

Bloodhound News

The Newsletter of the Bloodhound Missile Preservation Group (BMPG)

Comment

Welcome to Issue 2 of Bloodhound News. It's now a year since I became involved in the active preservation of Bloodhound equipment after realising that without some proactive effort much of what remains of Bloodhound would continue to deteriorate and ultimately disappear. One year on and substantial progress has been made. Restoration work has started on our LCP and much more is being achieved as you will read in this newsletter.

Progress has only been made possible by the contributions of individuals and organisations. I thank them as they are all enabling us to bring together the main components of a Bloodhound MKII section. Our restoration goal is to have a missile on its launcher, LCP and T86 all on public display and in a covered environment. Central to this task is the restoration of our LCP's simulator for public demonstration of how Bloodhound acquired and engaged targets. Particular thanks go to the Swiss BL-64 (Bloodhound) museum for their support and donated equipment that will now make the simulator restoration possible.
















The BMPG is a credible organisation and undertakes its restoration tasks in a professional manner. This means that the time has come for us to formalise our management, structure and membership. Details on how this will be achieved are covered in this newsletter.

We are also fortunate in having the support of Visible Impact, a brand development company, who have created an image for the BMPG. The new BMPG logo is published in this newsletter and will be part of all future public facing web pages, marketing documents and correspondence.

Pete Harry



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Bloodhound Force Reunion

24th October 2012 saw the first Bloodhound reunion in the Park Plaza hotel, Nottingham. This was an informal gathering during the afternoon as agreed during the initial BMPG meeting at the Newark Air Museum.



Attendees represented those that served on Bloodhound in the RAF from MKI right through to the end of the MKII system in 1991. Many old friends were reunited, new friends made and nostalgia shared by all. Particularly welcome at the reunion were ex Ferranti engineers.

Future Bloodhound Events

50 Years of Bloodhound

2014 sees the 50th anniversary of Bloodhound MKII. To mark the event the Swiss BL-64 museum are organising a celebration event in the summer of 2014, date to be announced. The anniversary highlight being eight missiles on launchers. Please email if interested in attending.

25 Squadron 100th Anniversary

An event is being planned to celebrate the 100th anniversary of 25 Squadron in September 2015. The event is open to all who served on 25 with Bloodhound and on the various aircraft types the Squadron operated. Let's get a good Bloodhound contingent at the event. Further details will be published when known.

BMPG Image

The BMPG has a new logo and accompanying strap line – Defend, Protect, Preserve. The logo will be included on all future BMPG communication and included on the web site at the next update. The logo has been designed by Visual Impact (www.visibleimpact.co.uk) who have kindly donated their expertise, creativity and time to the BMPG.



BMPG - Charitable Status

To continue BMPG's preservation work it is now necessary to incorporate some formality in our organisation. The first step is to adopt a formal footing by securing charitable status. Becoming a charity will provide:

- Declared aims and objectives for the BMPG (a Constitution)
- An organised structure for the management of restoration work being undertaken
- A means of generating and managing funds
- Become an entity for commercial activity and communication

To achieve charitable status a Constitution explaining what the BMPG does and how it is to be run is required. A draft was available at the October reunion and will be published to all who have attended BMPG meetings and anyone else on request.

The management of the BMPG has to be carried out by a board of between six and ten trustees. Once trustees are in place the inaugural Annual General Meeting can be held. If you are interested in becoming a trustee, but have not already indicated an interest, then please email Pete Harry at contact@bmpg.org.uk. Your commitment as a trustee would be to attend an initial meeting to adopt the Constitution followed by one AGM per year. Direct involvement in specific projects is something you can choose to do or not.

Charitable status will mean that fund raising is possible and all monies received and spent will be authorised and accounted for, as you would expect.

Membership of the BMPG

With acquisition of charitable status there will be a requirement to record membership of the BMPG. Initially, those who attended the Newark Meeting and the Reunion at Nottingham are considered members unless we are notified to the contrary. Currently, members are communicated with through email and this will remain the case but the formal membership list has to include phone numbers and

addresses and these will be managed in accordance with the Data Protection Act.

The intent is not to have a membership fee but, once charitable status has been achieved, members may consider making donations to specific restoration projects. In future all organised events will be funded by those attending on 'a pay as you go' basis. A fee will also be charged for any requests for correspondence by letter or hard copy of the newsletter to cover costs. The newsletter will only be made available to BMPG members and by request from non-members; it will not be put in the public domain as Issue 1 was.

T86 – Life after Bloodhound

The T86 in RAF service was known as the AD10 for the army's Thunderbird MKII system and the RB68 for Sweden's Bloodhound Mk II. The Ferranti name for the radar was Firelight. Firelight was a versatile tracking radar and transportable - by road!

The use of Firelight was not restricted to Bloodhound and Thunderbird as in the 1980's and 1990's Ferranti Edinburgh maintained a Firelight and on occasions loaning it to RSRE. RSRE would use the radar for various research and 'project' work.

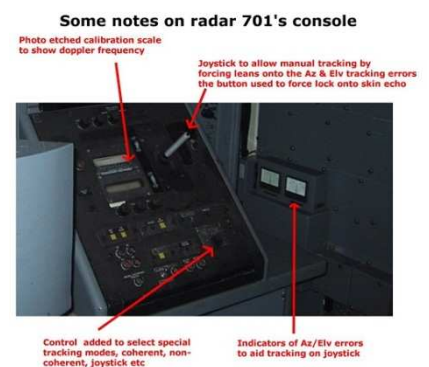
Ferranti's own development model of Firelight was replaced in the mid 1980's by one of two Firelight radars in store. The stored Firelights were what remained of a Libyan order, cancelled when Colonel Gadhafi came to power. One of the stored Firelights, Ser. No. 701, was used by Ferranti for testing, trials and loan to RSRE until 1994.



The preceding photo is of 701 at Ferranti Edinburgh. Note: No Jamming

Assessment Aerial and no In-flight Reference Aerial which has been replaced with a video camera.

In 1994 701 was transferred to RSRE when all work on Firelight ended at Ferranti. 701 was not alone in going to RSRE as two other Firelights were also transferred but it is not known where from or when. One of the radars is believed to be an ex T86 from North Coates. All three radars were modified to varying degrees for their work at RSRE. One modification on 701, carried out by Ferranti, was the ability to manually control the aerials and track targets.



RSRE eventually disposed of their Firelights at the end of the 1990's and they were obtained by the Newark Air Museum. One Firelight has since been transferred to the Norfolk & Suffolk Aviation Museum while two remain at Newark one being used as a store as it no longer has an aerial system. The third, Serial No. 701 is in the best condition of all the Firelights that remain and is on public display at the Newark Air Museum.

Any further information on the origin of the RSRE Firelights would be welcome.

Visit Report - Swiss BL-64 Museum

On the 19th and 20th September 2012, Pete Harry spent two days as a guest of the Swiss BL-64 (Bloodhound) museum. The hospitality and the museum itself were wonderful.

Some background: The Swiss had six Bloodhound sites with a total of nine sections each with eight missiles. Bloodhound along with the Mirage was a coordinated defence system for Switzerland, defending their airspace to 20,000 metres and beyond its borders.

All Swiss Bloodhound sites were 'hardened' with concrete bunkers, block houses and silos.



The BL-64 museum is a complete section with eight missiles (four on launchers at any one time), LCP and T87 radar, preserved on its original site near the town of Zug. The section remains as it was when powered down in 1999. Close to the missile section is the museum building which displays various components from the missile, T87 and LCP. Additional to the museum display is a lecture theatre and a dedicated room for a working simulator from a post 1986 LCP, see following photo.



The BL-64 museum is open one day a month from April to November. To arrange a visit contact Zug Tourism on 041 723 68 00 or email bloodhound@mhsz.ch. Web site: www.mhsz.ch. The volunteer staff who run the BL-64 museum are ex Swiss Bloodhound and are very welcoming. A visit is highly recommended. A pre 1986 LCP Argus 200 is also on display.



The Last T87



The Swiss BL-64 museum has what is believed to be the last complete T87. Don't be misled by the preceding photograph as inside the concrete block house is a complete "entombed" T87 with all its cabins in place. If you are wondering how the T87 can be dismantled, it can't! The concrete block house would have to be demolished first. Are there any other complete T87's that survive?

LCP Recovery – Cosford

13th September 2012, the day when all the planning for moving the BMPG's LCP from the RAF Museum's storage area at Cosford to a secure location in an RAF hanger on the station. Available to help with the move were a number of trainees from No. 1 Radio School, RAF Cosford with the permission of O.C No 1 Radio School. The move was also carried out with the support of the RAF Museum. The following photo shows the LCP lift in progress from its resting site at the RAF Museum's storage area.



The 7 tons of LCP was well within the lift capability of the 24 ton Hiab truck used, hence avoiding any risk of a repeat of the dropped T86 at Wildenrath! The main concern following the LCP's many years (around 15) at this location, exposed to the elements and uninvited visitors was 'would the bottom drop out'. Thankfully any such fears were not

realised as, whilst the LCP may look a bit unkempt, it is was sound.

Thanks go to O.C. No 1 Radio School at RAF Cosford and the group of trainees who assisted on the day.

The following photo shows the LCP safely in its new home with the team in a 'job done' pose.



Please see the LCP restoration item in this newsletter for progress to date.

MKII Missile – Part 1 & 2

The following two photos show the sectioned rear of a MKII missile, a bit of nostalgia for MOTE men and Riggers. The Swiss BL-64 museum displays a complete sectioned MKII missile. When the following photos were taken the missile was in its silo so it was not possible to fill the frame with a complete missile. Further photos showing the front section of the missile will be published in the next newsletter.



Identification of the missile's components and their function would be welcome. Please email contact@bmpg.org.uk.

Repatriation of MKII Launchers

Following his visit to the Swiss BL-64 museum last July Jonathan Aylen advised us that the Swiss were disposing of three MKII launchers, the launchers being in excellent condition compared to some examples in the UK. Following contact with UK museums that have a Bloodhound missile but no launcher, requests for a launcher came from the North East Aviation Museum and The Muckleburgh Collection.

Pete Harry's visit last September to the BL-64 museum was in part to view the launchers and look at how the BMPG could recover them to the UK. The decision was made to return two complete launchers plus assemblies from the third. Pressure was on to complete the recovery of the launchers as the BL-64 site closed in November for the winter, before the snow arrives. The following photo shows we just made it.



The BMPG are not normally importers of ex-military equipment so a very quick learning curve was needed with Customs and Excise. All finally went well thanks to a lot of help and support from the shipping company, Sealane Freight of Harpenden, who entered in to the spirit of organising the transportation. Complications came from; Switzerland is not in the E.U. and the launchers were military equipment. After overcoming the various trials and tribulations of this task it was all summed up by our Sealane agent; 'it's a change from shipping pallet loads of tinned tomatoes'.

Unloading of the launchers took place at The Muckleburgh Collection in

Norfolk. Loading and unloading the launchers was through the trailer roof!



The cost of transportation and duty had to be met but the Swiss BL-64 museum kindly donated the launchers.

LCP Restoration

Following the recovery of the LCP Neil Cartman and Pete Harry had the opportunity to carry out an initial survey. It was known that the E.C's keyboard and tracker ball were missing along with the top switch panel of the display console. Apart from these items everything is complete. What follows is a summary of progress to date.

A couple of early achievements: The door locks were freed with ample applications of WD40 and 3-in-1 oil and are once more operating. The LCP is once again secure; the RAF museum even found the original keys! The second achievement was the repair of the LCP's early 1970's era Hoover Dustette, ex L men will recognise it from the following photo.



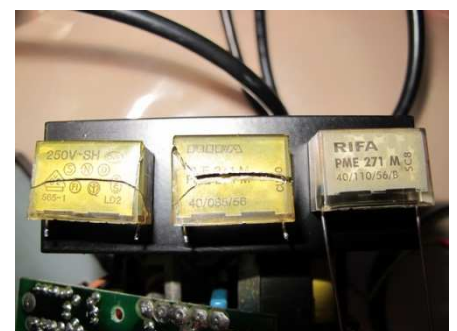
Thanks to eBay the u/s motor and impeller were replaced from a working 'civvi' model. The now serviceable Dustette has 25A/30 and 75E marked on its body, possibly an inventory number. It is known the BMPG's LCP was on 25 B Flight at Wildenrath but this Dustette is marked 25A. Any information welcomed to help trace the history of this LCP, Ser. No. 1022.

More serious restoration has now progressed apace with Mike Strange taking on the Ferranti FT81 terminal which will allow us to talk to the

Ferranti Argus 700 computer (the 700 replaced the 200 in the 1986 upgrade). The FT81 sort of works in that the screen is full of organised green markers, as in the photo below, instead of the single insertion point. Mike is persevering and attempting to reverse engineer the control PEC so would like to hear from anyone who has a circuit diagram.



All fourteen (yes, 14) Farnell G series power supplies have been removed from the computer rack and display console, repaired and tested. After all the years out of use, in far from ideal and damp conditions, the faults repaired and precautionary replacements include the RIFA branded suppression capacitors and a number of tantalum bead capacitors. The following photo shows the condition of the RIFA capacitors in situ, what happens to the capacitor if the power supply is switched on (they smoke), the third capacitor is new, how they should look.



The final power supply for checking and/or repairing before work can start on the Argus computer is the Weir SMM 300 SD, otherwise known as the Ferranti MS219 that powers the Argus Winchester and tape drive.

Once the FT81 and all power supplies are serviceable the next task is to check out the Cipher tape drive and the Wren Winchester. Restoration of these two items, responsible for loading and

running the LCP software, will be covered in a future newsletter.

The goal in restoring the LCP is to bring the SIM back to working order. A task now made very possible through the support and generosity of the Swiss BL-64 museum who have kindly donated several items to the BMPG including a complete Argus 700 in its chassis, an Argus Monitor Panel, a Winchester containing a copy of the Swiss software and a new E.C keyboard and tracker ball. The following photo is the BMPG's spare Argus 700, complete with processor and all cards as per the LCP configuration.



It cannot be emphasised enough how important the donated items are to the BMPG and we thank the Swiss Bloodhound team for their generosity as without their support the restoration project would be even more of a challenge.

Restoration of the LCP can be completed as replacements have now been obtained for all missing items:

- Top Switch Panel
- E.C.'s Keyboard
- E.C.'s Tracker Ball

The E.C.'s keyboard and tracker ball have been kindly donated by the Swiss BL-64 museum. A top switch panel for the display console has also been obtained. It has some damage with several switch and lamp covers missing. It is hoped that the source of the top switch panel will be acknowledged in the next newsletter.



The donated E.C keyboard is still in its original packaging and for those with good eyesight; yes, it does have the

Swiss key layout but this is not a major problem as the key functions are translated before reaching the Argus 700.



If there are any ex 'L' men with Post 1986 LCP experience, or anyone else, who would like to become involved in the SIM restoration, please email contact@bmpg.org.uk. This request to support the restoration is for both ex-RAF and ex-Ferranti engineers – the more the merrier!

The Muckleburgh Collection

The Muckleburgh Collection, which received one of the repatriated launchers, has a MKII missile on a servicing trolley which is currently in store. The plan at Muckleburgh is to display the missile on its 'new' launcher in one of their display halls for the 2013 summer season.

The only known remains of a T87 in the U.K. are at Muckleburgh – the Mekon (or should it be Dalek) and aerials. I did spot that the in-flight reference aerial was missing.



The Muckleburgh Collection is well worth a visit and highly recommended. The collection is based on armoured vehicles, artillery and air defence. They would welcome support, particularly to prepare their missile and launcher for public display next year. If you can help please email contact@bmpg.org.uk.

Mystery Photo

The mystery photo in Issue 1 has the location identified by Chris Chapman

from The City of Edinburgh Council; 'photograph was taken at/near the old WW2 anti-aircraft gun and balloon installations at Alnwickhill, Liberton, Edinburgh, south east of Tower Farm'.

Bill Parker, who worked in the MK1 receiver laboratory, if you go to Google Earth coordinates 56 54 47N 3 11 43 W and look north at ground level.

As the location is close to Edinburgh the missile was obviously used by Ferranti but for what purpose?

Now for this issue's mystery photo: Can you identify the trailer in the following photo? The location isn't important but what is it and what has it to do with Bloodhound? Emailed answers welcomed to contact@bmpg.org.uk. Answer in the next newsletter.



... and Finally

A quote from a senior member of BAC's original Bloodhound design team on the general attitude to guided weapons by the "Powers that be".

'The Aeronautical Society chose to celebrate BAC 100 solely on Concorde, which no airline would buy. The Bloodhound, which saved Bristol Aircraft from bankruptcy, defended the deterrent for years, earned export money and was in service for years - totally ignored'.

... and do you know the answer to this: A notice in the LCP states 'temperature should be checked three times a day'. What temperature is checked and why?

Contact Information

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Photographs courtesy of: Swiss BL-64 Bloodhound Museum, David Mackenzie, Neil Cartman, Mike Strange and Pete Harry