

DIRIGIBLE

THE JOURNAL OF THE AIRSHIP & BALLOON MUSEUM

PUBLISHED BY THE AIRSHIP HERITAGE TRUST (Formerly FOCAS): VOL. VII No 4 - Winter 1996 / 97

This Journal is free to Members and Associate Members of AHT (FOCAS): other copies £7.50.



**'Dirigible' goes aloft to discover 'Life with the Lightship'
plus Spencer's No 1, the 'Flying Dolphin' of 1816, News, Reviews, etc.**

News from Cardington

Editorial

"The Old Year is Fled Away" to quote a Lutheran chorale for New Year's Day, but what a year it was! As our Chairman says below, it was the year when the Airship Heritage Trust really became an internationally recognised body, and in this season we look back with gratitude and affection at the bonds made and camaraderie shared over the last twelve months, notably with all those connected with the Zeppelin Museum celebrations. Then there is that most gallant of Frenchmen, Laurent Wattebled, whose heroic commitment to the memory of the R101 and her men in the face of indifference is a constant inspiration to us all at the AHT; there are our many friends across the Herring Pond for whom we are grateful for monetary support and at least one enormous exhibit! As an Editor, my job would be impossible without my contributors, a tireless curator/archivist and a patient, kindly Council and these, I think you will agree, have truly surpassed themselves in "Dirigible" Volume 7: thank you all. But most of all, thanks to you the Membership - you it is that supports the AHT and "Dirigible" and you perpetuate that great camaraderie that exists wherever airships are concerned. The preparation of each issue of "Dirigible" always seems more like writing a letter to the family than preparing a technical journal and, despite something approaching the thousand man-hours that I put into it over the course of a year, it has never become a chore. Thank you all for your support through 1996 - do keep with us in 1997. Modern bureaucracy is seldom kind or understanding, neither do many have the imagination to see that vision which the Airship Heritage Trust sees and fights to bring to fruition: in the next twelve months the Trust will undoubtedly need your support and encouragement more than ever before. May 1997 bring each of you every joy and success; or, as fellow Editor Laurie Soffe puts it, "We wish you a Buoyant New Year"!

Nick Walmsley

From the Chairman

May I first of all wish all members Seasonal Greetings and good health for 1997. Hoping that it does not appear to be too pushing on my part, can I remind all members that our new subscription rates became due at January 1st 1997; would all members who still have to amend their Standing Orders (forms were sent out with "Dirigible" Vol. VII No 3) please do so as soon as possible, and

members who pay cash submit their payments. We as an organisation are in the process of incurring further expense with regard to our Lottery application and thus all monies would be very much appreciated. The immediate need is to engage professional advice and assistance in our application to the Lottery for initial funding and, secondly, for our final application. This professional advice and help is most important in what is a complicated - and trying - procedure. We would appreciate your assistance in this matter.

As I mentioned in my previous report ("Dirigible" Vol. VII No 2) we have formed a Steering Committee and regular meetings are held with those concerned, but progress is, to say the least, on the slow side. However, like the tortoise, we press on regardless with the task in hand, and for this I am sincerely grateful to all concerned for the time, trouble and travelling that they incur.

The last issue of "Dirigible" (Vol. VII No 3 - the "Zeppelin" Special) has proved to be a great success and our Editor Nick Walmsley is to be congratulated on its presentation, finally proving to all and sundry that we are not only a National organisation, but an International one as well. Further to this I must thank members for the tremendous effort they have shown in ordering from our list of "Items for Sale" - it has been most encouraging and helped with finances at a time when we most need it. Once again the latest greetings cards (SS23 at Pulham) have proved to be popular, as well as the Limited Edition print of LZ-127 "Graf Zeppelin" at Cardington with R100 on the mast. Thanks are due here to our Curator Den Burchmore and his helpers for dispatching the goods to members.

With regard to future events, our associate organisation the British Balloon Museum and Library (BBML) are organising a "Mass Inflation" of balloons in Cardington's No 1 Shed on Saturday 15th February 1997. The object (besides making money!) will be to get into the Guinness Book of Records for the record number of full-sized balloons inflated under one roof. The objective is to inflate 40-50 balloons simultaneously....so "Good Luck BBML!"

On behalf of the Airship Heritage Trust I must thank Laurent Wattebled of the R101 Museum in Beauvais for forwarding a fine wreath for placing on the Cenotaph at Cardington - a splendid and a kind gesture, and much appreciated. We of the AHT arranged for him to place flowers on the Memorial at Beauvais on our behalf.

Once again, greetings to you all, both in Great Britain and overseas.... thank you for your continued support and, hopefully, we shall have good and positive news regarding our cause in 1997.

Test Greenstreet.

BBML Mass Inflation

Further to the above notice of the "mass inflation" of balloons scheduled to take place at Cardington on Saturday 15th February, please note that this event is being organised by Tony Lindsay of the BBML, not the AHT, so all queries should be directed to him. As we went to Press it had not been decided how the public was going to gain access to the event, so members in the Bedford area should check local newspapers and radio for final details. If you are further afield, and want to know more about the inflation, Mr Lindsay can be contacted at 208 Kneller Road, Whifton, Middx. TW2 7EF.

AHT AGM - Advance Notice

A date for your diary - the AHT AGM will be held at RAF Cardington on Wednesday 28th May 1997. This is always a very pleasant congenial gathering, full details and a booking form will follow in the next issue of "Dirigible".

News from Allonne

As mentioned in the Chairman's Report, M. Laurent Wattebled of the Association du Musée Souvenir du Dirigéable Anglais R-101 organised a wreath-laying ceremony at the main Allonne memorial on 5th October to commemorate the 66th anniversary of the disaster there. Despite two articles to publicise the event in the local Press only five people - M. Wattebled, his wife, daughter, M. Pierre Louvet (Vice-President of the Association) and a journalist from "Le Courrier Picard" - attended. Our photograph [right] shows Chantal and Aurélie Wattebled with M. Louvet at the Memorial, which was recently cleaned following mindless vandalism. After the event M. Wattebled sent me a very sanguine letter telling me what he thought of his countrymen which, regrettably, I cannot print. He is having trouble with

his Tourist Office also: they will not recognise his Museum as an official "tourist attraction". M. Wattebled, you will recall, looks after the memorials at Allonne entirely voluntarily: one way in which AHT members might be able to help him is by writing to the Office du Tourisme de Beauvais, 1 Rue Beauregard, BP 537, 60005 Beauvais Cedex, France, and asking for information about the R-101 Museum "which we believe is situated in Beauvais" and seeing what kind of response is given! The R-101 Museum Association is a non-profit-making organization, publishes a very good quarterly magazine called "Airship" (in French, but the pictures are quite stunning!). Membership of the Association (200F per annum) will bring you 10% discount on airship and balloon books, postcards and souvenirs from the Museum shop too. Write to Musée Souvenir de R-101 at 33 Rue de Paris, 60000 Beauvais, France for further information.

AHT on Air

The AHT got wide coverage in the Eastern Counties on Boxing Day when Stewart Orr's hour-long documentary "Lighter than Air" was broadcast on BBC Local Radio in the area. Telling the story of airships at Pulham Air Station, it featuring interviews with AHT stalwarts Den Burchmore, Peter Garth, Albert Hunt and Don Beattie, 96 year-old airship coxswain Les Murton, local people with vivid memories of Pulham in its heyday, and location recordings at Pulham and Cardington. The programme concluded with a flight over London in the Lightship Group's A-60+ N2022B, then in Philips livery, and an interview with the Lightship Group's chief pilot Capt.



Mike Nerandzic; Nick Walmsley acted as technical adviser. Enough material was gathered for a second programme about R101 and her Norfolk connections and is in preparation for broadcast at Easter. "Lighter than Air" caused such a stir that it received a repeat broadcast only a few days later: it is hoped that it may go forward for national transmission, and a possible entry in the Sony Radio Awards.

A Pulham Museum?

News has reached us that a group called the Pennoyes Building Trust has acquired a redundant school in Pulham St. Mary and proposes to apply to the Heritage Lottery Fund for money to convert it into a village amenity "tele-cottage and airship museum". We have been trying to contact the group, but they seem rather shy: the Airship Heritage Trust is naturally interested in the proposal (since we hold most of the official records and RNAS photograph albums for Pulham Air Station), and we would hope to work with and assist such a group rather than let rivalries spring up. So, if any of our members know someone connected with the Pulham Proposal do tell them that the "Dirigible" Editor, being a Pulham afficionado and "Norfolk" to boot, is extending an olive branch, and hopes they will make contact with him soon!

"Dirigible" Matters

Although you might not have guessed it, "Dirigible" has until now been produced using a computer system from the late 1980's which may not seem very long ago in the temporal scheme of things but is several life-times where computers are concerned: if looked at in aeronautical terms, we are effectively flying a Bleriot monoplane in amongst a squadron of Stealth fighters. The time has come to update and, thanks to the great generosity of an AHT member, the trusty old "Dirigible" computer has been replaced with more modern equipment, and this issue will be the last compiled using the old system. I shall then have to get to grips with the new system (a task not to be relished, as I readily admit computer illiteracy: being happy flying a Bleriot, I'm naturally wary of Stealth technology). "Dirigible" will, however, retain its familiar homely appearance and 1930's type-faces: the new system will merely make life easier for the editor/compiler and his publisher in the long run. Plans are also being put in place for the AHT to have a 'website' on the Internet - love 'the net' or loathe it, it is becoming impossible to ignore it.

Incidentally, the "Dirigible" editorial office now has a FAX number which is 01603 781011 (00 44 1603 781011 from abroad). The ordinary telephone number remains 01603 782758 (00 44 1603 782758 from abroad).

Authors - please note!

An Editor of any Journal relies upon his authors and correspondents - without them his Journal could not exist, so Heaven forbid that this particular Editor should chastise any of his valuable contributors. But it has been noticed of late that there is an increasing trend for those who wish to see their articles/latest research in print to submit them to more than one journal at a time without advising the respective Editors. Thus we have had the same items appearing simultaneously in "Dirigible", "Gasbag", "Buoyant Flight", etc. Not only can this be annoying to those who subscribe to more than one of these journals, it can be frustrating for the Editors, and could lead to problems regarding copyright. (Despite appearances to the contrary, the Copyright Laws have not been suspended just because of easy access to the Internet and the ability to 'download' huge amounts of data at the touch of a button in your own home: electronic retrieval is still covered by copyright, though it is becoming increasingly difficult to 'police'.)

If you want to see your work published widely, do remember that "Dirigible" is an international publication, reaching ten countries over five continents; it is widely read in Europe and America, has been enthusiastically endorsed by the Director of the Zeppelin Museum in Friedrichshafen, and extracts from it are to feature on a CD-ROM to be produced by that Museum - thus "Dirigible" is emphatically *not*, as some people in the LTA world still seem to believe, a 'parochial journal of limited interest and circulation within the British Isles'. (Such misrepresentation can only be construed as a curious joke, professional jealousy, or deliberate misinformation: all of which suggest that we 'amateurs' are doing our job rather too well!) "Dirigible's" strong points rely on its historical/social history articles, matters pertaining to the founding of the National Airship and Balloon Museum at Cardington, and the quality of its illustrations, rather than dealing with overly technical matters or current affairs; for these (as well as a good smattering of the historical too!) I would personally recommend the excellent re-launched "Gasbag" Journal (now incorporating "Aerostation" founded by the late and lamented Don Woodward) which also enjoys an international reputation: it is compiled and edited by AHT member Laurie Soffe in Auckland, New Zealand. It is published by the Lighter-than-Air Institute, Tiola Consolidated Ltd., PO Box 74-420, Market Road PO, Auckland, New Zealand. The European rate is DM40 for four issues (£16 sterling approx.). All overseas copies are (like "Dirigible") dispatched by air mail.

COVER PICTURE: A60+ Lightship N2022B of the Lightship Group climbs away from White Waltham

*** Venting Gas ***

...in the correspondence column...

All quiet on the Western Front this quarter, which must have something to do with preparations for the Festivities: all available writing-energy was presumably being expended on Christmas cards! Thanks to all who have written, though - not all the letters at the Editorial Office are intended for publication (these are generally the ones we derive the most enjoyment from!)

Mr. Colin Turner writes regarding an interesting aspect of British rigid airships:

"I hope you will be able to help me locate information on the ranges of our 1st World War rigids from No.9 through to R34. Although I think I have all the books published on the subject, not one of them refers to the endurance or range which was specified for these airships by their designers, although such information on the non-rigids seems plentiful. Any assistance would be greatly appreciated."

Editor's Note: My initial thoughts are that performance figures were (and may still be!) subject to the Official Secrets Act; also, that there are so many variables acting upon a rigid airship as to make definitive endurance or range very difficult to determine. But it is recorded that HMA No.9 fell a long way short of the performance expected by the Admiralty, and that the British-built "Zeppelin copies" did not quite measure up to the originals, so figures do come into the reckoning. But, as readers will know, technicalities are not my strong point so, come on, plenty of scope here for correspondence: all letters sent to the Editorial Office (address on the back page) will be forwarded to Mr Turner.

An intriguing piece of airship-related social history has been sent in by **Mr Harold Wingham** from Gloucestershire. Mr Wingham, one of that elite group engaged in aerial photography for archaeological purposes, and who made a 16mm film (now lodged at

Hendon) of his flight in the German airship "Schwab" in 1963, enjoyed the "Dirigible" Zeppelin Special and came across the following article in a recent newsletter of the Gloucestershire Record Office. The last sentence in particular might amuse:

"A surprising entry in the baptism register of Upton St. Leonards for 30 June 1861 is that of Agnes Clara Selina, daughter of Count Wilhelm Zeppelin and his wife Mabella. Since the name Zeppelin is by no means a Gloucestershire one, further investigation was called for, both here and in Germany. The results show that Count Zeppelin's wife was the daughter of Hon. J.H.Knox (brother of the second Earl of Raoul) who was then living at St. Leonard's Court in that parish. It also came to light that Count Wilhelm Zeppelin was an uncle of Count Ferdinand Zeppelin, who was responsible for the airship of that name, which was such a dreaded feature of World War 1."

A touching little cameo of untroubled times for the crowned heads of Europe before the Great War was spotted in the current "Gasbag" Journal; it originally appeared in the American "Fly" Magazine for August 1909:

"Emperor William has presented Grand Duke Alexis Nikolaievich, son of the Emperor Nicholas, and heir to the Russian throne, with a model of the Zeppelin airship. Emperor William personally demonstrated and taught the Grand Duke how to work the miniature dirigible."

Speaking of "Gasbag", and at this time of year when Honours are being handed out, the coveted "Dirigible" Goldbeaters Skin Award for a Bizarre Airship Association goes to "Gasbag" correspondent **Rowan Partridge** for pairing Neddy Seagoon's immortal Last Tram with the "Hindenburg"....

(Unfortunately we can't present the award as Goldbeaters Skin is unavailable due to the BSE scare - it is, of course, classed as bovine offal!)

"The Flying Dolphin"

an Investigation by the editor

Giles Campkin, the eminent Balloonist and aerostatic consultant, recently sent the Editor a tiny newspaper cutting dating back to the dawn of the dirigible; further investigation held some surprises.

From The Observer, August 18, 1816:

"Flying Dolphin to Paris"

"A correspondent informs us that Mr Egg of the Strand (a German) has nearly completed a balloon, in the shape of a dolphin, for the avowed purpose of carrying the nobility and gentry to Paris, and subsequently elsewhere. It is to be made capable of conveying from 15-20 persons to Paris in the short space of 10 hours or less; it is worked by steam and the wings are intended to act as rudders.

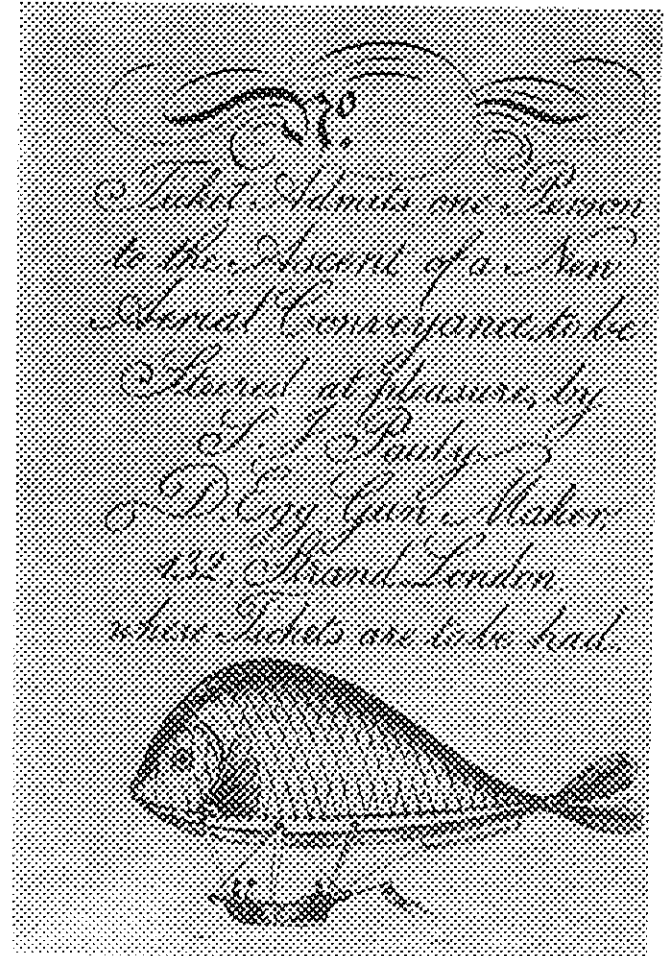
"The journey from London to Paris by Dover is now performed in 73 hours: viz, 12 hours to Dover; seven hours (upon the average) to wait at Dover; six hours (average) the passage; 48 hours to Paris, supposing a traveller sets off without rest; total 73 hours. This scheme, if carried into execution, bids defiance to the usual exactions of innkeepers, the customary search of custom house officers and all the ordinary impediments which so frequently annoy sensitive travellers. Mr Egg is prosecuting this undertaking in a building at Brompton."

Also enclosed was a copy of a numbered ticket [pictured right], but evidently not issued, illustrating the "Flying Dolphin" and inscribed thus:

"Admits one Person to the Ascent of a New Aerial Conveyance to be Steered at Pleasure, by S.J. Pauly. D.Egg, Gun Maker, 132 Strand, London, where Tickets are to be had."

That was almost the last that anyone heard of this 'Aerial Conveyance'.

The story began in 1789 with a French dragoon officer named Baron Scott. Inspired by the prophetic designs of General Meusnier, he proposed a fish-shaped dirigible balloon which is believed to be the first to feature 'ballonets' within the front and back of the envelope to increase or diminish buoyancy at the opposite end of the balloon, and thus achieve ascent and descent. Scott's publication "Aerostat dirigeable a volonte" is said to have inspired a Swiss gunsmith and engineer named Samuel John Pauly to build a similar "fish-



form" balloon, steered by oars and revolving paddles operated from the car of the airship in 1804. His experiments, at Sceaux near Paris, were encouraging and in 1805 further trials were held at Sablons.

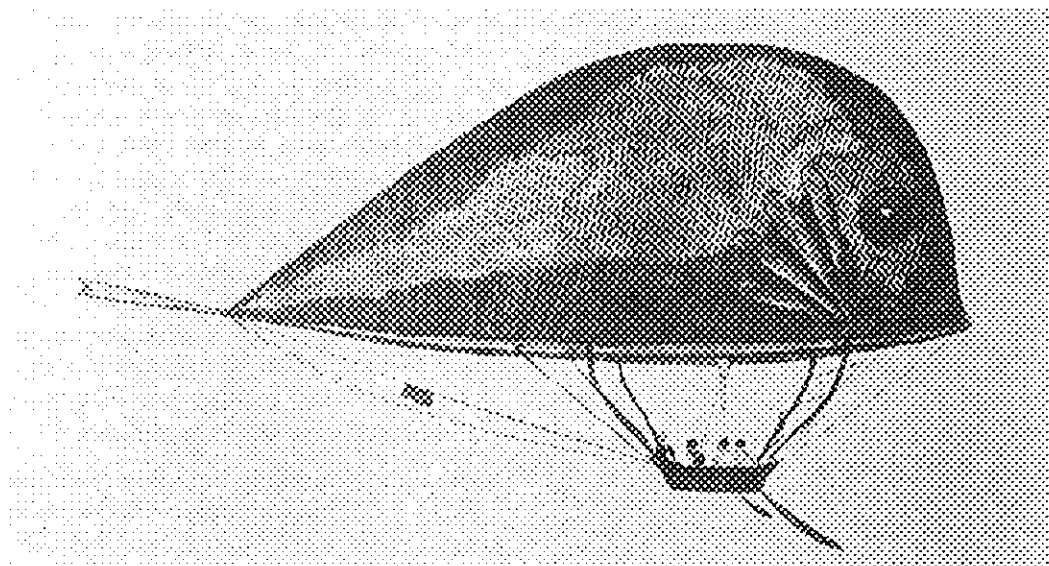
Ten years later, Pauly moved to London and collaborated with another Swiss, Durs Egg, who was gunsmith to George III, to build a rather more ambitious "poisson aerostatique" provisionally named the "Dolphin", and construction began at Kensington in 1816. The balloon was to be 90ft long, 32ft high and 24ft wide, using hydrogen as a lifting agent. A whale-bone framed horizontal fin-rudder some 15ft long and covered in silk was supposed to give lateral stability: it was supplemented by a movable ballast box suspended beneath the boat-shaped car which could be hauled aft to bring up the nose of the airship, or pulled towards the car for the opposite effect. This is the first application of a movable weight to regulate trim, and we

next see it in use on Count Ferdinand von Zeppelin's LZ1 some 84 years later. The "Dolphin" is thought to have had the first full-sized balloon envelope made of goldbeaters' skin - previously this had only been used for toy balloons. The envelope had six layers of goldbeaters' skin on its sides and seven on the top, formed over a wooden mould, and varnished inside and out. Such a procedure must have been incredibly expensive, and it is said that the large intestines of 70,000 oxen went into the manufacture of the envelope. Goldbeaters' skin does not seem to have been used for balloons again for almost twenty years, and even then it appeared only intermittently until Col Templar of the Royal Engineers adopted it for British military balloons in 1883; it later became indispensable in airship construction. Within the envelope itself was another innovation: a true spherical ballonet, 21ft in diameter, intended to 'regulate the dilation or condensation' of the hydrogen gas, and to preserve the shape of the envelope.

Propulsion was to be provided by means two of silk-covered whale-bone framed oars operated manually from within the car. The "Dolphin" also had 'wings', or rather 'pectoral fins', on her envelope which could be driven by some mechanism which is not made clear in contemporary illustrations: maybe this is where the idea of the airship being "worked by steam and the wings are intended to act as rudders" comes from. There is also an account of the "Dolphin" dating from 1835 which says that: "The propelling impetus was a kind of atmospheric steam-engine, invented by Mr Collier, but the great difficulty of combining power with levity occasioned much delay..." That problem was not really solved for another fifty years.

Things looked reasonably promising, apart from the propelling engine, when Pauly died in 1816. The public, sympathetic as ever, ridiculed the scheme which was universally known as "Egg's Folly". Perhaps Durs Egg hoped to salvage something by selling tickets for a proposed ascent of his late partner's creation - "nearly completed" - but thought better of it. The "Dolphin" quietly slipped into history, and Egg was left to bear the cost of the project himself. It amounted to some £10,000 - an astronomical sum for the time.

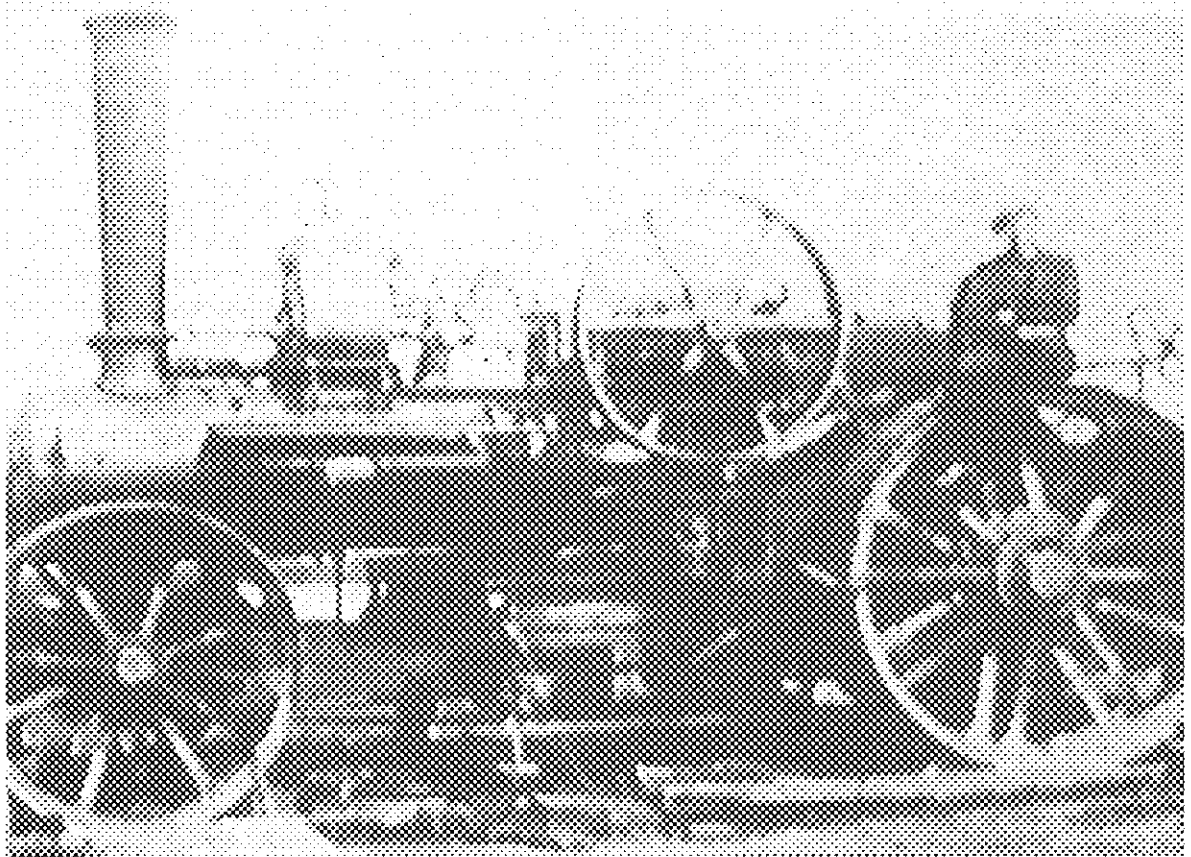
Egg was wise to let the project drop quietly, but its effects may have reached further than he could ever have anticipated. In 1834 the Comte de Lennox, a French Army Colonel of Scottish descent, and his partner Dr. Le Berrier, seem to have felt the influence of the "Dolphin" project, and they set up a very similar scheme to link London and Paris with oar-powered balloons by founding the 'European Aeronautical Society' which might perhaps qualify as the world's first established airline. Having effectively opened the first airline offices in London and Paris selling flight tickets, Lennox's 'steerable' balloon "Eagle" was torn to shreds by irate investors in Paris following its spectacular failure, and his second - being built in Kensington coincidentally - was impounded by the Sheriff of Middlesex when the company ran into serious debt. Durs Egg at least retained his dignity, whilst Lennox died of despair; but Le Berrier, learning from his earlier mistakes, went on to build a little model dirigible in 1844 which featured steam-driven propellers - the first real application of an engine to a aircraft, albeit in miniature form. His assistant was the 19 year-old Henri Giffard who made the first true dirigible balloon flight some eight years later. The rest, as they say, is history.



The 'Flying Dolphin' of Pauly and Egg seen in a 'posthumous' engraving dated 1835; alas, the only glimpse of Mr Collier's atmospheric steam 'propelling impetus' is the enigmatic jagged line running from the front of the gondola to the base of the 'wings' on the envelope.

Ploughboys at Pulham?

or, 'Why the Editor got Steam Up'



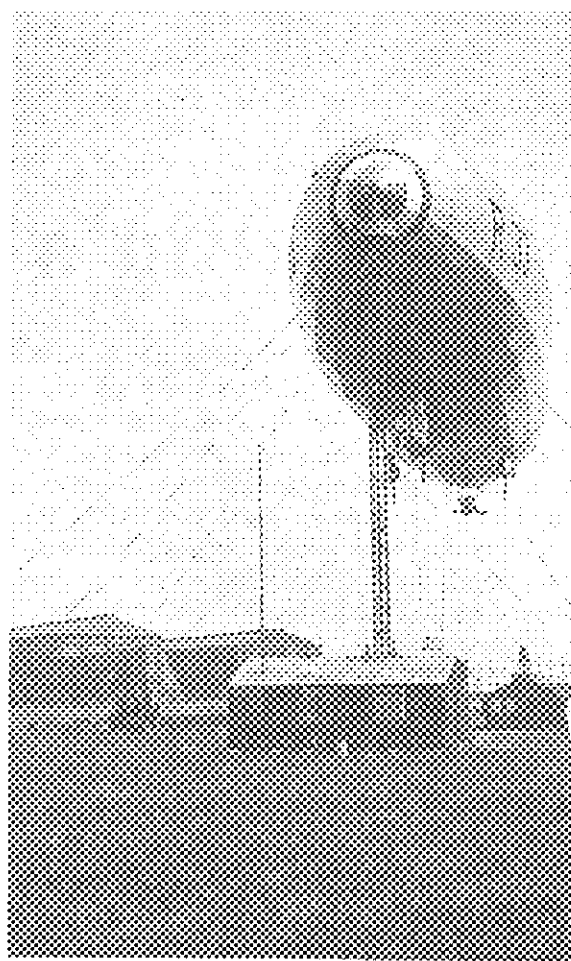
Regular readers of "Dirigible" will know that one of my favourite 'airship asides' is trying to establish the identity of the steam ploughing engines that were stationed at Pulham in the 20's. Such engines were the finest and most powerful agricultural machines of their day, their standard of engineering and performance being equivalent to that of contemporary crack express railway locomotives. Supplied in pairs, they stood one each side of a field and pulled an anti-balance plough, cultivator, harrow or mole-drainer between them by means of winding a wire rope on (or off) a drum situated under the boiler. The system was pioneered and perfected by the firm of John Fowler from Leeds: they supplied most steam plough sets, but other makers included Charles Burrell of Thetford and Aveling Porter of Rochester (who supplied 'steam sappers' to the Balloon Section of the Royal Engineers and were better known for building steam rollers).

Some time after 1918 Pulham Air Station acquired a pair of Fowler BB1 engines, first built in that year and the last word in steam ploughing machinery: one was put to work

as a winch for the newly erected high mast, and has become quite familiar in pictures of airships on that mast from 1919 onwards: it had its own hard-standing at a respectful distance (lest any sparks come into contact with the hydrogen), using its steel cable and winding drum to haul airships down onto the mast - an early prototype of the steam-winch later built into the mast-houses at Cardington, Montreal and Ismailia. The other engine replaced the man-powered windlass used to open the doors of the main sheds, although it is said that an emasculated World War I tank also did the same job. When not employed on the airfield the engines were stabled near the guardhouse, well away from the hydrogen production and storage plants.

Since steam ploughing engines were a fairly common sight in 1919, most people with memories of the air station can recall them being there, but didn't take much notice of them, so information is very scant indeed. They do not appear in any photographs of the station before 1919, so they probably arrived when the mast was erected. As no self-respecting photographer was likely to

waste film on a common-or-garden ploughing engine when there was a gigantic rigid airship swinging above his head, demanding his whole and undivided attention, it was feared that no close-up photograph of the engine had survived. Then in 1995, while viewing some archive film of Pulham Air Station at the East Anglian Film Archive in the University of East Anglia, AHT members spotted a brief 'still' of a 160hp Fowler BB1 engine on the mast hard-standing, chocked up for work and with her cable partly unwound. The image was re-photographed, and is reproduced here for the first time: a snapshot, with the grinning young civilian steam ploughboy adopting a typical engineman's pose on the rear wheel [title photo]. It is unfortunate that the underside of the engine is in shadow for there appears to be something that looks like a second smaller winding-drum beneath the main one. Double-drum engines are very rare birds, but Fowler made a few at the turn of the century for use at sewage works - the second drum acted as a kind of brake for the main one, apparently a prerequisite for dealing with sewage - but there was no record of the later BB1 engines being fitted up in this way, and in the case of the Pulham engine it might just be a trick of the light on a poorly reproduced photograph. On the other hand, a greater degree of control when winching an airship onto the mast would be desirable. The Rural History Centre at the University of Reading, where the Fowler Archives are kept, were baffled, since there was no record of any ploughing engine sets being supplied to the Ministry at this time. They suggested that the engines might have come 'on loan' from a local ploughing contractor of whom there were two candidates: Messrs. Mornement and Ray of East Harling; and Sturgeon Bros. of Stanton in Suffolk, a little way down the Waveney Valley from Pulham. 'Bill' Smith, the Archivist at the Steam Plough Club (a venerable institution founded some thirty years ago), took a similar view, and he alerted the Editor to the impending disposal (June 1996) of two ex-Sturgeon Fowler BB1s in the auction of the huge Philp Collection at Castle Hedingham which he felt might be candidates for the Pulham engines. Thus I found myself in the middle of a neglected Essex farm watching hundreds of people pore over something that the uninitiated might have considered to be the biggest collection of agricultural scrap iron in the British Isles: an interesting and



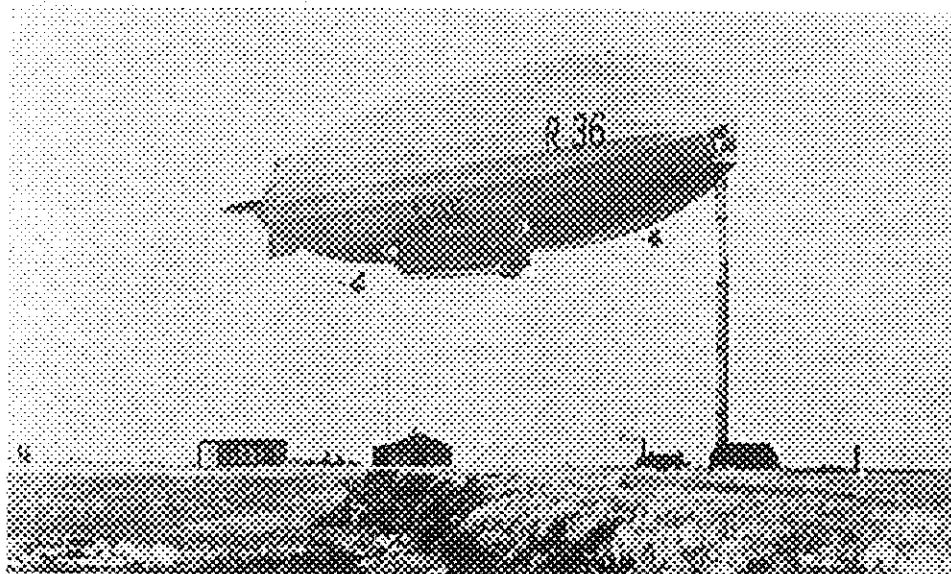
entertaining day, even if there was no conclusive proof that these were the fabled engines. Being advanced in dereliction, both were 'sold for spares' to British steam plough enthusiasts, which means they will probably end their days being cannibalised to keep other BB1s in steam. Meanwhile, research to reveal the identity of the 'Pulham pair' continues (it is said that Cardington had a pair too): but if anyone out has any further information to assist the Editor, he will be very happy to hear from them!

Illustrations:

Previous page: the Pulham Mast Fowler BB1 ploughing engine [East Anglian Film Archive via AHT]

Above right: The mast, engine, sheds and R33 at Pulham in 1921 [AHT]

Below right: The ploughing engine winching R36 on to the Pulham mast [AHT]



Stanley Spencer

and

“Mellin's Airship No 1”

The discovery of unfamiliar photographs of early airships are guaranteed to set dirigephiles off on frenzied detective work, and Belgian aeronautical historian Jean-Pierre Lauwers recently sparked off one such when he found three unusual photographs on a few undated pages torn from a German magazine called “Das Neue Universum”. These, which he rightly believed to be very rare, show an airship, captioned in the magazine's German black-letter script as “*Spencers Ballon*”, bearing the legend “Mellin's Foods” on her envelope (had the term “*Luftschiff*” yet to be coined?). The accompanying text actually tells the story of Severo's “Pax”, complete with engravings showing details of her construction; as the article only deals with the “Pax” and the Spencer “*ballon*” it can reasonably be dated to late September or early October 1902. Were it any later there would surely be some mention of Bradsky's ill-fated dirigible which crashed on 13th October that year, or the celebrated Lebaudy “Le Jaune” which began making successful flights that November.

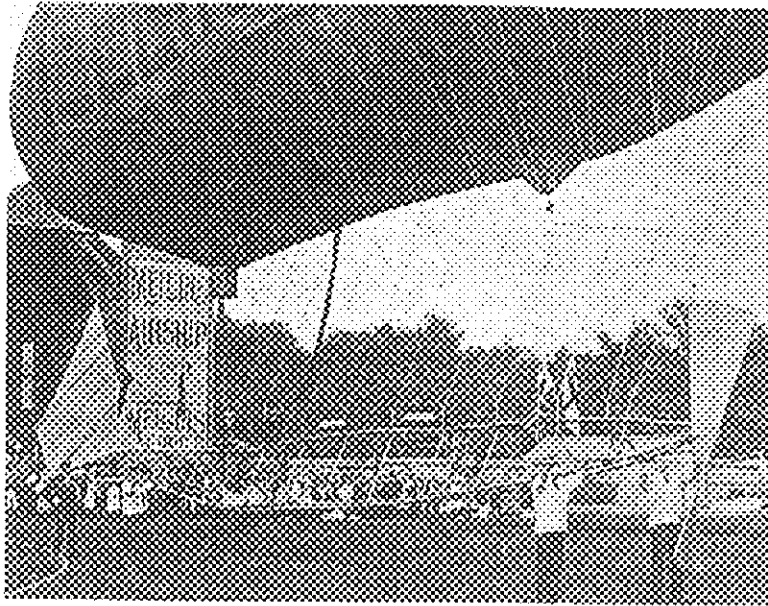
Now the problems begin - just what was the “Mellin's” airship? Stanley Spencer's airship No 1, which made the first successful dirigible flight in Great Britain in 1902, is traditionally thought of as the “Evening News” airship on account of a well-publicised picture; the larger No 2, which folded up on her first flight, was not built until 1903 and ended her days as a free balloon without an engine; then there was No 3 whose lack of speed meant she made only a few flights for exhibition purposes (including one campaigning for “Votes for Women”), and the last recorded Spencer dirigible is the “Bovril” airship of 1913 (see “*Dirigible*” Vol. V No 3 Autumn 1994, pages 8-9). First stop for Jean-Pierre was a 1915 publication by

William J. Claxton called “The Mastery of the Air” which, coming only twelve or so years after the events concerned, might be thought reliable. Not so, and it proves why errors often slip into airship literature. Mr. Claxton's information about Spencer's early airships just did not make sense - indeed, he seemed to attribute several ships to Spencer that were never built, let alone flown, and he had appeared to have trouble in deciding whether it was Spencer No 1 or No 2 (or Spencer “A” or Spencer “B”) that had two engines and one propeller, or one engine and two propellers, or any combination of the foregoing. He also stated that Spencer's famous flight took place in the autumn of 1903, a full year after it

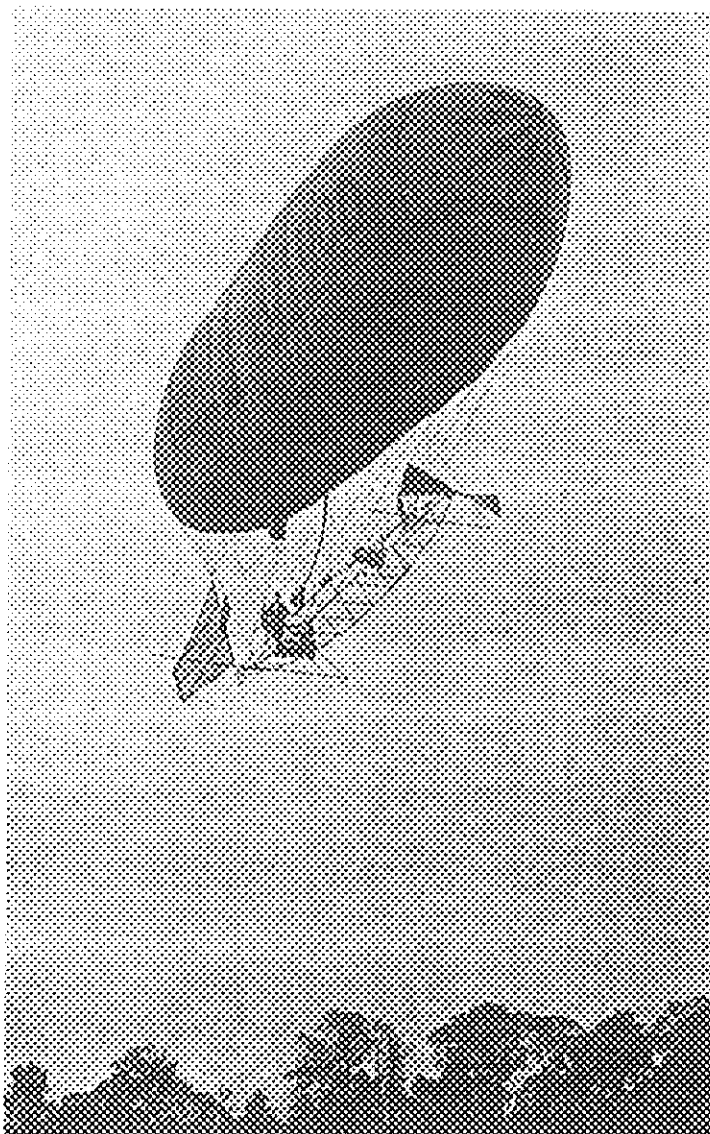
actually happened. Even a recently published book (“*Battlebags*” by Ces Mowthorpe, Alan Sutton 1995) is a bit vague about Spencer's airships, blurring the issue even more and, without good historical proof, suggests that there was in fact only one Spencer airship which appeared in a number of guises, rebuilds and enlargements from 1902 to 1908 - an incredible assertion given reliable pictorial and written evidence to the contrary. Mowthorpe also reproduces the “Evening News” photograph, giving it the caption “A Stanley Spencer airship taking off from Crystal Palace 22 September 1902”.



At this point in the story “*Dirigible*” got involved, and went to Lord Ventry's records of early British airships. Here, happily, we found the same photograph which had featured in “Das Neue Universum” showing “Mellin's Airship No 1” coming out of her shed at the Crystal Palace where, it was said, she had been built (starting a long and distinguished association between airships and the Crystal Palace). The writing on the shed in the photograph tells us that the airship was built for Mellin's Food Ltd and Ventry lists



[All illustrations from 'Das Neue Universum' of 1902 via J-P Lauwers]



Spencer's No 1 as having an alternative name of "Mellin". Built in 1902, she was (according to Ventry) 93ft long and 24ft in diameter with a volume of 30,000 cu.ft.; her motive power was a woefully inadequate Simms water-cooled petrol engine which developed 3.5 horsepower (about the same as Giffard's steam engine on his dirigible fifty years earlier!) driving a ten foot diameter tractor propeller through reduction gearing. She was of light construction, with her pilot travelling in a small balloon basket set in bamboo framework slung beneath the envelope. She carried two gallons of fuel, enough for two hours' duration. At 4.15 pm on 22nd September 1902 Spencer took off from Crystal Palace in her, intending to circle St. Paul's Cathedral and then return to Crystal Palace. Inadequate control and the underpowered engine meant that the little airship was unable to overcome the light southerly wind blowing at the time and, instead of circling the majestic dome of St. Paul's, Spencer found himself taking an erratic and probably quite hair-raising 30 mile journey over the roof-tops of Dulwich, Battersea, Victoria Bridge, Earls Court, Gunnersbury, Ealing, Acton and Greenford before making a safe descent at Eastcote 1 hour and 40 minutes later.

So where does that leave us with Stanley Spencer and Mellin's Airship No 1? "Dirigible" does not pretend that the conclusions reached after this detective work are definitive, but we see the most likely solution as this: Spencer's first airship was built for Mellin's Food Ltd to advertise their product, and it was in this guise that she made her epic flight over London. It is recorded that she then made further flights from Crystal Palace bearing the names of other sponsors, presumably including the "Evening News" in which guise she is usually depicted. Perhaps the final clue is that one of the photographs from "Das Neue Universum", which shows the "Mellin" airship airborne, is captioned "the first balloon *sic*/journey over London".

The Editor.

Aloft with a Lightship!

by

Nick Walmsley

Acting as technical advisor on a radio programme about Pulham Air Station gave NICK WALMSLEY the opportunity to realise a long-held ambition. At the risk of self-indulgence, the experience is recorded here to try and give readers who may not have been so lucky a flavour of what it is like to actually go aloft in an airship.

Stewart Orr, the producer behind a recent radio documentary about airships, and I had spent many hours interviewing people connected with airships, particularly in regard to Pulham Air Station in Norfolk; some wonderful archive material had been safely gathered in, but Stewart wondered just how we could make a dramatic finale to the documentary. What more fitting end for a feature called "Lighter Than Air" than achieving that state ourselves?

Thus it is that, having made contact with Virgin Lightships, and having been very carefully vetted to ensure that we are not just on a jolly, Stewart and I find ourselves descending a winding country lane at White Waltham in Berkshire on a very windy first day of August. In the distance we see a small bright blue airship, swinging to her mast at an alarming angle in the fresh breeze. She looks decidedly fragile. Bouncing round an airfield peri-track, and avoiding a potentially lethal Alsatian to gain admission, we amuse ourselves by watching some typical Aero Club flyers propping up the bar while, outside, the British aerobatic champion goes noisily through his paces and, inside again, the receptionist telephones the airship base on the far side of the airfield to say we have arrived. We had not got off to a promising start with the receptionist: "Haven't seen them today; are they expecting you?" Yes. "From Norfolk are you? Where's that then?" We smile politely, being used to persons who believe that all territory beyond the M25 is uncharted. At length, a large boisterous Land Rover comes hurtling across the airfield, and disgorges an equally large and boisterous young man, immaculately dressed in the style beloved of airline flight-deck crews. This is Richard Penney, the Crew Chief of Lightship A60+ N2022B 'November Bravo'; he, his ship and his crew are currently under contract to Philips, the Dutch electrical giant, which explains her bright blue envelope and her temporary name "Spirit of Eindhoven". Soon we are bowling across to the self-contained airship base occupying the far side of the airfield: it consists of a crew caravan, mobile workshop, helium trailer, a van, mini-bus and assorted Land Rovers, a short mast (with airship

attached) and a ground crew of eight. These last are preparing the airship for our flight, which is to be a short routine advertising flight over the heart of London: the engines are being run up, the red ballast shot-bags are lying ready in a heap by the foot of the mast, on top of which a boy with a fashionably floppy hairstyle is waiting to slip the pin and release November Bravo into her element. The ground crew are also in uniform: "Spirit of Eindhoven" Tour T-shirts, navy shorts, trainers or ankle boots; handsome, bronzed and disgracefully athletic, it is to be wondered at that none of the new style 'lad's mags' has yet done a centre-spread on airship ground crews. Stewart looks at them, and then looks at me, quizzically; clearly a mouth of interviewing airshipmen, ground crew and villagers mostly born at the end of Victoria's reign has equated airships with old age in his mind: "They're all so *young!*" So they are, but here is proof, if it were needed, that airships and airshipmen are alive and well, with all the attendant vigour and freshness of youth. We comment that the scene, apart from the advertising on the envelope and the cut of the ground crew's jibs, could be straight from Great War Pulham: an ageless scene recast in modern dress. Stewart beams: he is finally convinced that the airship *lives!*

The illusion is not shattered when our pilot arrives, dark and stocky, with the regulation shades and Spearmint of the professional aviator: one of that select band who wear distinctive 'LTA' wings on their breast, Captain Mike Nerandzic is an instantly likeable Australian with that deep sense of history, tradition and pioneering spirit that has set airshipmen apart in aeronautics from the very beginning; he wears the inherited mantle of the early coxswains easily, but with respect. Beginning his career as a fixed-wing commuter airline pilot in his native country, a chance internal company memo gave Mike the chance to switch to airships and, ten years on, he is now the Chief Pilot of the Lightship Group. He it was who took the first airship since "Norge" up to Norway, to film the Lillehammer Winter Olympics and, if you watched the Wembley-based football matches in Euro '96, he it was with 'the Mastercard Blimp' providing the aerial shots of the stadium.

The introductions over, we turn our attention to November Bravo herself. An A60+ Lightship, her type was developed by 'American Blimp', which explains her trans-Atlantic registration number. At 130ft long, 44ft high and 34ft wide, she is roughly the same size as a

Great War SS ship; she has a volume of 70,000 cu.ft of inert helium, and her two 68hp four-cylinder horizontally-opposed Limbach engines drive two fixed pitch propellers to give her a respectable maximum speed of 56mph. She can climb at 1600ft a minute but prefers to do it at 500ft a minute, can remain on station for 15 hours, and turn a complete 360 degree circle in only 750ft. She is known as a Lightship because her envelope can be illuminated from within, thus allowing her hull advertising or banner sites on the envelope to be read at night. Although she is currently in overall blue livery, November Bravo could have a custom hull worked in up to 32 translucent colours for clients, and her two banner sites are, at 90ft by 20ft, far bigger than most advertisement hoardings. In addition to advertising, she can carry gyro-stabilised broadcast cameras with a 360 degree field of view, and her quietness and lack of vibration means that she is ideal for carrying sensitive scientific and monitoring equipment. But to us, she just looks like a very friendly little airship: whoever, years ago, coined the phrase "There ain't nobody that don't love a blimp" got it just about right. We board via a mounting-block, a little like stepping into a well-sprung post-chaise. The gondola, a mere 14ft long by 5ft wide, looks very small from the outside, but is actually quite spacious: like Dr. Who's Tardis, the interior mass must exceed the exterior dimensions. Stewart spreads recording equipment and himself over the three-man bench seat in the back, and I do not need much encouragement to go up and 'sit next to the driver'. Buckle in, headsets on and adjusted - sit back and try not to look too excited. Richard the crew chief weighs the airship off for the first time. Her engines running, November Bravo champs impatiently at the mast, and two lads are stationed by the gondola to hold her steady: two more run out on each of the nose lines, and Richard stations himself between the gondola and the mast where the mast-headsman now slips the grappling pin, unbuckles his safety harness, and comes down to help with the ascent. Richard walks us from the mast, guiding us by a short guyrope, keeping her nose to wind and hand-signalling to the four boys out on the nose lines all the time: they are taking the strain to make sure that we do not run before the wind. Once well away from the mast, and Richard is happy that we are clear of obstacles, we come to a halt while the lines are slackened off and the gondola party lifts the ship. She is weighed off again - we are going to 'go heavy', and three shot-bags will compensate for loss of fuel and cooling of the helium during our journey - the gondola party is waved away and suddenly we are floating, a mass of four tons literally lighter than air; it is a feeling akin to being weightless in a lift. Clearance has been given by White Waltham for take-off and, as we shall be going into its airspace, London Heathrow has given us special clearance too. At Mike's signal, Richard points us a few degrees away from the mast just in case November Bravo wants to become re-acquainted with it as part of her take-off, and there is a

brief expectant pause. Time to go: signals are given - "All clear!" from the chief - the throttles are opened, and November Bravo leaps away as the gentle drone of her idling engines changes to a full-throated roar, ringing and reverberating up, up, up with that resonant hollow tone unique to an airship, her hull a gigantic sounding-board filling the sky with an echoing diapason. It is a fabulous noise, but she does shatter the sky with her din, so much as make the air quiver with her passing, and the lads down below will see us climb steeply and with such seemingly deliberate slowness that, although the resounding heat of her engines diminishes, yet she still seems to hang in the same place that they saw her two minutes before.

Up in the gondola it is remarkably noisy, and communication can only be made through the headsets. The ascent is very steep and breathtaking: November Bravo grinds up into the air, riding the buffeting of every gust; at the top of the ascent, just as Mike is levelling out and turning to port for a pass over the airfield, a rollicking forty knot gust hits us broadside. Now, there are people who will tell you that airships do not bank: they may turn on their mid point and their tails may go up, but they do not bank. November Bravo banked; she banked so completely that we were nearly on our beam ends with nothing but land through the port windows, frantic clouds in a subburst sky to starboard and a crazy horizon that defied gravity before us. But an airship acts like a pendulum around her gondola, and she soon regains equilibrium with a long slow curtsey, adjusts her skirts, and bimbles over the airfield across the freshening westerly wind at a respectable height with as much dignity as she can muster. At 500 feet Mike pauses for a wind-check: the rudder treadles (rather like those on a Fifties pedal-car) and elevator wheels each side of his seat keep him exercised better than any Nautilus machine as he brings her into wind for the hover - forward speed twenty knots and no forward progress over the ground so, therefore, the wind speed is twenty knots with higher gusts. The wind-check confirms his assumption: we shall be into London in no time at all and it will take us for ever and a day to get back. Stewart wonders if we really are lighter than air, or do the engines keep us up? To prove it, the engines are shut down and, as we do not plummet Icarus-like from the heavens, he becomes the latest enthusiastic convert to "lighter than air". Four tons of airship, totally weightless by dint of her helium, floating serenely in a wind-torn sky near Cliveden House. The engines come back to life and we turn towards the domes and towers of the City, clearly visible ahead.

November Bravo must follow an invisible highway in the sky, parallel to a helicopter route that in turn follows the M4: Heathrow calls in, concerned that we are not only an unwieldy craft in this wind but are also straying from our allotted course, which we are not. As we make our stately progress through and around the airspace the airship

becomes a majestic Queen of the Air, granting audiences intermittently to Heathrow, Northolt and City Airport as she goes, and her unique status is apparent: whilst all other air traffic is called up in lengthy codes and callsigns, Northolt raises us with a cheery "Hullo airship...!" - but woe betide the air traffic controller who tries to be overfamiliar by calling her serene highness a 'blimp'!

Over the suburbs we must rise to 1250 feet before flying across the City: we pass close to Wormwood Scrubs, cradle of the RNAS Airship Service where M. Clement brought his airship down in 1910 after her epic Channel flight, and that distant ridge is where the Crystal Palace stood, with its shades of Stanley Spencer's part-controlled dash over the rooftops 8 years earlier. Before we know it we are above Lord's, where there is a cricket match in progress, and we learn later that we have made an unscheduled appearance on national radio by throwing our 130 foot shadow straight down the wicket, much to the annoyance of the commentator: he is one of the few that don't love a blimp. Inscribing graceful circles above the City, November Bravo must tiptoe between Buckingham Palace and Kensington Palace since both are restricted zones, and they do not look far apart at this height. The Albert Hall, looking for all the world like a medium sized hat-box, slips by to starboard as we cross into Kensington, and remember that somewhere down there, 180 years ago, two Swiss gunsmiths built a 'Flying Dolphin' in a shed and, like all men ahead of their time, were ridiculed: our presence today vindicates their vision. The museums and the Oratory at Brompton seem so small, yet so perfect and pin-sharp in detail, that we see why the airship makes the perfect stable surveillance platform; every last detail of people going about their lawful (or unlawful) business is observed effortlessly, even down to the host of tourist cameras that are suddenly pointed at us as we traverse the White Tower. A sudden steep descent makes Tower Bridge jump up at the windscreen: rising again, a quick glance over the shoulder confirms St. Paul's Cathedral to be hemmed in by threatening office blocks on every side and, as we hover above the Palace of Westminster, the sight of the thick, pale coffee-coloured Thames flowing below its terraces comes as something of a shock. Now we are in the airspace of London's City Airport, and their air traffic control in Battersea gives us a new heading, using the bridges spanning the river ahead as landmarks. It is simple to check our course: put November Bravo into wind and spread the map out on her dashboard! We decide where we are supposed to go, and head out over Hammersmith towards White Waltham.

It is a slow return trip. November Bravo rides the swell of the head-wind with a gently undulating motion, like a little boat lapping on long slow waves. Ahead, her handling lines swing hypnotically from side to side. A great white 747 drifts silently by on our port bow,

probably two miles distant. In the gondola, conversation ceases, and it is hard to keep awake, rocked as we are in the clouds. As Mike says, she is truly an air ship, riding the ridges and troughs of turbulence like a yacht; she does not cut through the corrugations like a speedboat, which heavier-than-air-craft do, and this is why an aeroplane is so very uncomfortable in turbulent air. An airship rides the humps so that you do not notice them: she is at one with her environment, part of it as she floats in the air, and she does not impose herself rudely upon the sky as a fast jet might. It is one of the most soothing ways to travel... except, perhaps, for Mike who still has his hands and feet fully occupied to keep us on course in the stiff westerly. Northolt breaks in, telling us to hold our position east of their runway while a fixed-wing aeroplane takes off. Obediently we go into the hover and patiently watch the tiny white aircraft get ready for its run-up below us; then suddenly it is gone, floating away over the treetops like some minute gull over a rich green sea. Hypnotic, quick slender white wings on a green ground - we snap out of the reverie as November Bravo drops a curtsy to Northolt's tower and continues homeward.

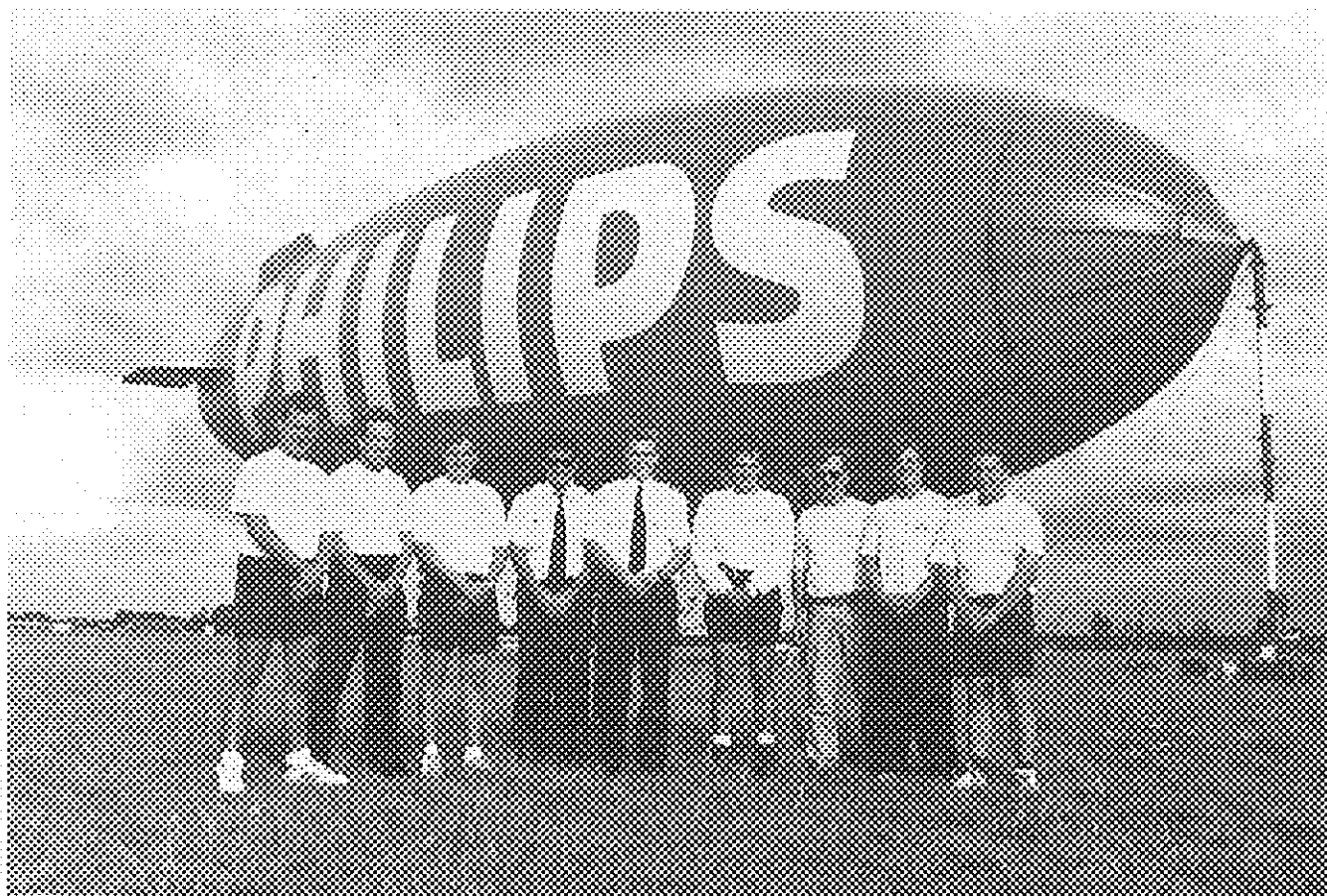
Mike has been in radio contact with Richard for the entire trip, and now he asks for the landing conditions at White Waltham. Even though the airfield has been in sight for some time, the wind has freshened and veered slightly, so he gives our c.t.a. as being some fifteen minutes hence. This will give the ground crew time to muster: they will have done odd bits of maintenance, gone back to the Club House, sat and talked in the caravan, soaked up the sun, or run around after a ball while we have been away. If levels of fitness and bronzing are anything to go by, such a life suits them, but it is a nomadic existence, staying under canvas or in hotels: White Waltham this week, the Paris Air Show in McDonnell-Douglas' colours next; earlier in the summer it was Holland and Germany. There is not much mixing of crews, and most stay with the airship to which they are assigned: this builds up the close team spirit essential for handling an airship and, naturally, there is some rivalry between individual crews. As with all close-knit groups, an outsider must work hard to be accepted, but November Bravo's crew are as pleasant a bunch of lads as you could wish to meet, a credit to the Lightship Group and to the Airship Service in whose steps they have followed. Matt, the mast-headsman with the floppy cowlick, is nineteen and the youngest in the crew; like most of the others, he is a Shropshire Lad, for Virgin believe in recruiting near their HQ in Telford: it makes for good Public Relations. He enjoys being on an airship crew, and has found that you can join the Lightship Group and see most of the world.

As November Bravo dips her nose towards the airfield, the boys adopt the classic 'V' formation to receive her. Mike works overtime with the rudder treadles and the elevator wheels, somehow finding spare hands for the

ballonet controls and the valving toggles above his head on the port side of the gondola, whilst ensuring that she also points directly at the throat of the 'V'. The trailropes are on the ground now and the linemen grab them and run away from the airship at 45 degrees to left and right, a drill that has not changed since the Great War. She bounces once or twice and the gondola party comes running. As she comes to a halt, with engines still roaring and audibly complaining that the earth is not her preferred element, the gondola door flies open and a crewman sticks his head in: "Now gentlemen, quickly if you please: run towards the mast in case the wind swings her round; quickly, sir!" We dismount, reeling a little like sailors after a long sea-voyage, but we make it to the mast. The headsman goes up the mast like a monkey up a stick and November Bravo, with Mike still flying her on the ground to give his ground crew all the help he can in the rising gale, lumbers forward, wagging her elevators and looking like nothing so much as a circus elephant; the mooring is done with a minimum of fuss and the retaining pin is slipped home. Now she will be able to

swing safely with the wind and may even, in unusual circumstances, perform a nose stand without damage. The abrupt silence as her engines are cut is almost deafening in itself. Three and a quarter hours after take off - the time it takes a modern medium-haul airliner to fly from Heathrow to Malta - the little airship is home again. The whole landing drill has been done in around two minutes and now the ground crew make everything secure for the night. We take one last look at her before we adjourn to the Aero Club for a celebratory drink with the crew, and November Bravo is left to weathercock around the mast to her heart's content.

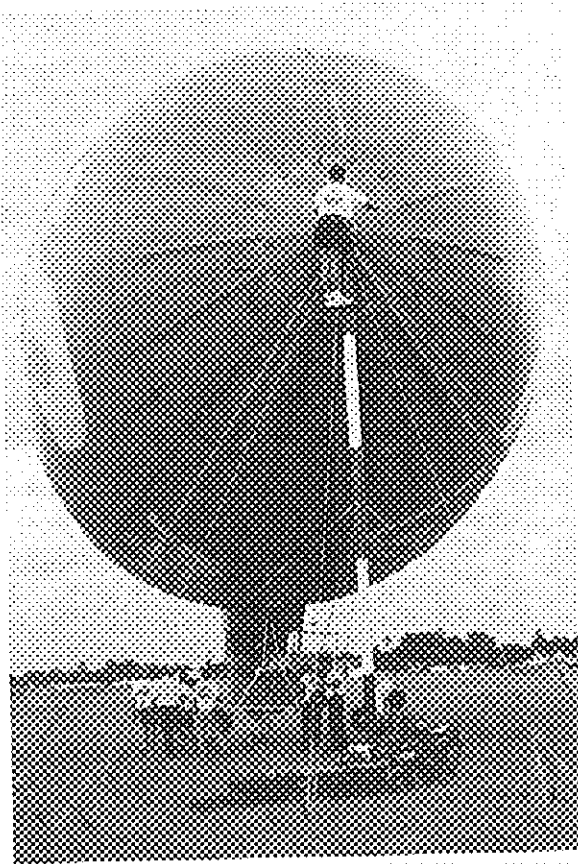
(The author would like to thank Myles Kendrick of the Lightship Group, Phillips, Capt. Mike Nerandzic, Crew Chief Richard Penney and the crew of November Bravo. This issue of "Dirigible" is respectfully dedicated to them for maintaining the old traditions and for their efforts in keeping the airship in the public eye.)



The crew of 'November Bravo' seen with their lively charge against the gathering storm at White Waltham airfield, Berkshire, on August 1st 1996. The Senior Pilot of the Lightship Group, Capt. Mike Nerandzic, is fourth from the left; Crew Chief Richard Penney stands beside him in the centre of the group.

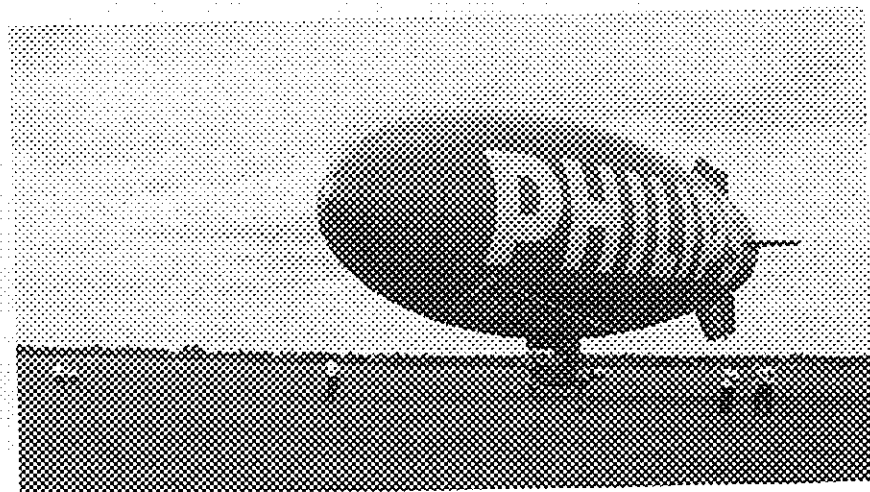
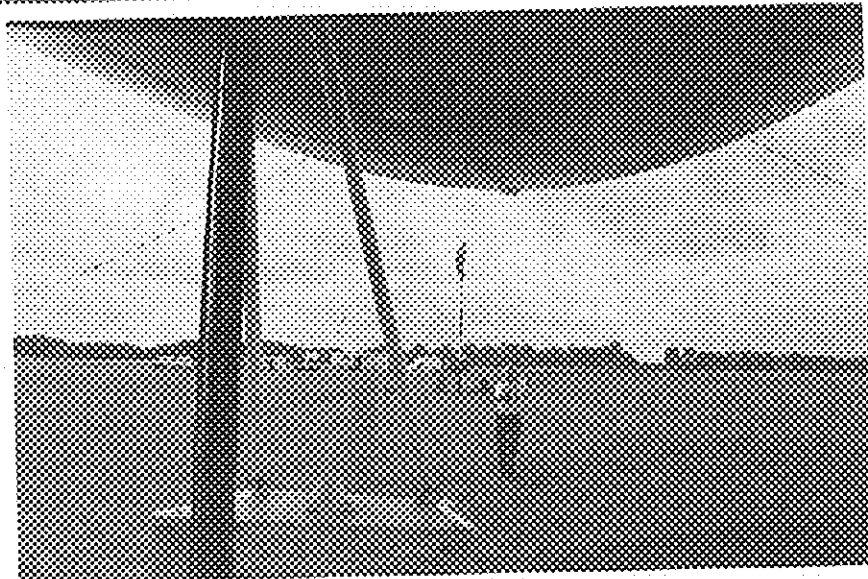
Lightship Operations

Left: Preparations for flight or, in this case, mastng again after a flight.



Centre below: November Bravo has come off the mast nose to wind and the crew chief (centre of the picture) is guiding her away from the mast and signalling to the two crew on each nose line to prevent her running before the wind; the airship base and vehicles are in the background. Note the precarious position of the mast headsman after the airship has left him!

Bottom: A distant view of the same thing, with two crew on each line, the gondola party in place and the crew chief directing operations. Only seven crew are visible; the mast headsman hasn't come down to assist yet. The same drill will be carried out in reverse when the ship lands.



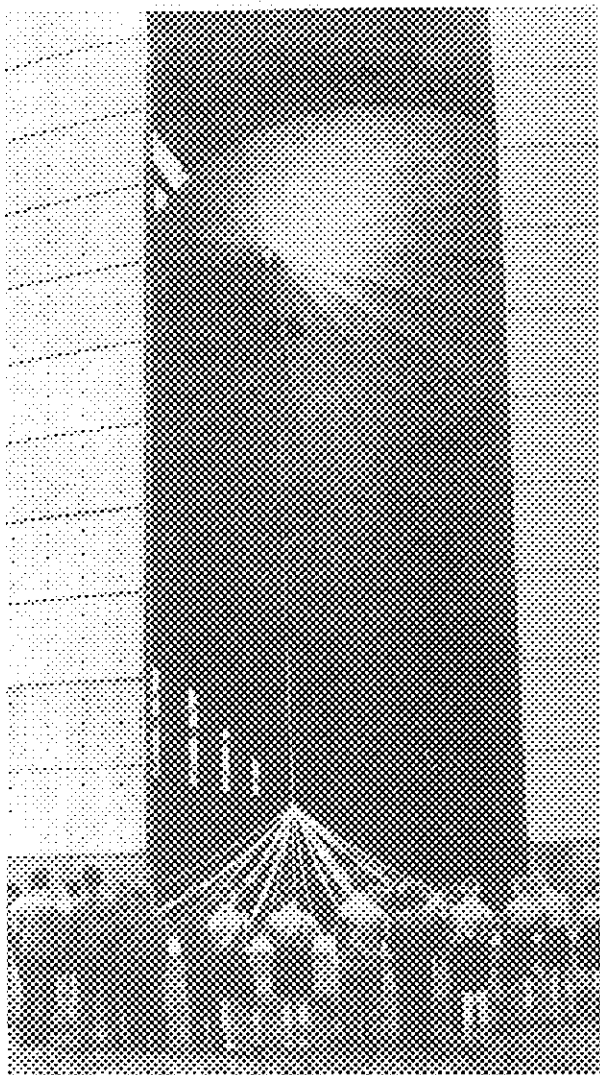


Left: Wind check over Maidenhead; as can be readily appreciated, the field of vision from a Lightship is superb. The white framework is the mounting for the gyro-stabilised camera. Note the hypnotic lines dangling from the nose.

Centre: The Square Mile of the City, with St Paul's Cathedral threatened by office blocks, photographed leaning out of the gondola at 1250 feet!

Bottom: November Bravo returns to White Waltham with some dirty weather coming up behind: the pilot has placed the lines into the throat of the 'V' formed by the ground crew, who run to take them.





Above: "Luftschiff Marsch!" Preparations for her first flight from Friedrichshafen at 07.00 hrs on 14.9.38.

Below: Landing at Lowenthal 14.9.38



LZ 130 Graf Zeppelin

Evocative pictures of the last great commercial airship taken from the new book by Manfred Bauer and John Duggan reviewed in 'For Your Bookshelf' opposite.



Above: LZ 130 over Zeppelindorf on 14.9.38

Below: Landing at Kassel, July 1939.



For Your Bookshelf

"LZ 130 Graf Zeppelin and the End of Commercial Airship Travel" by Manfred Bauer and John Duggan: publ. by the Zeppelin-Museum Friedrichshafen 1996. Pbk., 216 pages, 70 b/w photographs. £12.50 plus £2 p+p from John Duggan, 55 Thornhill Road, Ickenham, Middx. UB10 8SQ. (Main stockist is the Zeppelin-Museum).

We would rarely describe a book as indispensable, but this is just that, for it fills one of the largest vacuums in airship literature - it is the definitive history of the last great commercial airship, LZ 130 "Graf Zeppelin".

A priest friend, a man of great learning and intellect, once admitted to me that he loved Wagner's music... but listened to it with that sense of guilt found whilst indulging forbidden pleasures! Something similar surrounds LZ 130 - she has become the inflated symbol of Nazi propaganda and, though we are secretly fascinated by her, there is a feeling that we should not be! The association is unjust because most of the airshipmen did not care for the Nazi party and its methods: only the personal intervention of President Hindenburg saved Dr. Eckener when he dared to face up to Adolf Hitler regarding the imposition of the *lockenkrenz* on his ships. As a result, Eckener was relieved of his duties, and his airships became the toys of the Reich.

Perhaps it is no coincidence that an early monograph on LZ 130 was written by a Jewish author some twenty years ago, when the airship herself was still the subject of wild rumours in Britain. These have now been corrected by Bauer and Duggan. Chief amongst them is the exploit for which she is most remembered: the so-called 'Spy Flight' around the east coast of the British Isles on August 2-5 1939. For the first time we can now read the true story, taken from official documents in both Britain and Germany. No, she was *not* intercepted by a squadron of Spitfires - the less romantic fact is that she was investigated by an Avro Anson and a Miles Magister from the Station Flight at RAF Dyce! Yes, she *was* trying to discover the British Chain Home Radar system, but failed: one of the CH radar plotters gleefully said "I can see the cat, but she can't see me!" If her surveillance equipment *had* discovered the British radar network then the outcome of the Battle of Britain would have been very different. As it was, the radio technicians on board her only picked up heavy interference, now known to have been caused by German stations using the same waveband as the British system - some own goal!

But this book is much more than the debunking of popular legend. The building of LZ 130, contemporary commercial airship operation in Germany after the "Hindenburg" disaster, problems in obtaining helium and experiments with the gas at Frankfurt (LZ 130 was designed to take helium) are all covered. Every flight made is described in full, using contemporary accounts

where possible; many of the unique photographs in the book were taken on these 'publicity' and mail flights.

The conclusion of the book, appropriately headed "Gottterdammerung", is the astonishing account by Luftschiffkapitan Max Pruss of the 'Day of the Luftwaffe' when Generalfeldmarschall Goering came to see LZ 130; and Buerle's 'war diary' chronicling the destruction of LZ 130, LZ 127 and their sheds. It makes for heartbreaking reading, and one senses the total impotence of the airshipmen against the might of the German High Command. If anyone doubts that Goering was ignorant, vain, and bigoted, here is proof of it in abundance. Having 'rubbished' everything he saw, the only highlight of the visit for him was to be photographed leaning out of the gondola window of LZ 130. Goering, with a cruel sense of irony, had the Frankfurt airship sheds blasted on the third anniversary of the "Hindenburg" disaster.

The product of years of research, this is one of the most meticulous and fascinating airship books to have appeared in recent years. It is the "Editor's Choice" of 1996.

"When the 'Chute went Up'" by Dolly Shepherd: publ. by Skyline 1996; hardback, 183 pages, 40 b/w photographs and drawings. From Skyline Publishing, Chapel End, Littleworth, Amberley, Stroud, Glos GL5 5AL. at £8.95 plus £2 p+p.

Subtitled "Adventures of a Pioneer Lady Parachutist" this revised edition of Dolly Shepherd's 1984 autobiography is attractively presented and delightful, easy reading it is too, with humour and interesting insight about what it was like to jump out of balloons for a living. For a fee of £2 10s. the seventeen-year-old Dolly made her first jump from a gas balloon at 2,000 feet, and by 1904 she was thrilling crowds throughout Britain. For eight years she toured the country, hooked on the excitement, the adulation of the crowds, and the VIP treatment. Her courage and daring were unbounded and pulled her back to parachuting after sustaining serious injuries during the first ever mid-air rescue. She had many close shaves, including one when she was saved by a quick-thinking railway engine driver; seeing Dolly descending in the path of his locomotive, he opened the throttle wide and the resulting blast of smoke and hot air lifted her parachute sufficiently to allow the train to pass before she came down on the rails. She ended her career abruptly when an ethereal 'voice' warned her not to jump again. She served as a WAAC driver-mechanic on the Western Front during the Great War, and as a Fire Service Volunteer and Shelter Officer in the Second World War. In her later years Dolly enjoyed a happy relationship with the RAF's Red Devils, and she died just short of her 97th birthday, within a few days of putting the final touches to this remarkable autobiography.

Mr. R. Bance 1898 - 1996

It is with great regret that we have learnt of the death of Mr Bance last July at the age of 98. His exploits in the airship service, which he joined at Crystal Palace in 1916, were legendary, and formed the basis of an article in "Dirigible" Vol V No 3 (Autumn 1994). Initially flying from Cranwell, he survived a near collision with Lincoln Cathedral in a SS airship, and a 'vertical suspension' in the car of SS31 when all her aft suspension lines to the car were severed in a mooring accident. The non-arrival of a Daily Order at the remote Airship Wing baffling personnel from the Cranwell parade ground because it was to be used for drilling a new intake of recruits led to him being carpeted when taking two large trays of baked beans balanced on a motorcycle-sidecar combination from the Mess Deck to the two-mile distant Airship Wing. Crossing the parade ground in all innocence, he succeeded in collecting the Sergeant Major (in charge of drilling the 1500 new recruits) on the front of the sidecar, and transferred him through both trays of beans before depositing him over the rear of the combination. Because the Order did not reach the Airship Wing the case was dismissed but, as Bance put it, '...the Sergeant Major did not forget.' After joining the crew of R33 as engineer in charge of the aft power unit, he left for Daimler Airways as their Chief Inspector when British Airship policy 'faded' in the early 20's; transferring to the Bristol Aeroplane Company, he qualified as an Examiner with the Aeronautical Inspection Directorate, but returned to airships as Chief Examiner for the testing of the Beardmore 'Tornado' engines for R101.

After the British Airship Programme was finally wound up he worked with all the top aircraft manufacturers in the country, finishing his career at Hawker-Siddeley as Inspector-in-Charge AID (with five inspectors under him) where his work spanned a period from the production of the Hurricane, through the Sea Fury and Sea Hawk to the design of the Harrier jump-jet. After 40 years in AID, he was always happy to think he had qualified on airships.

We extend our condolences to his family.

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UK Members £15 p.a. (£14 if paying by Standing Order); UK Senior Citizens £12 p.a. (£11 by Standing Order) Overseas Members £20 (£18 by Standing Order).

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DIRIGIBLE is the journal of the Airship and Balloon Museum and is published by the Airship Heritage Trust. It is published quarterly and distributed free to all members of the Trust and, through our close associations, to the Friends of the British Balloon Museum and Library.

The objects of the Airship Heritage Trust are to foster and promote the study of the history of airships in every aspect and to present the results of such study to the public; to stimulate public interest in the role of Cardington as an airship base and in the conservation of the principle buildings thereof, and in particular to promote and assist in the formation and operation of a national museum and study centre devoted to the airship.

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'DIRIGIBLE' (AHT House Journal)

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Tel: 01603 782758 (Fax: 01603 781011)

Published by The Airship Heritage Trust (incorporating FOCAS), AHT Office, RAF Museum FC, RAF Cardington, Bedford MK42 0TH, UK.

Tel: 01234 742710 (mornings only)

Registered Office of the Trust is situated at 4 Goldington Road Bedford MK40 3NF

Registered in England:

No 2104081

The Airship Heritage Trust (incorporating FOCAS) is a Registered Charity.

No 206398