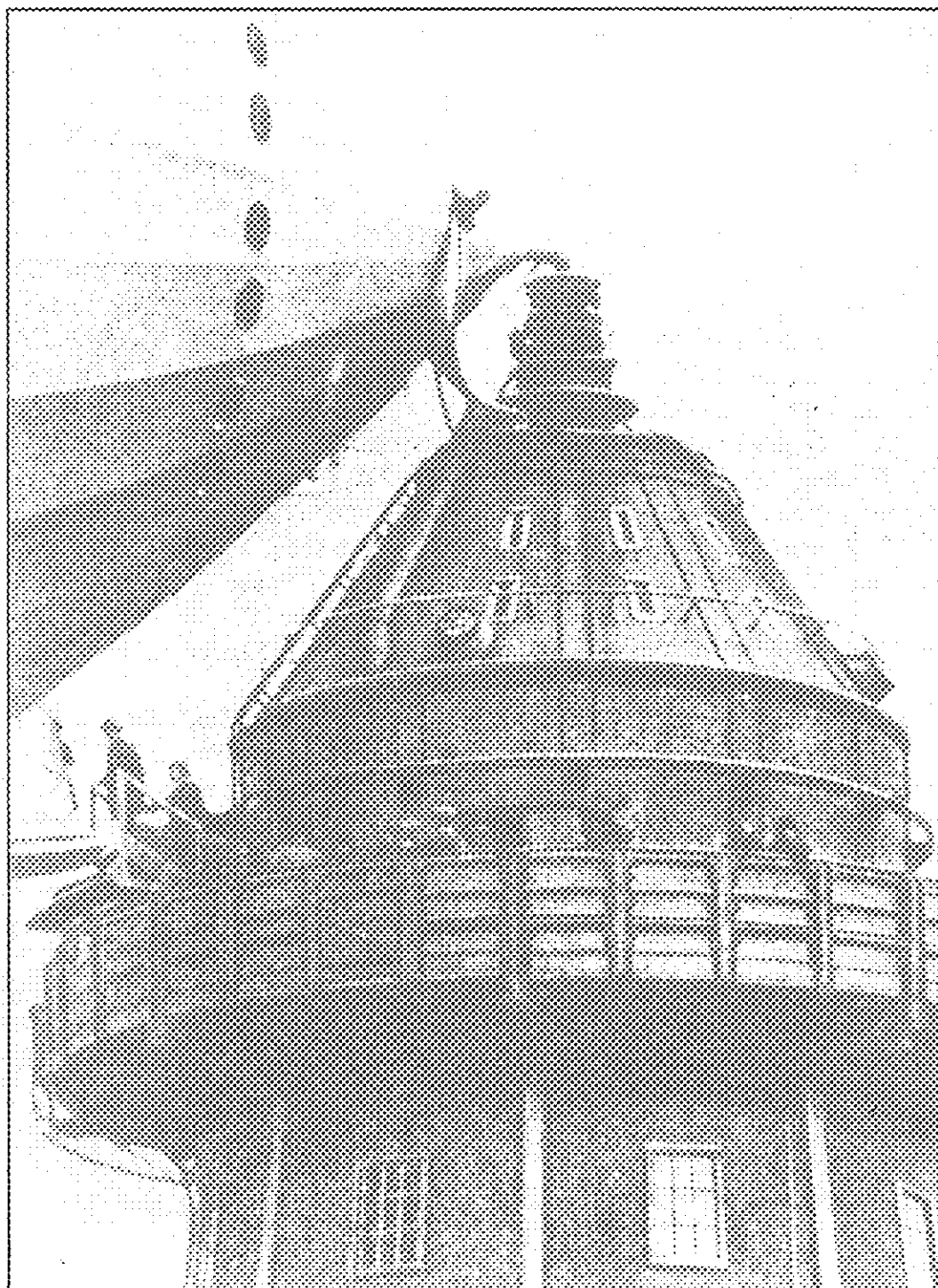


# DIRIGIBLE

THE JOURNAL OF THE AIRSHIP & BALLOON MUSEUM

PUBLISHED BY THE AIRSHIP HERITAGE TRUST (Formerly FOCAS) VOL. VIII No.2 - Summer 1997

This Journal is free to Members of AHT (FOCAS); other copies £2.50



# News from Cardington

## The AHT Museum Strategy and Concept Document

The Chairman's Report from the Annual General Meeting treated these vital matters in great depth. As the Report contains matters of paramount import to our Members, we are reproducing the text in full.

'Might I first thank our President Sir Peter Masefield for his continued support to AHT and congratulate him on reaching his 83rd year. May he and Lady Masefield continue to enjoy a full, happy and healthy life. We are more than grateful to him for his advice, particularly in matters appertaining to AHT.

'Lighter-than-air craft are fast coming to the fore again. Predictions, based on sound informations and projections, suggest that 1,000 airships could be built in the next decade. This is startling news, and proves that AHT must get the Museum open at the earliest opportunity to present to the Public the history of lighter-than-air craft, linking it with modern developments.

'The Feasibility Study (treated at length at the 1996 AGM) has been used as a platform to prepare an application to the National Heritage Lottery Fund for £100,000 to pay for work that can only be done by professionals (structural survey of No1 Shed for example). This work is an essential precursor for the submission of the full bid to the Lottery, which will be in the region of £12M-£15M, to purchase and renovate the Shed, and build a National Airship and Balloon Museum inside it. Peter Garth has put in an incredible amount of work, writing papers, calling and attending meetings with Borough and County Councils, Airship Technologies (Inc.), English Partnerships and Cardington Properties. This work has resulted

in the following actions:

1. The formation of a Steering Group from all interested parties, which then engaged Stephen Clarke, head of the Heritage Department from City firm Moore Stephens. Stephen is very experienced in supervising the presentation of bids to the Lottery (his department has some 40 in hand at present!). A team comprising Peter Garth, Tony Lindsay, Norman Pritchard and myself have had several meetings with Stephen Clarke to plan the strategy.

2. The result of these meetings has been the creation of a special paper called the Concept Document which is being submitted to the Lottery to seek the grant of £100,000 already mentioned. This Concept Document is supported and illustrated by a short video narrated by Anthony Smith. The cost of Stephen Clarke's advice and the professional making of the video has been met by a generous grant of £10,000 from the County Council, whom I would like to thank for their continued support of the Museum Project and to pay a warm tribute to the work of Peter Ashworth, Team Leader of the County Council's Economic Development Department on AHT's behalf during this last year.

'We understand that it will take about four months to process our initial application. If successful, we hope to carry out the additional work needed to meet the requirements of the full submission which include a comprehensive business plan and a competition to for a full design study for the Museum in another 6-8 months.

'This is a precis of what has been a most arduous, testing and, at times, frustrating period with regard to the Lottery funding. We have done our best to leave no stone unturned in furthering our cause and I would, personally, like to thank all those concerned for their support, diligence and application during a

most trying year.

'The plan for No1 Shed is not only to house our Museum, but to share the building with another activity that would be a source of income as well as of further interest to the public. It was mentioned the Airship Technologies (Inc.) had expressed an interest in utilising space in the Shed, and at this time I am informed that they are leasing an area of the Shed to manufacture gondolas for their new airships which are, currently, designed in Bedford, but built in the USA. One of their most recent airships covered the Olympic Games in Atlanta, and their interest in using the Shed can only be good as far as AHT is concerned and, hopefully, the shape of bigger things to come.' (The Chairman then took questions from the floor concerning the Museum Project.)

'Membership holds steady, though we missed the impetus of an Open day in No2 Shed last September. BRE did not open it to the public for domestic reasons, but we hope that such Open days will be implemented once more to enable people to enjoy the magnificence of such a vast building! To date we have some 326 members and my thanks go to Norman Pritchard for his continued support in keeping track of members. Since January, the Associate Membership was dispensed with and a single level of membership and subscription rate introduced. There are however, still some members who have overlooked the increases and I would ask them to adjust their subscriptions or Standing Orders as soon as possible for, as in all organisations, overheads continue to increase on a regular basis.

'We continue with acquisitions for the Collection, and my thanks go to Den Burchmore, our Honorary Curator, for the hard work that he puts into receiving, arranging, acknowledging, registering and accessioning the artefacts; he has been assisted by two of our stalwart members, Mr and Mrs Neaverson, to whom we are grateful. Among recent acquisitions this year have been a bunk bed from R100, a section of girder from LZ127, and George Ambridge's splendid model of R101 coming out of the Shed [News, "Dirigible" Vol.VIII No.1]. George regularly supplies excellent models for which we are most grateful.

'Regarding activities, chief amongst these was the AHT party which visited the Friedrichshafen for the opening of the Zeppelin Museum early in July 1996; it is not necessary for me to go into details as the trip was so well reported in "Dirigible": suffice to say it was a great success thanks to Mr Udo Herrmann and Mr Heiko Hiemer who not only organised the whole stay in Friedrichshafen, but the transits to and from Zurich as well. The event did a lot of good to cement relations between our organisations.

'AHT was also instrumental in entertaining 115 delegates from 15 countries at Cardington on 7th July 1996 in conjunction with the Airship Association which held a LTA Symposium at the County Hotel, Bedford. The Friday evening, Saturday and Sunday morning were taken up with the presentation of various papers; our Vice President, Jarvis Frith, did in fact chair a session including two historical papers - the first "The first Overseas Voyage and Final Flight Pattern of HMA R101" presented by our own Sir Peter Masfield and Prof. Alan Simpson (also an AHT member); the second "R33 - Pride of Britain's Airship Fleet" by Andrew Simpson of the RAF Museum. History was thus well represented at this type of symposium which consists mainly of modern airship technology and development. On Sunday afternoon, delegates visited our Display Rooms, lunch, a forum on ground-handling and control of airships, a visit to No.2 Shed and were able to enjoy the flying of a Lightship piloted by AHT member Paul Adams, who was good enough to give short trips to many visitors. A most successful day, thanks to all AHT members who kindly gave of their time to make it so.' (The Chairman then spoke of the BBML Inflation Day on 15th February which was fully covered in "Dirigible" Vol.VIII No.1).

'I must emphasise that the onus for success in such events depends on a very small band of willing volunteers - of which we need more to spread the load, and to encourage participation in more events. I appeal to all Members to offer their help if at all possible by contacting myself, Den, Peter, or any Council member. Many hands make light work and we

certainly need more help, especially in the Bedford area.

'Our Journal "Dirigible" continues to prosper under the ever-watchful eye of our Editor Nick Walmsley: to put together four issues a year is no mean task and the feed-back that I receive from members with the interest that Nick constantly creates, only goes to prove what a splendid magazine we have, now circulated to 12 countries. I must also offer our thanks to Nick's parents, Mr and Mrs Walmsley, coerced by him into helping with the circulation as well as being unpaid secretaries when he is absent.

'Once again our thanks and appreciation go to RAF Cardington and the RAF Museum for their continued assistance, use of facilities and support for what has rapidly become a landmark in the preservation of lighter-than-air history. To the Rope trust and to our Patron Mrs Doreen Rope, our sincere thanks for steadfast support and generosity throughout so many years. We owe a debt of gratitude to this family whose continued encouragement for the last 12 years has been the cornerstone of our determination to establish our Museum. May one hope that this enormous venture will come to fruition soon.

'To the whole of my Council a big thank-you for the tremendous support which I continue to receive. One can get despondent about progress but I find that, having attended Council, batteries are recharged by the enthusiasm shown and for that I do thank you and hope that you can see your way clear to continue your support for the AHT.

'Regarding the future, we cannot forecast it accurately as there are so many unknown factors which could play on it. Suffice to say that your Council will continue to apply itself assiduously to see a lighter-than-air Museum become part of the nation's as well as Cardington's heritage in order that we can initiate and preserve a permanent memorial to those early pioneers of lighter-than-air flight.'

*Ted Greenstreet*

## 1997 Annual General Meeting

This year the AGM was held on a Saturday, a change imposed on us because of new limitations on available parking space during the working week. The reduction in numbers of Members attending may be due to the change to a Saturday; perhaps you could let us know if this was so in your case?

Very regrettably Sir Peter Masefield could not be with us due to a back injury, but sent a very warm letter wishing the meeting well. Following a very pleasant buffet lunch and the chance to chat to old friends and make new ones, our Chairman sent best wishes to Sir Peter for a speedy recovery and then gave his report (above), during which the short video commissioned by AHT to support the Heritage Lottery Bid was shown and acclaimed by members. Following acceptance of the Accounts and the re-election of Council members, members spent time looking at a display of latest acquisitions to the Collection, arranged by Dennis Burchmore. Meanwhile Alastair Lawson was busy with books, pens and mugs on the Sales table - always a popular feature at events.

Although attendance was disappointing at the AGM, those who did come enjoyed the day. In the future, to make the event more attractive, we hope to have a speaker on a topical LTA subject after the formal business has been concluded to entertain and inform members attending... hope to see you there!

*PAG*

## "Dirigible" Matters

Various circumstances beyond our control - including the switching of computer systems and programmes (which has been an absolute pain!), unexpected developments within the AHT Council and, regrettably, the state of the Editor's Health - have meant that the 1997 publishing schedule has been severely disrupted, and for this we extend our unreserved apologies to the Readership. The next edition of "Dirigible" will appear at the end of October and will, hopefully be on an even keel again in 1998. The Journal

has hitherto been financed entirely from Members' Subscriptions but, as part of the 'unexpected developments', the AHT Council proposes a radical departure and is actively seeking sponsorship for separate issues of "Dirigible". Any Member, or Corporate body within the LTA sphere, who feels able to sponsor either a whole or part run of the Journal is warmly invited to contact the Council or the Editor! We assure you that this will not mean the Journal will become filled with advertisements, but sponsors will doubtless gain an appreciative worldwide audience by supporting the Journal... and know that they are assisting the preservation of LTA history at the same time.

## News from Allonne

The trials of M. Laurent Wattebled's R-101 Museum in Beauvais continue. After a gallant fight against what looked suspiciously like boorish indifference from the French Tourist Board, and having put a substantial amount of his own capital into the project to clear mounting debts, M. Wattebled has at last received a small grant from Beauvais Town Hall to cover the tax on the Museum building; his Association staged a "Symbolic Franc" money-raising weekend which 85 people attended, but neither the Mayor nor his deputy were in evidence. So M. Wattebled took a heart-wrenching decision and sold some of the Museum archives to a private collector in the Channel Islands, whereupon the French authorities sat up and said it was shameful that the collection should go to "England" - the memory of the Hundred Years' War has not been forgotten in Beauvais, it seems. But such fine words do not winkle escargots out their shells, and M. Wattebled has not yet received any more tangible help from his mairie, though he is exploring the possibility of moving the Museum to the first floor of a the Tourist Board itself housed, as one would expect, in splendid building located centrally in Beauvais. He remains sanguine about the whole thing - especially when the amount needed to put the Museum on such a firm footing is the equivalent to that which Beauvais Town Council gives to their

Football team over two seasons! The AHT has provided moral support throughout, and maintains close contact. The Musée Souvenir du R-101 remains open on a pro tempore basis, and we will bring you news of further developments as they become apparent. If you can't get to the Museum (which you can on a Eurostar day-trip, incidentally), do please write and give him some support: it is a great encouragement to the Museum to know that it has friends on this side of the Channel.

## TCOM re-open Weeksville Hangar

One of only nine remaining US blimp hangars built in the Second World War returned to its original use at the end of June when TCOM took over Air Dock No.1 at Weeksville in North Carolina to begin manufacturing and maintaining airships and tethered aerostats. Air Dock No. 2 was burned to the ground nearly two years ago, depriving TCOM of a manufacturing base; but they bought the first hangar in 1996, refurbished it, and returned to its original use in a move that has been hailed as a very exciting one for the local community. The first problem they faced was getting into the building: the 500-ton doors had been welded shut by the last owner in the 1960's, thinking that they would never need to be opened again! TCOM's President, Dave Barlow praised the dedication of his employees and the willingness of the community in bringing blimps back to Weeksville after the devastating fire which destroyed the largest wooden structure in the world. At 958ft by 289ft, Air Dock No.1 is the same length as the QEII liner and three times as wide: 120 tennis matches could be played simultaneously on its floorspace. Built in 1942 in less than six months, it originally housed six K-Ship blimps which played a key role in anti-submarine activities during the Battle of the Atlantic; the US Navy closed the base 15 years later.

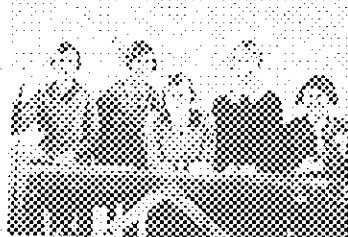
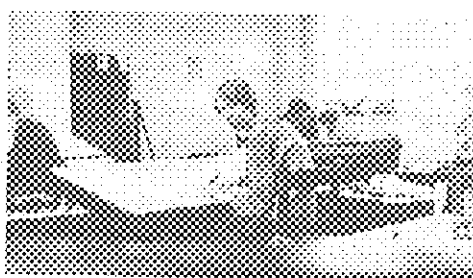
# DIRIGIBLE

# DITTY-BAG

In old Royal Navy parlance (now referred to as "Jackspeak"!), a sailor's **ditty-bag** was where he kept his needle and thread - and all the other useful little things that didn't really fit in anywhere else. Our Ditty-Bag will be an occasional column that gathers up all the useful snippets which our readers very kindly send in which might not make articles on their own, do not fit into any particular category, but are still very much of interest.

## RAW Tracing Office Staff

From AHT member **Michael Stoodley** came some interesting photographs recently unearthed by his mother **Bertha** who worked on R101 in the tracing office at the Royal Airship Works in 1929: she is the solitary figure at the drawing board in the view below. In addition to the tracing office there is a view of the Mast and the 'RAW Golf Club' [both reproduced on the back cover] seated behind one of the Sheds.



## Zeppelinina goes to Nordholz

AHT member **Derek Webb** sends two cuttings from the Essex County Standard newspaper dated 2nd and 16th May 1997. They relate to 80-year-old **Zeppelinina Williams** who was

born at Little Wigborough in Essex on 23rd September 1916 - at the exact instant that the crew of the grounded Zeppelin L33 set fire to their 'ship close to her family home. Zeppelinina recalled her mother telling of the dazzling light from the blaze filling her room, and the deafening roar from the inferno; and how her father bravely got on his bicycle to fetch Dr. Salter, the local GP famed for his eccentricity, who came, delivered the baby - and suggested that she be called Zeppelinina to mark the unique event! "Zepp", as she soon became known to all, was invited to be a guest of honour at the opening of the new Zeppelin Aviation Museum - the Aeronauticum - at Nordholz near Hamburg, home of the L33, in May this year: "First came the Zeppelin and then came Zeppelinina" ran the headline in the Nordholz Zeitung newspaper, as the townspeople took her to their hearts. Welcomed by *Bürgermeister* Herr Wrede and Herr Faust of the town council, there were words of welcome, thanks and formal speeches; and the good humour and fellowship which marked the whole event came to the fore when reference was made to *Kapitänleutnant de Reserve* Aloys Böcker and his crew marching off into captivity at Little Wigborough - by doing so, they became the only Germans ever to have marched on British soil in wartime! Zeppelinina then signed the Golden Book of Nordholz, which is reserved for special visitors: the ceremony ended "with toasts being drunk and much friendship shared".

## Pennoyer's School at Pulham

The body which is trying to preserve the old Pennoyer's School at the heart of Pulham St.Mary has now made contact with "Dirigible" and I'm delighted to say that we are getting along very well indeed! The Pennoyer's Buildings Preservation Trust aims to convert

the disused Victorian building, which incorporates a 14th century Guild chapel, into a "tea-room and heritage centre" featuring a display about Pulham Air Station. This is the latest incarnation of the rescue plan, which had previously featured a 'tele-cottage' (rural computer networking link) and a full-blown museum. Hilary Clutten has written an interesting and nicely illustrated history of the school which states that lessons were often disrupted by activities at the Air Station, particularly when airships returned, and the tenders went round the local villages to make up landing parties! The Preservation Trust are currently trying to get a feasibility study off the ground prior to a possible Lottery Application, in which we wish them every success: watch this space for developments. Further information from **John Halliday** of the PBPT, The Old Maltsters, Pulham St Mary, Diss, Norfolk IP21 4QT.

### **"Hindenburg" blaze still remains a mystery 60 years on**

AHT member **Richard van Treuren** has been in the international news recently for a new theory about the cause of the "Hindenburg" fire at Lakehurst 60 years ago. Together with former NASA hydrogen manager **Addison Bain**, Richard contends that the infamous newsreel footage of the "Hindenburg" exploding at Lakehurst NJ on 6th May 1937 shows that the fire did not burn like a hydrogen fire - the flames from which would have shot upwards, whereas the initial blaze burned *downwards*. The red/yellow colour of the flames was not consistent with a hydrogen fire either. After tests involving surviving airship fabric - including some from the R101 obtained from the AHT - the two researchers came to the conclusion that it was the cellulose acetate butyrate coating (combined with nitrates and aluminium) of the envelope that caused the fire. This special paint was designed to protect the ship from damage by sunlight, but was so inflammable that it could have ignited under certain conditions of atmospheric electricity: it had not, apparently, been used on a Zeppelin before, and the researchers claim that it was as potent as rocket fuel. To back up their claim, they quoted instances of helium-filled US

Navy blimps burning every bit as violently as the "Hindenburg" because of their envelopes, and of hydrogen-filled airships that did not ignite even when hit by anti-aircraft fire.

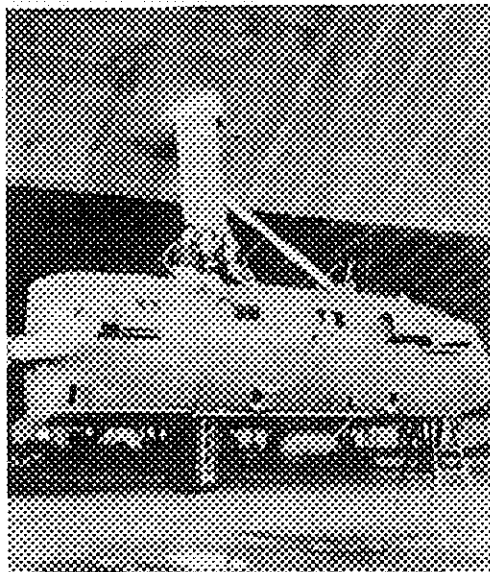
86-year-old **John Iannacone**, a member of the US Navy ground crew who was only 300 feet away from the "Hindenburg" when she burned, remained sceptical about the new theory. "I still believe it was static electricity and hydrogen," he said; "I'll stand by it - I was there."

### **On a Wing and a Chair**

Many thanks to **John Christopher** of "Aerostat" (for his truly awful caption) and **Brian Edge** for sending in the bizarre story of **Larry Walters**, an ex USAF pilot grounded through poor eyesight, who in 1982 vented his frustration at not being able to fly by taking to the skies in a garden chair suspended from 45 four foot diameter heavy duty 'toy' balloons. The idea was to hover 30 feet above his girlfriend's house, but having taken a supply of refreshments and an airgun with him with which to pop off individual balloons and effect a descent, the balloon rose much more effectively than expected, and he was soon at 1000 feet and rising. Fearing that resultant instability would upset the chair, he was too frightened to use the gun, and the impromptu flight lasted some 14 hours, during time which he strayed near the primary approach corridor of Los Angeles International Airport and a passing PanAm flight reported to ATC that it had seen "a man in a garden chair at 11,000 feet." The down-draught from a rescue helicopter 'scrambled' to assist him made matters worse by blowing him out to sea, and he eventually landed safely after the helicopter positioned itself exactly over him, dropped a line which he took hold of, and towed him to safety! Fined \$1000 for 'reckless flying and not keeping in touch with the control tower', Walters was back in the news because he had been awarded the 1997 Darwin Award for Outstanding Contributions to Natural Selection through Self-Sacrifice. Normally this tongue-in-cheek award is given to someone "who has benefitted the gene-pool by killing himself in the most extraordinarily stupid way before procreating" but, whilst Larry Walters did not actually die in his balloon attempt, he did



commit suicide a few years ago, thus qualifying for the Award - a sad postscript for an unconventional aviator. His statement to a reporter after the epic balloon flight could be a fitting epitaph for any true pioneer: "A man can't just sit around."



Also from Brian Edge came the picture above of his aunt **Ellen Edge** sitting on the right of an engine car on **R100** in the Howden Shed. In the centre of the group is Miss Winnie Benns, who was Secretary to Chief Calculator N.S. Norway. Both ladies worked for the Airship Guarantee Company at Howden until its closure.

### Classical "Aerostat"

Having mentioned J.C., members might like to know that his editorial HQ is now in the stately surroundings of Littledean Hall, Littledean, Glos GL14 3NR where, it is believed, curious rituals involving balloons, string quartets and open-air feasting are regularly enacted. Reminds me of the schoolboy howler in which "picnic acid" was recommended for an al-fresco blow-out!

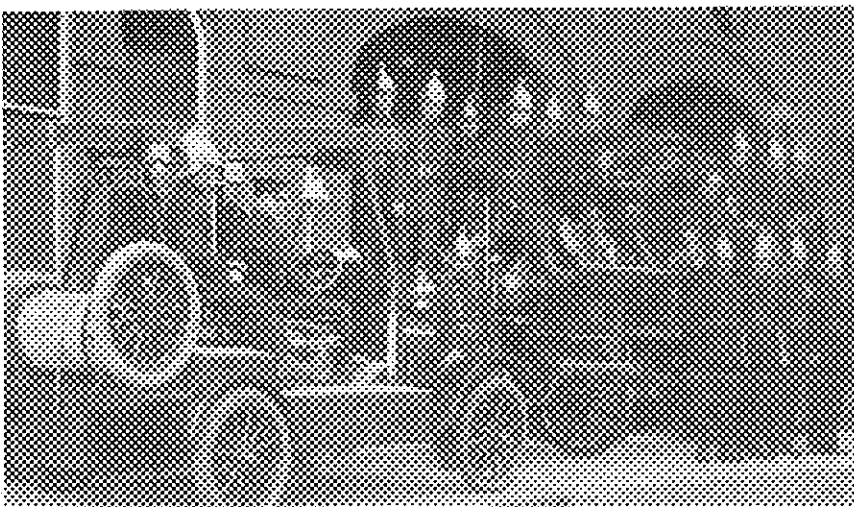
### Model T Fire Engine

Following the tantalising snippet about the Ford Model T chemical fire engine at a British

airship station in 1916 ("**Dirigible**" Vol. VII No.3), a photograph has recently come to light of a related Model T appliance. Ipswich's first motor fire tender, which went on station there in 1919. Here it is below with a Shand Mason steam fire engine of 1899 at the Bond Street Fire Station in the town.

### Artist to RN Historic Flight

It is perhaps appropriate to conclude a new column with a Naval name by noting that "**Dirigible**" Editor **Nick Walmsley** has been appointed 'Visiting Official Artist' to the Royal Navy Historic Flight at RNAS Yeovilton in Somerset. [Well, if you don't blow your own trumpet.....!! *Ed.*] The appointment, carrying responsibility for all RNHF 'fine art' work, was made by Lt Cdr Brian Gell RN, Flight Commandant, "in recognition of talent and support for our cause". Nick's most recent painting for the Flight depicted the newly rebuilt Hawker Sea Fury which was handed over to the RNHF at BAe Brough by HRH the Duke of York at a glittering 'roll-out' ceremony in May; a print of the painting, signed by the Sea Fury project team, was presented to the Duke. The Flight currently has two Fairey Swordfish, a Fairey Firefly IV, a Hawker Sea Fury and a Hawker Sea Hawk in flying condition - sadly, there are no plans to add a 'Coastal' or SS 'Zero' to the line-up in the near future!





# ...VENTING GAS...

## Pulham Mast Engine

First up this quarter is Humberside author **Ces Mowthorpe**, to whom has fallen the honour of placing the last missing piece in the Pulham Ploughing Engine story: the "unexplained" shaft on the right of the picture ("Dirigible" Vol.VIII No.1) is, he says, part of the cable carrying electricity to the High Mast flood-lighting system. Other sources have also confirmed this, so many thanks for completing the picture, Ces! **Norman Penke** of Norwich said it was a water pipe feeding the injector of the engine's boiler, but further investigation of the situation and specification of the conduit showed this was not the case.

## "May the Moose Be With You!"

*In which our Special Correspondent looks at the Silver Screen*

August is, notoriously, the Silly Season and, to celebrate it, our 'Horn-rary Member' of AHT has branched out and coined the word "Moose-ism" denoting the ability to associate people/time/events to Airships, irrespective of how loose the association, and thereby produce something light and airy which is loved by all ("Mousse-ism"). We firmly believe this ideology to be the politically correct successor to the 'Golliwology' of Sellars and Yeatman. Moose gave an example to illustrate his point, and it is certainly not without interest. As an ideology I 'cant' fault it.

To those in the know, not only does 1997 give cause for celebration for the anniversary of the lamented "Europa", but on the silver screen Moose was joyous to see the return of "Star Wars"

twenty years from its original release. He was advised by a *very knowledgeable source* that the scene in the cavernous Death Star hangar was filmed in Cardington's No.1 Shed. Moose picked himself up off the Shed floor having discovered that here is hallowed ground where Princess Leia once stood. Furthermore, the *very knowledgeable source* could tell him *exactly* how much that sweet little robot R2D2 weighed: "...'cos I had to lump the little b..... all over the flamin' set...", and R2D2 was definitely *not* lighter than air. Then the Moose-ism hit home: are they not at present filming the three "Star Wars" 'prequels' at Leavesden Airfield... which was the location of Airship Industries London Skyship flights in the 1987/88 season (piloted Solo, I daresay, by Luke Skywalker himself with one Han' free)? It got worse - as Leavesden was already in use, the makers of the 18th James Bond film "*Tomorrow Never Dies*" had to find a new location, and settled upon, surprise surprise, another airship base, Frogmore Aerodrome near St.Alban's - A.I.'s home for the 1985-87 Skyship seasons. Mr. Bond already had LTA connections when "*A View to a Kill*" required him to hang off Skyship 500 G-BJHN (which also featured the fastest inflation ever, but it made a good storyline, and how much nicer it was than seeing his Little Nellie again). Speculation surrounds his "official" mode of transport in the latest Bond film too: will it be the Aston Martin DB6 or the latest BMW Z3? Hang on - didn't BMW use No.1 Shed as the film set for their advert featuring the giant scales? "Well" muses Moose: "Full circle and after 20 years the Force is still with us!"

# TWO VICTORIAN AIRSHIPS

by Patrick Abbott

**DURING THE VICTORIAN ERA** there appeared many airship projects: some highly ingenious, many totally impractical, and most not even tested by actual construction and attempted flight. Two such airships have long fascinated me: both planned, but neither built.

The first was the invention of one **John Luntley** "... of New Broad Street Court, Inventor and Manufacturer" who published a small book containing his ideas. His principal theory was that "the balloon must be its own propeller" and he therefore designed an envelope for his airship that took a gentle spiral or corkscrew form and was free to spin round a horizontal tubular axle. This axle, in line with the direction of flight, curved down at either end to join the hollow spars which projected from the front and rear of the car, the whole system forming the sole method of suspension. Inside the car was a

boiler and steam engine driving a pulley wheel which rotated the envelope by means of an endless belt encircling its middle. The envelope was at first of rubber-proofed double cambric, but eventually it was to have been of thin metal, with hydrogen or coal gas contained in several internal fabric gasbags. The fuel for the boiler was taken directly from inside the envelope, which was provided with an internal ballonnet to maintain internal pressure. In addition, the tubular spars and axle acted as a condenser for the steam by ducting it through the envelope where it was cooled and returned as water to the boiler. At the same time, the heat from the steam expanded the gas and so assisted the ballonnet. Finally, the car was moveable backwards or forwards to control the trim.

Luntley's design - which he termed a "self-propelling rotary balloon" - was a triumph of ingenuity over practicability. Although no prototype was ever built, a model at least was completed, and became the only airship to be displayed at the Great Exhibition of 1851.

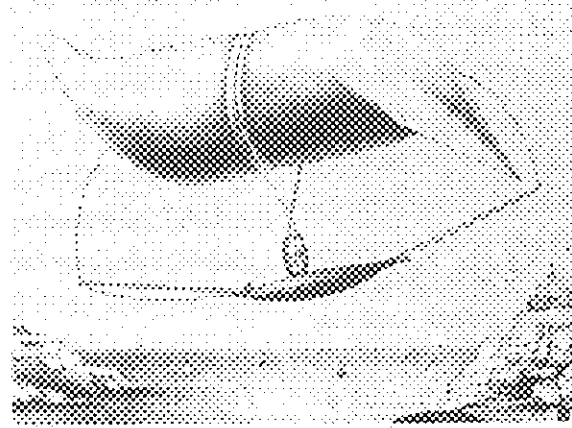
The second airship was proposed in 1866 by **Richard Boyman**, an indefatigable theorist, in one of seven patents which all covered much the same ground. Unlike Luntley's design, Boyman's "aerial ship", as he called it, was not totally unviable, and possessed some prophetic

features. Nevertheless, it could hardly have been constructed in its planned form, if only because of its colossal size and consequent cost.

Starting from the premise that his airship should weigh 600 tons when fully loaded, Boyman calculated the necessary capacity as a ridiculously

precise 19,541,982 cubic feet and its length as an equally exact 1302.893 feet. This last figure - nearly a quarter of a mile - makes the "aerial ship" possibly the largest aircraft to have been seriously suggested [at least until American Charles Owen's equally fantastic and impractical 2.5km long and 1km wide "AcroCarrier" which hit the headlines this year - Ed.].

The inventor planned that his craft should have a hull made entirely of steel, braced internally by radial and chordal wiring. It was to be of strictly geometric shape, with a cylindrical centre section interposed between conical bow and stern sections. Attached underneath the hull was a long nacelle incorporating compartments for crew, passengers and boilers. The



*John Luntley's Self-Propelling Rotary Balloon of 1851*

latter were to be fired by gas brought from inside the hull and produced steam jet propulsion through outlet nozzles that swivelled to thrust the airship up or down as well as forwards. Ballast was contained in a truck which ran on rails above an opening extending the length of the hull, and it could be jettisoned as required, or the trim altered by moving the truck forward or aft.

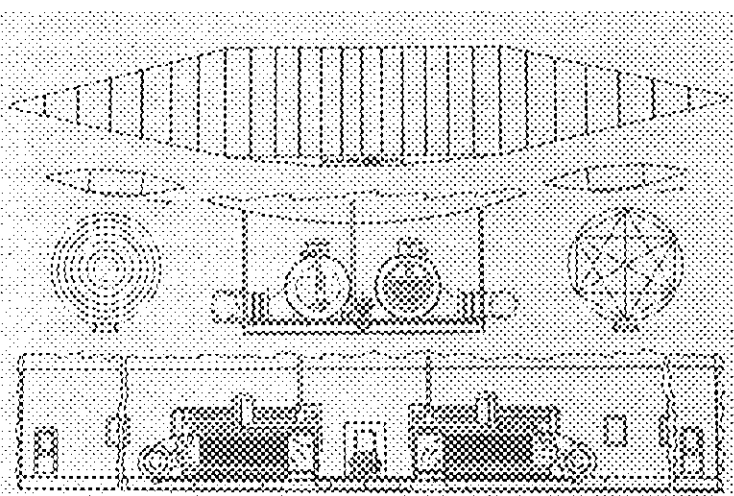
Boyman's ideas were curiously mixed and alongside proposals that have since proved fully viable, he also made suggestions of almost incredible incompetence. He believed, for instance, that his airship could eventually be made more efficient "when the chemist discovers a much lighter gas", which is not only possible hypothesis, but

even if a lighter gas than hydrogen did exist, its lifting powers would only be very marginally superior; he also failed to appreciate that extraordinary measures are required to inflate without contamination an inflexible hollow structure which already contains air.

Nevertheless, on the credit side, Boyman's central belief in the practicality of rigid all-metal airships was proved to be realistic a generation later, when David Schwarz's airship with an aluminium hull was constructed, and subsequently flown in November 1897. Despite being much smaller, the Schwarz 'No.2' was surprisingly similar in both shape and principle to Boyman's project and it was not entirely a failure, even though it made only one brief and uncontrolled flight.

Thirty-two years later, however, the American ZMC-2 "Metalclad" flew with an envelope made entirely of duralumin and, in a successful career spanning more than a decade, finally vindicated Boyman. In addition to this belated justification,

it should be acknowledged that Boyman also pioneered the principle of vectored thrust, used by several airships of the Great War, many modern airships [and to devastating effect by the Harrier jump jet]. He was an early proponent of jet propulsion for all aircraft, and was one of the first people to suggest the use of 'high towers' for mooring airships, even proposing that they should be provided with lifts



*Richard Boyman's 'aerial ship' from his Patent No. 3262 of 1866*

Neither Luntley nor Boyman was prominent in his own time, but both deserve to be remembered for their originality of thought. They looked expectantly to the future, however confusedly, and it is worth recalling four lines of verse written by Erasmus Darwin

(grandfather of the more famous Charles), and quoted by John Luntley in his book:

"Soon shall thy arm, unconquered Steam! afar  
Drag the slow barge, or drive the rapid car;  
Or, on wide-waving wings expanded, bear  
The flying Chariot through the fields of air."

Not entirely accurate, perhaps - but quite prophetic for the eighteenth century!

#### Sources:

1/ "Air Navigation by the Rotary Balloon", by John Luntley, 1851. (In the collection "Aeronautica Illustrata" [was formerly the Norman Collection] held by the British Library).

2/ "Aeronautics", by Griffith Brewer and Patrick Y. Alexander, 1893.

3/ Richard Boyman's Patent No. 3262 for his 'aerial ship' of 1866.

# The Southwold Raid

by Nick Walmsley

Recent press coverage of Zeppelina Williams - that grand old lady born in the Essex village of Little Wighborough at the exact time that the grounded L33 was 'fired' near her family home in 1916 and thus named in honour of the event - receiving civic honours at L33's 'home town' of Nordholz in May this year, has prompted memories of an earlier visit to the East Coast by L33's Commander, *Kapitanleutnant der Reserve* Aloys Böcker. The year before his momentous arrival in Essex he was given command of L5, and made landfall a little further up the coast, at the picturesque seaside resort of Southwold in Suffolk.

Southwold was a quiet genteel Edwardian holiday destination, connected to the rest of civilization by one of the most eccentric narrow gauge branch lines that this country has ever seen; it was the only three-foot gauge railway on mainland Britain, its coaches with their verandahs and clerestories were straight from the American prairies, and its tiny tank engines seemed to be composed entirely of stovepipe

funnel, steam-dome and spectacle glasses: if ever Rowland Emmett based his 'Far Twittering' railway cartoons on a real line, then it was surely this one [photo below c.1910]. The Southwold Railway, which was somehow 'forgotten' at the Grouping and thus remained completely independent, was (and still is, 68 years after it finally closed) the butt of affectionate humour, to the delight of its employees and townspeople, and to the annoyance of the (then) rather stuffy Southwold Corporation. The town had no military significance, but had been shelled by the German High Seas Fleet early on in the Great War because of some 17th century cannon sited on Gun Hill: the presence of these was sufficient to put Southwold in the category of 'fortified town', notwithstanding that the cannon had not been fired since the early 19th century. On that occasion, it is said, a local youth was curious to see what was down the barrel of one of them, and made his inspection at the business end when the fuse was lit, with the inevitable consequences.

At first glance it would seem, in the light of



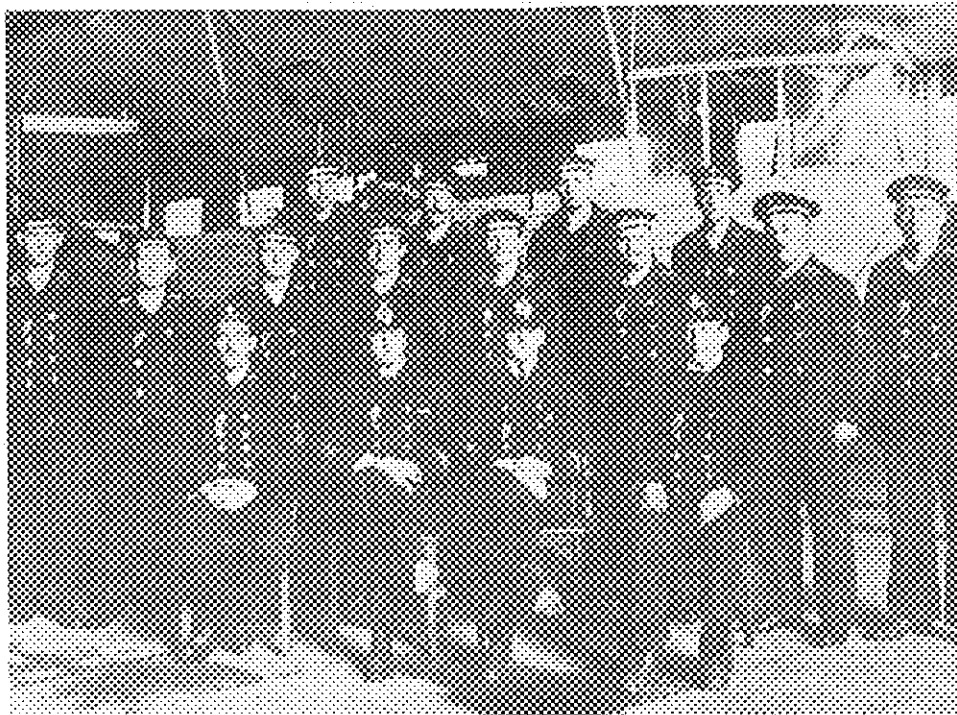
what happened on the night of 14/15 April 1915, that the German Naval Airship Division regarded Southwold Railway Station as a crucial rail head in much the same way that the High Seas Fleet had decided that the cannon on Gun Hill posed a threat as a hotbed of potent artillery. The railway could be seen as being of strategic importance, having been requisitioned by the Government on the commencement of hostilities, and used to rush enormous numbers of troops to Southwold, Henham Park and Walberswick where they were garrisoned under canvas, ready to repel the invasion expected imminently from across the North Sea. The tension heightened on that night of the 14th, at 11.50, when the town received its first intimation of excitement to come; it was then that a fisherman heard what he described as "the buzzin' devil" coming in from the sea. Everyone poured into the streets to watch "with intense interest" as Zeppelin L5 flew over the town, following the little railway to its other terminus eight miles inland at Halesworth and then, "as though it seemed to have missed what it was looking for", turn slowly and head back to Southwold.

Henham Hall was the seat of Lord and Lady Stradbroke, and its famous Park lies near Southwold on the Halesworth side. The Hall had been generously given over for use as a recuperation centre for war wounded since August 1914, and Lady Stradbroke had received twenty-two new patients a few days before. Sometime after midnight on April 15th the Zeppelin was heard coming back from Halesworth, and it dropped 21 incendiary bombs in the area, 17 of them on Henham Park. All of these fell into woodland and did not ignite anything, but Lady Stradbroke told the local reporter for the Eastern Daily Press that "...to see these fires spring up in various parts of the Park was, to say the least, disconcerting". Far more disconcerting were the two 110lb high explosive bombs that straddled Henham Hall: one exploded only 50 yards from the front of the house, making a large crater in the lawn. The journalist was able to report, however, that "...neither her Ladyship, the staff or patients were in the least alarmed, but treated the whole affair in a most manner of fact

way". Two more high explosive bombs were dropped: W.F. Self of Smears Farm lost a window and some tiles when one fell 100 yards from his door, leaving a hole 20 yards wide and 8 feet deep (it also blew open a stable door, and Mr. Self's pony took advantage of new-found freedom); the other blew in the doors and windows of a nearby cottage, but occupants H.W. Girling, his wife and two children, were unhurt.

Three other incendiaries fell wide, two at Reydon and one on the seashore at Easton Bavents north of the town, but the fourth one nearly found a more sensitive target: it "...dropped in an empty railway truck at the railway station and beyond smashing a hole in the bottom did little damage". The 'victim' was a six-wheeled coal truck (No.31 in the railway's numbering system) and belonged to Thomas Moy, the Peterborough coal merchant, who had a depot at the yard. Two sheds in the station yard suffered slight damage as well, but it is not recorded what form this took.

The damaged truck fuelled speculation that the Kaiser had specifically singled out Southwold Railway station as a prime target, but an object which fell from L5 a few miles north at Wrentham gave an indication of a more likely intended target. The following morning Mr Richard Girling picked up a magnesium flare consisting of a cylindrical tube 18"-20" in length, 3" in diameter, with a timing attachment on top and the remains of a parachute: the head of the flare bore the number 'Doppe Z. 08'. Mr Girling had seen it float down and estimated that it burnt for two or three minutes. As the flare burnt he asserted that it "...enabled the Zeppelin to see where it was and it immediately altered its course direct for Lowestoft". That town was something more like a prime target and when he got there Böcker bombed it quite successfully, dropping six more high explosive bombs and 40 incendiaries, just missing the main Great Eastern Railway Station but setting a large timber yard on fire in Topping Street. Crossing the town at a height of only 5,200 feet, the Zeppelin crew in their open gondolas could hear air-raid sirens and the bells of the fire engines going to douse their incendiaries, and they could still see the timber



*Kapitanleutnant der Reserve Aloys Böcker and the crew of L5 in 1915*

yard burning in the distance an hour after they went out over the coast. (The Girling family might have been forgiven if they thought they were on the Kaiser's hit-list too, for not only were H.W. and Richard involved, but the stationmasters on the Southwold line at Wenhasston and Southwold itself were also Girlings.)

The bombing of Southwold and Lowestoft was a creditable performance by Böcker, as he had only taken command of L5 the day before, and she was already obsolete. On his return to Nordholz, he believed that he had been somewhere over the Humber - which had actually been the intended target for the three Zeppelins L5, L6 and L7 - which was well over a hundred miles to the north, and only later did he learn his true location. His fellow commanders fared little better, for Werner Petersen, carrying *Fregattenkapitan* Peter Strasser (whose presence on raids was always regarded as unlucky by crews) in L7, clipped the blacked-out Norfolk coast without even realising that he had made landfall before he turned homewards; and Horst Freiherr Treusch Buttlar-Brandenfels in L6 honestly did not know *where* his bombs fell but, on return to Nordholz, read in a newspaper that the Essex town of Maldon had been bombed, so he rather impishly entered 'Maldon' on his flight report... and later received a medal for accurate navigation!

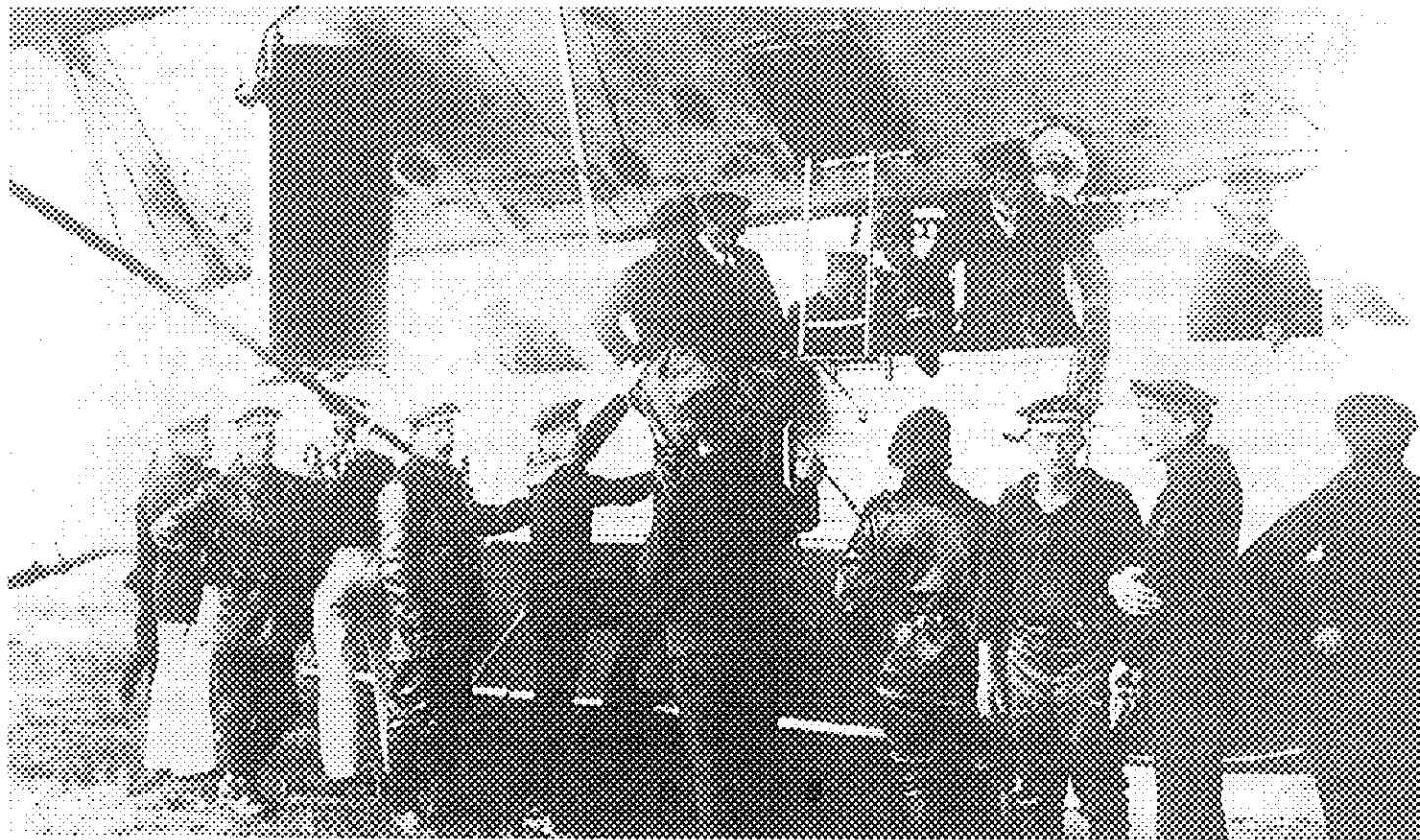
Even if the Humber had been the true objective, at least Southwold had an exciting night, and no-one talked of anything else for days afterwards. The episode appears to have been treated with some levity in the town - almost like an unseasonal Guy Fawkes Night - but the inhabitants of Aldeburgh, lying ten miles south on the way to Maldon, were reported to be genuinely afraid, especially when L6 passed just to the south of the town on its way home, and had taken

shelter: later raids, bringing damage and loss of life to East Coast towns, proved their caution was justified. Neither was it the last time in the Great War that a Zeppelin passed over Southwold, because the prominent lighthouse there made an excellent landmark, although the town was not bombed again. However, a strange episode later in the War might have suggested to the good people of the quiet resort that they really *were* in the forefront of the Kaiser's mind when it came to his dealings with England, for in May 1917 the German Emperor himself guaranteed safe passage to 680 Dutch seamen and passengers who had been stranded in Britain since the outbreak of war, provided that they embarked from Southwold - and *only* Southwold. The Dutch citizens embarked on Zeeland steamers at the town pier, having travelled there (inevitably) on the little railway, and the episode was reported in the national Press and in Parliament: Southwold had indeed played its role on the international stage.

#### **Sources:**

Eastern Daily Press, Saturday 17th April 1915  
 The Zeppelin in Combat 1912-1918 - Douglas Robinson 1994  
 Zeppelin! - Raymond L. Rimell 1984  
 The Southwold Railway - Taylor and Tonks 1979  
 Memories of the Southwold Railway - A. Barrett Jenkins 1973





**Above:** A 'm' type Zeppelin similar to L.5 preparing for a local sortie: obviously they do not plan to go far because, in spite of their exposed position in the open gondola, the officers are not wearing flying clothing: not so the rest of the crew, however, who sport leather in abundance.



**Left:** Fregattenkapitan Peter Strasser, the charismatic (some would say enigmatic) Chief of the German Naval Airship Division who really developed the Zeppelin as a potent weapon of mass destruction. He inspired a relationship of absolute faith, trust and loyalty in his men but was nevertheless regarded as a 'Jonah' by crews whenever he accompanied them on a raid. He stubbornly refused to accept that his airships had limitations when they came up against the British Home Defence Squadrons and, as a result, he died as he would have wished, leading his men in battle for what was then a lost cause, when L70 was shot down off the Norfolk coast on the night of August 5th 1918.

# Leslie Murton 1900-1997

An Appreciation by Nick Walmsley

The last of the line from an heroic era died peacefully in his 96th year at his Norwich home on 5th February, for **Les Murton** was the last surviving Great War airship coxswain, a unique character who always gave willingly of his time to researchers: indeed, he had taken part in a radio documentary only a few weeks before his death, and was on splendid form. **Nick Walmsley** looks back over a long life.

Les was born in October 1900 in Magdalen Street, Norwich; always a self-confessed aviation fanatic, he began work for local motor engineers Mann Egerton Ltd as a 14 year-old 'runner', and by 1917 was helping to build Sopwith Camels. One of the aircraft was assembled with the rudder cables connected the wrong way round, so Les, being a small slim lad, was persuaded to crawl down *inside* the fuselage to change them over! He played football for Mann Egerton's junior team, and when a friendly game was played at Pulham Airship Station they were allowed to see the airships. Les realised that this was the means "to get my own back on the Germans after I lost my two brothers in battle", both killed together on the same day. He answered an appeal for Boy Mechanics to join the Royal Flying Corps at the Britannia Barracks on Mousehold Heath by quitting his job and forging his father's signature on the Enlistment Papers: he was only 16. Two policemen arrived one evening when Les was enjoying a fun-fair at the old Agricultural Hall, and the following day he was en-trained for Liverpool Street Station en route to Badajos Barracks at Aldershot. Les had never been to London, and asked the way to the Bakerloo Line on the Underground. A passenger directed him out of the station to a green-tiled archway and a broad flight of steps leading into the bowels of the earth, and told him "that" was where he should go. Les had

seen something very similar underneath Norwich Market, and was suitably indignant - "I may sound like a country boy, but I in't half-witted - THAT is a Public Lavatory!" It took several assurances from a young road sweeper and a policeman before he was convinced that it led to the Underground Railway, and only then was he able to continue his journey. Troubles multiplied when he arrived at the Barracks in Aldershot, ravenously hungry, but found to his amazement that the Mess Sergeant was none other than his uncle! This is all right, thought Les, double rations! Not a bit of it: Uncle took one look at him and said "This is a man's Canteen, and you're only a boy." Boy duly sought solace with a newspaperful of fish and chips from the town, and was returning to the Barracks when the meal suddenly ascended skywards. The two large Redcaps who had kicked it out of his hand replaced it in his field of view, and informed the poor lad that he was a soldier now, and soldiers were not permitted to eat on the street. "Dunno how they knew" recalled Les: "I wasn't even in uniform!"

After three days' kitting out (nothing fitted, in the time-honoured tradition), Les was sent to Wendover for Basic training in airship theory and practice: he was in the very first bunch of RFC Boy Mechanics, later known as the 'Halton Brats'. Reveille was at 05.30, work was hard, and knots and splices not only had to be learnt: they had to be tied behind one's back, since on active service it might have to be done in total darkness. Only two boys passed: Les, and Leo Wilder, who became a close life-long friend. After three months of this tough grounding in wooden huts, posting to the Lighter-than-Air Wing at RAF Cranwell with its brick billets and comfortable beds seemed like Paradise - though after only one week, Les found himself in tented accommodation out on

the flying ground! Here he was trained to rig S.S.Zeros, his 'taskmaster' being a former heavyweight boxing champion of Great Britain, Joe Beckett, and here too that he met CPO George "Sky" Hunt for the first time. A contemporary was HRH Prince Albert, who became HM King George VI. The Prince received a full brevet as a 'heavier-than-airman' at the same Passing Out Parade that Les got his airshipman's half brevet.

Having gained his Riggers and Coxswains Certificates within a year, Les was posted to Howden Airship Station in Yorkshire, that sodden location which was often so waterlogged that an orderly would have to carry gumboots over to a newly arrived ship in order that her crew could walk back to the sheds - Les remembered being carried back on one occasion, partly because the ground was so wet, and partly because he was frozen stiff. In spite of the damp, promotion followed swiftly: after only a few flights as an unpaid crew member, he went 2nd Coxswain and got occasional (paid) flights; then came further promotion, and Les, at eighteen, became the youngest Coxswain in the Airship Service: his 'charge' was the brand new SST3, delivered to Howden the previous week. "I was only a boy" he later recalled, "when I went to the stores, got a leather coat (so heavy that you had to have it carried to the flying ground and put on you over your flying suit in the gondola) and boots that didn't fit, and I took her up..." SST3 was known as a 'Mullion Twin', having been developed at that airship station in Cornwall, and was powered by two 75hp Rolls Royce Hawk engines mounted on outriggers either side of her comfortable four-seater car. Her Captain was the experienced and capable Sub Lt Harris who had flown Zeros at Luce Bay. Les always asserted that Harris was able to 'ballast up' his ship so precisely in his landing approach that he never had to release the trailrope to offset buoyancy: the ground crew were just able to grasp the handling guys with sufficient tension on them right away, and on the rare occasions that they failed to do so, Harris simply circled round and came in again!

SST3 was used in an 'anti-submarine role' on convoy patrol against the U-Boat Menace in the North Sea, and flew on 10-hour patrols day and night along with the other Howden airships. It was often bitterly cold in the open car, but it never worried Les: all he wanted to do was fly. The patrols ran north from the Humber Estuary to Scarborough where the airship picked up her convoy, escorting it towards Scotland, where they would be met by another airship coming south from East Fortune. Depending on the wind, the handover usually happened near Redcar, and then the Howden airship could return to base, or to Kirkcaldy where there was a mooring-out station. It was essential that the airship met her convoy, and the deterrent must have worked, because Les never saw a single submarine on any of his patrols; but that fact did not stop the convoy wireless operators sending the airship all over the convoy and back to take a closer look at suspicious things that the seamen thought they had seen! Sub Lt Harris sat in the front of the gondola, behind the insignificant perspex windshield; then came Les, then the Wireless Operator and, bringing up the rear, their engineer, Cpl. Plume. Not much to do on patrol except to think of the hot meat meal that always awaited returning crews in the 'hot cupboard' adjoining the Howden food store, or to examine the flight rations - half a pound of Marching Chocolate made by Caley's of Norwich, a packet of biscuits, a cheese sandwich, a thermos flask.... and a round tin of Horlicks Tablets. This last item nearly led to disaster on one occasion when SST3 went aloft with a young relief Wireless Operator: "He got bored.. well, they don't have nothin' ter do, do they, only listen in," recalled Les in that gloriously rich Norfolk dialect that was so very much part of his charm, "... an' this Relief, he took off the metal band what held the lid on his tin o' Horlicks, an' he threw that over his shoulder, 'cos he worn't thinkin'. Well, that hit the prop, didn't it, an' that flew up an' punctured the envelope. We didn't panic, 'cos that was alright as long as that didn't start foldin' up: so we just stripped off, stuffed our thick white woollen flyin' jerseys into the hole, an' come straight home." The weather got worse too, but they returned safely to Howden, a patch was

applied, and SST3 went off again.... with another Wireless Operator! Les told the tale many times, always in the same deadpan way (and in his latter days with some delightfully helpless mirth), but he wasn't given to false heroics and dismissed the episode as "one o' those bumps you get from time to time." Another close call came when he and his skipper took two young Americans from the 'Howden Detachment' on a training flight. The American boys ignored the advice to come to the hover and ballast off before landing, choosing instead to drive the 'ship straight at the ground. Les and his skipper were fully prepared to jump out before the crash which, fortunately, never came. Harris refused to take any more Americans flying after that. Les always stubbornly refused to acknowledge that his experiences were in any way exceptional.

His closest call with death came, ironically, on the ground. On August 18th 1918 Les's ship landed in front of the big central shed at Howden where five crewmen from the American detachment were rigging an "unofficial" SS Zero as a 'present' for their hosts from a spare envelope and a car which they had been cleaning with petrol. The young American Wireless Operator is believed to have been checking his 'spark transmitter' when the petrol ignited. As Les ran towards the shed, a massive explosion split the envelope and ignited the big 23X Class rigid R27, SSZ.38 and SSZ.54. There was one fatality - an 18 year old wireless operator who had been on the catwalk at the top of the shed fell to his death on the concrete floor: his body was swiftly and very bravely recovered by the Station Gas Officer, Alec Swinneton, well-known as a lightweight boxer fighting under the name of Jim Pendry before the War. When Les and a party accompanied by the Duty Officer, Lt Pickford, were able to enter the Shed, they were incredulous to find that one airship survived the inferno: the Parseval P6 (erroneously referred to by everyone at Howden as 'the Zeppelin' because of her German parentage) was in a corner of the Shed by the open doors, and survived because she was cooled by the in-rush of air sucked in to feed the flames of the other ships. Les said that her unscathed appearance in the

smoke-blackened shed seemed like a miracle.

Airship flying ceased with the end of hostilities, but Les learned that volunteers were needed for a mine-spotting kite-balloon section in the Eastern Mediterranean, so away he went via Malta, and Mudros in the Dardanelles, to Imbros, where his balloon was towed by a paddle-steamer converted for mine-sweeping. Built in 1911 she had been a railway steamer on the Portsmouth-Ryde transit, and her name was "Duchess of Norfolk" - what more appropriate posting for a Norwich boy! It was the intention that any mines missed by her sweep would be spotted from the balloon, but none were. Her resident gas officer was none other than Alec Swinneton from Howden. Les went all over the Eastern Mediterranean, even staying in Florence Nightingale's old hospital camp at Scutari.

Les would have remained in the Service, but his mother, having lost two boys already, insisted that he came out. After demobilisation, coincidences continued: Les married his beloved Vi in 1927 after a six-year courtship and took her on holiday to Boumemouth, where they booked a pleasure trip to the Needles on a paddle-steamer. No sooner were they aboard than *deja-vu* set in, with Les looking thunderstruck: "I know this ship.. I bin on her before!" - and, of course, the paddle-steamer was none other than the "Duchess of Norfolk", back in peacetime livery but now, they later found, proudly bearing a brass plaque in memory of her war service. (The "Duchess" changed her name to "Embassy" in 1938, and in this guise became the last survivor of the Isle of Wight steamers, finally being laid up at Weymouth in September 1966).

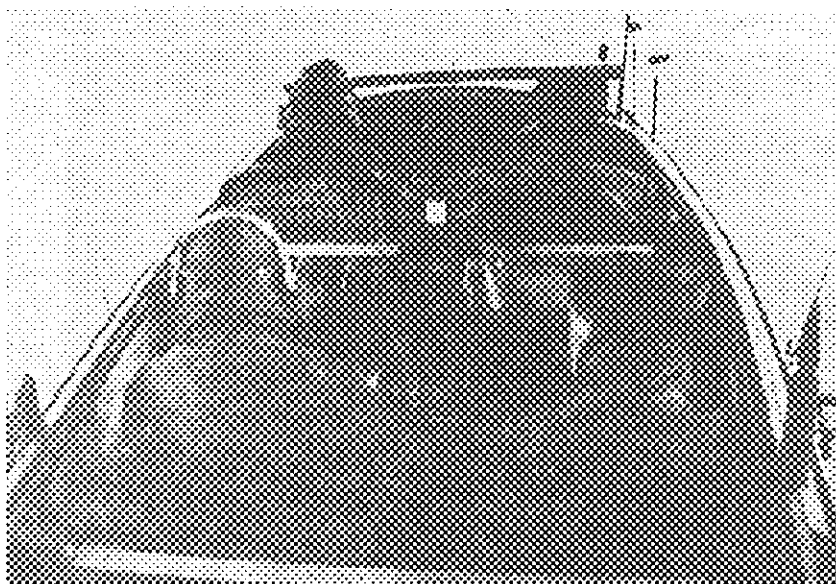
Les and Vi settled back in Norwich, in one of the first houses to be built in the early 20's on the acclaimed new 'Garden Estate' at Mile Cross, where Vi's family had been smallholders for over 100 years. Came the Second World War, and Les organized the local detachment of the Home Guard, with the rank of Major. He was on duty that terrible night which is still clearly remembered in that fine city - when some German Me 410's got in amongst the American

squadrons returning from a bombing raid and caused carnage. One of the many American aircraft to crash that night came down just behind the Murton's house on the family land - Les was able to rescue one crewman from the wreckage, but amongst the dead was a young officer whom he and Vi had befriended, and who had spent many hours with them at their home that his aircraft had now so narrowly missed. Coincidences can be very cruel as well as pleasant.

But happier times lay ahead - Les and Vi found immense pleasure in their ever-growing and, by now, worldwide family, and airship enthusiasts soon discovered that there was a legend living amongst them. In Les's 80th year the Goodyear airship "Europa" came to Norwich airport and took the city by storm. When her Captain came to hear of the veteran Coxswain, he not only offered Les a flight, but allowed him to fly the ship from Great Yarmouth to Norwich; Les spotted his own house from the air, and was invited to fly over it - much to Vi's surprise! The experience was strange to him - no valve toggles to operate in an open car, no elevator wheel, just one 'joystick' to grasp and a lot of buttons to press, all enclosed in comfort; "It didn't seem like flying to me because it was so easy" he said afterwards, "I was used to a bit more of a bumpy ride". He became an early member of the Friends of Cardington Airship Station, now the AHT, and thoroughly enjoyed his trips to Cardington where he could immerse himself in airships once

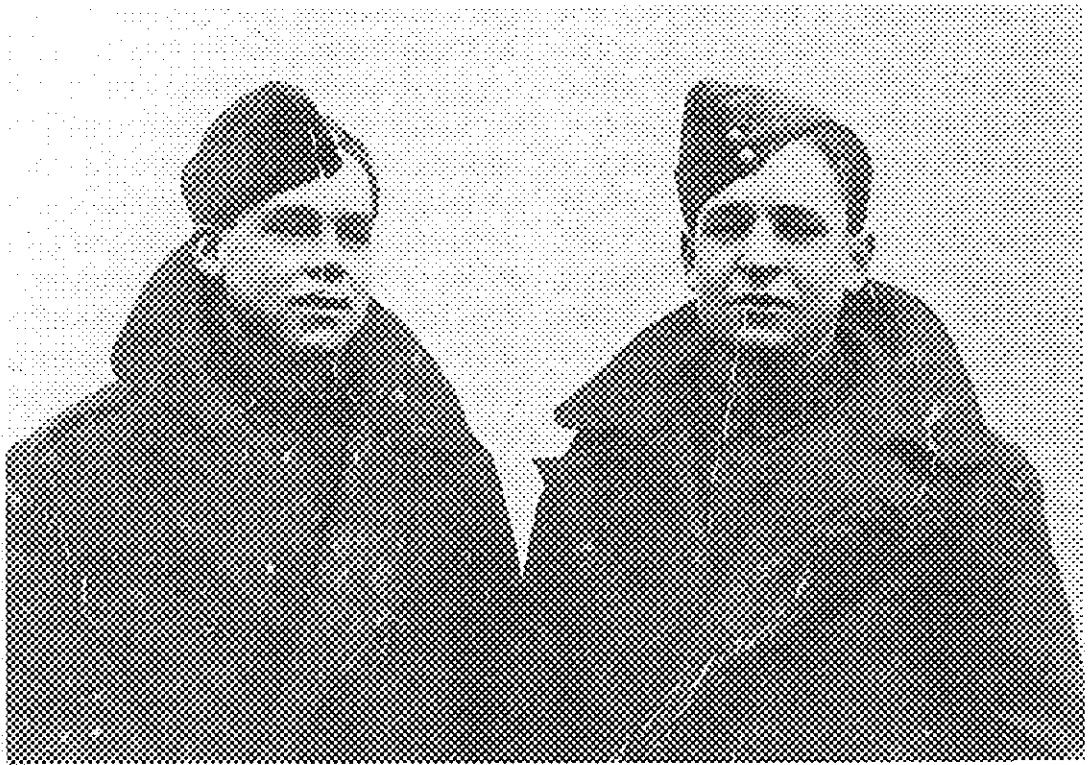
again, inspecting the gondola of an inflated SK500 as the guest of the late-lamented Airship Industries in Shed No.1 on one occasion. Norwich artist Patrick Loan painted his portrait, the Imperial War Museum taped his recollections for the national archive, he broadcast on radio, was feted by the local media and he was presented to the Queen at RAF Marham as part of the 85th Anniversary celebrations of the Royal Air Force. He met the Queen Mother there too, and delighted her by recalling his training at Cranwell alongside her husband. Les remained unaffected by this belated celebrity status throughout, and those of us who first approached him in awe were quickly put at ease by his gentle manner, wonderful sense of humour (as dry and 'Norfolk' as you could wish!), hospitality and tea dispensed by Vi. A visit to the Murton household was to be treasured. Latterly Les lost his sight and became more reliant on others with occasional breaks at a care centre but, fittingly, he died peacefully in his own home. His funeral took place on a crisp, brilliant and bitterly cold day - perfect airship weather. It was a sad occasion, yes, but it was triumphant too: a celebration of a good man's long life, a remarkable yet unremarkable life, lived to the full. On that glorious brittle winter day there passed an era, the last of that pioneering band of the Old Airshipmen - and we were acutely aware that, somewhere beyond our hearing, all the trumpets sounded for him on the other side.

(With acknowledgements to Norman Peake and Steve Snelling)



SST3 on patrol over the North Sea: in front of the gondola, the skipper, Sub Lt B. Harris, and Coxswain Les Murton (right); in the back, an unknown wireless operator and the engineer, Cpl Plume.





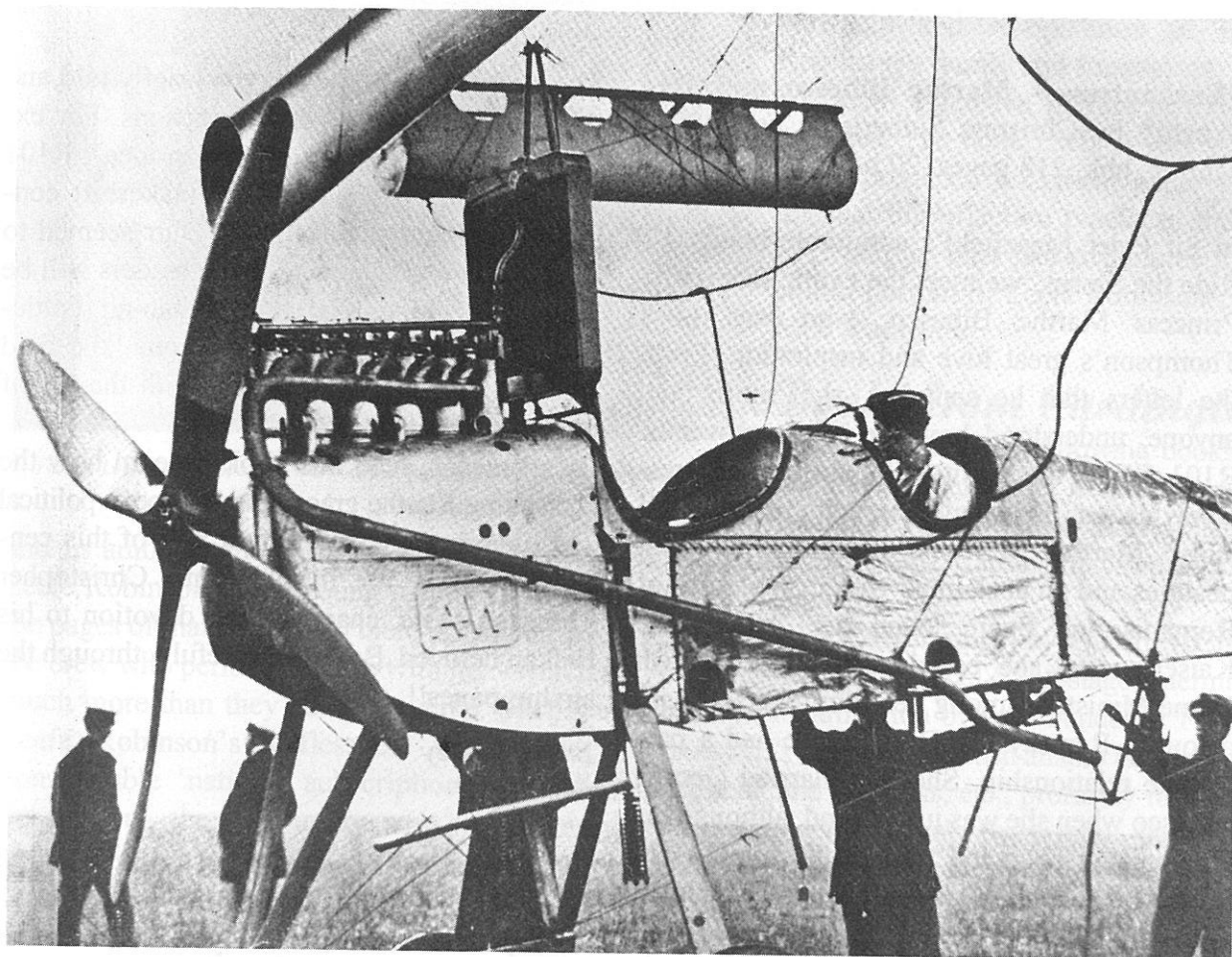
**Above:** Leslie Murton (*on the right*) with his friend, and fellow Halton RFC Boy Mechanic, Leo Wilder from Belper, pictured in 1918: the only two boys of their class to pass the requirements for the Airship Service.

**Below:** Submarine Scout Twin SST3 pictured at Howden in 1918. 165 feet long, with a capacity of 100,000 cubic feet and four ballonets, the SST Class were large, powerful and reliable. SST3 had two 75 hp water-cooled Rolls Royce Hawk engines which gave her a top speed of 57 mph; delivered to Howden in Yorkshire in July 1918, she was struck off charge there on 18th June 1919 having flown a total of 191 hours - most of them on patrol over the North Sea with Les Murton at the helm.





# Armstrong Whitworth 'AW' SS Airships - a Spotter's Guide!



Perhaps the most familiar type of British airship in the early years of the Great War was the 'SS' (Submarine Scout) Class. Mostly they are seen in photographs with cars based on BE2C 'tractor' and Maurice Farman 'Shorthorn' 'pusher' aeroplane fuselages. But a third type, built by Armstrong Whitworth and based on their FK8 aircraft, has led to some confusion amongst airship historians, and photographs showing 'AW' cars are often erroneously, captioned as 'BE2C'. The difference is clear on close inspection - AW cars, like the one pictured above, look far more 'solid' in construction, and there are two prominent fuel tanks (the starboard one is visible here) slung just above and outboard of the car. All AW cars had wheeled undercarriage, and either two or three cockpits.

The Armstrong Whitworth car proved to be the best of the three types: being the largest and sturdiest of the SS cars, it took a larger envelope than usual (70,000 cubic feet instead of 60,000) and was able to take a 100 hp Green engine instead of the usual 70 hp Renault, which improved performance and endurance. The 'prototype' was SS.27, wrecked in spectacular fashion on August 5th 1915 when it wrapped itself around the church steeple at Marquise. All the last production SS airships from SS.39A to SS.47 were built by Armstrong Whitworth, with the exception of the very last two ships of the class, SS.48 and SS.49, which reverted to the BE fuselage and were sold to France.

The most famous 'AW' was SS.40, which was loaned to the RFC in 1916 and specially modified for clandestine operations over enemy lines. As part of the modifications she received a unique black envelope, and she was the only British airship to see active service on the Western Front. Four of the class, SSs.44, 45, 46 and 47 were sold to the Italian Government and based at Grottaglie: they were popular with their Italian crews.

# For Your Bookshelf

**"Enchantress - Marthe Bibesco and Her World"** by Christine Sutherland, publ. John Murray, hbk, 218 pages, 20 b&w photographs, £20

In Sir Peter Masfield's admirable book "To Ride the Storm" we meet the exotic Romanian Princess Marthe Bibesco, who was Lord Thompson's great love and inspiration. From the letters that he sent her, she, more than anyone, understood how the prime mover of R101 felt as the flight to India grew progressively nearer. This new biography tells her full story. Marthe was one of Europe's great beauties and an acclaimed writer: the Kings of Romania and Spain loved her, as did the Kaiser's son; she could count three British Prime Ministers among her admirers, and with a fourth, Ramsay MacDonald, she had a passionate relationship. She had married George Bibesco when she was just 16 and, although his womanising soon led to separate lives, there remained a bond of affection between them. George was a keen aviator, and it was through him that Marthe met Wilbur Wright, Louis Bleriot and, eventually, Charles Lindberg. [Romanians exiled in Paris were among the great aviation pioneers and one, Trajan Vuia, made a 'hop' in a purposeful-looking monoplane before Santos-Dumont got his clumsy '14bis' off the ground in 1906, but for some reason was not been credited with Europe's first powered flight - *Ed.*]

Power is a great aphrodisiac, and when Christopher Birdwood Thomson fell in love with Marthe in 1915 and then became a Peer in 1924 she revelled in his new world. There was the House of Lords, and weekends together at Chequers... with Ramsay MacDonald as well. She was fond of Thomson, but evidently not attracted to him physically, and the R101 disaster left her with a feeling of remorse that she had received more than she had been able to give.

The airship part of the story is briefly told and strewn with mistakes and distortions. For example: "the airship was a German idea"; R101 was "a rather amateurish and makeshift construction" (neither Eckener or Durr seemed to think so!) Finally, new to many readers will be previously unrecorded lighter-than-air battleship, for with R100 and R101 gone "the field was left open to the Germans with their Graf Spee and Hindenburg".

By all means, read this book to learn how the enchanting Marthe graced the European political and literary scene in the first half of this century. Read it for insights into Christopher Thomson's life, character and devotion to his Balkan beloved. But tread carefully through the airship pages!!

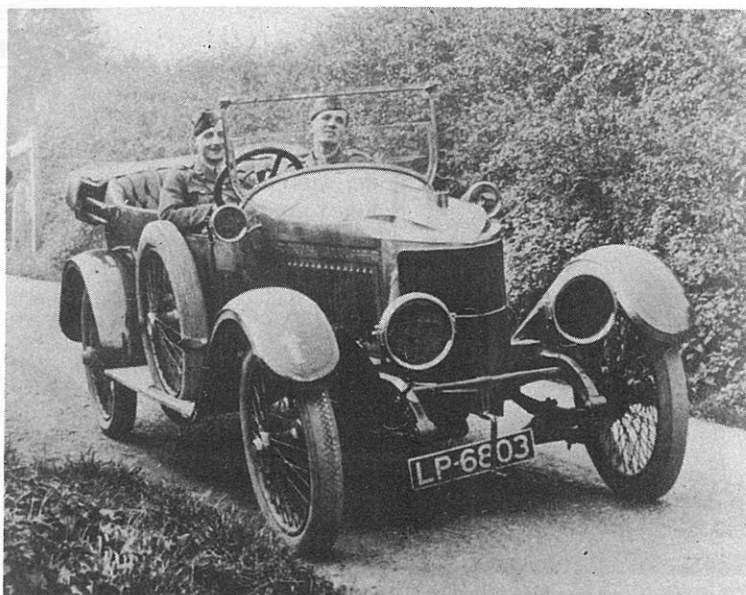
*Brian Hussey*

**"The Airship VC - the life of Capt. William Leefe Robinson"** by Raymond L. Rimell, publ. Aston, now **available only** from Albatros Productions Ltd., 10 Long View, Berkhamstead, Herts. HP4 1BY, UK at £15.95 (inc. post and packing). Hbk, 128 pages, 64 b&w photos; ***all remaining copies signed by the author.***

AHT member Ray Rimell has just acquired all remaining stocks of his book from the charity 'A Medal for Life', and it is being placed on the market for the very last time. If you haven't got it, and don't get it now, don't blame us - Ray's classic **"Zeppelin!"** changes hands for considerable sums on the secondhand market these days!

William Leefe Robinson was one of the most modest and attractive characters from the Great War who literally rose to fame overnight when he became the first airman to shoot down one of the marauding Zeppelins then terrorising London, paving the way for the ultimate defeat of the the "Zepp Menace". SL11 fell to his guns at Cuffley on the night of 2/3 September 1916,





William Leefe Robinson at the wheel of his 'presentation' Prince Henry Vauxhall

and in amongst the "Boy's Own" heroics (for Leefe Robinson was a young man straight from the pages of that magazine) there is sympathy for the crew who perished by fire with her - which is much more than they got at the time. Such was Leefe Robinson's selflessness that, when a considerable 'national subscription' was taken up for him, the one luxury which he allowed himself was a beautiful two-year old 'Prince Henry' Vauxhall sports car - which he promptly put at the disposal of his messmates. He later flew the new Bristol F2A's with 48 Squadron in France, was shot down and taken prisoner in April 1917; true to form, he tried to tunnel his way out the prison camp, and eventually escaped by jumping out of a window only to be recaptured. His health was ruined in that 18 months of captivity and he died shortly after being repatriated, aged only 23, on the last day of 1918, a victim of the influenza epidemic. The *Harrow Observer* recorded that 'the obsequies... were of the simplest character; but not more simple than was in accord with the modest, reserved, and boyish character of the youthful winner of the highest award for valour.' His VC was auctioned in 1988 for a staggering £99,000 - the reluctant hero would have approved that the proceeds went to 'A Medal for Life': a charity caring for children with Leukaemia. This is a book with appeal beyond the world of aviation: it is a 'ripping yarn' which is warm and human and

poignant as well, it is a tale told well in a gripping fashion. As one would expect, the research and technical writing is faultless: the book was written with the help and co-operation of Leefe Robinson's family and friends, and with access to extensive private and public archives. The book itself is very attractively produced on cream paper in an unusual but effective typeface, and the 'VC purple' dust jacket features a full colour portrait of Leefe Robinson.

Nick Walmsley

### *Books from Cardington*

Please note that the following books are available by Mail Order from the **Airship Heritage Trust Office**, RAF Museum

RC, Royal Air Force Cardington, Bedfordshire, MK42 0TH:

**"Airships - Cardington"** by Geoffrey Chamberlain, hbk. £15.00 (+ £1.75 postage): definitive history of Cardington by the Founder of FOCAS (now AHT), covering British airship development, Zeppelin and US links, etc., profusely illustrated.

**"Airship Navigator"** by Group Capt. E.A. Johnston, hbk. £19.95 (+ £1.75 Postage): R101 navigator Ernest Johnston's role in British airships from 1915-1930, written by his son: superb, well illustrated and exhaustive study.

**"Icarus - over the Humber"** by Tom Jamison, pbk. £10.95 (+ £1.50 postage): definitive story of R38, 'Howden Detachment' etc., well illustrated.

**"R100 - Howden"** - slim pbk. with some photos: reprint of AGC publicity booklet for R100 from 1928, pbk. £3.50 (+ £1.00 postage).

**"Airship R34"** by Patrick Abbott, pbk. £10.95 (+ £1.50 postage): reprint of classic book charting the history of the ship and the first two-way Transatlantic flight, many illustrations.

#### **Also available:**

\*Limited edition print of "Graf Zeppelin and R100 at Cardington" by Nick Walmsley, signed by E.C.Greenstreet and the artist, £25 plus £5 postage, packing & insurance.

\*Member's Tie, navy, with AHT logo, £6.50 (+ £1 postage).

\*AHT mugs "Sleeping Giants", £3.50 (+ £1.00 postage).

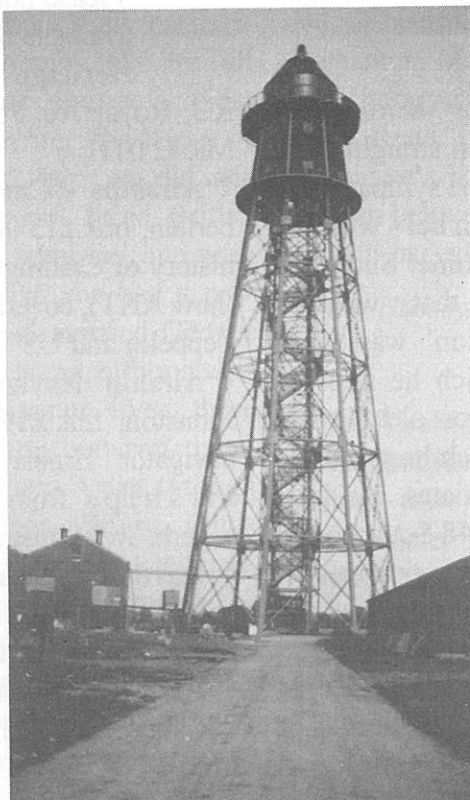
\*Postcard "Sleeping Giants" 35p each, post free.

\*Greetings cards "R101" and "SSZ3 at Pulham", reproductions of Nick Walmsley paintings on art board: 50p each, post free.



## Cover Pictures

Cardington features on the front and back pages of this **"Dirigible"** - the front cover picture shows R101 riding at the Cardington Mast before her last flight: the passengers are boarding, and refuelling is in progress. The finer details of the massive steel Masthead building by Babcock and Wilcox are shown here to great advantage. On the **back page** are two photographs loaned by Mrs Bertha Stoodley, ex-RAW Tracing Office: the RAW Golf Club in 1929 (above); and the Mast (left), complete with a very contented bullock in the left foreground just to emphasise the pastoral nature of the Airfield!



## SUBSCRIPTIONS

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

Subscriptions should be sent to:- Mr.E.C.Greenstreet, 50 Brands Hill Avenue, High Wycombe, Bucks, HP13 5PH from whom Standing Order Payment Forms may also be obtained.

## Content of 'Dirigible'

The editor welcomes articles and correspondence for possible inclusion in **'Dirigible'**, also 'review copies' of new publications and journals concerned with airships and balloons: we have a world-wide readership! The contents of **'Dirigible'** are copyright and are *not* to be reproduced without the written permission of the Editor.

**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.

Membership of the Airship Heritage Trust is open to all persons with a particular interest in, or specialist knowledge of, airships. The Trustees, who constitute the Governing Council of the AHT, are elected by members from among their number. In addition there are also coopted members and observers in attendance at Council Meetings. Further information and application forms can be obtained from:-

Norman Pritchard, Windsor Loft, 75 Albany Road, Old Windsor, Berks SL4 2QD. Tel: 01753 862977.

**'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 RC, RAF Cardington, Bedford MK42 0TH, UK.  
Tel: 01234 742710 (mornings only)

Registered Office of the Trust is situated 4 Goldington Road Bedford MK40 3NF  
Registered in England: No.2104681

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