity may have been actually commenced or not, so long as the Council may consider it expedient not to commence or proceed with the same.

5. Subject to the provisions (so far as applicable) of the Act, the business of the Association may be commenced so soon after the incorporation of the Association as the Council shall think fit.

6. The Office shall be at such place in England as the Council shall from time to time appoint.

MEMBERSHIP

7. The subscribers to the Memorandum of Association and such other persons as shall be admitted to membership in accordance with these presents, and none others, shall be Members of the Association (Subject as hereinafter provided) and shall be entered in the Register of Members accordingly.

8. For the purposes of registration of the Association the number of Members of the Association shall be unlimited.

9. The Council shall be entitled to elect honorary members, with such qualifications and such privileges and subject to such limitations as the Council shall from time to time determine.

10. Every application for membership shall be in the form, and accompanied by such information concerning the applicant, as the Council may require to determine eligibility, together with an undertaking that, if elected, the applicant will conform with these presents. Such application shall be considered and election determined by the Council, which shall decide by a majority vote upon the election or otherwise of an applicant.

11. The Council may from time to time require such further qualifications and such conditions to be satisfied by an applicant for membership as the Council may think fit, and the Council may require such evidence to be furnished to them as they think fit that any qualification or condition for the time being required or imposed is duly satisfied, whether on application for membership or at any time or times thereafter.

12. All members shall pay to the Association on being elected to Membership an entrance fee and such annual or other periodical subscription, the amount of such fee and subscription to be recommended from time to time by the Council and approved by Ordinary Resolution of the Association. Provided that all entrance fees and subscriptions shall be payable at such time, in such manner and in respect of such period as the Council shall in their absolute discretion think fit.

13. The Council may at any time require any Member to give to the Council orally at a meeting of the Council or in writing particulars or explanations in regard to any act alleged to have been done or omitted by such Member which in the opinion of the Council constitutes a breach of such Member's obligations under these presents or is calculated to be prejudicial to the interests of the Association or its Members collectively and where such particulars or explanations are required in writing the Council shall permit such Member and any witnesses he may call to be heard at a meeting of the Council. Any requisition under this Article shall be made by notice in writing accompanied by a copy of this and the two next following Articles to the Member in question and shall specify the date, being not less than seven days from the date of the notice, within which such Member is required to comply therewith by attendance at a meeting of the Council or by an explanation in writing, as the case may be.

14. Any Member may be excluded from the Association by resolution of the Council. Provided that no Member shall be excluded from the Association unless the Member in question has first been required by the Council to give particulars and explanations of any acts alleged to have been done or omitted by such Member in accordance with the provisions of the last foregoing Article.

15. Any Member so excluded shall forfeit all claim to a return of any money paid by way of entrance fee subscription or otherwise.

16. A Member shall immediately cease to be a Member upon the happening of any one of the events following, namely:

- (1) If he shall resign by notice in writing under his hand, left at the Office.
- (2) If he shall die or in the opinion of the Council become of unsound mind or bankrupt or compound with his creditors.
- (3) If he shall not pay, within three months after the Association shall have served him with notice in writing requiring payment thereof, any moneys due to the Association and the Council resolves that his membership be terminated.
- (4) If he shall be excluded from the Association under the provisions of Article 14 hereof.

17. A Register shall be kept by the Association containing the names and addresses of all the Members, together with such other particulars as may be required by the Act.

18. Any Member who for any cause whatsoever shall cease to be a Member shall have no claim whatsoever upon the Association or the undertaking or assets thereof and shall not be entitled to be repaid any part of the subscriptions paid by such Member to the Association unless the Council in its absolute discretion shall otherwise determine, but such Member notwithstanding that he has ceased to be a Member, shall remain liable for and shall pay to the Association all moneys which at the time when he ceased to be a Member may have been due from him to the Association under any of the provisions of these presents or which may become payable by him by virtue of his liability under the Memorandum of Association.

19. Any Member who for any cause whatsoever shall cease to be a Member shall immediately discontinue the use of any device of the Association printed or impressed on any document or other material or any other indication of membership of the Association and shall not make any use of the name or purport to use the authority of the Association and shall forthwith return to the Secretary any property of the Association then in his possession.

COUNCIL OF MANAGEMENT

20. The management of the Association's affairs shall be vested in a Council, comprising not less than 17 and not more than 40 persons elected, together with any persons co-opted in accordance with Article 23.

21. The first Members of the Council shall be appointed in writing by a majority of the subscribers of the Memorandum and Articles of Association and shall retire at the first Annual General Meeting of the Association and they shall elect from among their number a President, Vice-President, Chairman and Treasurer. Members of the Council shall retire at the Annual General Meeting each year, but shall be eligible for re-election.

22. A Member of the Council retiring at any Meeting shall retain office until the close of the Meeting or of any adjournment thereof.

23. In addition to the Members of the Council elected by ballot the Council may appoint as a co-opted Member of the Council a nominated Member of the governing body of any parachuting or aeronautical organisation having, in the opinion of the Council, community of interest with the Association, all such co-opted Members of the Council shall retire at the same time as the elected Members thereof. Any Members so co-opted shall retire from office at the conclusion of the Annual General Meeting next following his appointment but thereafter may again be co-opted to serve on the Council.

24. The Council shall have power to fill casual vacancies in the number of elected Members to the Council. Any person so appointed shall retain office only until the next Annual General Meeting but shall be eligible for re-election.

25. No person who is not a Member of the Association shall be eligible for membership of the Council except as a co-opted Member.

26. The Members of the Council shall not be entitled to any remuneration for their services as such members, but the Council may authorise the payment by the Association of any reasonable and proper out-of-pocket expenses incurred by any such member in the performance of his duties or otherwise in connection with the affairs of the Association.

GENERAL MEETINGS

27. The Association shall in each year hold a general meeting as its Annual General Meeting in addition to any other meetings in that year, and not more than fifteen months shall elapse between the date of one Annual General Meeting of the Association and that of the next. Provided that, so long as the Association holds its first Annual General Meeting within eighteen months of its incorporation, it need not hold it in the year of its incorporation or the following year. Subject as hereinbefore provided, the Annual General Meeting shall be held at such time and place as the Council shall appoint. All General Meetings other than Annual General Meetings shall be called Extraordinary General Meetings.

28. The Council may call an Extraordinary General Meeting whenever it shall think fit, and Extraordinary General Meetings shall also be convened on such requisition, or in default may be convened by such requisitionists as provided by Section 132 of the Act.

29. Subject to the provisions of the Act, no Member shall be entitled to bring any special business before any General Meeting unless he shall have given notice in writing of such special business to the Secretary-General so as to be received by him not less than thirty days before the date of the Meeting and in any such case the Secretary-General shall in the notice convening the General Meeting at which such special business is to be considered give notice of such special business to all persons for the time being entitled under these presents to receive notice of General Meetings.

30. Subject to the provisions of the Act relating to meetings convened for the purpose of passing special resolutions and to Annual General Meetings fourteen days' notice at least (exclusive both of the day on which the notice is served or deemed to be served and of the day for which the notice is given) of every General Meeting of the Association specifying the place, the day and the hour of meeting and in case of special business the general nature of such business shall be given in manner hereinafter mentioned to such persons as are for the time being entitled under these presents to receive notice of General Meetings, provided that with the written consent of Members in accordance with the provisions of the Act a meeting may be convened on such shorter notice and in such other manner as such Members may think fit. The accidental omission to give notice to or the non-receipt of notice by any person entitled to receive the same shall not invalidate the proceedings at any General Meeting.

PROCEEDINGS AT GENERAL MEETINGS

31. The business referred to hereunder shall be transacted at an Annual General Meeting:

- (a) To consider and adopt, if approved, the Report of the Council.
- (b) To consider and adopt, if approved, the accounts and balance sheet for the year past.
- (c) To fix the subscriptions payable by members for the ensuing financial year.
- (d) To appoint auditors for the ensuing year and to fix their remuneration.
- (e) To elect the Council.

32. All business shall be deemed to be special that is transacted at an Extraordinary General Meeting and all that business (save such as is specified in Article 31 hereof) which is transacted at an Annual General Meeting.

33. The Chairman of the Association, or in his absence the Vice-Chairman, shall preside as Chairman of every General Meeting, but if there be no such Chairman or Vice-Chairman, or if at any meetings they shall not be present within fifteen minutes after the time appointed for holding the same, or shall be unwilling to preside, the members present and entitled to vote shall choose some member of the Council, or if no member of the Council be present, or if all the members of the Council present decline to take the chair, they shall choose some other member of the Association who shall be present to preside. No business shall be discussed or transacted at any General Meeting whilst the chair is vacant except the election of a Chairman.

34. No business shall be transacted at any General Meeting unless a quorum of Members is present at the time when the Meeting proceeds to business. Save as herein otherwise provided six Members present in person shall be a quorum.

35. (a) Every Member of the Association present at a General Meeting shall have one vote.

(b) No Member shall be entitled to vote at any General Meeting unless all monies presently payable by him to the Association have been paid.

36. In the case of an equality of votes, whether on a show of hands or on a poll, the Chairman of the Meeting at which the show of hands takes place or at which the poll is demanded shall be entitled to a second or casting vote.

37. The Chairman may, with the consent of any meeting adjourn a meeting from time to time, and from place to place, but no business shall be transacted at any adjourned meeting other than business which might have been transacted at the meeting from which the adjournment took place. Whenever a meeting is adjourned for ten days or more, notice of the adjourned meeting shall be given in the same manner as of an original meeting. Save as aforesaid, the Members shall not be entitled to any notice of an adjournment, or of the business to be transacted at an adjourned meeting.

38. At any General Meeting a resolution put to the vote of the Meeting shall be decided on a show of hands unless a poll is (before or on the declaration of the result of the show of hands) demanded:

(a) by the Chairman; or

(b) by at least three Members present in person at the Meeting; or

(c) by any Member or Members present in person at the meeting and representing not less than one-tenth of the total voting rights of all the Members having the right to vote at the meeting.

Unless a poll be so demanded, a declaration by the Chairman that a resolution has on a show of hands been carried or carried unanimously, or by a particular majority, or lost and an entry to that effect in the book containing the minutes of proceedings of the Association shall be conclusive evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolution.

The demand for a poll may be withdrawn.

39. Except as provided in Article 40, if a poll is duly demanded it shall be taken in such manner as the Chairman directs, and the result of the poll shall be deemed to be the resolution of the Meeting at which the poll was demanded.

40. A poll demanded on the election of a Chairman or on a question of adjournment, shall be taken forthwith. A poll demanded on any other question shall be taken at such time as the Chairman of the Meeting directs, and any business other than that upon which a poll has been demanded may be proceeded with pending the taking of the poll.

41. Subject to the provisions of the Act, a resolution in writing signed by all the Members for the time being entitled to receive notice of and to attend and vote at General Meetings shall be as valid and effective as if the same had been passed at a General Meeting of the Association duly convened and held.

PROCEDURE FOR ELECTION OF CHAIRMAN, VICE-CHAIRMAN AND MEMBERS OF THE COUNCIL

42. Not less than two months before the date fixed for the Annual General Meeting Members of the Association shall be invited to nominate in writing candidates who must be Members of the Association to serve on the Council. Such nominations shall reach the Secretary-General not less than one month before the date fixed for the Meeting.

43. The name of each person nominated in accordance with Article 42 shall be entered on a ballot paper, the list of names being set out in alphabetical order, and not less than 21 days before the date fixed for the Meeting such ballot papers will be sent out to all Members of the Association entitled to vote.

44. Members shall vote for not more than 40 candidates and return their ballot papers duly marked to the Office so as to arrive at the latest on the date prior to the date of the Meeting or prior to the date of commencement of the Meeting or hand them to a properly authorised person at the Meeting. The 40 candidates (or if a lesser number be nominated, that number) receiving the most votes shall be announced at the Meeting and shall form the New Council.

45. The Chairman of the Council of the Association shall be elected at a Council Meeting to be held forthwith upon the conclusion of the Annual General Meeting from among the Members to the Council, and at the Meeting shall be proposed by one Council Member and seconded by another.

46. Following the election of the Chairman, the same procedure as set out in Article 45 hereof shall apply to the election of the President, Vice-President, Vice-Chairman and Treasurer.

47. Members of the Council elected to the Offices of President, Vice-President, Chairman, Vice-Chairman or Treasurer shall hold office as such until the conclusion of the Annual General Meeting next following such election.

POWERS OF THE COUNCIL

48. Without derogation from the general powers of management and the particular powers already conferred upon it by these presents, the Council shall have power:

- (a) To pay all expenses of and preliminary and incidental to the promotion, formation, establishment and registration of the Association.
- (b) To appoint, determine the terms of reference of and to dissolve such committees and sub-committees as it may think fit under the terms of Article 52.
- (c) To promulgate, amend, revise and amplify such regulations and bye-laws not being inconsistent with these presents as may be considered necessary or desirable in connection with the conduct of the activities of Members, the maintenance of the highest standards of safety in all parachuting activities or other matters within the scope of the objects of the Association, and to interpret and give rulings upon any such regulations or bye-laws.
- (d) To appoint, fix the remuneration of and dismiss such paid servants of the Association as may be considered necessary or desirable.
- (e) To hold meetings at such time and in such places as it may think fit.
- (f) Generally to exercise all such powers of the Association and do on behalf of the Association all such acts as may be exercised and done by the Association and are not by the Act or by these presents required to be exercised or done by the Association in General Meeting, or inconsistent with the Act or the provisions of these presents.

PROCEEDINGS OF COUNCIL

49. The Council may meet together for the despatch of business, adjourn and otherwise regulate their meeting as the Members of the Council may think fit. Five Council Members shall be a quorum. Questions arising at any meeting shall be decided by a majority of votes and each member of the Council shall have one vote save that in the case of an equality of votes the Chairman shall have a second or casting vote. All Council Members shall be entitled to receive seven days' notice in respect of all Council Meetings.

50. Six or more Members of the Council may at any time require a Meeting of the Council to be summoned by leaving a written notice to that effect with the Secretary-General.

51. The chair at Council Meetings shall be taken by the Chairman of the Council or in his absence by the Vice-Chairman. If at any meeting of the Council neither the Chairman nor Vice-Chairman is present within five minutes of the time appointed for holding the Meeting, the Members of the Council present shall choose one of their number to be Chairman of the Meeting.

52. The Council may delegate any of its powers to committees or sub-committees. Members of such committees, other than their Chairman, need not be Members of the Council. Such committees shall be subject to annual re-appointment by the Council, with the approval of the majority of Members of the Council at its first Meeting following each Annual General Meeting of the Association. The Meetings and proceedings of all such committees shall be governed by the provisions of these presents for regulating the Meetings and proceedings of the Council so far as applicable, and so far as the same shall not be amended or superseded by any regulations or bye-laws made by the Council in accordance with its powers. Any resolutions passed by any such committee or sub-committee shall be subject to notification by the Council. The Chairman of the Association shall, *ex officio*, be a Member of all such committees and sub-committees.

53. A resolution in writing signed by all the Members for the time being of the Council or of any committee of the Council shall be as valid and effectual as if it had been passed at a Meeting of the Council or of such committee duly convened and constituted. Any such resolution may consist of one or more documents all in the like form.

54. The Council shall cause proper minutes to be made of all appointments of officers made by the Council and of the proceedings of all Meetings of the Association and of the Council and of committees of the Council, and all business transacted at such Meetings, and any such minutes of any Meeting, if purporting to be signed by the Chairman of such Meeting, or by the Chairman of the next succeeding Meeting, shall be sufficient evidence without any further proof of the facts therein stated.

55. All acts bona fide done by any Member or Members of the Council shall be valid, notwithstanding that it be afterwards discovered that there was some defect in the appointment of any such Members, or that they or any of them were disqualified.

AFFILIATED CLUBS

56. Parachute Clubs are not entitled to membership of the Association but may become affiliated to the Association upon payment to the Association of an affiliation fee which shall be fixed from time to time by the Council. All such affiliated clubs will be entitled to seek advice and guidance from the Association, its officers and members in all parachuting methods and procedures and the conduct of sport parachuting generally.

THE PATRON

57. The Council shall have power to appoint a Patron.

THE SEAL

58. The seal of the Association shall not be affixed to any instrument except by the authority of a resolution of the Council, and in the presence of the Secretary-General and at least two other Members of the Council the said Members and Secretary-General shall sign every instrument to which the seal shall be so affixed in their presence, and in favour of any purchaser or person bona fide dealing with the Association such signatures shall be conclusive evidence of the fact that the seal has been properly affixed.

THE ACCOUNTS

59. The Council shall cause true accounts to be kept in accordance with the requirements of Section 147 of the Act.

60. The books of account shall be kept at the Office, or (subject to Section 147 (3) of the Act) at such other place or places as the Council may think fit, and shall always be open to the inspection of Members of the Council. The Council shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations the accounts and books of the Association or any of them shall be open to the inspection of Members of the Association not being Members of the Council, and no Member of the Association (not being a Member of the Council) shall have any right of inspecting any account or

book or document of the Association except as conferred by statute or authorised by the Council or by the Association in General Meeting.

61. At least once in every year the Council shall lay before the Association in General Meeting an income and expenditure account made up to a date not more than six months before the Meeting and a balance sheet made up as at the same date containing all such particulars with regard to the capital, the assets and the liabilities of the Association as are required by the Act.

62. Every such balance sheet as aforesaid shall be signed on behalf of the Council by two Members of the Council and shall be accompanied by a Report of the Council as to the state of the Association's affairs, and the report of the Association's Auditors in accordance with the Act.

63. A copy of every income and expenditure account, balance sheet and Report which is to be laid before the Association in General Meeting shall be sent to all Members not less than 21 clear days before the date of the Meeting.

AUDIT

64. Once at least in every year the accounts of the Association shall be examined and the correctness of the income and expenditure account and balance sheet ascertained by one or more properly qualified Auditor or Auditors.

65. Auditors shall be appointed and their duties regulated in accordance with Sections 159, 160 and 161 of the Act, the Members of the Council being treated as the Directors mentioned in those sections.

NOTICES

66. A Notice may be served by the Association upon any Member, either personally or by sending it through the post in a prepaid letter, addressed to such Member at his registered address as appearing in the register of Members.

67. Any Member not having an address within the United Kingdom, who shall from time to time give the Association an address within the United Kingdom at which notices may be served upon him, shall be entitled to have notices served upon him at such address, but, save as aforesaid, only Members described in the register of Members by an address within the United Kingdom and the Auditors for the time being of the Association shall be entitled to receive notices from the Association.

68. Any notice, if served by post, shall be deemed to have been served on the day following that on which the letter containing the same is put into the post and in proving such service it shall be sufficient to prove that the letter containing the notice was properly addressed and put into the post office as a prepaid letter.

WINDING UP

69. If the Association shall be wound up the provisions contained in Clause 7 of the Memorandum of Association shall apply and have effect in all respects as if the same were repeated in these presents.

INDEMNITY

70. Every Member of the Council and every officer and Auditor of the Association shall be indemnified out of the funds of the Association against all liabilities incurred by him as such Member of the Council, officer or Auditor in defending any proceedings, whether civil or criminal, in which judgment is given in his favour or in which he is acquitted, or in connection with any application under Section 448 of the Act in which relief is granted to him by the Court.

DUTIES OF MEMBERS

71. Every Member shall be bound to further to the best of his ability the objects, interests and influence of the Association, and shall observe all the regulations and bye-laws for the time being of the Association and shall undertake not to bring or join in bringing any action, claim or other proceedings against the Association, its officers or members on account of their bona fide actions not contrary to these presents and carried out in the course of fulfilling the Association's Objects.

MEMORANDUM OF ASSOCIATION of BRITISH PARACHUTE ASSOCIATION

1. The name of the Company (hereinafter called "the Association") is "British Parachute Association".
2. The registered office of the Association will be situate in England.
3. The objects for which the Association is established are:
 - (a) To promote and encourage sport parachuting and to take such steps as may be necessary for the proper conduct and regulation of the sport.
 - (b) To ensure the observance of the highest possible standards of safety on the part of those participating in or connected with sport parachuting, and to take all such steps as may be necessary to maintain such standards.
 - (c) Generally to promote, protect and watch over the interests of sport parachuting; to effect collaboration between members of the Association, and to co-operate and negotiate on their behalf with the Ministry of Aviation and other Government Departments and any other bodies or organisations, including organisations abroad.
 - (d) To improve and elevate the technical and general knowledge of companies, firms or persons engaged in the operation of management of parachute clubs, or in any employment, manual or otherwise, in connection therewith; and to promote just and honourable practice in the conduct of parachute club operations, to suppress malpractice connected therewith and to make any bye-laws or regulations to these ends. Actively to oppose any act or acts by individuals within or outside the Association which are prejudicial to the interests of sport parachuting.
 - (e) To originate and promote and to take all necessary steps to modify, or oppose, international, national, municipal or local legislative or administrative proposals or legislation affecting the parachute club movement and sport parachuting generally, and for the purposes aforesaid to petition Parliament, and to take such other steps and proceedings as may be deemed expedient.

- (f) To act as promoters of parachute meetings and contests, as publishers, stationers and booksellers, general traders, dealers, agents and manufacturers, both wholesale and retail, of any articles of any description including parachute equipment, which may assist the development of parachuting and the work of parachute clubs.
- (g) To establish, subsidise, promote and co-operate, associate and affiliate with, become a member of, act as or appoint agents or delegates for, control, manage, superintend or otherwise assist in clubs, associations and institutions, incorporated or not incorporated, with objects altogether or in part similar to those of the Association, not being a Trade Union.
- (h) To establish and support, or aid in the establishment and support of, associations, institutions, funds, trusts and conveniences calculated to benefit employees or ex-employees of the Association, or the dependants or connections of such persons, and to grant pensions and allowances to and to make payments towards insurance of employees or ex-employees or any of their dependants or connections.
- (i) To purchase, take on lease or in exchange, hire or otherwise acquire any real or personal property or any rights or privileges which may be necessary or convenient for the promotion of the objects of the Association, and to construct, maintain and alter any buildings or erections necessary or convenient for the work of the Association.
- (j) To form, establish and bring out, or assist in bringing out, any other company having objects similar or partly similar to those of the Association, and to subscribe for and take shares or debentures, bonds or obligations of any such company.
- (k) To sell, let, mortgage, dispose of or turn to account all or any of the property or assets of the Association as may be thought expedient with a view to the promotion of its objects.
- (l) To undertake and execute any trusts which may lawfully be undertaken by the Association and may be conducive to its objects.
- (m) To borrow or raise money for the purposes of the Association on such terms and on such security as may be thought fit.
- (n) To invest the moneys of the Association not immediately required for its purposes in or upon such investments, securities or property as may be thought fit, but so that moneys subject or representing property subject to the jurisdiction of the Charity Commissioners shall only be invested in such securities and with such sanction (if any) as may for the time being be prescribed by law.
- (o) To establish and support or aid in the establishment and support of charitable associations or institutions and to subscribe or guarantee money for charitable purposes in any way connected with the purposes of the Association or calculated to further its objects.
- (p) To draw, make, accept, endorse, issue and negotiate bills of exchange, promissory notes and other negotiable instruments.
- (q) To apply for and obtain any legislative, municipal or other Acts or authorisations for the purpose of enabling the Association to carry any of its objects into effect or of effecting any modification of the Association's constitution, or for any other purpose which may be considered expedient, and to oppose any proceedings or actions which may be considered calculated directly or indirectly to prejudice the Association's interests.
- (r) To procure the registration or incorporation of the Association in or under the laws of any place outside England, and to procure any Act of Parliament, provisional order, enactment, decree or other legislative or executive act of any government, state, colony, province, dominion, sovereign or authority, supreme, municipal, local or otherwise for the purpose of enabling the Association to carry out any of its objects into effect.
- (s) To pay all expenses of and incidental to the incorporation and establishment of the Association.
- (t) To do all such other things as are incidental or conducive to the attainment of the above objects or any of them in any part of the world.

Provided that the Association shall not support with its funds any object, or endeavour to impose on or procure to be observed by its members or others, any regulation, restriction or condition which if an object of the Association would make it a Trade Union.

Provided also that in case the Association shall take or hold any property subject to the jurisdiction of the Charity Commissioners for England and Wales or Ministry of Education, the Association shall not sell, mortgage, charge or lease the same without such authority, approval or consent as may be required by law, and as regards any such property the Managers or Trustees of the Association shall be chargeable for any such property

that may come into their hands and shall be answerable and accountable for their own acts, receipts, neglects and defaults, and for the due administration of such property in the same manner and to the same extent as they would as such Managers or Trustees have been if no incorporation had been effected, and the incorporation of the Association shall not diminish or impair any control or authority exercisable by the Chancery Division, the Charity Commissioners or the Ministers of Education over such Managers or Trustees but they shall as regards any such property be subject jointly and separately to such control or authority as if the Association were not incorporated. In case the Association shall take or hold any property which may be subject to any trusts, the Association shall only deal with the same in such manner as allowed by law, having regard to such trusts.

4. The income and property of the Association, whencesoever derived, shall be applied solely towards the promotion of the objects of the Association as set forth in this Memorandum of Association, and no portion thereof shall be paid or transferred directly or indirectly by way of dividend, bonus or otherwise howsoever by way of profit, to the members of the Association or to any person, company or association other than a Charitable Institution.

Provided that nothing herein shall prevent the payment, in good faith, of reasonable and proper remuneration to any officer or servant of the Association, or to any member of the Association, in return for any services actually rendered to the Association, nor prevent the payment of interest at a rate not exceeding 1 per centum per annum above Bank Rate for the time being in force on money lent or reasonable and proper rent for premises demised or let by any member to the Association; but so that no member of the Council of Management or Governing Body of the Association shall be appointed to any salaried office of the Association or any office of the Association paid by fees, and that no remuneration or other benefit in money or money's worth shall be given by the Association to any member of such Council or Governing Body, except repayment of out-of-pocket expenses and interest at the rate aforesaid on money lent or reasonable and proper rent for premises demised or let to the Association: provided that the provision last aforesaid shall not apply to any payment to any railway, gas, electric lighting, water, cable or telephone company of which a member of the Council of Management or Governing Body may be a member, or any other company in which such member shall not hold more than one-hundredth part of the capital, and such member shall not be bound to account for any share of profits he may receive in respect of any such payment.

5. The liability of the members is limited.

6. Every member of the Association undertakes to contribute to the assets of the Association, in the event of the same being wound up while he is a member, or within one year after he ceases to be a member, for payment of the debts and liabilities of the Association contracted before he ceases to be a member, and of the costs, charges and expenses of winding up, and for the adjustment of the rights of the contributories among themselves, such amount as may be required not exceeding £1.

7. If upon the winding up or dissolution of the Association there remains, after the satisfaction of all its debts and liabilities, any property whatsoever, the same shall not be paid to or distributed among the members of the Association but shall be given or transferred to some other institution or institutions having objects similar to the objects of the Association, and which shall prohibit the distribution of its or their income and property among its or their members to an extent at least as great as is imposed on the Association under or by virtue of Clause 4 hereof, such institution or institutions to be determined by the members of the Association at or before the time of dissolution, or in default thereof by a Judge of the High Court of Justice having jurisdiction in regard to charitable funds, and if and so far as effect cannot be given to such provision, then to some charitable object.

8. True accounts shall be kept of the sums of money received and expended by the Association, and the matters in respect of which such receipts and expenditure take place, and of the property, credits and liabilities of the Association; and, subject to any reasonable restrictions as to the time and manner of inspecting the same that may be imposed in accordance with the regulations of the Association for the time being, such accounts shall be open to the inspection of the members. Once at least in every year the accounts of the Association shall be examined and the correctness of the balance sheet ascertained by one or more properly qualified Auditor or Auditors.



"If they'd been meant to fly they would have been born with wings!"

(By permission of "Punch".)

The Hand Ejector Reserve

J. R. MITCHELL,
Chief Designer, G.A. Parachute Co. Ltd.

It was the showery afternoon of 13th July, 1957, and the crowd waited apprehensively as three Tigers sputtered across at 1,500 ft. It was the intention of the three intrepid parachutists, Jim Basnett, Mike Reilley and George Bottomer, to make a three-second delay drop and to race for the target, which was a prize bottle of champagne. Of course, three seconds delay before pulling the ripcord does not allow sufficient time for reaching a stabilised position, but it was common for displays to be conducted like this in the early days. Both Wing men dropped away promptly, though with a moment of alarm, as the pilot in the left wing aircraft lost sight of the others because of the presence of his own parachutist standing on the wing, and he crossed over the leader so that Mike Reilley fell a few feet from the aileron of the centre aircraft. Two 28 ft.



Lift it clear . . .

. . . and throw it away.



sleeveless canopies blossomed together to a whispered "Ah" from the crowd. But Jim Basnett, the centre parachutist was a little late, a pack elastic hook had caught in the aircraft door and as he eased back and snatched it free he fell backwards head down. At three seconds he was rolling to his right and when he pulled the ripcord, the auxiliary went under his left arm and over his right shoulder with the line snagging under the lift-web adjuster. Immediately the canopy began to flow out of the pack and flap around his shoulders, spreading down to his feet. Jim said it was like being in a tent in a howling gale with somebody closing the door flaps across his legs. He snatched out the red reserve handle and saw it sailing out clear past his boots. But then some moments of panic. The reserve canopy, newly packed, sprang out of its folds into a swirling mass of nylon, squeezing itself out of the grasp of sweating hands. Thoughts crowded in, he was going to die! Suddenly he felt the periphery and desperately flung it out of the closing air-space near his feet. The reserve pack jiggled from side to side as the rigging lines paid out, beating the main canopy fabric as they went until, at last, there was the comforting jerk of the reserve parachute opening. Jim fought his way out of the tent to finally emerge from the folds at about 200 ft.

Mike Reilly was too intent on reaching the target to notice anything unusual, but George was so horrified at the sight of Jim's meteoric descent that he landed backwards and received mild concussion. So relieved were the other two contestants that they shared the champagne. Dumbo Willans raced up with his camera to take the historic pictures we show here.

As to be expected, such an experience makes a very deep impression and it was not long before Jim had evolved a method of controlling the folded reserve canopy and of casting it away so that it would be prevented from

Jim stands relieved with apex of main canopy in front . . .



. . . and auxiliary hanging behind.

becoming entangled with a malfunctioned main parachute. Thus was born the hand ejector wrap reserve assembly.

The greatest hazard to be experienced in deploying the normal type of reserve assembly is that when the rigging lines are stowed in the base of the pack, any turning or tumbling motion by the parachutist can lead to an entanglement of the rigging lines before the reserve canopy has taken control. Also, as we have seen, the loose folds of the reserve canopy are very difficult to control at speeds which would cause serious injury to a man upon landing and there is always the chance that the canopy will be blown up into the main parachute. Even very experienced parachutists have suffered injuries because of their inability to thrust away the loose reserve parachute. An auxiliary attached to the apex is of little help because the drag area of the canopy itself is so very much greater that it overcomes any drag exerted by the auxiliary in the early stages. There is always the chance that the auxiliary itself will become entangled with either the parachutist or the main canopy and so hold down the apex of the reserve. These remarks are applicable to both learners or others on static line and free-fallers who suffer a burbling auxiliary turn sideways to help it to fly away and then become unstable in their attitude.

The hand ejector reserve in its simplest form consists of a wrapping cover which includes in its construction the normal ripcord handle and pins. These are attached to the cover by flat elastics and straps. The rigging lines of the reserve parachute can be adjusted to suit individual taste but it is usual for most of them to be held in hanks by elastic bands and laid in with the parachute canopy. The edges of the wrap have two slots and loops to form a mouth lock which is held together by hanks of the rigging lines. Assembly of the equipment is not particularly critical because the momentum imparted by the throw-away action is sufficient to carry the parachute canopy

right away from the parachutist even when he is falling at terminal velocity.

Another valuable feature is that if a turning moment is imparted to the packed parachute during its deployment, the fact that most of the rigging lines are stowed beside the canopy within the wrap means that any twists are formed close to the parachute straps near the pack. When the I.24 parachute is used, this being the one most commonly available, deployment at very low rates of descent may well lead to the canopy hanging down below the parachutist. This is a function of the weight of the canopy itself but it has been found that if the parachute is made from 1 oz. material it will deploy correctly always, even at very low speeds.

So far, eight lives have been saved, or serious injury prevented, by use of the ejector wrap assembly and the users have remarked upon the very smooth deployment which they have enjoyed and the confidence it has given them when wearing one on later occasions. It is probable that for a long time the automatic or gas-operated ejector reserves will be too expensive for most club parachutists but the hand-operated ejector reserve assembly, even using the I.24 parachute, can easily be built into the normal reserve pack.

The G.Q. Company is able to modify reserve parachute assemblies, particularly of British design, and inquiries should be made for details, preferably through club secretaries.

CLUB NEWS

BRITISH PARACHUTE CLUB

New members who want to join will no longer be required to become members of Three Counties Aero Club, because the Rapide they were operating for our use was sold. As they were unable to offer us a suitable aircraft we had to make other arrangements.

We were approached by another aviation company at Blackbushe called ACTAS, who offered us a CESSNA 180. This, needless to say, was snapped up, as we consider this to be the ideal size aircraft and it is economic as well; jumpers do not save more, but they get more jumps for their money.

Disaster followed our first week-end using the Cessna; most of you will remember the "high wind" Sunday we had in late March, the wind was so strong that it lifted the Cessna (plus concrete blocks) off the ground, and hurled it down on one wing. We hope to have it in operation again this coming week-end (four weeks later). We were very fortunate in having the use of two Austers for most week-ends, without these we would have been in a very sticky situation.

A note for visiting jumpers to the B.P.C., whether national or foreign, *they must be members of the B.P.A.* If any foreign parachutists are thinking of coming to jump with us, they are well advised to join the B.P.A. before arrival—nothing is worse than arriving at a Club only to be told "no go".

Visitors are also advised to get to the Club early on Sundays to get their names down on the Manifest. We are getting very busy now and with the coming of the season we hope to be jumping non-stop all day. (N.B.—*Do not forget to bring all your documents with you.*)

LOUIS ANLIKER, a Swiss sky-diver, has joined our Club, he is over here to study the English language, and hopes to enter Cambridge at a later date. He is at the moment awaiting his equipment which is being sent to him from Switzerland. Louis is a very likeable chap and we all hope he enjoys his stay with us.

Another recent arrival was one of our old Club members, ADRIAN HILL, he is back with us for three months after spending two years in West Pakistan with the Diplomatic Service. We understand his next position is Cyprus, and hope he will get more jumping there than he did in Pakistan. We had a "Welcome Home Party" for him at a local pub., the Otter, at Ottershaw, Surrey, and I think everyone enjoyed themselves—the barmen were certainly kept busy.

One more reminder to all visiting parachutists is that when they visit the Three Counties Aero Club, either for a meal or for a drink in the evening, they (and us) are not allowed in the bar with jump suits and boots on. It could be embarrassing to be told by the proprietor, so forewarned is forearmed!

Our student training programme has been held up considerably, both by weather and lack of aircraft. This has been entirely beyond our control, but the diehards who have been along every week should be fit to jump at Blackbushe before we lose our students' D.Z. at Woodmancott (due to sowing of crops). Because we are so busy at week-ends we now hold a packing and student training evening at JOHN COLE'S garden nursery at Wandsworth, during the week.

PIONEER

PARA COMMANDERS

Please write to

PARAGLIDE Ltd.

2 Churwell Avenue

Heaton Mersey

Stockport Cheshire

Sole U.K. Agents for

PIONEER PARACHUTE COMPANY INC.

and

LEMOIGNE SA

A good number of our regular jumpers are going abroad for jumping holidays this year, among them, Jim Bassett to France, Fred Gayler and Mike O'Brien to France and Switzerland, myself and John Cole to America; John plans to go to Las Vegas for the Thunderbird Meet in June, we wish him every success. There should be plenty of stories over flowing pints there this winter!

The number of Displays that we have to do this year is growing steadily, already we have more than doubled up on last year's figure, a sure sign of the growing popularity of our sport. Let's hope the weather gives us a chance to make it ever more popular!

SCOTTISH PARACHUTE CLUB

The Club exists to promote the sport of freefall parachuting in Scotland. It has been in existence since Easter 1960, financed by members' subscriptions and occasional donations.

The British Parachute Association is the body which controls British Parachuting and the Scottish Parachute Club, affiliated to the B.P.A., occupies an unusual position in that it is the only Scottish club at present and would form the basis for an Association of Scottish Parachute Clubs in the future. Its present role is therefore a mixed one of club and national organisation, for the purposes of assessment by the Scottish Education Department. It is also a member of the Scottish Council of Physical Recreation.

At present the membership stands at 50, and this is expected to build up to 60 or more as the 1966 season progresses. Nearly all the 1965 members are still with the Club, so the necessary hard-core has now been formed, and this season efforts will be concentrated on training existing members to a higher standard, at the expense of taking on new members.

Classes are run one night a week in T.A. halls in Edinburgh, Glasgow and Dundee. A significant factor in the Dundee membership is that it is composed mainly of students of St. Andrew University, who can be expected to form their own club once they are sufficiently experienced, with University finance behind them. Then it would only be a matter of time until the other Universities founded their own clubs. They comprise a significant section of the parachute clubs in the United States.

Parachuting now takes place at Strathallan Castle, Auchterarder, Perthshire. It was proving too expensive to fly aircraft into Glenrothes and an aircraft is based at Strathallan. There is also room there for the development of clubrooms and packing facilities. Strathallan Air Services Limited, who run the airfield, are giving every encouragement. The area of moorland used as a dropping zone is vast and could take any number of parachutists.

It is no exaggeration to say that membership could be doubled in the course of a season if there were sufficient instructors available. It takes three years to train a civilian instructor in these northerly latitudes and the standards of qualification are constantly rising.

No active recruiting is being done this season. The demand for courses is there as evidenced by the response to full-time courses run for seven weeks in the summer of 1964. Another significant factor for development is the proposed run-down of the T.A. Many of its members are also in the S.P.C. now and as entry to T.A. parachuting courses becomes progressively more difficult, would-be parachutists will turn more and more to the civilian clubs for training courses. It is quite feasible to run courses

full-time during the summer months from a weather point of view. Regular Forces instructors co-operate fully in the development of civilian clubs in Britain. Two of them will be running a course for existing S.P.C. members this July, and more of this kind could be run for beginners, given the finance.

An encouraging feature on the Scottish scene now is the appearance of more aircraft suited to parachute dropping. Given the trained personnel, clubs could be operating at Strathaven, Glenrothes, Strathallan and Elgin, or Aberdeen. It is our hope that these will eventually appear. The flying clubs have helped the S.P.C. with the hire of their aircraft, and close contact is kept with as many clubs and private owners as possible to ensure a regular supply of aircraft.

Representation on the Council and at the Safety Committees of the British Parachute Association is becoming increasingly necessary in the interests of safety and uniform development of parachuting administration and techniques. It is desirable for the S.P.C. to send a representative at least quarterly to the regular B.P.A. meetings and to send a delegation to the A.G.M. At present this is too costly.

One unique feature of the S.P.C.'s operations is that it runs an International Parachute Championship annually, if possible, at R.N.A.S. Arbroath in conjunction with Navy Day. Competitors come from Britain, the European countries and at times from the U.S.A., and Australia, etc. No other single club in the world, to our knowledge, runs a competition of this nature.

In summary: The situation in Scotland is ripe for development, but a vicious circle exists; because there are not sufficient experienced personnel, courses cannot be run and new clubs started, and until such courses can be run there will not be sufficient personnel with experience. If the finance were available, members could be sent south on coaching courses to the ultimate benefit of the Club: also more Army instructors could be hired to come north and run courses in Scotland. The Universities are a potential source of new clubs and finance. The wind-up of T.A. units will provide numerous recruits. It is envisaged that there will be, ultimately, parachute clubs in each of the regional centres, controlled by a Scottish Association of Parachute Clubs, itself affiliated to the British Parachute Association.

NEWS FROM HALFPENNY GREEN

The 20th March, 1966, was a historic day for Halfpenny Green as this marked the formation of a club. A committee was elected with Chief Instructor Mike West as Chairman. There is no doubt the committee will enforce a few changes, and already the results can be seen by the way jump sessions have speeded up, on average we have one jump per six minutes throughout the session.

Though jumping got off to a bad start this year due to the weather it has now picked up and already we have done about 400 jumps and that figure does not include 80 first-jump students.

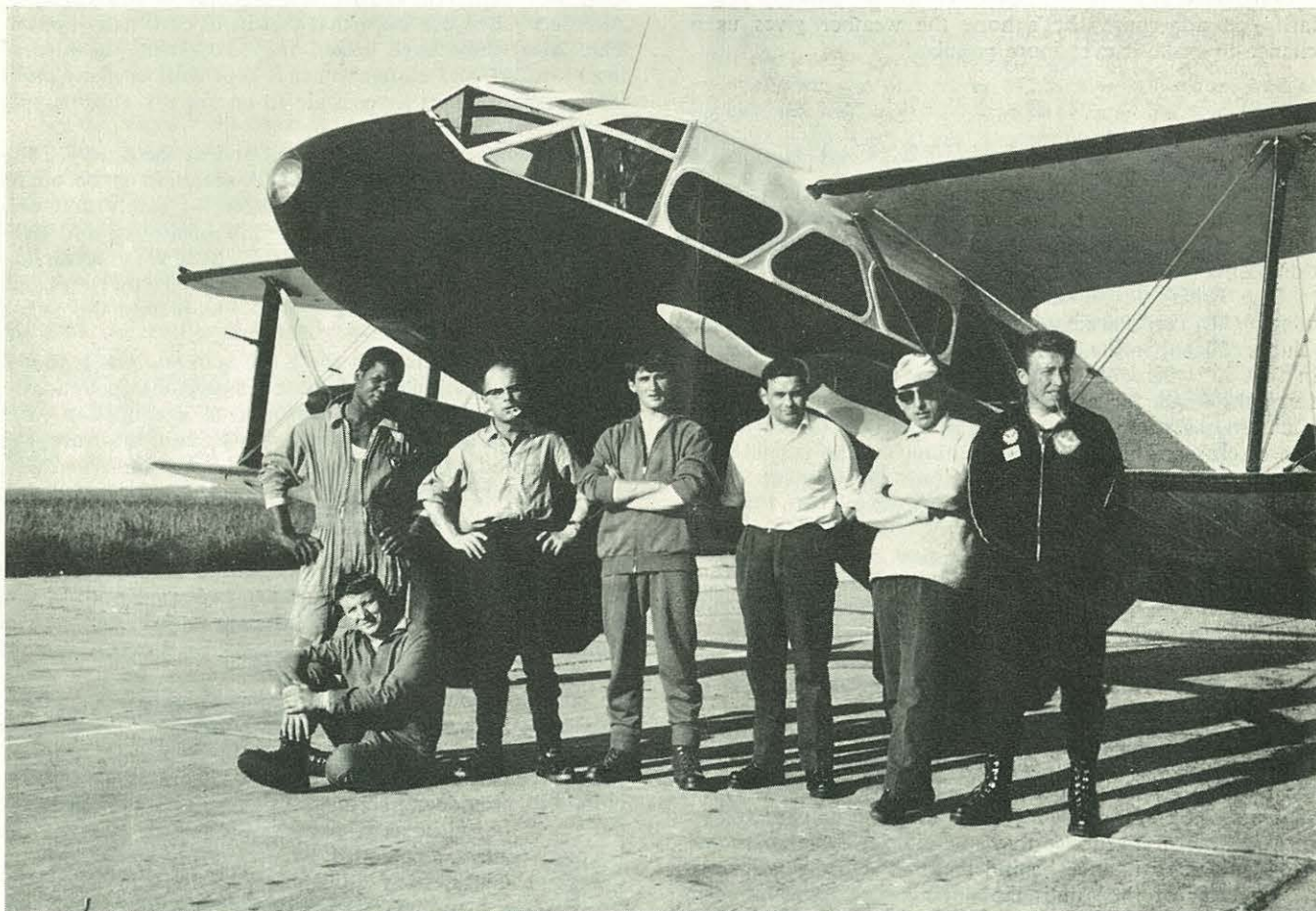
We are now geared to take students from all over the country just as we did last year. What finer way can you spend a week's holiday than on a jumping course? We can, of course, cater for the experienced providing they have all the necessary documents and let us know they are coming.

Our range of facilities increases weekly, we now have a bunk house and shower, but if you want to be put up, you must book up, by phoning Bobbington 325.

"Bergerac"

Centre of the Wine Country

Tony O'Gorman



The Rapide used at Bergerac with instructor, pilot and pupils.

Since taking up Sport Parachuting a few years ago, I had always given some thought to spending a few months at a French centre, in order to gain a little more experience and also a few more jumps, also because I was getting very tired of the fight to get jumps in England, what with the weather, the lack of aircraft or somewhere to jump and last but not least those sometimes terrible officials who are always happy to stop jumping.

Not wanting to follow the usual sheep track to Chalôn where the mighty 3,000 jumps Bernard rules with an iron hand and a hawk eye, I thought I would like to try a place or places a little less known and a little further South.

The place I chose was Bergerac after hearing about the centre from the famous "John Murphy" who made parachute weddings a household word in one day.

So on April 23, 1965, I set off for the South West of France taking with me a great load of kit bags and cases and also my main and reserve, although I learnt later that bringing my 'chutes with me was a complete waste of time.

I arrived at Bergerac at 7 a.m. the following day, and

at once noticed a great change in the weather with the sun just starting to rise to begin the first of many warm days to follow.

I made straight for the centre where I met M. Claude Vigueau, Chef de Centre, a small man not in the least looking like a parachutist, if there is such a thing? Bald on top, wearing a bicycle on his nose and an obvious sense of humour.

After the usual formalities, including getting fixed up with French insurance which is very cheap and worth while, I found out a little about the centre.

It's run by a private club who are helped partly by the State with regards Aircraft and Hire of Chutes etc., the full name of the club being "THE CENTRE INTER CLUBS AERO PARACHUTIST DE SUD OUEST", rather a large mouthful.

A stage, or course, is held over three weeks with a total of 15 jumps being made in that period, although you can make 30 jumps in the same time over two weeks.

Making two complete stages is by far the best method as individual jumps prove more expensive; the price of a

stage is not so cheap as at a centre which is fully controlled by the State, and when I say State, this seems very simple, in fact it's very complicated and concerns many organisations.

THIS IS THE PRICE LIST FOR 1966:

Second Degree Free Fall 2,200 to 3,300 feet 110 NF
1st Improvement Period F/F 3,000 to 8,000 feet 150 NF

Further Improvement F/F 8,000 every jump 200 NF

Stage Competition Max Alt. 7,000 feet 180 NF

Individual Jumps from 7,000 feet 16 NF to 12,000 feet 25NF

Food can be bought on the airfield at 5 NF per meal; this price is a special cheap rate for parachutists by arrangement with the restaurant and is a general thing in France; the same meal would cost a non-jumper such as a tourist 7 NF to 11 NF.

The Centre is situated on the "Aerodrome de Roumanieres" and consists of a very large tarmac runway, running from West to East and seems typical of that part of France; the D.Z. is of soft grass with a 50 mt. gravel pit for target work.

The remainder is made up of the main hangar which is divided into three parts for the "Aero Club", the parachute Club and the French Air Force, owing to the fact that they have a small outpost there; Packing Tables, Parachute Stores, "Rapide" and Classroom are also all housed in the hangar. The restaurant combined with the Aero Club which is the centre of attraction on a Sunday or any other holidays, finishing off with parachutists' sleeping quarters.

Finishing our conversation and tour of the Centre he offered to take me to the S.E.D.PH Parachute Factory, an offer which although tired from travel, I was glad to accept.

The factory was quite a large concern employing a few hundred girls, the main function being the product of military parachutes, also a small amount of sport parachute canopies and jumping smocks etc.

We met the manager and also the chief designer who made me most welcome, although not letting me roam amongst either the 'chutes or the girls, did let me look at their new P.C. version and also the drawings of one or two more canopies.

Later I was measured for a jump suit which incorporated a few of my own ideas.

The next few days that followed I was able to roam around the town and the surrounding countryside, as jumping did not start until the following Friday.

Lying in the Valley of the "Dordogne" and overlooked by many old historic castles including the "Chateau de Monbagillac" where the English fought many great battles against the French in days before parachuting, Bergerac is divided into two parts by the river, "Dordogne", a 100-yard-wide river which makes an ideal place for fishing or boating.

Population of around 8,000, it is a historical town incorporating both the new and the old with cinemas, dancehalls, shops, restaurants and one nightclub, "The Sweat Box" as it was better known to us, finishing off with two camping sites and a very nice open air swimming pool.

Finally the day came when I would find out what this French jumping was all about, and like others who have written before me I still remember the novelty of that first saute!



As I took my place in the front of that old "Rapide" I was taken by surprise a little by a heavily accented voice of the pilot, who turned and said "Do you know sis aircraft my friend?"; this was "Shohn", a typical big-nosed Frenchman, with a small tash and a crewcut.

I later became a great friend of Shohn's and found out that he had flown everything that could fly, including the "Hunter", Lightning, Javelin, H.A. Sabre and also the "Mirage", and I sometimes think now that he thought he was at the controls of a Mirage when he was flying that old double winger. . . .

As we climbed high into a clear blue sky I was able to see more clearly the surrounding terrain, with the airfield lying far below amidst a vast expanse of vineyards, broken only by the river "Dordogne" which winds away as far as the eye can see.

Soon we were on our final run at 8,000 feet. I was handed a photo, 10 in. x 10 in., of the D.Z., the opening point being indicated at the same time (an idea which I think could surely be used more in England), after which I sat back to take note of Vigneau's cool spotting.

"Dix à gauche, cinq à gauche, coupe", and out I went with Vigneau close behind.

Noticing as the ground drew near that there was a slight amount of drift taking me further from the opening point, I was not unduly worried, as I had been told by Vigneau to stay stable so I stayed put, a slight mistake on my part.

Casually putting my hand up after my opening, for my steering lines I was shocked to find I had one, in fact I was under a very nice classic. Having never been in a para regiment I was at a loss as to the steering of this fine canopy, until I noticed with great alarm that like a magnet I was being drawn at a great speed towards the dreaded vineyards, which consist of much wire and many anti-parachutist poles, so it was with some relief that I felt a great skill come over me, and with feet, teeth, hands and legs pulling everything that was in reach I slowly but surely managed to avoid that parachutist-killing menace.

After experiencing the softest landing I had yet had on a 'chute and congratulating myself on my narrow escape, I was attacked by a fierce-looking little man who made the vineyard menace seem like child's play.

This was M. Cleret, a fierce little military parachute instructor, and in a battle of French he started shouting at me for what I learnt later to be the whereabouts of my sleeve and I must confess up until this point I had not given the darn sleeve a single thought, I then started the first of many great searches among the vines.

After making this jump I fully realised the great handi-



Over Bergerac at 8,200 ft.

cap of being the only English person at the centre and unable to speak French, I found that not being able to have a good yak about my jump was then and later, a great bind. . . .

Due to a slight turn on opening, my second jump was also carried out with a classic canopy, but afterwards all was well and I asked if I could jump my T.U. It was then that I learnt, and it came as a great blow to me, that this type of 'chute was in fact forbidden in France.

Following the death of student teacher Mare Givard—who, when jumping at Bircarosse in 1963 pulled his ripcord, and although the canopy worked normally, the harness was broken by the opening shock. Thus Givard spent the last 600 metres of his life in F.F. thanks to a rotten harness.

Although not using a B.4 harness, the then S.F.A. immediately forbade the use of all harnesses until the matter had been cleared up and all harnesses in use had been suitably modified.

The result was that E.F.A. became the only organisation in France to modify or manufacture sport parachutes, in fact now they have the monopoly on the sale of 'chutes in France and a great hand in the rules and regulations of French Sport Parachuting.

However, the Centre was just getting back on its feet again after this trouble and I had to wait only a day or two before I received brand new 656's for the use of.

Vigneau's training programme covered a thorough course of jumping from the static line to free fall relative work which is his speciality and is always happy when he has a student on this work. His only full-time instructor being Peter Berson, a young man of 26 who was trained by "Cledassou" Chief Instructor and also one of the many French 3,000 saut class, of the centre of Limoges.

Berson's speciality is style, he, like Vigneau, is always happy when he has a student to work with.

The rest of the instruction came from part-time visitors to the Centre, one of whom I should mention being Captain Marc Defoumeaux of the French Air Force. Marc is a very well informed person on French jumping and the troubles they have had and I must say I would

not want to see the same kind of things happening in British Sport Parachuting.

The days that followed proved great fun at the Centre with most days being clear, windless and sunny, although a little hard work especially when you have four chutes to pack for a jumping session.

Following the usual pattern of French jumping there were many informalities such as someone's girl friend or wife or maybe children coming up for the ride, and always a crowd of friends and onlookers around the target ready with a cheer or clap for the one nearest to the centre.

One of the highlights was a Sunday when the crowds came to eat at the restaurant and to watch the jumping. I must say that the French really do appreciate jumping and are never slow to show it, and were never more pleased than when a little bet was made on who could land nearest the restaurant, the prize being a bottle of champagne.

The day sometimes started as early as 4.30 a.m. and did not finish until midnight or, if work had to be carried out on the "Rapide", much later.

I would like to mention at this stage that all work was carried out by those of us who had mechanical knowledge, nothing being too big to tackle. And Oh! those mag. checks on the end of the runway were something we all listened to with much anguish, as a drop in r.p.m. meant we would have to remove our gear and set about the problem before we jumped, a small detail no doubt some members of the R.A.F. would frown on. Although jumping was carried out in a sometimes rather informal way, there were rules and regulations which had to be followed and if not followed a suitable punishment incurred, although light-hearted.

One of these was a static line jump for a bad opening or, in the case of a more advanced student, a jump with a classic, and when I say a bad opening this includes not only the obvious, like a foot through the lines, but also a "Hang up" or "Hesitation" as it's sometimes called.

The French don't believe in filling the pack up with any number of extractor 'chutes, but impress upon the student the need for the right attitude on opening, which is the only way to stop those alarming "Hang ups". I learnt this in my early days at Bergerac, after receiving a well-deserved telling off for having a 4 sec. "wobble" on back.

In general, training carried out in a slow but methodical way, with the student going from strength to strength making sure he can master one more before trying another, and I would like to add, whilst on the subject, that this is not completely possible to carry out in England.

I think we would do well to try and copy a little of this method and stop trying to make a jumper do an 11-sec. series after 20 jumps, remembering some wise words Vigneau once told me:

"It's easy to become a good parachutist, but hard to become an old one."

Rules do change from Centre to Centre, one of the more stupid being the "no tying-on" of sleeves at Bergerac; this resulted in hours of hunting sometimes after the odd sleeve had gone astray, although this can have its compensations, because a lot of fun can be had when hunting for sleeves with members of the opposite sex amongst those tall vines! This also made "Shohn" very happy as he was an expert in low-flying and always joined in the search.

One example of his low-flying I should like to mention was when we had all gone to the swimming pool after going on strike over a dispute with the chief centre about briefing times. We had only been swimming about one hour when a "Rapide" was seen flashing towards the

pool at tree-top level, making a wing-tip turn over the top of us with Vigneau leaning out of the door shouting at us to get back to the centre.

A stage is not always held at Bergerac and on this occasion it was to be held at "Rochfort", an Air and Naval Technical Training Base about 150 mm. North West of Bergerac on the River Charente. All parachutes and equipment having gone by road, Vigneau, the girl and myself loaded our cases into the Rapide and with Shohn at the controls we set off for Rochfort.

After a flight of low level passes over every friend's house or airfield Shohn knew, we touched down at Rochfort.

Parking that old ship amongst some of the most modern jets flying today presented a very strange contrast of the old and new, nevertheless I think those Technicians-cum-parachutists thought more of that old warrior than all the rest put together.

When the time came for mechanical adjustment they were only to pleased to let me and Savy take time off while they went to work doing all included in a 500-hour check.

They made us all most welcome, giving us a room each in the mess hotel and freedom to go where and when we wanted to.

Jumping started very early in the morning in order to let the men start work at 8 a.m., carrying on until dark.

Nearly all the men on the camp would turn out to watch jumping and it was always a job to find a clear place on the D.Z. to land. As I mentioned earlier, Vigneau is a man with a sense of humour and on one such occasion he made himself most popular with the men of Rochfort. We had just climbed in ready for a 6,000 footer when I noticed with interest that he had hooked on half a dozen toilet rolls. And sure enough after take off we levelled out at 300 feet and Vigneau, making a careful run-in over the C.O.'s offices and car park, left at least two hanging on different parts including his car.

After making many friends on the base, all too soon the stage came to an end and I found myself once more in that old double winger, climbing into a lashing storm and heading back for Bergerac.

The month after my visit to Rochfort I made visits to one or two more centres but I would like to mention Bircarosse, as this is the best Centre in France—in fact it's the French National Centre. Bircarosse I would recommend to any serious jumper wanting to make a real top-class stage.

Many people are under the impression that Bircarosse is only for instructors, this is not so, although they do in fact train instructors. They also take on students for courses provided they have an instructor who can speak the language of the student or the student can speak good French.

There is not room to say too much about the place except that it has three aircraft for jumping including a Pilatus Turbo-Porter, five full-time top-class instructors and many 656's and olympic chutes to jump with.

Food was about 5 NF per day with a high altitude course of 24 jumps coming to about 200 NF.

There is ample camping space and for pleasure there are two lakes nearby for water ski-ing or swimming, and if you prefer the sea it's only 3 km. away, with bull fighting in Spain 15 km. further down the coast.

After a month's work in the vineyards, just to get fit after a long holiday, the time came when I had to make my journey to England after nearly eight months' holiday—a cruel thought.



74° 17' NNW. Air speed 5 knots—with tail wind approximately 2 knots additional to normal power.



3 minutes' flying time to change course, position due west. 16° turn—slight crosswind.



Altitude 36 feet. Vertical descent to target area.



ETA spot on—06.45.

VIP contacted at rendezvous.

Mission successfully accomplished—over and out.



HARGREAVES

(reproduced by permission of "Punch")





Ron and Helen Flambert.

Helen Flambert.

Photos taken by Charles Shea Simmonds over Netheravon, using a wrist-mounted, motor-driven Nikon with 28 mm. lens, yellow filter, Kodak plus X film, 1/500th at f8.



SAFETY . . .

Report on Reserve Deployment—Stapleford 15/1/66

Club : Green Jackets Para. Club.

Jumpmaster : T. Crawley. D.119 (Main Only).

Student : *B4 (LL)—Reserve. *Static Line.

Aircraft : Tri-Pacer. Starboard Door. Co-Pilots' and Rear Seat Removed.

Height : 2,500 ft.

Despatching Student on his first jump. Student had left the aircraft and had one foot on the step and one on the wheel with both hands on strut when I noticed the white of the Reserve showing. In the interests of safety I despatched him immediately. The Main came out first but the Reserve appeared to deploy fully before the Main. The Student did not panic, remained stable and made a good landing.

The Reserve—an X type converted to side pull—and other equipment was checked on the ground by Dave Waterman and in the aircraft by myself.

On examining the Reserve and fully discussing the incident I have come to the conclusion that the only way in which the Reserve could have deployed was by coming in contact with the door frame as shown in photograph no. 1 which illustrates the normal exit from this type of aircraft—i.e. left hand outside reaching for strut.

I have decided that in future when using this aircraft to change the exit as shown in photograph no. 2 so that the right hand reaches for the strut and the reserve handle is well clear of any obstruction. I also maintain my hold on the Student's harness until he has both hands on the strut.

The Student in the photograph is six feet tall and has a long reach, yet has difficulty reaching the strut as shown in photograph no. 1.

T. CRAWLEY—D.119



SAFETY AND TRAINING COMMITTEE

Sunday, 6th February, 1966—Record of decisions

The following instructors were present:

Brig. R. D. Wilson

Sqdn. Ldr. P. G. Hearn, R.A.F.

Sgt. S. Vatnsdal

B. Green

M. West

Sgt. B. Rees

W.O. II D. Hughes

B. Scarratt

MANCHESTER SKYDIVERS

The Chairman thanked Mr. Crawley for attending the meeting in order to assist the Committee's discussion on some of the problems of the Manchester Skydivers. Mr. Crawley had earlier written a report concerning certain items of equipment belonging to the Club which had been brought to his attention. He produced a parachute which was examined by the Committee and found to be unserviceable in several respects. This had apparently been sold to the Club by a visiting parachutist but efforts to establish his identity had failed. After prolonged discussion it was agreed that the Chairman should write to the Secretary of the Club warning him of the dangers of taking unsafe equipment into use and asking for an up-to-date report of the Club's affairs and in particular the identity of the Club Chief Instructor. It should be made clear in this letter that unless the Club had a Chief Instructor who was prepared to assume responsibility for the safety standards concerning all parachuting activities as well as the state of the Club's equipment, the Club ought to close down until these conditions could be met.

RESPONSIBILITY FOR PARACHUTE EQUIPMENT

Arising out of their discussion the Committee discussed certain aspects concerning the responsibility of individuals towards the safety standards of parachutes and ancillary equipment. The Committee unanimously agreed to recommend to the Council that the following policy should be approved:

- (a) General Permit holders should be wholly responsible for the condition of their own equipment.
- (b) Club C.I.s should be entitled to inspect the personal chutes of all their members and visitors using their D.Z.s and forbid them to jump if they doubted their safety.
- (c) All parachutists who do not hold a General Permit must use equipment which has been inspected and approved by a Club Chief Instructor.
- (d) The Technical Sub Committee, if possible assisted by Cpl. Stephenson, should produce an article for publication in *SPORT PARACHUTIST* with a detached Appendix giving points to be observed by buyers and sellers of *second-hand* parachutes. There should also be an Appendix covering the cardinal points prepared by the Technical Sub Committee for inclusion in the 1966 Safety Regulations. (The Chairman undertook to write to Cpl. Stephenson, who is the Club Rigger of the Rhine Army Parachute Association.)

TRIPACER EXITS

Mr. T. Crawley submitted for approval (and received it) a method of exit from the Tripacer aircraft that would safeguard the reserve handle and requested that an article could be printed in *SPORT PARACHUTIST* with two photographs.

DISPLAY REGULATIONS

The Committee finally re-examined the subject of Parachute Display Regulations at the request of the Council. They agreed to cancel their previous recommendations and decided that the following draft regulations should be incorporated with those originally submitted in 1965:

- (1) C. Licence holders with not less than 100 descents may give demonstrations on to D.Z.s of not less than 150 yards diameter providing that:
 - (a) They are approved for such demonstrations on to Restricted D.Z.s by their Club C.I.s
 - (b) They are approved for each such demonstration by an Instructor with knowledge of their ability as demonstration parachutists and of the D.Z. in question.
 - (c) The aircraft is carrying a jumpmaster who is a B.P.A. Instructor holding a D Certificate.
 - (d) There are adequate overshoot areas on at least three sides of the D.Z.
- (2) All Clubs, Centres, Schools and Associations who give public parachuting demonstrations in the United Kingdom should be required to submit an Annual Return as at 31st December to the B.P.A. giving the following information concerning *ALL* their demonstrations during the year:
 - (a) Dates
 - (b) Places
 - (c) Number of displays per day
 - (d) Number of parachutists participating
 - (e) Diameter of DZs.
 - (f) Results.
- (3) Full reports of all demonstrations which have *NOT* gone according to plan must be submitted to the B.P.A. giving all relevant details within seven days.

Quarterly Parachute Instructors' Convention

British Skydiving Centre, Thrupton, Sunday, 3rd April, 1966

Present

Captain E. Gardener (Chairman)
Mr. B. Angell
Sgt. J. E. Balls
Sgt. W. R. Catt
Sgt. B. T. Clark-Sutton
Mr. T. Crawley
L/Cpl. B. C. David
Mr. W. J. Don
Miss H. Flambert
Pte. P. G. Gowens
Mr. J. Harrison

W.O. II D. Hughes
Cpl. M. L. Jackson
Sgt. K. Jacobs
Sgt. D. P. J. McCarthy
Pte. D. McNaughton
Mr. W. Scarrat
Lt. R. A. M. Seeger
Mr. G. C. P. Shea-Simonds
Sgt. P. W. Sherman
Mr. P. Starkie
Cpl. J. Walmsley
Sgt. S. Vatsndal

Dangerous Equipment

The Chairman asked W.O. II Hughes to show the Convention a harness and back pack which had been sent to him from Germany. It had been modified and sold to a soldier for free falling, but was quite obviously unsafe. The main points to note were bad stitching throughout, an inadequate double seat strap and a home-made effort to swage the stop on the end of the rip cord where it passes through the handle. All Instructors were warned to watch out for such dangerous equipment and to report any similar discoveries to the Safety Committee.

Safety Regulations

The Chairman said that Brigadier Wilson intended to republish the Safety Regulations in draft, incorporating the comments that he had received from Instructors on the first draft edition, so that they could be given a trial run during the coming season. After further amendments at the end of the season they would then be published in booklet form before the 1967 season. Brigadier Wilson had asked that the Convention put forward any further suggestions that they considered necessary.

In general, the Convention felt that the draft Regulations provided a sound basis to work on, although more detailed Regulations were still required. The following specific comments were made:

Instructor Section Para. 6 (c)

A student parachutist should not be allowed to act as a Jumpmaster until he had reached Category VI.

Classification System Category VIII

A spin test should be included.

Pre-jump Checks

Dress. Not all helmets require dual straps. For example, the American Bell helmet only has a single strap.

Note—The Honorary Secretary-General said we would have a minimum safety specification drawn up for parachuting helmets.

Qualifications for B.P.A. Advanced Instructors

It was felt that a potential Advanced Instructor should make a minimum of two jumps incorporating relative work with two examiners.

Display D.Z.s

It was felt that it would be difficult to define the size and location of mandatory overshoots. If too inflexible a ruling is laid down, this could be misinterpreted by Ministry of Aviation Officials who know little about parachuting but who have to clear all D.Z.s. However, it was agreed that a ruling should be made that all Display D.Z.s and overshoot

areas must be given a final inspection on the day of the Display in question.

Ground-to-Air Signals

It was agreed that the new system of Ground-to-Air Signals incorporated in the draft Regulations were logical and an improvement on the old system.

The Chairman stressed the necessity for all Instructors to keep Brigadier Wilson informed of any suggestions for amending the draft Regulations during the coming season.

National Championships 1966

It was agreed that a single target should be used for the team accuracy event. It was also considered advisable for the arms of the target to start five metres from the centre disc.

All agreed that the "10 x 10" scoring system should be used but that the scoring circle for novices should be 45 metres. (*But see footnote.*)

Ripcord Handles

Main Handles. After some discussion it was agreed that the mounting of ripcord handles on the left or right shoulder for students should not be laid down provided that each Club standardises on one side or the other.

Reserve Handles. The need to exercise great care in protecting reserve ripcord handles, particularly in light aircraft was again stressed. Where possible it was considered advisable to use a top-mounted handle in light aircraft. All Instructors were again advised to be on the look-out for certain types of T 7 American reserves where ripcord pockets were positioned too far along the flap, causing the pins only to just hold the cones; such pockets should be moved closer to the end of the flap.

Sensitive Altimeters. The dangers of using a sensitive altimeter incorporating a 100 ft. handle were pointed out by Miss Flambert; they were subject to lag, could easily give a false reading if knocked and were confusing to read. Any parachutist wishing to use one for accuracy work should also carry a standard non-sensitive altimeter.

B.P.A. Assistance to Clubs. The Honorary Secretary General asked if the B.P.A. Office could be of any direct material assistance to any Clubs. Mr. Shea-Simmonds said that British Skydiving were again having problems at Thruxton. Although they were now using a D.Z. outside the circuit, the airfield authorities would only allow parachuting aircraft to take off from Thruxton for a few hours each day and were charging more than just the standard aircraft landing fees. The Secretary-General undertook to investigate the matter and get in touch with the airfield Manager.

The Honorary Secretary-General also undertook to try to help the British Parachute Club to get planning permission to build their proposed hut at Blackbushe.

Insurance

The Honorary Secretary-General said that he would again make inquiries to see if he could get reasonable terms for personal accident insurance for members of the B.P.A.

N.B.—However, since this meeting it has been learned that the 1966 World Championships will use a 25-metre scoring circle which is in accordance with B.P.A. Chairman's recommendations made last year at the Adriatic Cup. It has already been agreed that the British National Championships will follow the same scoring system as the World Championships.

SURVEY OF MILITARY SPORT PARACHUTING DEATHS

Major FRANK W. KIEL, M.C. U.S.A.

Sport parachuting has become a popular activity with military personnel, and many clubs have been organized and sponsored on bases throughout the world. As the number of jumpers has increased so has the number of deaths. Twenty-seven military persons have been killed in sport parachuting up to June 1964.

In addition to the large problem of failure to activate the parachute, there are other hazards, such as hitting the airplane, colliding with another jumper, malfunctioning of the chute and landing in water.

Analysis of the accidents shows that one-third occurred during the preliminary training period but in others jumpers with long experience have died also. Wind appears to be a factor in inadvertent water landings, but other weather factors lack importance.

MANY MILITARY PERSONNEL have been attracted to the sport, and official encouragement of the activity has been given. There are now several thousand military members in chapters of the Parachute Club of America on military posts. Official parachuting teams from the Army and Navy enter competitions and give exhibitions.

As in all sports in which a potential risk is involved there have been accidents. In a survey utilizing the records of the Armed Forces Institute of Pathology, the Department of the Army Safety Office and the Parachute Club of America, it was discovered that 27 deaths of military personnel can be attributed to *sport* parachuting. The upward trend in deaths is shown in Table I.

TABLE I—DEATHS OF MILITARY PERSONNEL WHILE
SPORT PARACHUTING, 1959-1964

Year	Number of deaths
1959	1
1960	2
1961	7
1962	5
1963	10
1964 (through June)	2
	—
Total deaths	27
	—

Causes of Accidents

As in civilian sport parachuting, the most frequent circumstance in these accidents was failure to pull the ripcord or failure to pull it in time. There are other hazards that have been encountered, as seen in Table II.

TABLE II—CAUSE OF ACCIDENTS IN 27 DEATHS OF
MILITARY SPORT PARACHUTISTS

Cause	Number of deaths
Failure to pull ripcord or pulling it too late	10
Water landing	6
Malfunction of main or entanglement without reserve deployment	3
Mid-air collision of parachutists	3
Entanglement of main and reserve	2
Unintentional opening of parachute in airplane	1
Release of harness connections in air	1
Head injury on landing	1
	—
Total deaths	27
	—

1. Unintentional Opening of Parachute in Airplane

If the protruding ripcord handle of the reserve parachute is snagged on some equipment within the aircraft the parachute may unfurl. The wind circulating in through the open door can cause the parachute to billow outside and drag the unprepared jumper through the door. The main back parachute does not present this problem to any extent.

In September 1961 a 35-year-old officer was planning to sport parachute from a Cessna 182 airplane. While getting into door position he brushed against a seat, and his reserve parachute opened. When the parachute could not be gathered in, the jumpmaster pushed the officer out. The jumper hit the tail of the airplane with his chest, then slid upward over the tail. The parachute fully deployed and he floated down to earth, but was dead. He had broken his neck, fractured his skull and torn his trachea when he hit the tail of the plane.

2. Malfunction of Main Parachute or Entanglement Without Reserve Deployment

Poor body position, with tumbling or legs apart, is the most common cause of entanglement although some of the skydiving manoeuvres lead to trouble also. Defective parachutes have led to the deaths of two men on their first jumps.

In October 1963 a 25-year-old lieutenant made his first static-line jump from 2,700 feet on a clear day. When he jumped, the parachute did not deploy because the temporary locking pins used to facilitate handling had not been removed prior to enplaning.

This man did not utilise his reserve parachute, and plummeted to the ground.

3. *Entanglement of the Main and Reserve Parachutes*

Even a total parachute malfunction need not be serious for a reserve parachute should always be worn. Occasionally the parachutist improperly deploys his reserve, causing the reserve to entangle with the main canopy. In order to allow adequate time for utilisation of the reserve in case of malfunction, the common rule is that the main parachute must be opened at an altitude of not less than 2,500 feet above terrain.

In July 1962 a 23-year-old airman with 21 previous falls on his record made a 30-second free fall from 7,200 feet. He pulled the main chute at 1,000 feet but it was held in by a shroud line. He pulled the reserve but it became entangled with the main. He landed upright on a concrete runway, ruptured his descending thoracic aorta and died of internal bleeding.

4. *Failure to Pull Ripcord*

The largest group of fatalities consists of jumpers who did not pull the ripcord in time. The cause of this type of accident is undetermined. There is no physiologic basis for analogising this situation to the scuba diver's "rapture of the deep" with its nitrogen narcosis. A hypnotic effect due to target fixation is discounted by veteran skydivers. A physician-parachutist who has had episodes of momentary unconsciousness while skydiving, possibly due to carotid sinus stimulation, has wondered whether such episodes might have been responsible for some unexplained accidents. Suicide has been invoked as an explanation of some of these accidents, but in none has the suspicion had backing. Some experienced jumpers feel that these accidents can be explained by the fact that the jumper was completely disoriented as to his relationship with the ground and the amount of time which he had left to open his parachute safely. Failure to pull is often associated with an uncontrolled fall, in which the jumper in giving his attention to the mechanical problem of stability loses track of time. He has shifted his concentration from the subject of primary importance—retarding his fall by activating the parachute—to his motor reflex problem—instability—and time runs out. Inadequate attention to detail by the jumper and inadequate training by the instructor could be basic factors in this situation.

In an attempt to prevent this type of accident an automatic opening device has been developed, eliminating the altitude-judgement errors of jumpers. It is recommended that this device be worn by all student parachutists and also by all jumpers regardless of qualifications who are 45 years of age or older.

In September 1960 a young Marine was one of six men jumping from a helicopter attempting a 15-second free fall. Neither parachute of this man was activated and he dived into an open grass field, sustaining extreme multiple injuries. Target fixation or suicide was postulated as the cause of the accident but neither had backing.

5. *Mid-air Collision Between Parachutists*

Advanced sport parachuting often involves "relative" work in which two or more jumpers attempt body contact or baton-passing on the way down. When one member of the group opens his parachute it can be dangerous if another member is too near. There have been three instances of men crashing through just-opened canopies. In one case the lower man was knocked unconscious. In

another the upper man sustained a severed jugular vein on contact with the opening chute. In the third case the pair descended safely on one chute until one man was shaken loose, when a reserve was opened.

In November 1963 a 25-year-old airman with 139 free falls on his record was doing relative work with another jumper while a third jumper was taking pictures. After successful body contact the airman opened his chute, but the photographer was just above. The latter came crashing through the chute, tearing it up and knocking the airman unconscious. With his parachute destroyed, he free-fell on his back, bouncing seven feet when he hit the earth; he died of extreme multiple injuries. The photographer recovered consciousness and opened his chute successfully at 1,000.

6. *Release of Harness Connections in Air*

The Capewell quick releases on the harness have been developed to enable jumpers to disconnect swiftly from the canopy to avoid being dragged by the wind or entangled with the parachute on landing in water. There are few failures of the releases in the air.

In April 1962 a 25-year-old soldier with 57 sport jumps and 13 military jumps to his credit made a 10-second free fall from 3,600 feet. He had talked previously of undoing his Capewell releases to see if he could land by hanging on to the risers. At 150 feet he did undo one Capewell release. The main parachute immediately collapsed; he pulled the reserve but was too low for it to help him. He died of multiple fractures and contusions.

7. *Water Landing*

One of the requirements for the advanced parachutist license is an intentional water jump. Of the six deaths from water landings only one of these landings was intended to be in water. The other jumpers all missed the drop zone, landed in the water and were drowned. In water jumps not more than one man should be in the air at any one time per two boats in the water. Underarm flotation gear should be worn under the parachute harness. It should be inflated 200 feet above the water and not removed until the man is recovered by the boats. Flotation gear should be utilised when jumping within one mile of an open body of water in which a person could drown if he unexpectedly landed therein without proper equipment.

In May 1961 a 23-year-old soldier with 300 static-line and 175 free-fall jumps to his credit planned a water landing as part of his qualification for an advanced license. He jumped from 2,000 feet. The main chute did not open fully so he used the reserve, after which both filled with air. He landed in the water but did not inflate his life jacket; he was under water five to seven minutes. He responded to artificial respiration after 10 to 15 minutes, but on the way to the hospital he convulsed, vomited and died. Autopsy revealed the findings of post-immersion syndrome.

8. *Head Injury on Landing*

Trauma to the head, with and without a protective helmet, has occurred.

In November 1962 a 43-year-old officer made a free-fall jump from 3,700 feet. The main chute opened with a suspension line over the centre, causing a perfect "Mae West"; the reserve was not used. His

landing caused his football-type helmet to pop off. He pitched forward on the unprotected head and was knocked unconscious. He never regained consciousness and died a week later with subdural hematoma and skull fracture.

DISCUSSION

The various mechanisms in lethal parachute accidents are tabulated in Table III. As noted among the causes of the accidents, many result from falls from a great height (parachute malfunction, entanglement, non-activation of parachute), and the abrupt ground deceleration leads to death. Laceration of the lung and rupture of the heart are the most common lethal injuries. In 15 of the 17 cases of abrupt ground deceleration death was believed to be instantaneous. Of the two cases of delayed death (30 minutes and 4½ hours, respectively) both succumbed to internal injuries.

Experience could be expected to be a factor in sport parachuting accidents as in other activities. Tables IV shows the distribution of fatalities by the amount of experience of the jumper. In this study, one-third of the fatalities occurred in the preliminary phase when the person was preparing to apply for a student licence, for which 10 parachute jumps must have been made. Of these nine deaths, two occurred on the first static-line jump and one on the first free fall attempted.

In the two instances of death occurring in persons making their first static-line jump defective parachutes which could not deploy were responsible. In both cases the parachutes had been properly packed *but the temporary locking pins had not been removed*. Students on their first jumps can hardly be relied on to check their own equipment. The jumpmasters in these episodes failed to inspect properly the students' equipment prior to explaining. In the case of death during the first free fall attempt fatigue was blamed.

TABLE III—LETHAL MECHANISMS IN 27 FATAL PARACHUTE ACCIDENTS

<i>Lethal mechanism or type of injury</i>	<i>Number of deaths</i>
Abrupt ground deceleration	17
Laceration of lungs	9
Rupture of heart	8
Rupture of aorta	7
Laceration of brain	5
Fracture of spine	4
Water landing	6
Drowning	5
Post-immersion syndrome	1
Hitting tail of airplane	1
Head injury on landing	1
Mid-air collision with another jumper	2
Total deaths	27

(Offset figures = partial breakdown of major groups.)

In August 1963 an 18-year-old W.A.C. completed her required static-line jumps and was ready for her first free-fall attempt. She jumped from an altitude of 3,800 feet, late in the day on a clear, calm, warm afternoon. Neither parachute was deployed; though she was seen to grab the ripcord handle, it was never pulled. She received multiple injuries on hitting the ground. The investigating board suggested that fatigue may have been a factor, in that it was her fourth jump of the day.

TABLE IV—NUMBER OF DEATHS BY EXPERIENCE OF JUMPER

<i>Jump on which killed</i>	<i>Number of deaths</i>
Preliminary period:	
First static-line jump	2
Second static-line jump	2
Third static-line jump	0
Fourth static-line jump	0
Fifth static-line jump	0
First free-fall jump	1
Second free-fall jump	2
Third free-fall jump	0
Fourth free-fall jump	1
Fifth free-fall jump	0
Student phase:	
6th-10th free-fall jump	1
11th-25th free-fall jump	7
Parachutist:	
26th-50th free-fall jump	3
51st-75th free-fall jump	2
Jumpmaster:	
76th-200th free-fall jump	3
Expert parachutist:	
201st + free-fall jump	0
Amount of experience unknown	3
Total deaths	27

Individuals for whom only total jump experience is known are assumed to have performed the customary five static-line jumps before beginning free falls.

Breakdown into five phases corresponds with Parachute Club of America licensing system minimum jump requirements.

Although it is still recommended that the last static-line jump and the first free-fall jump be made on the same day, not more than three parachute jumps in any one day should be performed until the student requirements are fulfilled.

In order to ensure that the individual knows how to open a parachute during a free-fall, dummy ripcord pulls should be practised in the static-line jumps. Taping, to simulate cone pressure, should be used to teach the right amount of force to be utilised. In addition it is recommended that a student parachutist should perform an actual ripcord pull of a completely packed parachute while wearing it on the ground, before being cleared for free fall.

Weather factors were not prominent in these 27 accidents, except in the group of six fatalities from water landings. In four of the water landings strong winds of 15 to 20 m.p.h. may have been a factor of the inability of the jumper to hit the drop zone.

Reference

1. Headquarters, XVIII Airborne Corps and Fort Bragg; Standard Operating Procedure for Sport Parachuting, Regulation = 385-7. Fort Bragg, North Carolina, April 10th, 1964.

N.B.—From the Armed Forces Institute of Pathology, Washington, D.C. 20305.

Major Kiel is Chief, Forensic Pathology Branch.

Clinical Problems in Aviation

Medicine: Sport Parachuting

Hypoxia

DONALD E. COURTS MD. and WILLIAM R. PIERSON PH.D.

This study was conducted to determine the effects of relatively mild hypoxia upon the intellectual and motor functions of subjects exposed to conditions experienced by parachutists when jumping above 10,000 feet. Six were decompressed to 15,000 feet in a low-pressure chamber and exposed at that altitude for 23 minutes. The subjects, who also acted as their own controls in subsequent experiments, were given three tests involving estimation of time duration, digit retention and repetition, and muscular reaction time. They were then exposed to the same test conditions; however, this time with the use of supplemental oxygen. No significant difference in performance could be demonstrated between the test and control trials.

INTRODUCTION

During 1963 and early 1964, accounts of at least 50 deaths which occurred while engaging in sport parachute jumping were recorded by the Parachute Club of America (P.C.A.). The majority of the deceased were not members of the P.C.A. nor were they participating in sanctioned activities of that organisation when the mishaps took place.

Thorough examination of the statistics revealed that 90 per cent of the deceased committed acts of omission or commission which could ultimately be related to faulty judgement. This high percentage includes those jumpers who sustained equipment malfunctions of one type or another which could have been mitigated by appropriate corrective action (e.g., failure of main chute with no attempt made to deploy reserve).

Safety regulations of the P.C.A. permit jumps from 15,000 feet and below without the use of supplemental oxygen provided that the total time above 8,000 feet until leaving the aircraft does not exceed 30 minutes. At the upper limits of these times and altitudes, a jumper would be mildly hypoxic and this might be a factor in contributing to faulty judgement. Hypoxia would assume decreasing importance when jumps were made closer to ground level. It was decided to conduct a study to determine whether or not a significant decrease of intellectual function could be measured in a parachutist or pilot who remains at these altitudes without oxygen for certain finite periods of time and who may be called upon to make a rapid decision which may save or forfeit his life.

GENERAL APPROACH

In this study, six subjects (who acted as their own

controls) were taken to an altitude of 15,000 feet for two separate trials. During one trial the subject was given supplemental oxygen using a standard A-13 diluter demand mask throughout the entire ascent. The remaining ascent was made without supplemental oxygen.

Subjects were selected at random for testing and therefore the ascent using supplemental oxygen might be either the first or second trial. A Beckman Oxygen Analyser was used each half-hour to test for partial pressure of oxygen within the chamber to assure that the atmosphere was not oxygen enriched by those subjects who were using oxygen masks.

The ascent profile was controlled by automatic equipment using a specially cut metal disc which is spun slowly within a sensitive control box. It was possible to closely duplicate the climb criteria on successive trials.

In order to test the P.C.A. safety regulations in a rigorous fashion, the investigator assumed that the parachutist would utilise an aircraft with a 1,000 feet per minute rate of climb. This would exceed the performance capabilities of most light aircraft used for sport jumping but would provide more severe test conditions because of the longer hold time at 15,000 feet. The time to climb from 8,000 feet to 15,000 feet is seven minutes, allowing 23 minutes' "dwell time" at 15,000 feet. This set of conditions would conform with P.C.A. safety regulations mentioned earlier.

Each subject was given three tests, as described below.

TESTS

In the first study the six subjects attempted to estimate the duration of 2, 4, 8, 16, and 32 seconds. Sixteen of these time intervals were typewritten in random order on a card which was given to the subject at the time of testing. Upon reading the duration to be estimated from, the subject dialled that number of seconds on a telephone-type selector dial and then depressed a telegraph key for what he estimated to be that number of seconds. No auditory feedback of the test tone was provided and subjects were encouraged to use a non-mechanical means possible for timing.

The second test was one of digit retention and repetition, forward and reverse. The subject was given a list of randomly selected digits, beginning with three in a group and progressing to eight, as shown below:

TEST 2

1. 2, 4, 9
2. 4, 8, 7, 9
3. 3, 4, 1, 6, 8
4. 9, 7, 2, 4, 1, 5
5. 5, 9, 1, 3, 2, 6, 7
6. 1, 9, 7, 2, 1, 3, 7, 4

The Examiner would read the first group of numbers to the test subject and ask that he repeat them in the same order. If the subject accomplished this without difficulty the next group was attempted. The first part of the trial ended when digits were missed or reversed in a given sequence and the highest number of digits successfully repeated was recorded. The examiner would begin again with the first group of numbers and ask that the subject repeat them in reverse order. The test ended when digits were missed or reversed and the highest number of digits successfully repeated was recorded.

In the third test, subjects were tested for reaction time (RT) and speed of arm movement (MT). Reaction time in this study is defined as the elapsed time between onset of stimulus and initiation of movement. Speed of arm movement is defined as elapsed time required to move a given part of the arm a fixed distance of 11 inches.

In practice, the subject depressed a key with his right or left hand until a visual signal was noted. He quickly removed his hand from the key and thrust his extended arm and hand straight forward to break a light-beam. Time required to remove the hand from the key was recorded as RT and the time necessary to extend the hand through the light-beam was measured as MT.

RESULTS

Test I. The results of one of the subjects (W.P.) had to be discarded because he was forced to remove his oxygen mask several times during ascent. A two-tailed *t* test for correlated data (subjects as their own controls) was performed on the data for the other five subjects and produced the following results:

E.M.	<i>t</i> = 4.17	sig. at 0.01	(<i>Sd</i> ² = 0.254)
E.C.	<i>t</i> = 4.16	sig. at 0.01	(<i>Sd</i> ² = 0.215)
D.Sm.	<i>t</i> = 1.30	not sig. at 0.10	(<i>Sd</i> ² = 0.609)
D.S.	<i>t</i> = 0.53	not sig. at 0.10	(<i>Sd</i> ² = 2.56)
B.R.	<i>t</i> = 1.01	not sig. at 0.10	(<i>Sd</i> ² = 1.29)

Over-all *t* was -1.32 (*Sd*² = 12.9) not sig. at 0.10 level.

Test II. Each of the subjects obtained scores alike with or without oxygen on the less-demanding digit forward tests. However, when the subjects had to repeat the digits in reverse order, two of them (D.S. and D.Sm.) were both able to reach a point on the list containing two more digits with oxygen than without.

Test III. The mean RT scores were: 0.29 sec. (S.D. = 0.02) with oxygen and 0.29 sec. (S.D. = 0.03) without. The mean MT scores were 0.17 (S.D. = 0.05) with oxygen and 0.18 (S.D. = 0.06) seconds without oxygen. The *t* test for related samples indicated no differences between the oxygen and non-oxygen RT and MT scores (*t* = 0.12 and 0.86, respectively). The scores for the second part of the test were lower than for the first but not significantly so (*t* = 1.02 for RT and *t* = 2.13 for MT).

DISCUSSION

Test I. Judgements of protensity at the shorter end of the time spectrum produced more significant differences

between the test and control conditions. It is apparent that the importance of accuracy in a longer time span would be of greater survival significance only if a jumper relied heavily or solely on subjective evaluation of elapsed time to determine the moment to deploy his chute rather than using visual cues or an accurate altimeter.

Test II. The size of the sample, as well as time limitations which required the administration of this test by two different observers (who used slightly different methods), obfuscated the results.

Test III. The Wilcoxon matched-pairs signed-ranks test does not have the rigorous assumptions that underlie the *t* test and yet indicates magnitude of differences as well as direction of differences. The means, medians and modal scores were ranked for each of the subjects and the Wilcoxon test applied to the data. For an "N" as small as six all subjects must show a change in score in the same direction for the results to be significant at the 0.05 level. In this test none of the parameters demonstrated change in the same direction for all subjects.

The Binomial expansion of the sign test can use dichotomous data without regard to magnitude of change. The results of this test were the same as for the Wilcoxon test.

It may be concluded that, for the sample tested, there was no indication that the use of supplemental oxygen during an ascent to 15,000 feet improves RT or MT scores. The possibility of a Type II error as a result of the size of the sample cannot be discounted. However, the fact that no differences in direction resulted from the use of supplemental oxygen would argue against this possibility.

LIMITATIONS

There were several limitations in the test programme. Six subjects were a bare minimum and a larger number would have produced more impressive assurance regarding the safety of the present regulations. No attempt was made, because of limited funding, to simulate the usual blast, opening shock and visual cues of an actual jump. The "adrenal factor" would probably have changed our test results by shortening reaction time (RT) in both the test and control groups.

It was necessary to mix the test runs so that one subject might experience a control situation during the first run and a test situation during the second, while, with another subject the sequence would be reversed. The afternoon runs found subjects who were a bit more lethargic than they had been in the morning and perhaps a bit less motivated. This factor did not appear to modify the results.

Past studies have demonstrated effects of hypoxia at altitudes as low as 10,000 feet after exposure times of two hours. This time interval exceeds the maximum of 30 minutes permitted by P.C.A. safety regulations and does not take into account the salutary effects of the more dense pressure altitudes encountered by the jumper during his short free fall.

CONCLUSIONS

For the population represented by the sample and within the limitations of the study it may be concluded that the results obtained indicate the regulations imposed by the P.C.A. regarding altitude and supplemented oxygen are reasonable and medically sound.

N.B.—Dr. Courts is Flight Surgeon and Dr. Pierson, Chief Physiologist, Lockheed-California Company, Burbank, California.

In Council, on your behalf

These are condensed extracts from B.P.A. Council Meetings

Thursday, 17th February, 1966

Election of Members to the Association Since the Last Meeting

Forty-five new applications for membership had been received since the last meeting, were circulated among the members of the Council, and all formally elected to membership.

Packing Certificates

The Chairman circulated a draft packing certificate for consideration. He had drafted it in the spirit of the decisions in principle which had been agreed at the Instructors' Convention in November. However, since clubs differed over their approach towards student parachutists packing their Reserve, he considered it would be better to have two certificates (one for Mains and one for Reserves) rather than try to combine both on to one. Many instructors would not wish to authorise Restricted Permit holders to pack their Reserve parachutes at the same time as they were authorised to pack Mains. The certificate he had circulated referred to *Main* parachutes, but by substituting "Reserve" for "Main" in three places the complementary certificate could be produced. The form was approved and the principle of having separate certificates for Mains and Reserves was agreed.

The Vice-Chairman pointed out that there was no counterfoil on the certificate for retention in the Office, but after discussion it was agreed that a Register of Certificates issued should be kept in the B.P.A. Office.

Display Regulations

The Chairman asked the Council to approve the Safety and Training Committee's amended regulations in respect of displays.

Major Elwood pointed out that at the A.P.A. meeting the following had been agreed: "a D. Certificate Holder or a parachutist with 200 free-fall jumps and a C. Certificate could jump into a restricted D.Z. of not less than 75 yards." The Chairman agreed that this had also been agreed by the Safety and Training Committee and undertook to see that this was inserted into the Safety Regulations. The display Regulations, as amended, were then agreed.

General Permit Renewal

The Vice-Chairman expressed his concern at the apparent ease with which General Permit holders could obtain renewals. He said there seemed to be no time limit. The holder simply applied to the Ministry, who issued a renewal without knowing if the applicant was in fact a practising parachutist. He suggested that an application for renewal of a General Permit should be countersigned by an Instructor. If the applicant was an independent parachutist he should send in his log book to show that he was in fact in practice.

The Chairman asked what should be the criterion to enable an instructor to countersign, and after some discussion it was agreed that five Free Fall descents a year should be the minimum required to obtain a counter-signature from an Instructor to obtain a renewal. The Vice-Chairman felt the Ministry would be pleased with this suggestion.

Sport Parachutist

Mr. Pierson said he had been approached by a Mr. Drake, who is interested in taking over SPORT PARACHUTIST and who, subject to certain things, would guarantee the Association a profit of £50 an issue.

The Committee discussed the matter, emphasising their concern that the magazine must keep to its present high standard. Mr. Pierson said that Mr. Drake was the Editor of *Pegasus* and had improved its sales considerably. Major Elwood pointed out that since Mr. Drake had taken over *Pegasus* its standard had improved vastly. It was a well-printed, good magazine.

Mr. Lang suggested that if it could be arranged, a small magazine committee might be set up with Mr. David Pierson as head to safeguard the standard of the magazine. Mr. Pierson agreed to this, saying that he was not keen to give it up, but with his own job the magazine was getting somewhat out of hand.

Major Elwood suggested that the council might like to sound out the Parachute Regiment to find out how *Pegasus* had improved. The Chairman then summed up by saying that they agreed there was no reason why Mr. Pierson should not proceed provided standards do not suffer, and that he should be invited to serve on a committee to steer the policy and publication of SPORT PARACHUTIST.

Thursday, March 10th, 1966

Thirty-four new applications for membership had been received since the last meeting, and were circulated among the Council for consideration. There were no objections, and all applicants were formally elected to membership.

The Secretary reported that since the last meeting, three applications for Club affiliation had been received in the Office. They were from the British Sky-Diving Centre, the Manchester Skydivers and the Scottish Parachute Club.

"IT WAS RESOLVED that a Company should be incorporated under the Companies Act 1948, under the name BRITISH PARACHUTE ASSOCIATION LIMITED and that the Company should be limited by guarantee and not having a share capital; with the object that the functions and the assets of the Association should be transferred to the proposed Company.

The Chairman went on to explain that during the next year there would be a certain amount of confusion as some members would be members of the B.P.A. and some of the new Company. A letter had to be sent out to all members of the B.P.A. explaining that on a certain date the B.P.A. would cease to exist and inviting them to apply for membership of the B.P.A. Limited; it should be pointed out that in the event of a claim against the B.P.A. members liability was limited for £1 per member. Sergeant Clark-Sutton raised the question of B.P.A. insurance cover, but the Chairman reported that this would not be effected.

The following Members signed the Memorandum and Articles and the Resolution:

Brigadier R. D. Wilson
J. R. Trustram-Eve

D. Pierson
Sergeant B. T. Clark-Sutton
L. N. E. St. John
Captain E. Gardener
B. A. N. Green

The Secretary reported that in spite of numerous letters Mr. W. P. Slattery had not supplied the personal data required by the Solicitor in connection with the formation of the Company.

The Council unanimously considered that it must be assumed that Mr. Slattery was no longer willing to serve on the Council, and his resignation was assumed and confirmed.

B.P.A. Meeting with the Sports Council

The Chairman explained that the B.P.A. were due to meet the group representing the Sports Council of the Ministry of Science and Education to establish the B.P.A. as a responsible sporting body in order to qualify for financial and other support.

It was decided that the members to represent the B.P.A. at the meeting with the Sports Council should, if possible, be:

The Chairman, the Vice-Chairman, the Treasurer, the Secretary-General, Sir Godfrey Nicholson, Mr. David Pierson, Mr. Bernard Green, Mr. L. N. E. St. John, either Brigadier Flood or Major Elwood and either Group Captain Martin or Sergeant Clark-Sutton.

Instructors' Courses

The Chairman proposed that instead of the Army offering to act as host at Netheravon for the B.P.A.'s three week-ends this season they might be agreeable to offering the B.P.A. a week's course, as this would be of greater value to those wishing to become Instructors. Mr. Vos pointed out that a week was not so easy for people to get off from work. W.O. II Hughes suggested that two civilian members might attend the first week of one of the Army courses. Major Elwood agreed with this, and W.O. Hughes further suggested that the Army would be pleased to arrange a small accuracy competition on the first B.P.A. week-end, 13th-15th May. This might help to stimulate interest and would be open to C Certificate holders. Fees would be based on aircraft costs. The Chairman then proposed that, as a compromise, instead of the three week-ends a week's course should be open to anyone wishing to qualify as an Instructor, the week being the first in any one of the Army courses, dates given below. It was agreed that should any individual wish to stay on longer he would be welcome to do so, providing he was progressing well and likely to make a satisfactory Instructor.

The opening dates for the 1966 courses were as follows:

3rd June, 1st July, 22nd July, 9th September,
and the 30th September.

Proposal to Agree Symbols to Indicate Dropping Zones in Use

It was proposed to suggest to the Ministry that a special symbol should be approved to indicate that parachuting was in progress, and as the symbol of a white triangle in the signal square was not being used, he suggested that this in fact should be the symbol agreed upon. Some considerable concern was stressed by members of the Council for the safety of parachutists and of the danger in not having such a symbol. Mr. B. Green proposed that the triangle be suggested to the Ministry, and if the Ministry said the red ball already in existence as a sign of parachuting should

remain, then the B.P.A. should agree to both triangle and red ball. The Chairman agreed that the whole situation was very unsatisfactory and after further discussion proposed that in view of the very genuine danger of the present arrangements it should be put to the Royal Aero Club, for their consideration and possible support. It was agreed that all further action should be suspended until the Royal Aero Club had given their decision.

Accident Investigation

The Chairman suggested that a list of persons willing and able to conduct an investigation in the case of a fatal accident should be drawn up. It was pointed out that this list would be separate from that already produced for circulation among police stations as it would be of persons only competent to conduct the investigation, although they would, of course, be supported by B.P.A. Instructors as in the past.

The Vice-Chairman undertook to set up a small sub-committee to consider this and they would then invite people to allow their names to be on such a list. At the same time they would draw up guidance for such Investigations and also for the B.P.A. Office.

Mr. Green felt that it was essential that an expert attended the Coroner's Court to give evidence if necessary, and it was agreed that if possible the Chairman of the Court of Inquiry should attend the Coroner's Court.

Appointment of Secretary-General

During recent weeks the Chairman said that he had received nine applications for the position—three from retiring R.A.F. Officers, one from a retired Army and R.A.F. Officer, one from a businessman, and four from retired Bank Managers. He was sending a letter and a questionnaire to all applicants before arranging interviews.

Chief Instructor in the N.E. of England

The Chairman said that he had received a visit from a member of the Northumbria Parachute Club who were trying again to get established, but they urgently required a Chief Instructor. He appealed to the Council to let Mr. Russell, the Secretary, know if anyone suitable should become available.

Passing out a Pilot to Drop Parachutists

Mr. St. John queried the necessary requirements for passing out a pilot to drop parachutists. He mentioned that Mr. Windybank of the Ministry of Aviation required that a pilot should have at least 100 hours and have dropped three General Permit Holders. It was pointed out that the Association had held the view that Instructors only should jump from an aircraft piloted by an unapproved person. The Chairman said that he would cover this in the Safety Regulations which could then be discussed and amended later, if necessary, after consultation with the Ministry.

21st April, 1966

The Chairman explained that those Council Members present had already had two major meetings during the afternoon. They had had a meeting with the Development and Coaching Committee of the Sports Council. The object of this meeting had been to brief the Sports Council on the B.P.A.—its aims, aspirations, organisation, problems and financial position. The Committee had seemed most interested. The B.P.A. was the 68th national sporting body the Council had seen and the result of the meeting was the payment of a grant from the Government for

£2,250 annually to begin in the current financial year, subject to the B.P.A.'s new Secretary-General being paid £2,000 per year and subject to his being engaged before 1st July.

The Chairman felt that this was a very satisfactory culmination to protracted negotiations and he recorded thanks to Sir Godfrey Nicholson whose initial efforts on behalf of the B.P.A. had put this in motion.

Election of Members to the B.P.A. since the last Meeting

There were 76 applications for membership since the previous meeting—these were circulated in the usual fashion.

Applications for Affiliation to the B.P.A.

The Secretary reported that six applications for Club Affiliation had been received since the last meeting, they were from:

- (a) The Army Parachute Association
- (b) British Parachute Club
- (c) The Green Jackets Parachute Club
- (d) Hereford Parachute Club
- (e) North Lancs Parachute Club
- (f) Rhine Army Parachute Association

The applications were circulated among the Council Members. The Chairman suggested their unanimous acceptance with the exception of the Hereford Parachute Club and the North Lancs Parachute Club which he felt needed discussion. He pointed out that the other Clubs were all too well known to need further discussion—they were known to be fully competent.

Discussions then took place on the Hereford Parachute Club after which the Council agreed this was in good hands and it was elected unanimously to be affiliated to the Association.

The North Lancs Parachute Club was then discussed. The Chairman suggested that a letter should be written to the Club acknowledging their application, saying that it was noted that this Club did not appear to have a B.P.A. approved instructor and the Council felt that before they could offer the Club full affiliation with the B.P.A. they would like to know more of their plans in this connection. It was also hoped that an early opportunity would be taken by a Council Member to visit them.

Incorporation of the Association as a Limited Company

"To pass a resolution that the assets of the Association be passed to the Company."

It was reported that a Company had been incorporated under the name of British Parachute Association Limited and IT WAS RESOLVED that the assets of the Association be transferred to the said Company on the terms that the said Company should accept full responsibility for all liabilities (both actual and contingent) of the Association at this date.

Draft Budget

Copies of the Draft Budget drawn up by the Treasurer were circulated. Mr. Lang explained that he hoped the Association's financial position during the year would be slightly better than shown on the draft budget. His Budget was based on the hope that there would be 1,200 paid-up members and he hoped that an increase of £150 would be made on sales from the B.P.A. Shop and Raffle. He went on to point out that the rent of the B.P.A. Offices had been increased and that the Secretary-General's salary amounted

to £300 for the three months agreed before getting the Government Grant.

The Treasurer told the Council that a cheque for £200 had been presented to Group Captain Caster on his retirement.

The Chairman queried whether the new Safety Regulations should be sold or given to the membership, and it was generally agreed that these Regulations should be free to Members. The Chairman said that he proposed to have 200 copies of the Safety Regulations printed for circulation in two stages; firstly to Council Members and Club Chief Instructors and secondly following a pause of a few days to all remaining instructors.

After discussion and approval of the Safety Regulations in this form he proposed mass production for the full membership during the late summer or early autumn. It was thought that 2,000 copies of this document would cost approximately £250-£300. It was suggested that this expenditure should come into the next financial year (beginning October 1966).

'Sport Parachutist'

Mr. Pierson said that if his present negotiations went through successfully it could be expected that £200 profit per year would be made on the Magazine. The Chairman asked whether the B.P.A. would be fully guaranteed that the same high quality and content of the Magazine would continue, he felt it essential that the high standard of SPORT PARACHUTIST should be continued. Mr. Pierson expressed his confidence on this, although he pointed out that the details of this proposed scheme had yet to be tied up.

National Championships

The Chairman went on to report that the World Championships Authorities had now decided that the scoring circle for the 1966 Championships was to be a circle of 25 metres and he suggested that this should also be adopted for the National Championships.

After discussion it was decided that a Meeting should be held at Netheravon during the week-end of 14th/15th May to discuss only the National Championships and give formal approval to the Safety Regulations which the Chairman said would be posted on 4th May, 1966.

Mr. Vos suggested that all those interested in the details of the 1966 National Championships should be allowed to attend; this was agreed and it was arranged that the meeting would take place at the first opportunity after 2 p.m. on the Saturday.

Any Other Business

Miss Braby told the Council that she was resigning from the B.P.A. as she was to be married and would be leaving the Office at Whitsun.

Accident at Kirton-in-Lindsay, Lincolnshire

The Chairman drew the Council's attention to a serious accident which had taken place earlier in the month at Kirton-in-Lindsay, in which a student parachutist, Mr. M. Scaife, had landed in high-voltage cables. He had been seriously injured and was still in hospital. (It has since been learned with regret that Mr. Scaife died in hospital from his injuries on 23rd April.)

The Chairman considered that there were a number of important questions to which the report did not allude and which the Council would require answering. On the face of the brief report submitted by the instructor in charge (Mr. A. J. Unwin) there would appear to be some cause

for concern that Safety Regulations might not have been followed in at least one important aspect.

Draft Safety Regulations

The Chairman felt that there should be a penalty for low openings and that immediate, if only temporary suspension should be enforced. After discussion it was generally felt that this was a matter for the discretion of the instructor but he should be empowered to award automatic suspension. The matter of ground-to-air signals was fully discussed, including a proposed new system. After detailed deliberation it was decided to include the letter L for Land in the system previously planned.

Emergency procedures were discussed, and the Chairman raised a number of additional points he wished to include in the Safety Regulations. Captain Gardener raised the question of the maximum height for parachuting, and the Chairman felt that there was room for research and consultation on this matter but he added that at present the maximum height for jumping was clearly fixed at 12,000 feet. He said that there was a strong case for raising the maximum height, but he wished first to consult various medical and other authorities.

It was agreed that the individual should be made responsible for his documentation, not leaving the entire onus on the Clubs in the case of General Permit holders.

Minutes of the First Meeting of the British Parachute Association Limited, held on 21st April, 1966, at Royal Aero Club

Incorporation of the Association

It was reported that the Association had been incorporated on 29th March, 1966, and that the certificate of incorporation was numbered 875429. The Certificate was produced for inspection.

First Members of the Council

There was produced to the Meeting a Memorandum signed by the subscribers to the Memorandum of the Association of the Company pursuant to Article 21 of the Articles of Association appointing:

Brigadier R. D. Wilson, M.B.E., M.C.

J. R. Trustram Eve

D. M. Pierson

Sergeant B. T. Clark-Sutton

Captain E. A. J. Gardener

B. A. N. Green

L. N. E. St. John

as the first members of the Council of Management of the Association and it was resolved that the particulars of such members of the Council be filed with the Registrar of Companies.

Transfer of Property

It was reported to the Meeting that the Officers of the British Parachute Association were prepared to transfer the Assets of that Association to the Company forthwith after the conclusion of the Meeting and in consideration of such transfer the assets of that Association be accepted on the terms that the Company accepts full responsibility for all liability (both actual and contingent) of that Association as at the date of transfer. There was produced to the Meeting a form of Indemnity to be given by the Company in favour of the Council and Officers and the Common Seal of the Company be affixed to the Indemnity.

It was proposed that Group Captain W. S. Caster be elected as first Honorary Member of the Company and, subject to his acceptance he was so elected.

The jump that never was

*A visit to the Centre de Sauvetage et Exploration
Sous-marine at Collioure*

by MARK MILBURN

It all started in bed. The doctor said that Collioure was a tiny, unsmart place. He strongly recommended a spot of convalescence there, since he'd been himself 10 years ago. The details looked interesting—a 10-day course in parachuting and underwater swimming—in that order—with sailing thrown in.

After the third request for information had gone off—and just as doubt as to the very existence of the C.S.E.S.M. was beginning to set in—a reply came. It appeared that the course was primarily swimming, with a jump and two hours' sailing thrown in as appetisers.

A deposit of N.F.50 was requested and dispatched with lightning speed. Three days before the start came a second letter, asking simply that a course application form be filled in and returned. The RV was set for 11 a.m. on a Sunday morning.

A casual observer at an early hour in Collioure might have noticed a weary traveller and his kit parked outside a very dead café. Various inhabitants were doing the same, in the hope that breakfast would materialise some time. Meanwhile the bridge provided a platform on which the townsmen gathered to pass the time of day and to survey those tourists already up and about.

After breakfast the C.S.E.S.M. was discovered nearby. Collioure is tiny yet its narrow streets are, nevertheless, a trap for the unwary foreigner who thinks he knows his way. As we found several times! A friendly welcome was extended by the Girodeau family ("Call us Odette and Pierre") and their son Gildas, not to mention their various animals. After some quick formalities, Odette led the way down the hill and along the sea-front (if that is the right name for a narrow causeway meandering between the sea on one side and the steep walls of an ancient castle on the other) to the clubhouse. Charming small rooms are provided, spotlessly clean, with two to three beds and a wash-basin in each. There are showers on each floor. Meals are taken *en famille* downstairs—Odette being a very capable cook and justly proud of her Catalan specialities. Her concern to know foreign likes and dislikes was most touching.

Before lunch, Pierre explained that the jump was off.

This was a great disappointment; yet inevitable due to the high cost of the only aircraft available having to come from Perpignan. Or even from Gaillai (Tarn). Indeed, at the time of writing (September), it is stressed that only a course of 8-10 people can make a jump cheap enough to be "worth while". As there were only four students, there was no way out. We were refunded N.F.40 (nearly £3) on the total price of the course.

Pierre was formerly an army para and one of the early post-war "combat-swimmers". It was he who hatched up the idea of parachuting and swimming, in the knowledge that civilian water-jumps are not widely practised in France. Thanks to a civil parachute instructor and to the locally stationed paras from the army underwater school, who help with their Zodiac boats, there had been a number of descents on previous courses. These were generally static jumps, with a few short delays. As it is not, unfortunately, possible to jump wearing compressed-air bottles and a main parachute (try it!), there is no chance of being able to land in the drink to start at once on an exploration of "the Silent World" without bothering to surface. But who knows what may be possible one day?

Sharing the same room was Michel, a native of Lyons, who was enjoying a few months' home leave after a spell in Africa. He had just come from Limoges where, he said, it is permitted to go up and down like a yo-yo. Even to the tune of some 67 descents per month, all from 2,500 m. He also reported that something around 35,000 jumps have been made there since the school began. All this without one fatality. He intended to return once the swimming ended. Lucky chap.

After two of us had satisfied Pierre that afternoon that we could swim equipped with flippers, mask and breathing-tube, we were all set to go.

The course proper began next day, normal working hours being fairly elastic. And lasting, roughly, for two hours before lunch and two after. Not much of a day's work to the uninitiated. But after a short time we were forced to admit that it was enough. Ideas of going out on the town were soon discarded in favour of early nights. Enthusiasm for anything except eating and sleeping when "off-duty" became increasingly hard to raise. Even if there were some who made a valiant attempt!

Well-wishers at home had laughingly foretold the perils of loitering on Continental beaches, belittling the hazards of the mighty deep. But it was soon clear that they had never been underwater for more than a few seconds. And even clearer that such activities as swapping equipment and breathing off the same air-supply on the bottom were hardly conducive to late hours. But it may just be a question of practice.

First steps were, rightly, directed towards self-discipline and safety. So necessary, and so often ignored. Sometimes with fatal results. Those in favour of beginners being free to kill themselves by trying to run before they can walk would find no sympathy in France. Even if we in England prize our liberty, perhaps we can learn a little from their attitude. Unless we are too proud to do so.

Swimming in a group with an eye on one's chums and interpretation of signals were coupled with basic accomplishments like turning on the reserve air-supply and emptying masks under water. This latter proved a complicated manoeuvre for one foreign student who had enormous difficulty in breathing through his mouth without a mask on. And who swallowed half the Mediterranean before getting the hang of things. In the end, Pierre's patience and tact won him through.

Quite soon we were down at 20 m., diving from a small boat outside the harbour. Increasing confidence and the pleasant scenery soon made us aware of the joys of exploration. All too soon we would have to switch to our "reserve" and paddle reluctantly to the surface. As one rose, the sun would pierce the depths, making the whole venture seem immeasurably enjoyable and worth while. Almost like a successful jump on a lovely day. Then we would haul ourselves joyfully into the boat, everyone discussing his impressions as if no one had ever done the like.

Apart from everyday manipulation and handling of equipment, there was an excellent theoretical and practical lesson on life-saving. Pierre flung a dummy a few yards from the jetty where our basic instruction was carried out. One had to dive for the wretched victim, and bring him up to the jetty. Sometimes, amid shouts of laughter, the dummy would be pronounced "drowned". Needless to say, the would-be rescuers sometimes looked more so themselves!

Then there were two first-rate lectures, one about the possible effects of staying down too long or coming up too quickly. This had a sobering effect on the more exuberant listeners. And terrified the more imaginative. The second dealt with equipment generally, pointing out obvious pitfalls to avoid in selecting one's own stuff, and helping towards an understanding of the ideal components. Simplicity of operation appeared to rank alongside reliability.

One fine morning we were tested on what we had learned. Perhaps the most unnerving part is to find oneself, at 20 m., suddenly unable to see or to breathe. A situation foretold by Pierre. The only thing to do is to conquer at all the costs the first instinctive feeling of panic. Once mouthpiece and mask are replaced and emptied, there is Pierre mockingly applauding the performance. Later on, homeward bound, he said everyone had passed. Now we were ready for even greater depths.

The last morning we dived to a sunken wreck, 40 m. down, on what really seemed an adventure. The water was much less clear. And the barnacle-encrusted hull and masts rising from the gloom gave a feeling of loneliness hard to dispel. Even with Pierre banging away cheerfully to loosen various bits and pieces.

There are several wrecks in the area. Including one transport sunk by an Allied submarine. A number of young German soldiers had just left Collioure for North Africa. They sang as they left the harbour. And Odette says that even now they still sing from the sea-bed. So runs the legend.

Magazines in the clubhouse tell of many interesting places to visit. Once or twice an advertisement for the British Sub-Aqua Club turned up. But nothing was noticed dealing with fabulous British resorts beckoning to the Continental sportsman. Perhaps the climate has something to do with it!

For those of us who find it hard to lie on the beach, albeit beside the wife or even the Most Beautiful Girl in the World, this is certainly a holiday with a difference. Even if there wasn't a jump. Pierre hopes that next year there will be. And, jump or no jump, so does the only foreign student, in spite of his ham-handedness in all matters to do with the sea. Not to mention his aversion for the taste of salt water.

(This was written some months ago, and details of the course, etc., may have altered. Write direct to Collioure and find out.—Ed.)

WE JUMPED IN BRITISH GUIANA

Sgt. "Johnny" Balls, 3 Para.



On the jump-run, Alouette Mk. II.



One gone, Pte. Whitney.



Two gone, Pte. Jarrett with Captain Gardener to follow.

It was early October 1965 when 3 Para. arrived in British Guiana, and one of the first things we saw as we landed at Atkinson Field was six helicopters parked on their pads. Immediately the free-fallers among us got moving and started negotiating with the Army and R.A.F. "chopper" flights to see if they could get some jumping going. The Army's Alouette Mk. 2s were not cleared yet so we concentrated on the R.A.F. The Flight Commander was very keen and so, on the 20th October Capt. Gardener and myself paved the way by doing two 5,000 ft. jumps from the Whirlwind Mk. 10s.

From then on, jumping was done whenever the R.A.F. could spare the hours. Displays started coming in too, and the natives were soon being enthralled by the "Flying Men" of 3 Para. For these displays we used the Whirlwinds and a civilian Cessna 180.

At the end of October I had to go up to our jungle camp at Tacama but I took my rigs with me and every time a "chopper" came in with supplies I hitched a lift when it took off again and dropped back into the camp area, so I didn't miss much! By the time I got back to Atkinson the R.A.F. had imposed a ban that prevented us from jumping out of Whirlwinds, which was a great pity.

However, by doing some furious signalling to England we got the Alouettes cleared and we carried on jumping from them. The Alouette is only a three-seat helicopter but it made a wonderful jumping platform. Just for the record, to our knowledge (and the Army Air Corps Flight) we were the first British Troops to jump from them.

By December, every Wednesday morning was reserved for jumping and we managed to get students along too. Unfortunately, we couldn't drop "static lines" from the choppers so we had to restrict it to students who were on to Free-Fall. From then on it was plain sailing. Every jumper got at least two jumps every Wednesday morning and the display team was also kept fairly busy. The Team consisted of Captain Gardener, myself and "Pete" Paganelli and we were jumping Pioneer Lo-pos. Not all displays were from Alouettes at this stage.

In one historical week-end we did two displays at a mining camp called McKenzie. The first, on Saturday, was from 15,000 ft. on to the ninth tee of a golf course and on Sunday from 13,000 ft. on to a sports field. On both occasions we used an Amphibious Otter. The exit on this was quite unique as we had to climb out of the door, down a three-foot ladder and on to the float before actually parting company with the plane. The three of us standing on the float at 15,000 feet was quite a sight, believe you me. On the Sunday's jump, Captain Gardener caused a little more excitement by landing three feet from a poisonous snake. This was soon killed by the natives, who by this time had swarmed all over the D.Z.

The last jumps were on the 7th February, three days before the Battalion left for England. In the three and a half months, 184 jumps were made. The Display Team members averaged 35 each. Ptes. Jarrett and Whitney managed to scrape in about 18 each, and the remainder were split between Lts. Pike and Stratton, Staff Sgt. Colin Douglas, L/Cpl. Bengough and Dvr. Hunter. "Pete" Paganelli had the only malfunction but he had a good reserve deployment and was none the worse for it.

However, we accomplished this only by hard work put in by the Pilots and ground crews of 1310 Flight, Royal Air Force, and 25 Flight Army Air Corps. I will take this opportunity of thanking them and hoping that some day in the near future our paths will cross once more so we can operate together again as we did in British Guiana.



Judy Innes, Fashion Editor of the "Daily Mail".

Strictly for the Boids . . .

(This article is reproduced with permission of the "Daily Mail")

The decolletage problem which faces girls today isn't how much cleavage they can show and still be thought nice—the low plunge centre front is finished—it's how they can wear garments with the new deep-cut armholes and still stay decent.

It's not a problem which bothers models. They're usually so flat-chested they've got nothing to hide. But it is, though, for well-built girls.

The armholes are slashed so low that no bra can stay invisible and still give support where it matters—even the new Warner's bra, about which we wrote recently and which can cope with any neckline.

But a solution has been found, thanks to actress Marisa Mell and French designer Victoire.

Marisa Mell has to wear a Victoire designed outfit in her new film with, of course, deep slashed armholes. And she found that every time she moved she revealed several inches more Mell than she thought proper. It was Victoire who saved the situation.

"Try sticky tape," she suggested. Sure enough, stuck on the right way so that the Mell bust was firmly taped together, it kept everything in place and the decencies preserved.

The sticky tape manufacturers (no laggards they) have already got on to the possibilities of this new and bizarre use for the stuff. They're currently working on a promotion campaign on these lines in fact.

"The Sellotape hierarchy want to promote the idea of Sellotape in the handbag using a day in the life of a model to give an idea of its more unusual applications," Brian Mattei, the man in charge of the promotion, explained to me.

"We've tried several experiments on models and it's proved very successful. It has the great advantage of not leaving a line or marks visible as a bra does.

"For uplift, you have to run the tape up from under each breast to the shoulder, hammock fashion. Taping the breasts together works too, but it tends to be a bit uncomfortable after a while—more suitable for a model who only has to wear it that way for a few minutes than for a girl leading an active life."

Mr. Mattei took over the account after the actual experiment had ended, he told me with a note of regret in his voice. But his secretary, 25-year-old Doreen Fuller, was not only there, she became an ardent convert.

"It's very successful," she told me. "I've found that it's impossible to wear a bra with some of the latest dresses with very cut-away armholes. But if you use Sellotape, you can strap yourself up and push yourself together, if you see what I mean."

(What's this got to do with the price of eggs in Russia—or Sport Parachuting, for that matter? It's just that I thought the girls might like to wear their Reserves a little higher, that's all. . . .—Ed.)



"For Zeus' sake, son, pull your reserve!"

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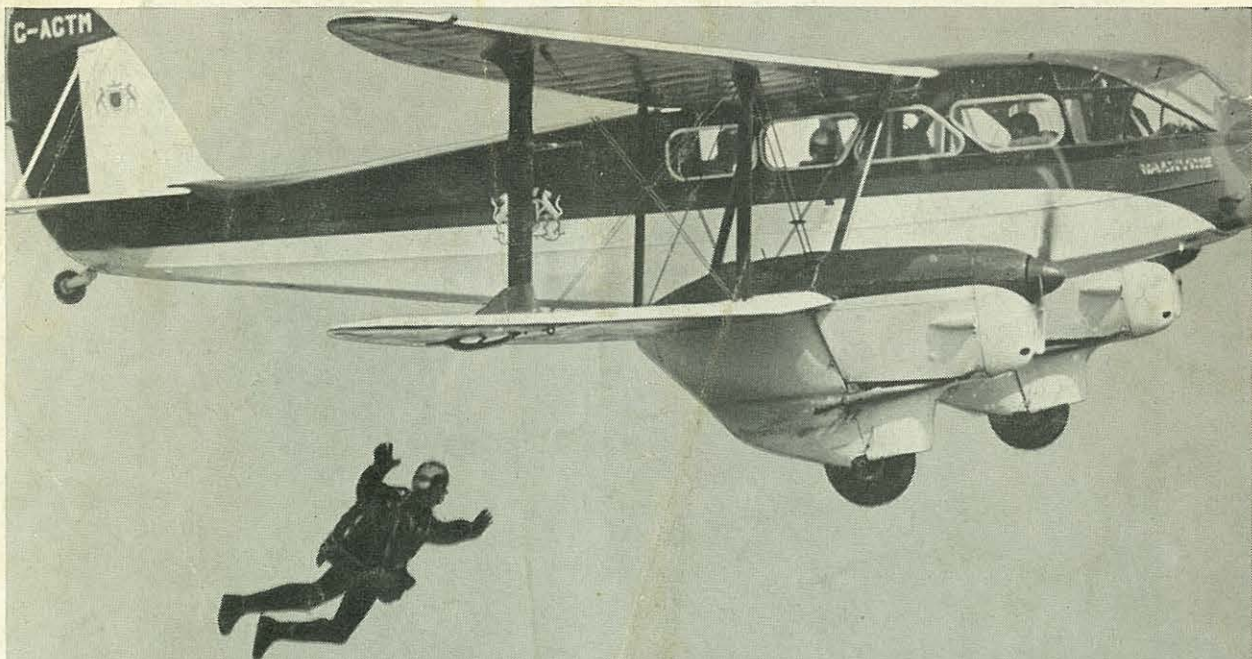
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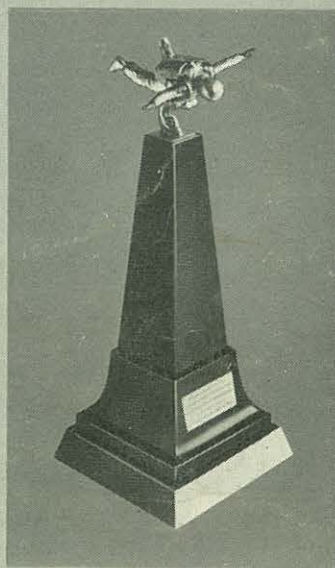
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