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Ian Youna **Editor** 

elcome to this month's feature-packed issue, which is something of a 'Jeep Special' in which we have gathered together a number of Jeep related articles that I'm sure you will enjoy. For those of you who don't have a particular interest in this popular subject fear not because we have a series of specials planned throughout 2012 so keep your eyes peeled.

For those of you not aware, the year 2012 is the anniversary of a number of key events and vehicles. First off we have the 30th Anniversary of the Falklands War, together with the 30th Anniversary of the annual War & Peace Show. The Austin Champ also celebrates it's 60th Anniversary, with a number of special events being planned by the Austin Champ Owners Club, and later in the year it will be the 70th Anniversary of the battle of El Álamein in North Africa.

We will be aiming to cover all these key events in the magazine, with a number of other special issues in the pipeline too, so as you can see it's going to be a busy year for us here at Military Machines International and we hope that you'll keep abreast of everything that's happening by continuing to read and support your favourite military vehicle magazine - Ed.



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# Regulars

#### **UP FRONT**

Our monthly round up of the latest news and views

#### MMI CENTREFOLD

First of a series of centrefolds for you to pull out and collect

**COMBAT CAMERA**Shaun Connors reveals some of his favourite military photos

#### **BULLETIN BOARD**

Shaun Connors brings us the latest news from the defence industry

#### **MISSION BRIEFING**

The latest military show dates for your diary

#### ON THE SHELF

The latest military-related books and DVDs reviewed

#### **CLASSIFIEDS**

Find those bargains in this issue's classified adverts

#### **COMING NEXT MONTH**

Find out what's in store in the next great issue

## World War Two MEET THE ANCESTORS



# JEEP SPECIAL!







**AMPHIBIOU** 



# CONTENTS April 2012 Volume 11 Issue 11

# Features

#### **WARTIME**

- 14 JEEP BUYER'S GUIDE A rough guide for those thinking about buying a wartime Jeep
- STAND OUT FROM THE CROWD We look at a variety of Jeeps that are just 24 a little different from the norm
- 30 MEET THE ANCESTORS Mark Askew traces the ancestry of the famous wartime Jeep
- WATERPROOFING JEEPS 38 Mark Askew looks at some of the attempts to waterproof the Jeep in wartime
- 46 A NEW DAWN Richard Pullen looks at early developments in the race to create the first tank

#### **MODERN**

- 53 **EX PATRIA SOBERANA** Santiago Rivas reports on a military exercise staged by the Venezuelan Army
- 60 AMPHIBIOUS ASSAULT Geoff Fletcher joined 3 Commando Brigade during a recent exercise
- 70 WITHAM'S NEW ARRIVALS We reveal the latest military vehicles to arrive at the MoD Disposal Agents

#### SHOWS

64 SALUTE TO THE 40's Patrick Boniface reports from the Chatham Docks 1940's weekend

Exercise S ASSAULT 60

Military Surplus WITHAM'S NEW ARRIVALS





# NEWS and REVIEWS ULD IFIROINT

**SAS** WAR DIARY 1941-1945

What a book! It's large, dam heavy and expensive? Or is it? Collectors books today can fetch £1,000's, so when you consider its size and limited numbers (each copy is numbered), then this will become a true collector's item! If you have an interest in the history behind the world famous SAS this is a must have, assuming you can stretch your funds to buying a copy!

Each page is printed on 240-gsm heavy archive quality paper, so you can imagine the weight. Opening each page is a pleasure and a real eye opener. The typed and 'some' hand written text is clear, with many newspaper cuttings, maps and some drawings too, however, the archive photos provide the 'Wow factor' in

this book, and while you may have seen some of these photos before, I would estimate that roughly 80% of the 300 or so photos have never seen the light of day, and offer an incredible insight into the SAS in WW2. This is a truly excellent book, with great first hand accounts from the diaries and an absolute must for the connoisseur. The sales pitch from the publishers



gives a good insight to this book, but in my mind, it's a 'one off' publication, that only a few thousand people will get the chance to read, but if you can afford it, get one, but prices for the various editions ranging from £975 to £2,500 for special signed copies, this is no small investment.

Jeep World has a sample copy for viewing, which can be seen on their stand at shows during 2012. Alternatively they can send you an information pack, just email your postal address and they will send you a copy ASAP, or visit: <a href="https://www.jeepworld.co.uk">www.jeepworld.co.uk</a> for more information, or email them at: <a href="mailto:jeep.promotions@btconnect.com">jeep.promotions@btconnect.com</a>

# Avenger not Comet!

We've had a couple of emails regarding Shaun Connors' archive feature on the vehicles tested at ATTURM. It would appear that Shaun's statement admitting to knowing more about current generation vehicles was more accurate than he may have thought as the image shown at the foot of page 46 and described as an A34 Comet was in fact an A30 SP Avenger and not a Comet tank!

Our apologies for the error and our thanks to Kevin Browne for letting us know about the mistake. Kevin also tells us that the Avenger and its close relative the Challenger both carried a true 17-pounder gun on an extended Cromwell/Comet hull. The Cromwell and Comet both have 5 wheels each side, the Cromwell without return rollers. The Avenger normally has an open topped turret fitted with a metal canopy (with hatches), which may explain the high screen attached to the top of the turret.



# NUFFIELD **FV1800** "Gutt

To celebrate the 60th anniversary of the Austin Champ entering British Army service the ACOC is organising a major event in 2012 and the world's only surviving Nuffield FV1800 'Gutty' prototype has been confirmed for Champ 60th Anniversary rally, making a very rare public outing this summer.

Originally designed by a team that included legendary Mini inventor Alec Issigonis the Gutty was manufactured by Nuffield Mechanisations. It utilized many revolutionary features including monocoque construction and independent suspension by torsion bars. The electrics were waterproofed and screened for radio suppression. It was powered by Morris's experimental flat four, water-cooled 1800cc petrol engine, an adaptation of the 800 and 1100cc units that Issigonis originally planned to use in the Morris Mosquito, forerunner of the Morris 1000.

JLR490 was one of two trialled by the Army in 1946 and 1947. A third is rumoured to have been built and possibly retained by Nuffield themselves. Only one now survives. After many years of storage it has been passed to the British Motor Industry Heritage Trust's fabulous collection of historic British vehicles at Gaydon, Warwickshire, and for just two days this summer, 23rd and 24th of

Photo of Nuffield FV1800 **Gutty courtesy of BMIHT** 

June, it will be the star of the Austin Champ Owners Club's 60th Anniversary celebrations at the Wartime-in-the-Vale national Military Vehicle Trust event at the Ashdown Camp at Badsey near Evesham in Worcestershire.

The results of the Gutty trials led to the development of the next generation of experimental 4x4 vehicle, the Rolls Royce powered Wolseley Mudlark; the Mudlark then led on, in 1952, to the Champ; hence the 60 years anniversary. Two Mudlarks survive in the world, one in India and the other will be alongside the Gutty at Evesham. In addition to these significant exhibits there should be in the region of a hundred Austin Champs including many variants.

# Vewbury 4X4 and VINTAGE SPARES DAY

Mark Woodward is organising 4x4 and Vintage Spares Days on Sundays 1st April & 30th September 2012. Held at the Newbury Showground, Chieveley, Berkshire, RG18 9QZ, just a 1/4 mile off Junction 13 of the M4/A34 junction, the event is easy to find and access.

Europe's Largest Land Rover Autojumble & spares day, now with added Vintage section, sees 600 plus traders usually attending, selling all types and ages of Land Rover Spares, parts and accessories plus a big ex- military section.

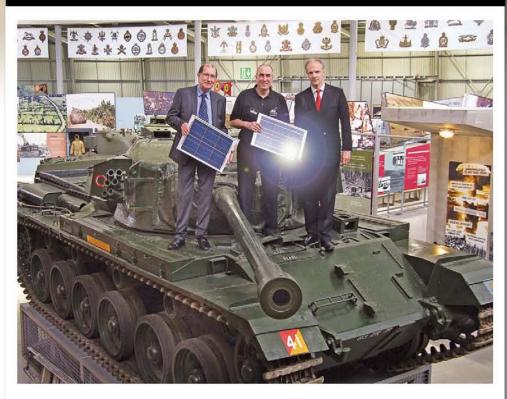
The event starts at 10am, so if you have a stack of parts to sell why not go along, or just pop along to the event and enjoy a days rummaging and try and pick up some bargains, after all you never know what may turn up!

Admission to the site is from 10am, admission is £6 per adult and under 14s get in for free, trader plots are available from only £20. For further details or to book in for the event call Mark Woodward on:

> Tel: 016974 51882 or check out the website at: www.4x4sparesday.co.uk



# Tank Museum Goes Green



The Tank Museum has plenty of green items in its world famous collection, but a new addition is set to provide a major boost to its environmental credentials. That's because renewable electricity generator, Farm Power, has installed over 200 solar photovoltaic panels on a section of the Dorset attraction's roof. The panels will generate around 20 times the combined electricity consumption of the average UK household, generating 47,000 kilowatt hours and reducing the Museum's carbon footprint by 20-tonnes per year.

The project has been developed for Farm Power Ltd, the independent renewable electricity generator, who has partnered with the Tank Museum. It has been designed and managed by energy efficiency solutions company, Anesco, using its locally based teams.

Tank Museum facilities manager Roy Hicks said; "The panels cover 90% of the roof space above one of our exhibition halls. It is modest enough in character not to be unsightly, whilst ensuring that the Museum is now generating 10% of its electricity needs from a renewable source that is sunlight. And South Dorset has lots of sunlight!

"This is a significant part of our new environmental policy, which also includes power saving and widespread recycling of waste materials."

The project was initiated in line with the Governments desire to achieve 20% of its power needs from renewable sources by 2020. Mark Simon of Farm Power said; "The government is encouraging both domestic and commercial organisations towards developing renewable generation where the technology is both viable and economic – we must do this at the same time as minimising the social and environmental impacts."

"Farm Power is an independent power producer which specialises in developing solar resources on small brownfield sites such as barn roofs; these have close to zero impact in terms of noise, pollution, waste and access."

"This project represents a milestone in that it is the first independently financed renewable energy project on Ministry of Defence buildings. The MoD has been hugely supportive of this initiative and we hope it will lead to many more schemes to assist government organisations meet their carbon reduction commitments", Mark added.

The project was swiffly brought forward when the Government announced that the incentive for installing solar panels would be halved from the 12th December 2011 and the leading UK energy efficiency solutions provider, Anesco Ltd, designed, procured and installed the complex project within five weeks of appointment.

"This project was a fine example of multi-agency co-operation to ensure the installation was complete before the deadline," said Roy. "Goadsby swiftly delivered a valuation report, whilst David Gray of the Ministry of Defence was enormously supportive. From the commander of RAC Bovington to Defence Estates Infrastructure Organisation and Debut (the MoD's maintenance contractor), all played a huge part in making this ground breaking initiative happen."

# Leandoer & Ekholm Correction

In 'On The Shelf' in the February 2012 issue we incorrectly credited Crecy Publishing as being the publishers of the five books reviewed on pages 66 and 67. While Crecy Publishing is the UK distributor for these books, as mentioned in the reviews, Leandoer & Ekholm are in fact the publishers, not Crecy Publishing.

We're sorry for any confusion this may have caused

Leandoer & Ekholm Förlag, Box 9034, 126 09 Hägersten, SWEDEN Tel: +46 (70) 788 2283 http://www.leforlag.se/index.php?eng

#### Northern Military Expo

Just a quick reminder that the next Northern Military Expo Show is due to be held at the Newark Country Show Ground, on **Sunday 1st April 2012**. This popular event is held at the Newark Country Show Ground, Nottinghamshire – just 2 minutes off the A1M (NG24 2NY) with room for up to 100 traders selling all manner of militaria, from Military Vehicles, Books and Manuals, to Vehicle Parts, and Uniforms, as well as Ladies 40's fashion, Radios, Medals, Models, Accessories and much more!

Opening Times are 9am to 4pm and admission is £5.00 per person. For more information contact:

Jeep Promotions Ltd, 5 Chestnut Ave, Wheatley Hills, Doncaster, South Yorkshire, DN2 5SW.

Tel: 01302 739000 Fax: 01302 739001 or email: jeep.promotions@btconnect.com

or email: jeep.promotions@btconnect.con
www.northernmilitaryexpo.co.uk

## Buckinghamshire Railway Show **Date Correction**

The Buckinghamshire Railway show advert, that ran on page 25, of the March `12 issue, had a couple of errors on it, namely the show date & the prices, the correct details follow (also see new advert on page 27 of this issue, for full details).

1940's weekend, 19 & 20th May, 2012

Pricing: Adults - £10, Seniors - £9, Children (5-15) - £7, Family - £27 (2 x adults & up to 4 x children) Under 5's - go free

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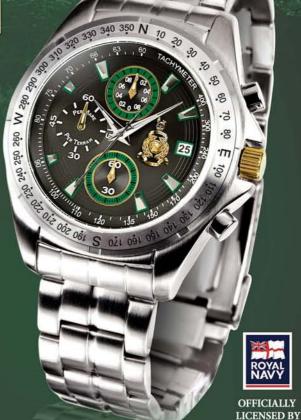
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# USMC Coach



Franz Tinio-Lopez has sent us some photos of a highly decorated USMC coach, but not in the traditional military sense! Franz came across the coach while it was parked at the Ronald Reagan Library and Museum, Simi Valley, California and he tells us that the coach is used by the 1st Marine Division Band from Camp Pendleton, California, who performed at the museum for the 101st anniversary of President Ronald Reagan's birthday. Our thanks to Franz for sending in the photos and what a cracking paint job on the bus!



# FV432 Photo

Richard Waterhouse is the proud owner of an FV432 MkII APC, Army Registration 08 EA 81. During Richard's formative years he was a member of 5 Queens Regiment, C Company, MILAN Platoon and it was here that his interest and fascination for tanks began to develop. Fast forward a few years, and several visits to the War and Peace show, and a chance phone call informed Richard that a FV432 that was currently being used to entertain corporate clients

was due to come onto the market. After a quick viewing and spur of the moment decision Richard suddenly found himself the owner of a slightly sorry looking FV432.

Having got the vehicle back home he set about restoring her and with the help of friends and family he slowly peeled back the layers of accumulated mud to reveal a haul of spent shells, ear defenders and camouflage cream! With the mud removed Richard carefully cleaned and repainted the inside rear of the vehicle, and already it was starting to look much better. Now that he could see what I was dealing with Richard turned his attention to the mechanical side, which was much more fun in his eyes!

The power pack wasn't charging properly, so with his brother-in-law's help, he found the measurements and dimensions to make a 'H' frame to lift out the power pack and with 'H' frame made, on a clear, cold and sunny day Richard and friends nervously lifted the power pack for the first time ready to commence the next stage of the restoration. They had a rough idea which problems needed to tackled to fix the vehicle, and set about changing the oil filters, fuel filter, rectifier unit and various other elements of the wiring circuits.

While it may sound straightforward and simple, looking back Richard says it was a steep learning curve for him, who learnt much by trial and error, as well as consulting the workshop manuals at Bovington, and through sheer doggedness eventually he won and the pack was charging correctly! To make doubly sure they had solved the charging problem, they let the pack stand for a week and before finally putting the pack back into the vehicle they connected it up and much to their delight she started first time, confirming that the problem had indeed been solved, leaving Richard and his friends with a magnificent sense of achievement.

Since then Richard has continued to clean and repaint the inside of the vehicle, before starting on the scruffy exterior paintwork, but alongside the actual maintenance work Richard has spent many hours and travelled many miles trying to document a comprehensive history of 08 EA 81 and while he has managed to obtain a significant amount of written information, so far any pictorial history has eluded him.

In his search for in-service images Richard has posted information on various military forums on the Internet, but to date has still not managed to find any pictures. Richard would dearly love to have a picture of his FV432 in service so if you recognise the vehicle and have an in-service photo you can pass on to Richard he would love to hear from you. You can contact Richard by emailing him at: **richard@waterhouse4475.freeserve.co.uk**Or send your information to the MMI Editorial Office and we will pass on the information.





# Sought





# Submariners' Day Ocelot 50

HM Submarine OCELOT was the last warship built for the Royal Navy at Chatham. To celebrate the 50th Anniversary of her launch in 1962, which also marked the end of over 400 years shipbuilding at the Royal Dockyard, a special Submariners' Day, OCELOT 50, will be held at The Historic Dockyard Chatham on Saturday 12th May

All submariners (past and present), together with ex-Chatham dockyard workers involved with building submarines (up to the closure in 1984) are invited to enjoy free admission to The Historic Dockyard for the day with special discounted tickets available for accompanying family and

There will be a Service in the Royal Dockyard Church to celebrate and commemorate the last warship built for the Royal Navy at Chatham and those who served in her and the wider submarine

This will be followed by a parade led by the Band of Her Majesty's Royal Marines CTCRM, Lympstone with the salute being taken at the head of HMS OCELOT, now in dry dock at The Historic



Dockyard. All submariners are welcome to participate in the parade. There will be an OCELOT contingent and Submariner Association Standards to take the lead behind the band.

After the parade a new submarine exhibition will be opened on the dockside adjacent to HMS OCELOT. Further details will be posted on:

www.thedockyard.co.uk/ocelot50

In the meantime, interest can be registered by emailing: aalmond@chdt.org.uk

or telephoning Tel: 01634 823816 providing name, postal address, telephone number, email and details of the submarine(s) service. Further details will then be forwarded direct.



## **Simon Weston** to Attend War & Peace Show

Falklands hero Simon Weston will be among the guests at this year's War and Peace Show and says he is "very excited about it".

The Show, which takes place at The Hop Farm, Paddock Wood, from July 18 to 22, celebrates its 30th anniversary this year. It's also the 30th anniversary of the Falklands War, and to mark this, all Falklands veterans have been invited to attend free. Second World War veterans can also attend free as usual.

"I love history," said Simon. "And I just love the fact that people are keeping it alive through living history groups and by buying military vehicles and displaying them.

"I think it's just wonderful and admire these people so much. In their own way they are paying tribute to those who served in the wars. Indeed many of them were in the armed forces."

Simon, a former Welsh Guardsman, was severely burned in June 1982 when the RFA ship Sir Galahad was bombed in Bluff Cove. As a result of his injuries he has undergone more than 70 operations and has had to cope with severe psychological trauma.

Since then he has written books, campaigned for numerous charities and built a first class reputation as an inspirational speaker. Today he is also a businessman working on a range of projects.

"What appeals to me about the War and Peace Show is the emphasis on peace - people dressing up in 1940s clothing, Land Army girls, how people coped with rationing, children in old fashioned prams dressed up for the period. I just love all that. It's nice that's it's done in an entertaining way, not glorifying or glamorising war but making it interesting.

"To look at the scale of the Show I just thought: 'Wow'. I've been to military shows where there have been a few vehicles and one or two living history displays. But something of this size is amazing.

Simon said it's important that the sacrifice made by so many servicemen in the Falklands should never be forgotten. "The recognition by the War and Peace Show will go a long way to ensuring this doesn't happen," he said.

The sentiment was echoed by Rex Cadman, organiser of the War and Peace Show. "We have always paid tribute to our Second World War veterans," he said.
"But it's important that we don't forget the

men who died or were wounded in later conflicts. "We are planning a major

display at this year's show to mark the Falklands War anniversary."

The War and Peace Show is the biggest military extravaganza in the world. It features the biggest display of historic military vehicles on the planet, a vast range of living history displays, 1940s entertainments and fashions, breath taking arena displays and an eight-acre militaria stall market. For further information see: www.thewarandpeaceshow.com





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# A rough guide to purchasing a wartime Jeep



he wartime Jeep undoubtedly remains a firm favourite with collectors and even in these financially challenging times there still seems to be a constant flow of Jeeps coming onto the market, although it has to be said that rising prices in recent years have largely put the Jeep out of reach of those starting out with a limited budget. Despite the rising prices the popularity of the Jeep remains at an all time high so we thought it was time to run another buyer's guide type feature, but for a change we have decided to offer you a 'Rough Guide' style feature, rather than run a full-blown guide.

Over the years we have run specific

Over the years we have run specific features detailing what to look out for when buying a wartime Jeep in Military Machines International, and if you do need a little more in-depth information regarding specific details on what to look out for mechanically when buying your first Jeep I would refer you to the most recent of these articles, which was featured in the December 2010, January 2011 and February 2011 issues

February 2011 issues.

We would seriously advise anyone unfamiliar with the Jeep and unsure what to look out for, to try and take someone along who is either a qualified mechanic, knowledgeable about the Jeep or preferably both.

There are a great many pitfalls waiting to catch out the unwary when purchasing a Jeep, and while you may have some knowledge of the mechanical aspect of the Jeep, you may not know enough to be able to judge the authenticity of a vehicle being offered for sale and sadly there are a few unscrupulous people out there who will try and pass off vehicles that perhaps aren't quite what they seem.





#### The Standardised Wartime Jeep





#### **Specifications - Willys MB**

132 in Length: Width: 62 in Height: 70 in Wheelbase: Weight: 80 in 2450 lb

**Engine:** 

441/442 2.2-litre 4-cylinder, inline, water-cooled petrol semi-elliptic leaf springs with telescopic **Suspension:** 

dampers all round

Twin shoe, hydraulically operated drums all **Brakes:** 

> round 6.00 x 16

Tyres: 15 US Gallons **Fuel Capacity:** 

Transmission: Three-speed plus reverse coupled to a

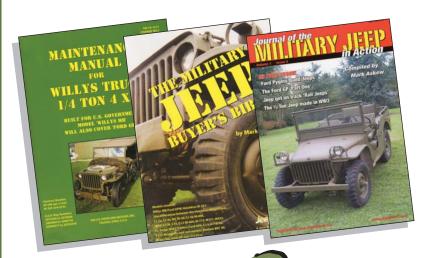
two-speed transfer case

Spicer Dana 4.88:1, Dana 25 Front, Axles:

Dana 23-2 Rear

**Electrics:** 6-volt

## Jeep Publications to suit every need



#### **Jeep Variant Production Totals**

Bantam Mk II – 70 Bantam BRC-40 – 2,675 Willys MA – 1,555 Willys MB - 359,489

Willys MB Slat Grille - 25,808 Ford GP - 3700 Ford GPW - 277,896 GPA - 12,774



Your first job is to determine what you want from the Jeep and how big your budget is. Wanting a certain type of Jeep doesn't necessarily mean that you will be able to afford it, assuming of course the particular type of Jeep you want is available in the first place, after all some of the early, non-standard variants of the Jeep are very hard to find, and if you should find one it could well be considerably more expensive than a

standard wartime Jeep. Although the wartime Jeep hasn't been in production or even released onto the open market in big numbers for many decades, there are still

plenty to be found on the open market, and apart from making sure that you're not buying a post-war Jeep disguised as a wartime Jeep, your biggest problem will probably be your available budget.

Realistically you will have to expect to pay a minimum of £5,000 for a Jeep in the UK, but for that you will get a Jeep in need of total restoration, and in terms of restoration costs this could easily double the cost by the time you're finished depending on what needs doing, but if you want a Jeep that's already restored and ready to use you'll almost certainly be paying anything from £12,000 to £20,000





for a standard wartime Ford or Willys Jeep, with specialist variants costing considerably more!

Many people choose to buy the French-built M201 Hotchkiss Jeep. which was built under license after the war, and incorporated various modifications such as a different electrical system, electric windscreen wipers and various modifications to the bodywork and chassis. While it's undoubtedly a slightly cheaper alternative to the generally more expensive wartime examples (although prices are closing rapidly as demand outstrips supply), if can easily be 'backdated' to replicate a wartime Jeep,

but if you want a vehicle with some wartime history, this may not be the route you choose to go down.

The Hotchkiss is essentially a wartime Jeep with some aspects of re-engineering, but it is remarkably similar to the wartime Jeep and with some modifications it can be 'back-dated' using replacement parts to create a convincing replica of a true wartime Jeep, and when done properly it can be very difficult to tell them apart!

Unfortunately this does present potential buyers with the possibility of purchasing a post-war Jeep when they thought they were getting a wartime Jeep and in the past,

some unscrupulous sellers have tried to deceive buyers by trying to pass off Hotchkiss Jeeps as a wartime Jeep to unwary purchasers. A little homework on your part beforehand can prevent you from falling into this trap and there are books available that describe the detail differences between the two.

Having said all that, with the prices of Hotchkiss Jeeps almost at the same level as wartime Jeeps, there's no longer a significant financial incentive to go to these lengths to deceive people and these days it's not unusual for a Hotchkiss Jeep to be advertised as a wartime Jeep replica quite openly

and there's certainly no shame in doing so, or indeed owning one if that's all your budget allows you to afford, and there are a few advantages in owning a slightly more modern Hotchkiss.

Of course if you wanted to be different you do have the option to leave your Hotchkiss Jeep as an original French post-war Jeep, and there are a growing number of Hotchkiss Jeeps being displayed in this way, which is something of a relief because we could have ended up in the ridiculous situation in years to come where there were no original examples of the Hotchkiss Jeep left in existence!



# adel?

While most people will recognize the Ford and Willys Standardised Jeeps, there are many other models out there to choose from. The differences between the Ford and Willys Jeeps are generally minor, being detail differences rather than major differences and again there are books available that will help you identify those differences, however, it's not unusual to find a composite Jeep where the chassis is from one type, the engine and gearbox from another and the body different too, so don't be too alarmed if you come across a vehicle like this. In wartime it was standard practice for Jeeps coming into workshops to be stripped and rebuilt using whatever parts were available, and with parts being interchangeable, the exchange of components was common practice.

A totally original Jeep with the

correct chassis, body and running gear and matching numbers is comparatively rare these days and will command a premium, but the introduction of replacement bodies and chassis in recent years has complicated matters.

Sometimes the bodywork or chassis of a Jeep is so badly corroded or damaged that it's

simply not cost effective to repair them and a replacement unit is a much cheaper way of doing things, especially if you're unable to do the welding or repair work yourself.

There are a number of suppliers of replacement bodies and chassis out there, and it has to be said that the quality of the items being supplied has improved no end over the years so telling when something has been replaced and when something is original is getting more difficult to detect unless the seller is honest and up front with you.

Some of the less common variants are harder to find and because they were built in smaller numbers are sometimes less well served with spares, but the high prices these vehicles can attract may well put them beyond reach in the first place. The likes of the Bantam, Ford GP, Bantam BRC-40, Willys MA, are now firmly in the realm of the rich collector, although there are a number of these vehicles in preservation and you do see them at military vehicle shows.

While the slat grille Willys MB is considerably rarer than the standardized Willys MB, there are a surprising number of them in preservation and while they do attract premium prices, they don't tend to come up for sale very often, but spares are readily available.





**Left:** while it may look like an unusual variant of the wartime Jeep, the French Delahaye was in fact a post-war design and not descended from the wartime Jeep like the Hotchkiss.

Left: the Willys CJ-2A was a post-war Jeep and while it looked very similar to the original wartime Jeep, it corrected many of the original Jeeps faults. A drop down tailgate, and drain holes in the footwells were just two of the modifications.

**Left:** in this view of a CJ-2A we can see the side fuel filler, which is an easy way to distinguish it from the wartime Jeep.

**Below left:** the M38 MC was another post-war variant of the Jeep. Note the different headlights, front grille and windscreen arrangement.

Bottom group: the French-built M201 Hotchkiss Jeep is the most widely available post-war Jeep, and while some models were built to incorporate a recoilless gun (below left), and some were fitted with roll over bars (bottom left), most were virtually identical to the original wartime Jeep.



# Rusty or 1



The condition of the Jeep you decide to buy will probably be dependent on a number of factors. Budget is obviously going to be the main factor, but your skills as a mechanic may well influence your decision too. Basically you have two choices, buy a Jeep in need of restoration or one that has already been restored and is ready to use, and your budget will influence that choice. It may well be that you can only afford to buy a Jeep in need of restoration, but don't have the mechanical skills to be able to restore it yourself, but equally you may not have the budget to pay for someone else to restore the vehicle for you, putting you in a 'Catch 22' situation.

**Above:** mechanically the wartime Jeep is a fairly simple vehicle, making it ideal for the

**Right:** you can realistically expect to pay £5,000 or more for a Jeep like this in need of complete restoration.

absolute beginner.

Far right top: a hood and full weather enclosure is essential if you're going to use your Jeep in winter time.

**Right:** French Hotchkiss Jeeps are reasonably plentiful and available from a number of dealers on the continent.

Far right: it takes a brave man to use an open top Jeep in sub-zero conditions. Thankfully a variety of cold weather enclosures are available, but no heater!

**Right:** a rear basket is a popular accessory and greatly increases the amount of stowage space in a Jeep.



# Restored?

What I would say is that the vast majority of the jobs involved in restoring a Jeep are well within the capabilities of any DIY mechanic, so don't be put off by the thought of having to restore your Jeep if it's the only way of you getting one, and remember, sometimes it can be cheaper to replace than repair, so if you're less concerned with retaining the historical integrity of the Jeep, new parts may well be the best and cheapest way forward and with so many companies here in the UK and indeed around the world offering a huge range of spares and accessories for the Jeep, there's no shortage of parts, in fact it's sometimes said that if you had a big enough budget you could build a complete Jeep from brand new parts, although I've yet to see it done!

The fact that so many parts are available makes the restoration of a Jeep so much easier, instead of having to wait for second hand or NOS (New Old Stock) items to turn up at shows and jumble sales, these days you can now pick up the phone or get on the Internet and place an order, and in many cases you'll have your parts the next day!

Even sometimes hard to find items that are often missing on vehicles such as the data plates on the glove box lid have been faithfully reproduced, and it is the availability of these sort of parts that has enabled owners not only to complete top notch restorations, but for Hotchkiss owners to back-date their Jeeps to a wartime specification with relative ease.

If the Jeep is unfamiliar to you and you're hoping to restore and maintain the Jeep yourself, copies of original parts and maintenance manuals are also widely available from a number of sources, including parts dealers and booksellers. The manuals provide valuable information when working on your Jeep, and because they were aimed at soldiers with limited mechanical knowledge using basic tools, often in a field combat situation, they're relatively easy to understand and are well worth the investment.



that allow you to personalise your Jeep..."

numerous variants and incorporated a number of modifications over standard. In recent years it has been replicated by many owners.

Above & left: many owners aspire to recreate one of the famous wartime SAS Jeeps that fought in the desert, but with the high cost of the parts and weapons needed to create a convincing replica, it's not a choice that's available to everyone.

# The Jeep is short on stowage space so a trailer can be a useful accessory if travelling to shows. The standard .50 cal or .30 cal machine gun pedestal mount is a popular accessory.



# Start Hunting

The standard Jeep is a fun vehicle, especially in summer time with the hood down and the sun beating on your face, however, you should remember that it lacks many of the creature comforts found on more modern vehicles and the weather isn't always 'Jeep Friendly'. While people do drive them long distances in all weathers, they're not the most comfortable of vehicles, being cold, cramped, noisy and drafty. If you're looking for something to use as an occasional runaround or to take to the odd show or event and don't mind putting up with these drawbacks then the Jeep can be a great vehicle for the collector, but it's far from an ideal day-to-day vehicle.

The small size and good availability of parts ensures that just about anyone can own a Jeep, assuming of course that you can afford to buy one in the first place. If you want to stand out from the crowd however, the Jeep may not be the best choice because there are many thousands of them in preservation and they remain one of the most commonly seen vehicles at military vehicle shows. Elsewhere in this issue we have covered some of the ways that you can personalize your Jeep to stand out from the crowd, and in recent years many people have chosen to replicate particular variants, with the British Airborne Jeep and SAS Jeep being particular favourites.

This is all well and good, but if you have decided to go down this route, but still have a limited budget, you may want to start with a Jeep in need of restoration because some parts of the original Jeep such as seats, windscreen etc. may not be needed and therefore could save you some money. Unfortunately you'll still need a considerable budget for the weapons associated with such variants, regardless of whether they're replica or deactivated.

Other more common accessories available to 'trick up' your Jeep include items like machine gun pedestal mounts, rear stowage baskets and aerial mounts, and to be fair you can pretty much do anything with your Jeep and remain authentic given that there was very little that the military didn't do to their Jeeps in wartime.

Hopefully this guide will have provided some useful information that will be helpful when you're looking for your own Jeep, just be careful what you're buying and know what you're getting yourself into. In terms of places to look there are the usual classified adverts in various magazines and club newsletters, but the Internet is increasingly taking over, with various military websites and Internet auction sites being popular places to find and sell Jeeps and military vehicles. It's also worth checking out your local newspapers as Jeeps do occasionally turn up, but also keep an eye on farm sales and auctions because it's not unusual for Jeeps to be found tucked away in barns and sheds having been purchased after the war for work on the farm.

Whatever you end up buying and whatever you do with your Jeep you can rest assured that you will be joining a worldwide 'Jeep Family' and wherever you go you can be sure that someone will have something to say about your Jeep, whether it's a tale from when they used to drive one in the army, or an owner comparing notes and offering advice, or someone seeking more information about Jeeps because they're thinking about buying one. Very quickly you'll realize that a Jeep isn't just a military vehicle, it's a way of life!









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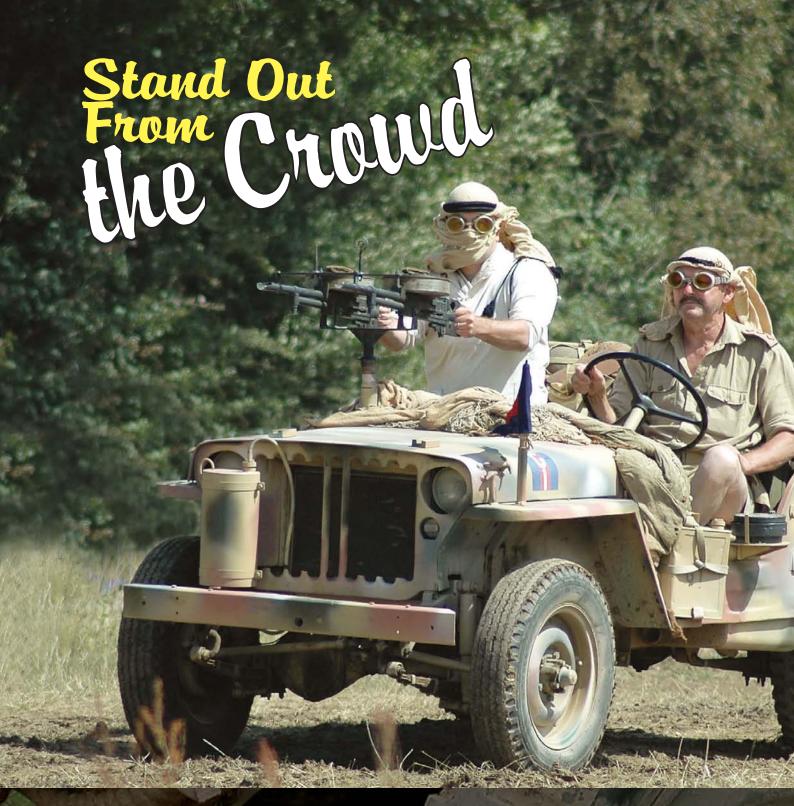














o those looking in on our hobby from the outside there's a common misconception that all Jeeps are green. In actual fact nothing could be further from the truth and while the Jeep has always had its critics, the variety of wartime Jeeps available to the collector is huge and getting bigger all the time. In reality there's no need to blend in with the green masses if you don't want to, if you prefer to stand out from the crowd there are a number of ways in which to achieve that aim.

If you're working with limited funds, why not start with a basic colour change? The Jeep was used in all theatres of war all over the world, the

upshot of which is that there are a great many colour schemes for you to choose from. Apart from your basic overall colours such as Desert Sand, US Navy Grey and Royal Navy Gloss Blue, there are more elaborate camouflage schemes to consider with the LRDG 'spotty' desert scheme one of the more unusual you're likely to encounter.

If camouflaged Jeeps aren't for you why not consider the 'Follow Me' Jeeps, which were, by the very nature of the job they performed, painted to be very visible. Chequer board patterns applied over some, or all of the vehicles were the most common way of making the so-called 'Follow Me'

# We take a look at some of the more unusual wartime Jeeps to be found at shows

# WW2 'Follow Me' Jeeps



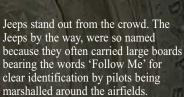
Left & below left: this black and white chequered 'Follow Me' Jeep was spotted at the Duxford Military Vehicle Show. The modifications are minimal, with the addition of the board for the 'Follow Me' sign on the back of the vehicle the main change, but the paintwork turns what could be an ordinary Jeep into one that really stands out from the crowd.

**Bottom left:** photographed at the same Duxford Military Vehicle Show, this 'Follow Me' Jeep featured less chequer boarding, but a much brighter yellow ground to create a stunning look.

Bottom right: the board carried on the back of this Jeep says it all and shows where the name 'Follow Me' Jeep came from. This particular Jeep was spotted touring round the showground at the War & Peace Show.

Below: this variant on the 'Follow Me' Jeep theme offers the best of both worlds. The removal of the flag and the sign would turn this back into a standard Jeep!





This LRDG Jeep falls bewteen two

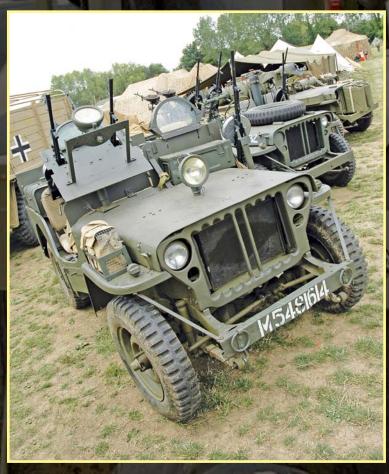
Yellow over Green, Yellow and Black, Yellow and Red, Black and White and Red and White were amongst the more commonly found colours on these Jeeps, although some were also painted overall Yellow. An increasing number of replicas of 'Follow Me' Jeeps have been appearing on the show circuit in recent years, some being more discreet than others, but all of them certainly stand out from the crowd!



Right: the SAS Jeep in its various forms has become very popular with collectors in recent years and there are a number of replicas on the show circuit now, however, they're not a cheap vehicle to replicate in terms of the number of weapons fitted.

Below: not an SAS Jeep as many assume, but a one-off replica of a flamethrower Jeep used by the PPA (Popski's Private Army), who were closely associated with the SAS and Special Forces in the North African Campaign. This superb replica is a faithful reproduction that was based on available photos and information.

Below: this rare original SAS
Jeep was spotted at the War
& Peace Show, and according
to the information board
beside it, had been recovered
by the owners from the South
Tunisian desert. When they
got it home they found that it
still had some of the original
colour paintwork intact!





Many, many years ago I attended a couple of military vehicle shows and I came across a couple of examples of the SAS and Airborne Jeep. At the time these Jeeps were rare, however, in recent years the numbers attending shows has steadily increase, some being better than others, but most are bristling with weapons. While it's widely recognized that the majority of these are replicas due to the fact that very few originals found their way home after the war, they are generally accurate replicas having been researched extensively by the owners. The stripping off of the hood and

The stripping off of the hood and addition of weapons and extra equipment certainly changes the appearance of the Jeep, some more dramatically than others, but it's not a cheap thing to do, especially if using genuine de-activated weapons and the addition of the weapons and mounts can run into many thousands of pounds.

The variety and number of weapons employed on the Jeep is vast, from the WW2 SAS Jeeps with three, four or more guns, to the standard American Jeep with just a single .30 or .50 cal machine gun. Even if you own a post-war French Hotchkiss Jeep it's worth remembering that the French also used armed Jeeps in the post-war years so you don't have to replicate a

wartime Jeep if you don't want to. Whatever the preference, it can dramatically change the appearance of a Jeep, and may well stop you from blending into that sea of green Jeeps!

Another variation on the armed Jeep is the armoured Jeep, with rudimentary flat plate armour protection for the driver and front passenger. While these were built and used by a variety of units during the war with varying success, there are very few replicas to be found, possibly because the additional weight the armour brings with it and the subsequent affect on the vehicle's performance, although that's not to say that you couldn't replicate the armour plate using a lighter material such as aluminium or wood if you like the idea but prefer not to take the weight penalty.

Unfortunately another problem often encountered with this and other armed Jeeps is the lack of weather protection for the crew. Most were stripped of the canvas roof and hood sticks so they really are reserved for fine weather outings unless you're the rugged outdoor type that doesn't mind getting wet or cold!

VARIATIONS ON A THEME

There's no doubt that a great many of the Jeeps you see at shows are depicted as standard utilitarian vehicles, but a great many variants of the Jeep were produced over the years, which means you have plenty of choice when deciding how to finish your Jeep. While there were some factory built variants, such as the long wheelbase Jeep, experimental sixwheeled Jeeps, tracked Jeeps and the like, many of the variants built in small numbers were produced at a unit level. The upshot of this is that if you have the necessary information, the funds and the workshop skills, there's no reason why you couldn't consider building a replica of an unusual variant of the Jeep.

One of these unusual variants, tried with varying success, was the rail Jeep. On the rail Jeep the standard wheels were replaced with larger steel rims spaced to enable the Jeep to run on a railway track. Needless to say these Jeeps have limited use and as such you rarely see replicas, although I did encounter one many years ago at a show held at Bristol Docks. It was certainly unusual, if a little limited as to where it could be driven!

Another good example of these unit produced modified Jeeps is the medical Jeep, which often incorporated fixings and frameworks to enable a number of stretcher cases to be carried. Some would position the













**Top left & above:** the British Airborne Forces used modified Airborne Forces used modified Jeeps capable of being air dropped to the battlefield by glider. These unusual Jeeps have found favour with collectors in recent years and a number of fine replicas have started to appear at shows up and down the country.

Top right: a number of armoured Jeeps were built, mainly at a unit level, but they're not that popular with collectors because they restrict vision, don't have any weather protection and can add unperessary weight add unnecessary weight.

**Above left:** the classic SAS Jeep is still a firm favourite, but with all those weapons you'll need deep pockets if you want to do a good job.

**Left:** this fine example of an SAS Jeep, as used in the ETO SAS Jeep, as used in the ETO (European Theatre of Operation), was spotted at the annual Duxford Military Vehicle Show, and is one of a growing number of SAS Jeeps replicating those used by the SAS in the European Theatre of Operation.

#### STAND OUT FROM THE CROWD

Top right: this rail Jeep replica is one of the more extreme ways of standing out from the crowd. Needless to say there are very limited opportunities to be able to use such a vehicle!

Below: this long wheelbase
Jeep is most unusual and
believed to have been a
conversion offered by a firm
based in the Uk after the war.
Long wheelbase Jeeps were
built during the war too,
performing specialist tasks
such as taking air crews to
their waiting aircraft.

Bottom left: all manner of cold weather enclosures were tried over the years the Jeep was in production. Very few were built at the factory with most being one-offs built at a unit level, and if you study some of the many Jeep reference books you'll find an incredible array of enclosures.

This vehicle was photographed at a show in Romsey some years ago. (Photo - Simon Thomson)

stretchers across the vehicle, with one on the bonnet and another behind the driver, but some were produced as double-decker designs, with the patients arranged lengthways down the vehicle with one above the other, including one above the driver.

Cold weather enclosures offer another way to modify your Jeep and offer obvious benefits if you plan on using your Jeep throughout the winter months. Many, many different designs were built over the years, from the factory-built deluxe variants to the rudimentary enclosures cobbled together using whatever materials were available to the builder at the time. Some even used plexiglass, creating aircraft-like clear enclosures that looked more like a mobile greenhouse than a roof, but were better suited to situations where all round visibility was needed, such as on an airfield.

While some owners have replicated hard top enclosures, I've yet to see that many turn up at shows, and I've yet to see a Jeep fitted with a plexiglass enclosure – but I live in hope!



#### BE DIFFERENT

As you can see from this brief article, there are a great many ways in which you can stand out from the crowd if that's what you want to do. Achieving this aim doesn't always have to involve vast sums of money, and as shown here, something as simple as a fresh coat of paint of a different colour can dramatically change the appearance of your humble Jeep.

For those wanting to do something a little more drastic there are countless books on the market that will provide suggestions for a modified Jeep, and there are currently plenty of specialist companies selling all manner of accessories that would enable you to build a replica of a particular type. In the end it all comes down to how far you want to go, and just how different you want to be!

## Ambulance Jeeps

**Below left:** medical Jeeps are a different way of displaying a Jeep, offering all sorts of possibilities. This unusual six-wheeler (which I believe was a replica) was spotted amongst the stalls at the War & Peace Show several years ago.

**Below right:** there were several variations on the stretcher carrying Jeep, with some carrying a patient across the bonnet, as shown here, and others had a more elaborate set up with a double-decker framework to carry more stretchers (bottom).



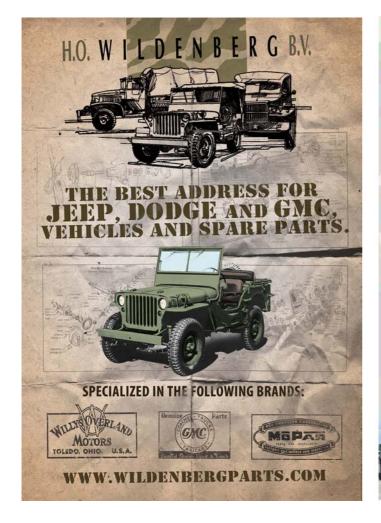




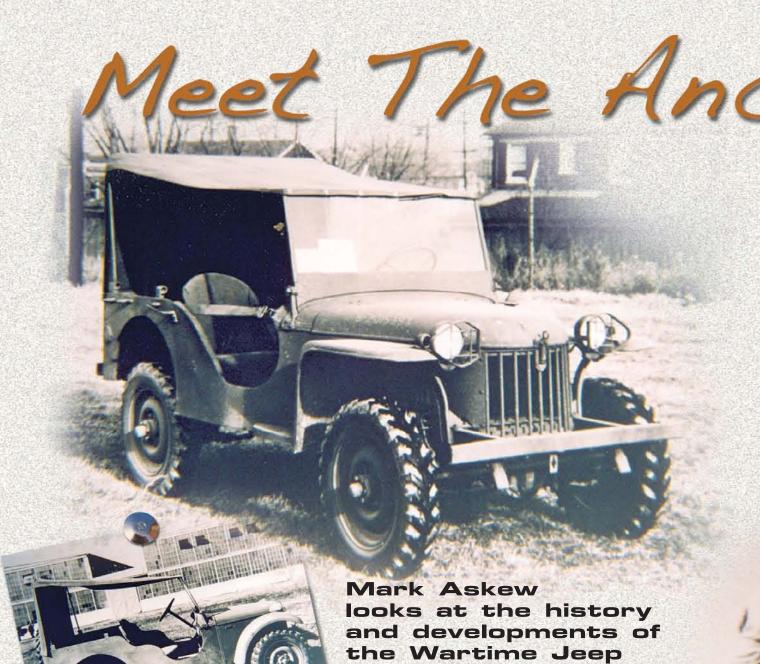












Top right: the Bantam Mk II shown here clearly shows you the squared off, front wings. Both front and rear axles were Spicer model 40's with 4.88:1 ratio and the differential clearance was eight inches. It was fitted with the Continental Model BY4112 engine of 112 cubic inch displacement

**Above:** a shot of the first Bantam Number One, one of the very first photos taken in September 1940 outside Bantam's factory.

developing 45 hp.

Main photo right: carrying out general maintenance on the Bantam, was a simple job as the engine bay was easy to access and was at a good height for mechanics.

ay back in early 1940 the US Army were looking for a lightweight 4x4 vehicle for use as a reconnaissance vehicle. The Army provided a specification list that had to be met, which included a lightweight chassis, four-cylinder engine, four-wheel drive, high wheel clearance, open sides, provision to carry four men, grade-climbing capability, and a payload capacity of 600lb while weighing no more than 1300lb. On June 27th 1940 the Ordnance Technical Committee in Washington gave out bids to 135 manufacturers, which included, GM, Willys, Ford and Bantam, however, only two companies put in proposals!

The first spec sheets had to be delivered to the Army by 17th July, so Bantam brought in Karl Probst (an experienced engineer, who had his own firm in Detroit) to design their first

prototype and legend has it that Probst took just 18 hours to design the Bantam! By the 17 July they had delivered their first bid, but only to find that the Army had changed its mind and were now asking for a more powerful engine (the Bantam only had 20 bhp) and the Army now wanted 40 bhp. So it was back to the drawing board, but Karl's first problem was not the horsepower, but building axles strong enough and light enough to take the required horsepower.

Probst solved the problem by using a Spicer axle that had been built for a 65bhp Studebaker. By 22nd July, Karl had his second set of designs delivered to the Army, but at the same time so had Willys, Ford and Crosley, all of whom had now taken an interest.

Although Willys put in a lower bid, the contract for the first prototype was given to Karl Probst and Bantam, however, they only had 49 days in which to deliver the fully-operational pilot model, but by 23rd September, their pilot model was driven to Camp Holabird in Maryland by Karl and

Bantam's factory manager Harold Crist all they way from the Bantam factory to Camp Holabird (some 230 miles) with only half an hour to spare! As soon as it had been given the once over by the soldiers, Major Lawes took to the wheel and sped off around the proving grounds. After a short time he returned saying, "I can usually judge them in fifteen minutes, and this vehicle is going to be outstanding!" During the first tests, representatives from Ford, Chrysler, General Motors and Willys were in the crowd closely watching and making notes. Based on Bantam's pilot model, Bantam was given permission to build a further seventy test models.





Above: BRC 40 on test pulling an early trailer, possibly an Bantam trailer, as they ended up making trailers for the rest of the war.

**Below left:** first testing of the Ford Pygmy in late November 1940 at Camp Holabird.

Below right: the Ford/Budd Jeep (1/4-ton truck) outside the Ford Factory in November 1940, seen here with the windscreen down. Notice the rounded bonnet, headlights and headlight guards on the wings (fenders). With a 45 bhp, 112-cubic-inch displacement and 86 lb-foot of torque at 1,800 rpm, the Continental engine of the Bantam was not the most powerful of the three prototypes (Ford GP and Willys MA), but the army did like it, as it was the lightest out of all three and it was a nimble performer.

#### FORD PYGMY V BUDD

In early 1940 the Quarter Master Corps had issued a set of drawings for a pilot model to Ford and requested that they produce just one. Clarence Kramer (Ford's Design Engineer) thought he could improve on the design and he did. Ford of course had to produce one to the QMC drawings, but also decided to produce a model to Kramer's design.

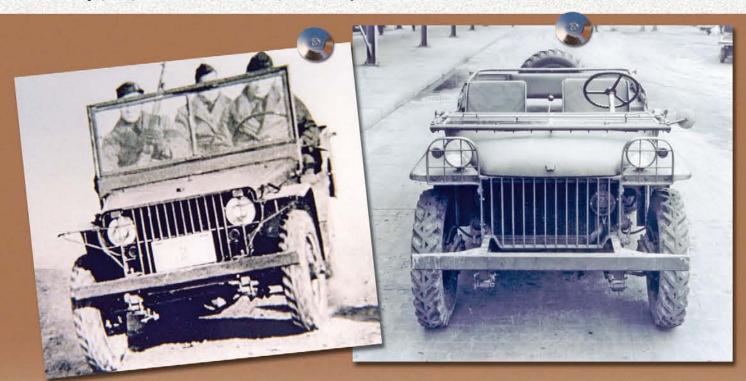
In a very short time (a month or so) Ford produced two rolling chassis, but to save time, Ford sent one to Budd to have its body made and fitted (Budd at that time built the 1/2-ton Dodge). The Ford Pygmy and Budd Jeeps used a tuned up version of the Fordson Model N tractor engine, which was developed in 1939 from one-half of the 239ci Mercury V-8. Roeder had actually played a small part in its design as well. With 30 bhp rating, it performed well in tractors, but this had to be raised to the required 40 bhp for the Jeep so a new camshaft was designed and a larger carburettor installed.

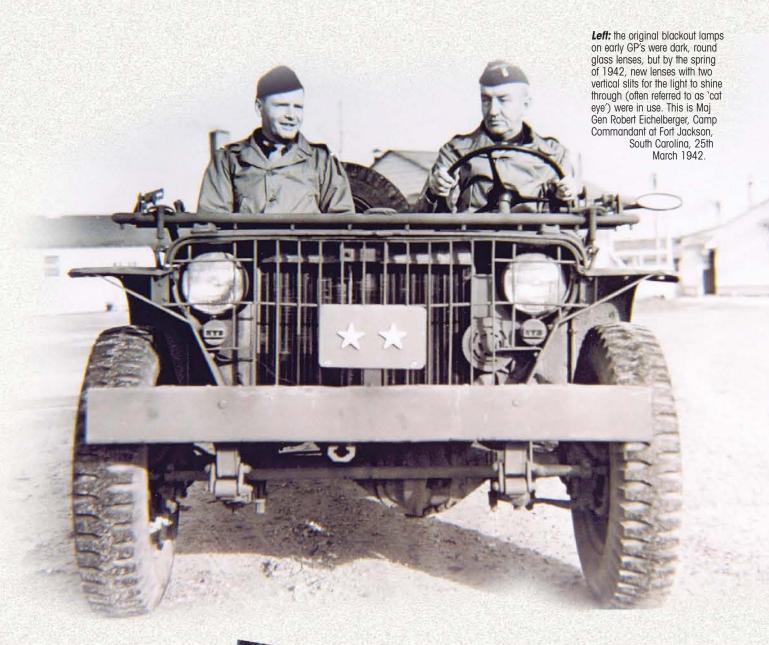
All of the three prototype vehicles were deemed acceptable so far as performance was concerned, so each company received an order for 1,500 additional units. For Ford and Bantam, this was great news, as their vehicles had already met the specifications listed by the Army and they both received further orders. By May 1941 all three companies delivered their pre-production Jeeps for testing.

Ford started volume production of its Ford GP in February of 1941 and it has been reported that the last two units came out of the factory as late as January 1942, although the last big batch was delivered to the Army in November of 1941. Out of all the prototypes Ford produced the most, in fact almost 4,500 examples were built. Out of these, fifty, 4WS experimental versions were built and tested by the Army, but were not very successful.

#### WILLYS 'QUAD'

While Willys continued developing its model, Ford was also invited to bid on contract for production models because the military felt that Bantam's small factory could not meet the demands expected. This is where Willys had the edge over Bantam, as Willys once had been the second largest car manufacturer in America (behind Ford).





**Right:** on the 22nd April 1941 at Camp Holabird, this GP was being driven hard by soldiers assigned to give it a good beating.

**Below:** this photo of the 'Willys Quad' shows the headlamps and blackout lights on top of the fenders, similar to the Ford/Budd design .







Above: MA on tests in 1941.

Note snow chains on tyres to assist in deep mud. The Royal Canadian Army Ordnance Corps sent representatives to Fort Holabird in July 1941 to evaluate the new 4x4. With four Canadian adults aboard this MA was close to its maximum 2,800 lb limit.

On 13th November 1940 Willys delivered their two test models Willys 'Quad' prototype model. Most Jeep historians will tell you that they only delivered one 'Quad', whereas in actual fact there were two, one with 2-wheel-steering and the second example with 4-wheel-steering.

There are records of the 3rd chassis that was built, but it was used to replace one that had broken after 5,184 miles of testing. This prototype

resembled that of the Bantam, and was then tested alongside the Bantam. In comparison with the Bantam, the Willys model was heavier, but the Willys was proving to be the best, as it had the strongest and more powerful Go-Devil engine, but their model was also the heaviest, weighing in at just over 2423lbs. Mechanically, the Quad was very similar to the later MA and MB models. The drivetrain was very similar to the Bantam and Ford, who

also used Spicer parts. These were not identical pieces however, and the Willys axles had the differentials offset to the right side, the transfer case (still a Spicer Model 18) was a mirror image, with the output offset to match the differentials.

#### CRASH DIET

Willys however, still had another hurdle to jump. The Army had set a new weight limit of 2,160lbs and the Army let Willys know that they were unhappy with the Quad's weight, and would not let them go beyond the 1,500 initial models until they could get the weight down.

Willys went back to the drawing board, and their first idea was to change their engine for something lighter, like the Continental used by Bantam, but this could not be done, as their engine was one of the winning factors of the tests.

Instead the chief engineer at Willys, Barney Roos, looked for other ways in which they could make it lighter and in the end they trimmed everything for weight, from the length of the bolts, the size of cotter pins, studs, screws and even washers. They then worked on the chassis, body

"By May 1941 all three companies delivered their pre-production

34 MILITARY MACHINES INTERNATIONAL April 2012



panels and finally they even reduced the amount of paint used (one coat).

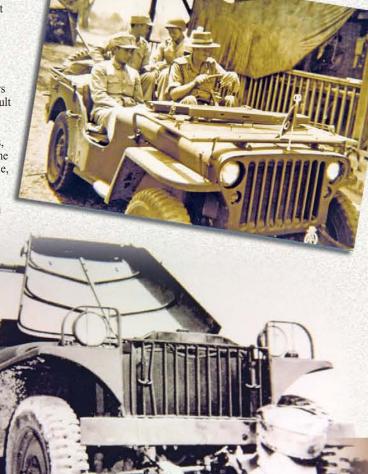
Believe it or not the crash diet worked, and their next prototype 'the Willys MA' was born. The Willys MA was some 300 lbs lighter than the Quad and much faster, and more economical. It was also lighter than the later MB models, but hot on their tails were Bantam with its MkII and Ford with their Ford GP.

By May 1941 all three companies delivered their pre-production Jeeps for testing, although Bantam was a little behind as some were still in production at their factory. These vehicles were sent to various military units for some 'real world' testing. In addition, the

Adjutant ordered the Quartermaster General to have one of each type sent to the Infantry Board for formal testing. The Infantry liked all three, though they felt that the only real difference between the Ford and Bantam entries were the engines and the Ford squared off hood. The Willys MA was more unique, partly as a result of its more powerful engine, which gave out 60 bhp.

Of the three remaining companies, the Willys-Overland Company was the lowest bid at only \$748.74 per vehicle, while Ford's bid was \$782.59 and Bantam's was \$788.32. Despite that low bid, the Army's recommendation came through to accept the Ford offer. Again, this was done to ensure that the vehicle would be available in a timely manner. It was argued that the Willys Company was financially shaky and might not be able to build the vehicles in the time given. At this point Bill Knudsen stepped in, refusing to approve the Ford

deal



Jeeps for testing..."



Knudsen stated that in his judgement the Willys concern was a competent source of supply for the number of vehicles in question. Since Knudsen was the most knowledgeable man in the world regarding the mass production of motor vehicles, there was scant room for further discussion.

By August 1941, Camp Holabird was notified of the decision to go with Willys for the new military car, with deliveries to begin in November 1941 and so the first order for 16,000 units was given to Willys-Overland to produce the all new standard military Jeep, based on their design, but using a new grille design, that looked more like the Ford slat grille design.

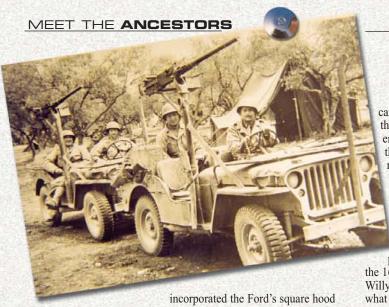
After winning the contract for the standard production of this new military 1/4-ton truck the designers at Willys went back to the drawing board Willys. The selection of Willys MA standardised the design on the Willys chassis, although the final product

Top left: Willys wasted no time in putting the Quad into the public eye and drove it up the steps of the nation's capitol in February 1941 with Senator Meade at the wheel and Willy's chief test driver Red Hausman beside him.

Top right: this Willys MB was a standard production model. As you can clearly see in this shot, the M1 rifle (a soldiers favourite, as was the Jeep) is in its holder

Above: another MA, undergoing workshop repairs, possibly at Fort Knox. Note that the underside of the bonnet has several support brackets to add rigidity.

Left: early MB Slat Grille Jeep fitted with a wire cutter. It's part of the 9th Armoured Div, 89th Cav Recon Div.



**Above:** two Ford GPW Jeeps, you can see the Ford type crossmember. Note too the use of British type blackout lights on both wings. These field mods were undertaken by 11 Corps Provisional Ord Group near Beja, Tunisia May'43.

Below: an early MB fitted with

mount. Note the extra bracing

and bracing bar on the outside

of the Jeep, no glove box and

Jerry can mount on this early

'slat grille MB'. Pictured in

a .30 Cal Browning and

design and grille made up of heavy bars, as well as flat fenders. The final, standard version was dubbed the Willys MB. By the end of March 1942, and after a run of nearly 25,808 Slat Grille units, the new Willys MB made its debut. The grille design was revised yet again to the slotted grille stamping that we all recognize today.

#### JEEP AT WAR

Bantam and Ford were frozen out of the action for the moment, though events on December 7th, 1941, when Japan launched an attack on Pearl Harbour, soon changed things and America suddenly found itself thrust into a war footing. The need for the new military car was now going to be greater than the most optimistic had envisaged. Besides the needs of the US Army, thousands of the new scout cars would eventually be supplied to Allied armies for use in virtually every theatre of World War Two.

As events gathered speed,

the previous Jeep orders, which had seemed so lucrative, now paled into insignificance. Even the 16,000-unit order that went to Willys was small in comparison to what the military was now calling for. Along the way, and before the attack on Pearl, Ford won the right to also produce Jeeps for the military and the Quartermaster still wanted a second source of supply. A compromise was reached by having Ford agree to produce the Willys design under license. Willys would turn over copies of all the designs so that the Ford could now build the standardised Jeep.

The Ford product would be designated the GPW (for General Purpose Willys or G for Government and P for 80-inch wheelbase, W for Willys), which indicated that it was a Ford GP, but built to the Willys standard design. Willys, however, never received any fees or remuneration for this.

The standardized stamped grille Willys MB appeared on the 12th June 1942 and finished in September of 1945. However Ford's GPW was produced from the 6th January 1942 up to the 30th July 1945. The reason for Willys MB's later arrival was due to the fact that they were still building the Slat Grille model.

Bantam, however, was now out of consideration for Jeep production. The Army reported that Ford offered to expand the large amounts of money necessary to set up production of critically needed Jeep components, particularly the constant velocity joints needed for its front-end drive, items which had created a bottleneck in production lines.

By the end of the war, Willys had built some 359,489 units, while Ford built some 277,896. Both Jeeps had the 2.2-litre Willys or Ford side-valve engine (Go-Devil), and both were mated to the 3-speed manual gearbox. For most of their war days they came with 6-volt electrics, although some were built with 12-volt towards the end of the war, or were converted by individual armies.

Many have tried to copy the Jeep over years since, but they should all remember the 'Jeep' was the original 4x4, and has over 70-years of off-road experience!







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some original test reports on various vehicles, and while they were 'confidential' back in 1943, Pete wanted to share his finds with one and all as these photos have never seen the light of day, since 1943?

The report, entitled 'Report No.134, Waterproofing of Vehicles, March 31st 1943, by Captain Walter R. Friberg, C.E. Testing Sub-Section, Engineer Amphibian Command, Camp Edwards, Massachusetts, USA', covered tests of all types of waterproofing materials on the 1/4-ton 4x4 truck (Jeep) for driving through water, both fresh and salt.

Tests were made in air temperatures from 80 degrees F. to sub-zero and run in water from 72 degrees to 28 degrees F. Materials were road tested, both before and after water testing and in addition to testing materials for water

Main photo: a second design of the front box is now pointed to allow the Jeep to be towed easier and faster. Boards were also placed under the front and rear axles

to increase buoyancy.

Mark Askew looks at some of the methods tried to waterproof the Jeep 38 MILITARY MACHINES INTERNATIONAL April 2012

proofing, a canvas float was designed hardware stores. In addition to and built to float vehicle over water! these materials, flexible tubing, The report was based on an earlier such as windshield wiper tubing British report on waterproofing was used for vents to the vehicles, which were not satisfactory, carburettor and fuel tanks. Stiff in which they used special rubber radiator type hoses were used for tubing, which at the time was hard to air intake, and flexible metal hose find, as well as sheets of oiled cloth on for the tail pipe, which would the distributor and generator, but this allow it to run in up to 4-feet of water! came loose. They also used a substance The Jeep could also be floated on called 'Bostik', similar to gum rubber, the water with a canvas cover, and but this needed to be removed as soon propelled through the water with oars as the vehicle reached dry land. or by towing. Another canvas bag was At Camp Edwards, they tested out a made for the Jeep, with the wheels number of materials for waterproofing, protruding, but with extra canvas including Dum Dum made by Arco fitting around the axles and the front. Co., Cleveland, Gray Insulating In conclusion, it stated that all Enamel made by Trafford-Micarta of automotive vehicles 'except for Trafford, PA, Utilitape made by passenger sedans' can be waterproofed Industrial Tape Company, Chicago, Ill, for driving short distances through No-Oxidized Wrapper made by the water four feet in depth. The Dearborn Chemical Company, difficulties of the Jeep would be in Chicago, Ill and Waterproofing putty water less than 3-feet due to its low and Paraffin, purchased from local engine height. Top right: here we see the method of securing the canvas axles sleeve to dust shield, metal band in place. **Right:** prototype seen here in tow at slow speed, being towed behind an Amphibian Truck (DUKW). Note the slight bow wave. Below right: this Jeep was photographed getting underway at a depth of 30-inches on 20th March 1943. Note intake and exhaust extensions and what is presumably either steam from the hot engine or spray from the water hitting the cooling fan? April 2012 MILITARY MACHINES INTERNATIONAL 39





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The British Army used large numbers of the American Jeep in many forms, from the standard utility Jeeps to those heavily modified by the SAS and LRDG. Here we see an example of the British Airborne Jeep, photographed at the Duxford Military Vehicle Show in 2011, it too has been heavily modified to suit the needs of the airborne forces.







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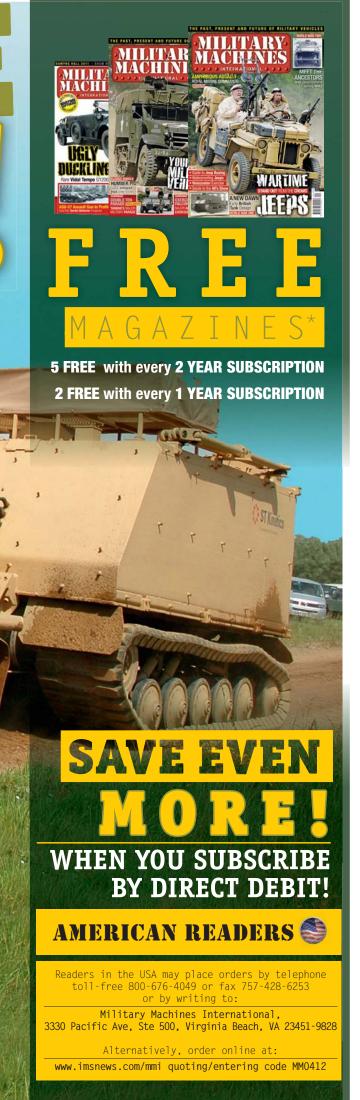
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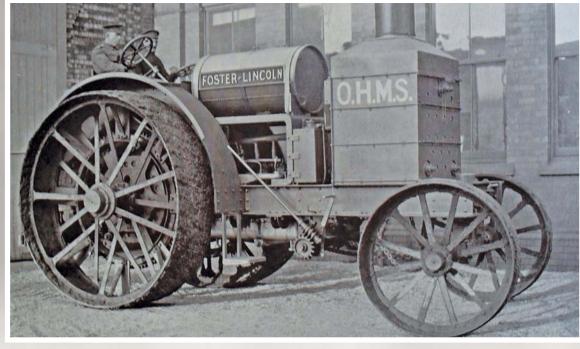
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## 



**Right:** a wonderful shot showing a brand new Daimler Foster 105hp tractor. The rear wheels are just over 8 feet tall.

Below left: a 105hp Tractor on a hill climbing test on Lincoln's South Common.

**Richard Pullen** takes a look at William Foster's experiments in tank design in the early days of the First World War

y 1915, the Great War was in full swing and the horrific potential of the new war had become painfully apparent to everyone. One word goes a long way towards explaining why the Great War was so terrible, and that word is Mechanisation. For the first time, two huge World Super Powers were pitted against each other and they were both armed with the most efficient and technologically advanced weaponry available. Submarines, aeroplanes,

accurate artillery, high explosives and poison gas were all being used on a daily basis and the casualty rate was beginning to worry the Military high command.

Despite all of these new machines of war, perhaps two seemingly unconnected inventions were more responsible for the deadlock that characterised the Great War than any other and they were the Machine Gun and Barbed Wire. If either side tried to get up out of their trenches and cross



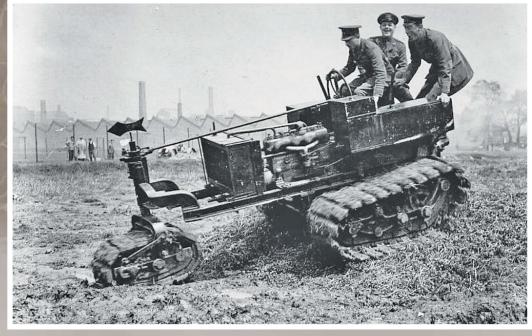


no man's land, they would be stopped by the impenetrable belts of barbed wire and cut down by deadly interlocking fields of machine gun fire. The question was simply, how do we get men into the enemy's trench without being slaughtered by the machine guns or caught up on the wire, this became known as 'The Riddle of the Trenches'.

Whoever was the first to solve the seemingly unsolvable riddle would make the war mobile again and perhaps even have a chance of winning, but how could the wire and Maxims be overcome without losing every man in the regiment? The answer to the riddle of the trenches eventually came from a small agricultural engineering firm in Lincoln, England. William Foster and Co Ltd were relatively tiny, but were well known for their high quality and speed of manufacture.

When the war began, Fosters of Lincoln soon gained a lucrative War Office contract to produce a very large petrol engined tractor known as the Foster Daimler 105hp tractor. The transmission, engine and so on came from the Daimler Company and the formidable machine was created especially to haul the huge guns needed for the 'Siege of Paris'.

The 105hp tractor was just what the War Office was after and it was taken for official testing at Shoeburyness in 1914. During the trials the tractor had to cross a small wooden bridge over a narrow ditch and this part of the demonstration got one member of the crowd thinking



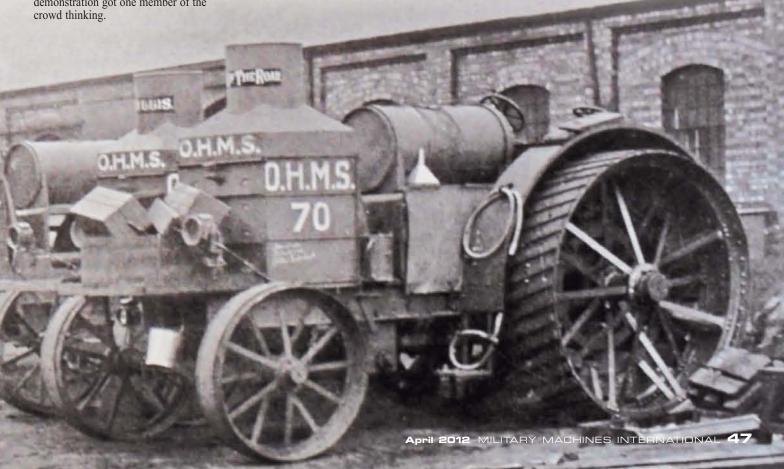
The thoughtful spectator was Admiral Bacon, the Commander of the Sique Ports, and he wondered why couldn't we create a vehicle that could carry its own bridge? Such a vehicle could conceivably cross a German trench in the same way that this tractor has just crossed a ditch.

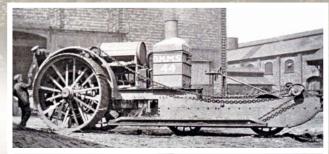
Admiral Bacon put his question to the small contingent of staff from Fosters who were present at the trials and they decided that there was no reason at all that this couldn't be done. The representatives from Fosters were the company's Managing Director, William Ashby Tritton and their Chief Draughtsman William Rigby. Within days of the trials the Foster team had finalised their design for the Tritton Trench Crosser and had presented a design model to the newly formed Landships committee in London. The committee were duly impressed with the model and gave the green light to proceed with the full sized machine.

True to their reputation, Fosters had the prototype trench crosser finished in just a couple of weeks and the official trials were held in the works yard in Lincoln. The new machine was basically a standard 105hp tractor with the front wheels rearranged to run in tandem on an extended chassis. Along each side was 14-inch wide metal and wooden bridge that was connected to a chain winching mechanism.

Above: members of the Landships Committee taking their work very seriously whilst testing the Killern Straight tractor for military suitability.

**Background photo below:** here we see a batch of 105hp tractors ready for dispatch to the Admiralty.



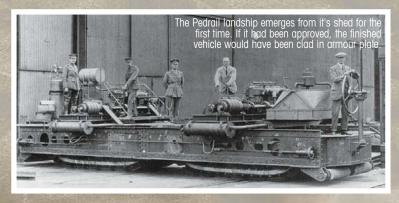






**Above:** various views of the Tritton Trench Crosser on test in Fosters works yard. The trench crosser easily takes a trench in Fosters works yard and attracted a crowd during a break in its official trials.

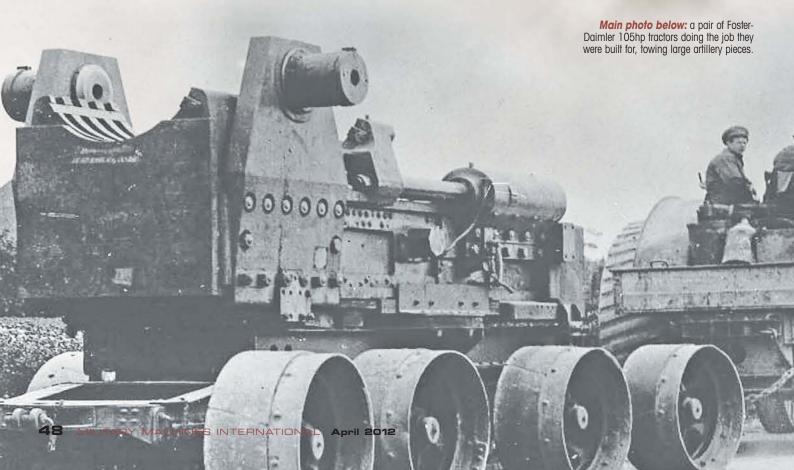
Above right: Little Willie in his original form with the American Bullock tracks and named the Lincoln Number 1 Machine. The prototype turret is hidden beneath the tarpaulin.





Operating the trench crosser was quite complicated, the machine was driven straight towards the enemy trench and the front wheel would cross over as it was supported by the second wheel. Now the second wheel could continue over the trench as it would now be supported on the other side by the first wheel. This left you with a machine with its front half behind the German trench and its rear half still in No Man's land.

The next step was to drop the side bridges, which meant that you could now drive the large rear wheels over the bridges leaving the entire machine now parked up behind the trench you'd wanted to cross. The last operation was to simply winch the bridges back up into their mounting brackets and everything was ready for use the next time. This complicated procedure was to be the trench crossers downfall as it would be a



stationary target for several minutes and needed a large amount of flat open space, which could be guaranteed under combat conditions. The machine was deemed unworkable, returned to its original form of a heavy gun tractor and sent on to the Admiralty with the rest of the order.

#### FURTHER DEVELOPMENT

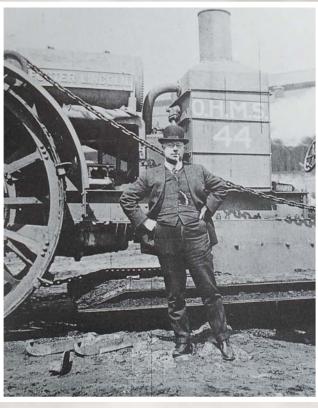
This was not the first or the last attempt to solve the riddle of the trenches and the complete story of the creation of the first true tanks is long, complex and full of marvellous still born machines such as Hetherington's Big Wheel, Elephants Feet, the Pedrail Landship and the Killern Straight armoured tractor.

The Tritton Trench Crosser had been a failure, but the machine had not been a waste of time as, if nothing else, it proved that wheeled vehicles and trench bridging machines were no



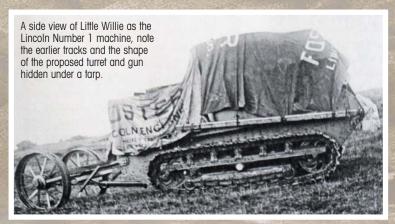




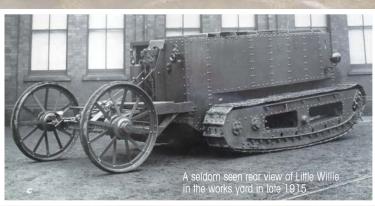












**Top left:** by 1917 Little Willie had ended up at the testing grounds at Dollis Hill and was looking the worse for wear.

"... By all accounts, Little Willie was terrific off road ..." by all accounts, Little Willie was terrific off road ..."

Above by the 1930s Liffe
Willie had been brought to
Bovington and west part of the
embryonic museum.

Figure 1

Figu



good for crossing barbed wire strewn, shell torn swamps such as those now found around the Ypres Salient. Wheels had been fine on armoured cars for years, but the new conditions and the barbed wire left everyone in no doubt that only a track laying vehicle would ever be able to breach the wire and perhaps solve the riddle of the trenches. Both the Allies and the Germans knew this and suddenly the race to create the war winning wonder weapon was on!

The first true track-laying vehicle created by the Landships Committee came again from William Foster and Co Ltd in Lincoln and after a failed attempt to fit a ready-made American track set, became known as Little

Willie. The American tracks were fine in their intended roll, moving a light farm tractor over flat open ground, but they couldn't take the weight or the forces being exerted on them by Fosters and were soon scrapped.

The tracks eventually created in Lincoln for Willie had been the idea of William Tritton and they were as simple and robust as possible, making them perfect for the new creation. Little Willie, complete with his new Tritton Tracks, was powered by a 105hp Daimler engine and transmission taken from one of the Foster Daimler tractors and despite various claims to the contrary, neither Little Willie nor any Great War British produced tank used as much as a single nut or bolt from a Holt or any other American manufacturers machine.

It is widely accepted that Little Willie was so named as this was an insulting name for the Kaiser, but this has never sounded very convincing to me. Why would you name your new prototype war winner after the enemy's supreme commander? I can't imagine the Churchill or Patton tanks of WW2 being unveiled as the Goring or the Hitler.

Fosters had a tendency to name their creations after their MD, William Tritton, and creations such as The Tritton Trench Crosser, the Tritton

Tracks or Tritton's Live Belly inboard Track System all carry the great man's name. Perhaps it is more likely that Little Willie was just another one of Fosters machines named in honour of William Tritton? Whatever the origins of the machines name, Little Willie was a valuable test bed and several new ideas and designs were used on it.

The machine had intended to be fitted with a turret on the roof, directly over the mid-mounted engine, but there is little evidence to suggest that the turret was a success and it seems to have been removed almost immediately. Willie was actually of a very modern design, having the main hull riding between the track frames and the turret on the top, just like a tank of today. By all accounts, Little Willie was terrific off road and took replica shell holes in its stride at tests in Burton Park in Lincoln and later at Hatfield House. Unfortunately, it had almost no trench crossing ability, there is no way the vehicle would have been able to cross even a narrow trench, let alone the huge fortified trenches now being dug by the Germans and so it never went into production.

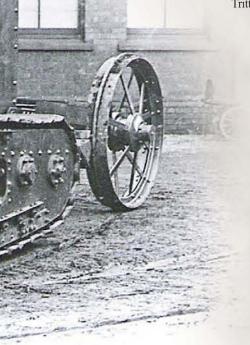
Fosters new vehicle cannot strictly be described as a tank as such and almost as soon as it was finished it was obsolete as the rhomboid shaped heavy Mk I tank that we all recognise was starting to take shape at Fosters works. The first rhomboid Mk I tank was known as Mother as she was the first of the line, but Little Willie was the real pioneer.

It never fails to amaze me that a prototype armoured vehicle that never went to war and was obsolete before it was finished has managed to survive to this day, but it has. The wonderful collection at Bovington Tank Museum in Dorset has some very rare, one off machines, but in my view, possibly the rarest and most intriguing vehicle amongst their collection isn't really a tank at all, it's Little Willie.

Left: Little Willie, minus his turret and fitted with Trittons pressed steel tracks on test in Burton Park Lincoln.

Main photo opposite left: the first real prototype British tank of the Great War was Little Willie.

Below: the first of the line, Mother on test in early 1916. The classic rhomboid shape would go on to be developed to produce some of the most successful tanks of WW1.









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#### The Venezuelan Bolivarian Army demonstrated their latest Russian equipment, Santiago Rivas reports

Above: the BM-21 122mm Grad multiple tube rocket launcher is based on the Ural truck, which provides a commonality of parts with the cargo trucks.

**Below:** one of the many Russian Ural 4320 cargo trucks purchased from Russia is seen here parked beside a BTR-80A 8x8 APC.

n exercise took place in late 2011 on the range of Los Caribes military base, at El Pao, Cojedes State, in the central region of Venezuela, in which the Venezuelan Bolivarian Army showed for the first, time, the new equipment purchased in Russia, which transformed the force in one of the most powerful armies in Latin America.

The Patria Soberana (Sovereign Fatherland) Integral Defence Joint Exercise, involved many units of the Venezuelan Bolivarian Army and was the main exercise of the year. The manoeuvres were co-ordinated by the Central Integral Defence Strategic Region of the Operational Strategic Command of the National Armed Force, and units of the 41st Armoured Brigade of the IV Armoured Division of the Army took part, together with other smaller units from other brigades.

This was the first large-scale exercise involving the new equipment acquired from Russia. The equipment arrived during 2011 and among the more important assets were the T-72B1 Medium Battle Tanks, equipped with







Below: the Russian T-72B1
MBT was the largest and most
important of the vehicles
recently procured from Russia.
As you can see from this
photo, this variant of the T-72
is fitted with the blocks of
Explosive Reactive Armour.





the ERA Kintakt-1 reactive armour system, the BTR-80A 8x8 APC and BMP-3M tracked IFV and the BTR-80K command and communication post vehicles.

The field artillery at the exercise included the 152mm 2S19 Msta-S selfpropelled howitzers and the 40-tube, 122mm BM-21 Grad multiple rocket launchers, which were supported by their respective command vehicles.

The 416° Grupo de Artillerí a de Defensa Antiaérea (Anti Aircraft Defence Artillery Group) Teniente Coronel Alejandro Salazar, showed the capacities of their towed twin-barrelled 23mm ZU-23/ZOM-1-4 AA guns, also received during 2011, while all units deployed the Ural 4320 tactical trucks for troop and cargo transport. All the equipment, purchased from Russia in 2009, arrived to Venezuela in mid 2011 and was shown for the first time during the military parade celebrating the 200 years of Venezuelan Independence on the 5th June 2011. Meanwhile, a second batch of equipment arrived in January 2012, including 2S23 Nona-SVK 120mm self-propelled mortars and BM-30 Smerch 300mm multiple rocket launchers, which will boost considerably the artillery capacities.



**Top left:** a pair of BMP-3M tracked APCs heads for the exercise area. The BMP-3M is one of the current generation of tracked APCs produced by the Russians.

**Left:** a female soldier of the Venezuelan Army operates a twin-barrelled ZU-23 ZOM-1-4 anti-aircraft gun during Exercise Patria Soberana.

Left & below: the largest of the field artillery involved in the exercise was the 152mm 2S19 Msta-S. The 2S19 is based on the hull of the T-80 tank, which uses some T-72 components and offers a commonality of spares.





## COMBAT

Shaun Connors shares another collection of stunning images from military photographers



his month Shaun Connors made his selection based on no more than he particularly liked all the images he selected, and in so doing highlights the arty-farty tendancy his photography leans towards if we don't keep him check...

Combat Camera features a selection of images captured by service photographers around the world on exercise, disaster relief/humanitarian operations, and operational deployment.

Where possible and where available the original captions, as originally presented, will be used, with any required supplementary text filling in any equipment identification blanks that may exist, this added as a follow on caption or inserted into the main caption in [square brackets].

This month's selection of images are all US DoD copyright. US DoD copyright.

Above: U.S. Army Sgt. Richard Toon with Delta Company, 2nd Battalion, 506th Infantry Regiment, 4th Brigade Combat Team, 101st Airborne Division, is silhouetted against the sunlight as he stands guard atop a mountain during Operation Oqab Behar VI, in Paktika province, Afghanistan, May 14, 2011. The mission provided additional security along the Afghanistan-Pakistan border. (U.S. Army photo by Spc. George Hunt/Released)

Main photo: a mine-resistant, ambush-protected (MRAP) vehicle kicks up dust as it travels north through the mountains near Qalat, Zabul province, Afghanistan, Dec. 21, 2010. The gunner's seat atop an MRAP vehicle provides unobstructed views, enabling the gunner to provide valuable information to personnel incide the beautiful arregard vehicle. (U.S. Air Ferre inside the heavily armored vehicle. (U.S. Air Force photo by Staff Sgt. Brian Ferguson/Released)





Right: Mississippi Army National Guardsmen with Charlie Company, 1st Squadron, 98th Cavalry Regiment potrol a tornado-damaged neighborhood at sunset April 28, 2011, in Smithville, Miss. A deadly fornado struck the town/April 27, 2011. (U.S. Army photo by Sgt-Charles Brice/Released)





**Top left:** U.S. Marines assigned to the 13th Marine Expeditionary Unit drop from a CH-46 Sea Knight helicopter assigned to Marine Medium Squadron (HMM) 163 to the flight deck of the amphibious assault ship USS Boxer (LHD 4) while conducting a fast-rope exercise in the Indian Ocean on March 24, 2011. The Boxer is the flagship of the Boxer Amphibious Ready Group, which is under way with the 13th Marine Expeditionary Unit on a scheduled western Pacific Ocean deployment. (DoD photo by Petty Officer 3rd Class Trevor Welsh, U.S. Navy/Released)

**Above right:** Steven Hatch, an engineering equipment operator with the 354th Civil Engineer Squadron, removes snow from the flight line at Eielson Air Force Base in Alaska Feb. 22, 2011. The base received 15 to 18 inches of snow over the weekend. (U.S. Air Force photo by Staff Sgt. Christopher Boitz/Released)

**Below:** a haze filters the sunlight over Forward Operating Base Spin Boldak, Afghanistan, Dec. 15, 2010. (U.S. Army photo by Spc. Ian Schell/Released)



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**Main photo above:** an Offshore Raiding Craft brings a section of Royal Marines to the beach to secure the immediate area of the landing. (Courtesy David Payne)

**Below:** a CASE 721 EXT Medium Wheeled Tractor fitted with a Class 30 Trackway Dispenser prepares the beach for the arrival of logistic support vehicles.



## Amphibious ASSAUIt

Geoff Fletcher recently attended an exercise on Browndown Beach involving troops from 3 Commando Brigade





Left: HMS Bulwark lies in Stokes Bay prior to the amphibious assault. (Courtesy David Payne)

Below: the first Vikings were delivered to the Royal Marines in 2003 and an initial operating capability was declared in 2005. It was deployed to Afghanistan in October 2006 with 3 Commando Brigade. Withdrawal followed the deployment of the STK Warthog in late 2010.

The assault was launched from HMS Bulwark, which was anchored in the Solent and is currently the UK's high readiness amphibious assault ship. Bulwark is an Albion Class of Landing Platform Dock (LPD) and is one of only two - the other being HMS Albion. An Albion Class ship's primary function is to embark, transport, and deploy and recover (by air and sea) troops and their equipment, vehicles and miscellaneous cargo, forming part of an Amphibious Assault Force.

Royal Fleet Auxiliary Mounts Bay was close to HMS Bulwark during the preparations for the assault in order to provide logistic support. There were three further ships in the Bay Class -Largs Bay, Lyme Bay and Cardigan Bay although as part of the Strategic Defence and Security Review Largs Bay has now been sold to the Australian navy. They are classified as Landing Ships Dock (Auxiliary)



rowndown has been used for amphibious exercises for many years and was the home of 200 Hovercraft Trials Unit Royal Corps of Transport from 1966 to 1974. It was recently the scene for an amphibious deployment of a force drawn from 42 Commando Royal Marines based at Bickleigh Barracks near Plymouth and other elements of the Commando Brigade from around the south west of England.

The exercise was intended to demonstrate the UK's ability to deploy a force to extract UK citizens from an overseas state where there was a serious insurrection or insurgency. The demonstration was aimed at those attending the Staff College although members of the press were invited too.





Top left: the Reacher Satellite Communications dish with the Oldbury 4-wheel closecoupled trailers used to carry it and the generators.

Above: the Landing Craft Vehicle and Personnel (LCVP) Mk 5 is capable of carrying ta variety of stores. Here a Land Rover Truck Utility Light is seen driving off one.

Below: the Hagglunds BV206 remains an important asset for the Royal Marines, carrying many of the logistic support loads the Brigade needs.

(LSD(A)), and have an outline similar to a LPD with a high forward bridge, large helicopter deck aft and a dock at the stern for operating landing craft. The helicopter deck can accommodate two Merlin or Chinook helicopters. The military lift capability is 32 Challenger 2 tanks or 150 light trucks and in addition they can carry up to 350 troops or, in an emergency, 500.



#### **DAYLIGHT HOURS**

Amphibious assaults are normally undertaken in darkness so the exercise was a little unrealistic in being carried out in reasonably good daylight even if a little wintry and overcast. There is always a desire to be able to land on beaches unopposed and to be able to establish a reasonable beachhead before confronting enemy forces. Preparations are carefully made for such assaults with divers, often drawn from the Special Boat Squadron (SBS), approaching the beach to determine if hostile forces are present.

Once the beach had been determined suitable for a landing, two Offshore Raiding Craft (ORC) approached the beach and landed 15 Marines and remained near the beach to provide fire support. The Marines that landed were there to secure the

area of the beach where the landing Craft would bring other elements of the force ashore. A Sea King helicopter landed a further 12 Marines on the shore to assist with the task. In practice amphibious assaults might use troops in either helicopter or ORCs or both as the tactical situations dictate.

A Landing Craft Utility (LCU) Mk 10 carrying four BAE Systems Viking All-Terrain Tracked Carriers arrived at the beachhead to deposit its load and all four then deployed inland to secure the area of operations. The LCU Mk 10 is used with the assault ships Albion and Bulwark and the Bay Class landing ships, yet are capable of operating independently for up to 14 days. The Mark 10 has the bridge offset to permit roll-on roll-off



operations, greatly simplifying handling inside the mother vessels because vehicles can be driven on prior to any beach assault rather than having to be carefully reversed aboard. The Viking Troop Carrier Variant (TCV) can carry up to 2 crew plus 10 passengers and entered service with the Royal Marines in 2003. Since then it has seen significant operational use in Afghanistan although it has recently been replaced the by the STK Warthog.

A further LCU Mk 10 ferried two Case 721 Medium Wheeled Tractors to the shore. Both were Winterised and Waterproofed versions for operations in the arctic; one was equipped with a bucket whilst the other carried a Class 30 Trackway Dispenser. The Class 30 Trackway was laid out on the beach to permit other soft skin vehicles to land.

The next vehicle to be landed was a Land Rover Truck Utility Light (TUL), which was landed by a Landing Craft

A Mexeflote brings a JCB 4CX/M Light Wheeled Earthmoving Tractor and a Tactical Aviation Refueller ashore. The Mexeflote is a versatile asset and is used by both the Royal Marines and 17 Port and Maritime Regiment, RLC at Marchwood.



Main background photo: a Sea King HC.4 of 846 Navy Air Service lands Royal Marines on the beach to secure the beachhead. The Sea King HC.4 is due for withdrawal from service in 2016 and is likely to be replaced by the Merlin.

Below: the Oshkosh Tractor pulls the Tactical Aviation Refueller (TAR) semi-trailer from the Mexeflote.

Vehicle and Personnel (LCVP) Mk 5. The LCPV Mk 5 is carried on davits on the LPDs and carries 35 troops, 2 light vehicles or 6-tonnes of mixed stores. It has a range of 210 nautical miles and a top speed of 24 knots. The UK has a total of 12 LCVPs.

Finally a Mexeflote approached the beach carrying an Oshkosh Close Support Tanker Tractor with a Tactical Aviation Refueller semi-trailer and a JCB 4CX Light Wheeled Earthmoving Tractor. Mexeflote is a versatile system from which rafts, jetties and causeways can be built. When used as a raft it is powered by propulsion units from Sykes Hydromaster and such a raft can operate in seas of up to 1.5-metres. Mexeflote can carry up to 200-tonnes and is carried on the Bay Class LSD (A) such as Mounts Bay.

Ashore the Commando Brigade Headquarters and Signal Squadron

Once ashore the role of the troops is to provide a safe area to enable any UK citizens to be extracted. The process is that they are first identified by Foreign and Commonwealth Office staff and then moved to one of the ships using the landing craft or helicopters. This kind of operation has been carried out many times when overseas territories have become unstable.



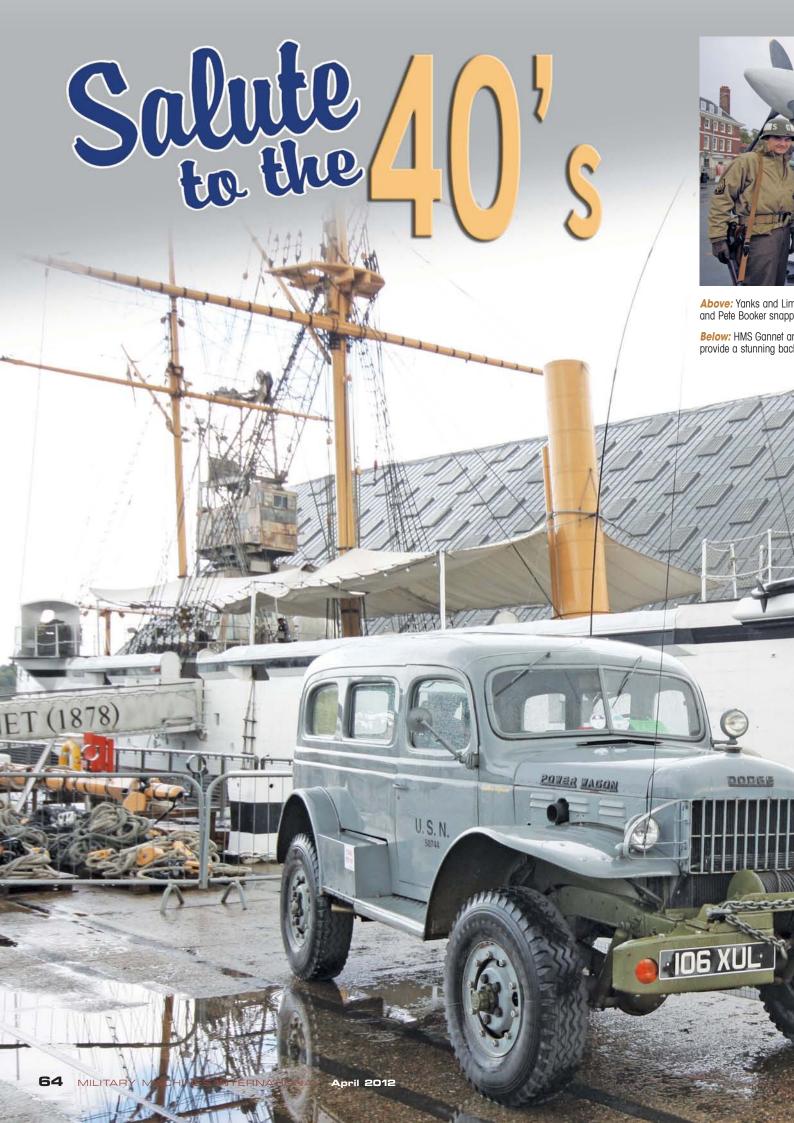


My thanks go to Media Operations, Flag Officer Sea Training (FOST) and in particular Lt Cdr Lýndsey Ashwood for enabling my visit.

established a Reacher Satellite Communications base. The Reacher Terminals allow the connection of theatre communications systems to be made via the Skynet 5 satellite allowing the user to connect directly into the UK Defence Wide Area Network from anywhere in the world, whatever the terrain. The Reacher programme commenced in 2004, and has gone through some major design changes and reviews. In all 44 systems have been delivered in three configurations: Large, Medium and Royal Marine (RM). Although the Medium and Large are based on similar functionality and are carried in the Mowag Duro III, their set-up differs in terms of antenna and data throughput, 2 megs vs. 8 megs.

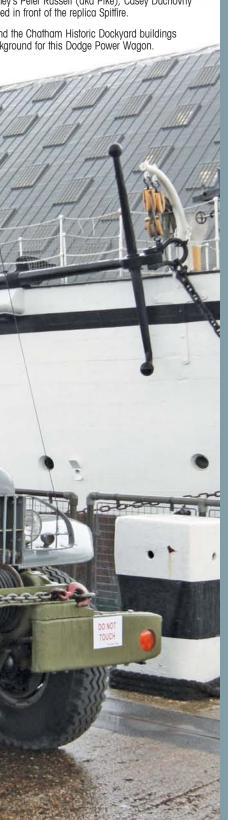
The RM configuration is mirrored on the Medium system but is installed in Volvo Bv206 tracked carriers, which tow Oldbury 4-wheel close-coupled trailers carrying the generators.

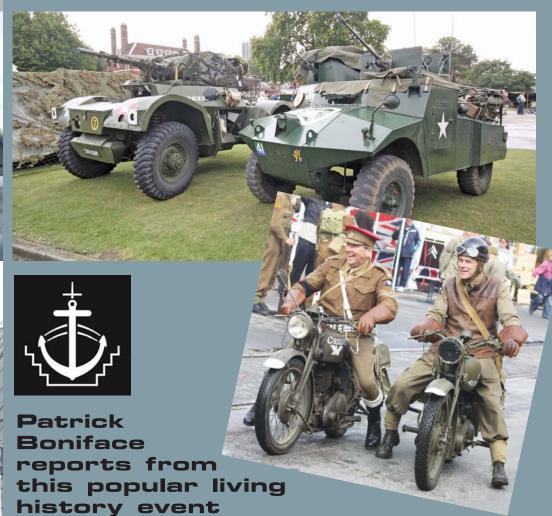






ney's Peter Russell (aka Pike), Casey Duchovny





ver the course of the weekend of the 17th and 18th September Chatham Historic Dockyard in Kent was transformed into a celebration of all things 1940's at Salute to the 40's. Now in its 6th year, this annual event brings together a huge swathe of military vehicles, classic cars and the cream of the reenactment groups from the South East of England.

Everywhere on the site were memories from the 1940's ranging from wartime fashions, air raid shelters and tin hats to Allied soldiers, sailors and airmen alongside a host of ENSA and American inspired wartime entertainment. One hundred and eleven separate re-enactment groups attended the event with Yanks and Limeys, 212 Squadron RAF, Royal Artillery Living History Team, Sittingbourne Home Front Living History, The Queen's Own Regiment West Kent, WW2 Wrens, Blitz Buddies and Battle for Europe just a few of the many there.

No fewer than twenty-four different Jeeps attended the show, alongside a wide variety of period trucks, a Hillman RAF Staff Car from 1938 and a 1944 Ford armoured car. Two wheeled vehicle enthusiasts were catered for with many of the vintage motorbikes patrolling the dockyard including three Harley Davidsons and four BSA's, a 1941 M20, a 1944 C10 and a 1934 three-wheeler bike.

1940's music filled the air with the Swingtime Sweethearts, singer Fiona Harrison and The Polka Dots reviving the music of wartime Europe with rousing renditions of the Andrew Sisters, Vera Lynn and Ella Fitzgerald classics. Elsewhere less erstwhile characters were trying to sell you some black market goods, whilst others tried to make and mend and make do with the ration book coupons.

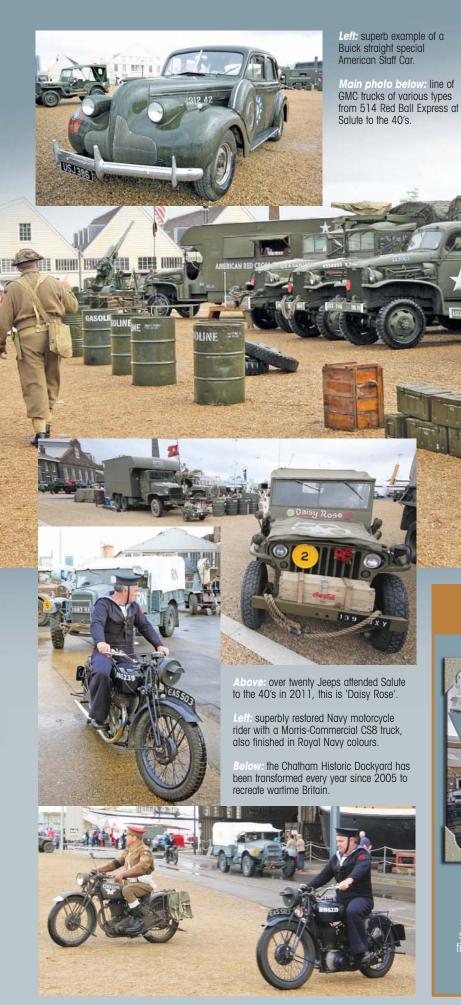
In the sky on what was a fairly wet Saturday the Battle of Britain Memorial Flight's Hurricane Mk IIC LF363 gave a spirited five-minute display flown by Group Captain Sammy Sampson DSO.

Top right: although not primarily a vehicle show, the event attracts a wide and varied selection of vehicles, including this Daimler armoured car (left) and Morris Light Reconnaissance Car.

**Above:** two of the many historic motorbikes and their riders that attended the show share a joke.

**Below:** soldiers from Battle for Europe take a break. The show is heavily biased towards living history, attracting quite a number of re-enactment groups.





### HMS Cavalier



On both days of the show the wartime destroyer HMS Cavalier fired her forward A and B turrets' 4.5inch guns, the first time they have been fired virtually since the destroyer was decommissioned from Royal Navy service in 1974. The guns had been the subject of a major five year restoration program within the dockyard and Salute to the 40's was the first chance to fire them, with pyrotechnics instead of ammunition, in public.

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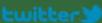


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## BULLETIN BOARD

Shaun Connors takes a look at the Combat Vehicle Reconnaissance (Tracked) (CVR(T) Family, which is currently being upgraded to CVR(T)-2 standard for use in Afghanistan



The UK MoD is currently upgrading a batch of Combat Vehicle
Reconnaissance (Tracked) (CVR(T) family vehicles into a new CVR(T)-2 standard, with some examples already deployed to Afghanistan.

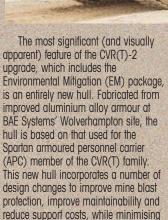
Throughout their service life CVR(T) vehicles have seen extensive service with the British Army on deployed operations, and those vehicles remaining in service (around 1200) have been through a number of upgrades to improve their reliability, serviceability and survivability, these including the replacement of the original Jaguar petrol engine with a more powerful and fuel efficient Cummins B Series diesel.

More recently, and for deployed operations in Afghanistan, the tempo of upgrades (many as Urgent Operational Requirements (UORs)) has increased considerably and have included installation of bar armour to provide enhanced protection against RPG-7 (Rocket Propelled Grenades), wire cutters, mesh protection for turret sights, enhanced drivers night vision, installation of an environmental cooling unit and enhanced ballistic protection.

Due to the harsh environmental conditions experienced in Afghanistan, a £19 million Environmental Mitigation (EM) UOR upgrade program was recently carried out on around 100 vehicles. Under a separate project a redesign of the braking and suspension

systems has been undertaken, combat weight post-upgrades etc increasing from an original 7.8-tonnes to around 11-tonnes for the most numerous 30 mm cannon armed Scimitar reconnaissance variant.

The very latest CVR(T) upgrade program, a £30 million Urgent Operational Requirement (UOR), only become public knowledge late-2011, this centring around the introduction of the CVR(T)-2.



Five variants of the CVR(T) family are covered by the CVR(T)-2 program, which has so far procured 58 new hulls plus three prototypes. The five models covered are Samaritan ambulance, Samson recovery (which also receives a new winch), Scimitar reconnaissance, Spartan APC (which will also receive a remote weapon station) and Sultan command post.

weight growth.

The Scimitar variant, which makes up around 50% of the total order, benefits most from the new hull, this

allowing the driver to be seated higher for enhanced survivability; the new hull also offers Scimitar crews the added benefit of an additional escape route through a new rear door.

In terms of firepower, the Scimitar retains the original two-man turret armed with the standard unstabilized RARDEN 30 mm cannon and a 7.62 mm co-axial machine gun. A firepower upgrade was not considered by the MoD.

BAE Systems Global Combat Systems is the prime contractor for the CVR(T)-2 upgrade, with work carried out at the Defence Support Group (DSG) facility at Donnington. Around 30 vehicles had been delivered to the MoD at the time of writing, with final deliveries scheduled for around the time this issue of MMI lands on newsagent shelves in early March 2012.

If the current operational tempo remains, BAE Systems is quietly confident of further CVR(T)-2 orders from the MoD. The company is also currently marketing this upgrade package to other CVR(T) users worldwide.





The CVR(T) family has its origins in a British Army requirement issued in the late 1950s for an Armoured Vehicle, Reconnaissance (AVR), this to undertake reconnaissance, fire support and antitank roles. After studying a variety of proposals the then Fighting Vehicles Research and Development Establishment (FVRDE) concluded that two vehicles would be required to carry out these varied roles, these evolving to become the Combat Vehicle Reconnaissance (Tracked) Scorpion range and the Combat Vehicle Reconnaissance (Wheeled) Fox vehicle.

The Scorpion range and Fox vehicle (Fox variants were proposed but never entered production) both utilised aluminium alloy armour, shared the same Jaguar petrol engine, and the Fox and Scimitar CVR(T) variant shared the same RARDEN unstabilized 30 mm cannon. Turrets on the two vehicles were similar, and when Fox was withdrawn from service surplus Fox turrets were then fitted to some redundant 76 mm

armed Scorpion hulls to create a new CVR(T) variant, Sabre.

The CVR(T) prototype contract was awarded to the now BAE Global Combat Systems (then Alvis Limited) in September 1967, this calling for 17 vehicles. The first prototype was completed in January 1969 and the first official announcement regarding the vehicles was made in September of the same year. At this time Alvis was still building the FV600 range (Saladin, Saracen, Stalwart etc) range of 6x6 wheeled vehicles.

All 17 CVR(T) prototypes were completed by the middle of 1970. In May 1970 the 76 mm gun armed Scorpion was accepted for service with the British Army, with the first production Scorpions delivered in January 1972. In addition to the Scorpion, the other original CVR(T) family variants were Samaritan (ambulance), Samson (recovery), Scimitar (reconnaissance), Spartan (APC), Striker (anti-tank), and Sultan (command).

Later additions to the family to see service with British Army included the Sabre (a hybrid of Fox furret and Scorpion hull; now withdrawn) and the larger (wider, longer, heavier...) Stormerbased Starstreak HVM (High Velocity Missile) carrier and support vehicle, and Shielder Vehicle Launched Scatterable Mine System (VLSMS)

In total the British Army received around 2300 CVR(T) vehicles, the last of the 180 Stormer variants delivered in the 1990s. Around 1200 CVR(T) vehicles currently remain in service with UK forces, not all of these are operational, and some will likely be disposed of shortly.

The first export customer for the CVR(T) family was Belgium, which placed an order in October 1970 for 701 Scorpions and variants. Deliveries commenced in February 1973, these vehicles assembled at a British Levland facility at Malines in Belgium.

Production of the CVR(T) family ceased in the late 1990s, with around 4500 vehicles delivered to 22 countries that include (sometimes as surplus) Botswana, Brunei, Chile, Honduras, Iran, Iraq, Indonesia, Ireland, Jordan, Malaysia, New Zealand, Nigeria, Oman, Philippines, Spain, Tanzania, Thailand, Togo, UAE and Venezuela. Current estimates are that some 2200 vehicles remain in service with 16 countries. many of these subject to ongoing life extension and upgrade programmes.















**Above:** tucked away around the back of the large site was this large collection of Bombardier Lynx GLX 5900 Ski Doos.

**Right:** the site was packed with Land Rovers, and amongst them were examples of the later Wolf XD models.



# Witham's NEW ARRIVALS

We dropped in on the Lincolnshire MoD disposal agents to check out the recent arrivals



y the time you read this item, the latest MoD Tender Sale to be held at Witham Specialist Vehicles will have already taken place. As it turns out, many of the vehicles featured here were due to be included in that sale, although at the time of our visit we didn't know that having dropped in on the Colsterworth site before the date of the sale had even been announced.

The yard was a frenzy of activity with all manner of vehicles arriving and being unloaded and loaded at the depot, but one of the first vehicles I noticed parked close to the entrance was a Centurion ARV, well I could hardly miss such a big lump of armour

As I got closer to the Centurion I then noticed that there was also a Centurion AVRE parked beside it. Both tanks were fitted with the rubber block 'Hush Puppy' tracks, while the Mk 5 AVRE was armed with the typical 165mm demolition gun and fitted with a fascine cradle across the front of the

hull, but no dozer blade fitted.

A little further up the yard, and penned in between vehicles, was a less

wasn't even British, it was of Chinese origin! Despite being painted in an unfamiliar black and green camouflage scheme, sand paint appearing from beneath the flaking top coat suggested that this YW701 Command Post vehicle was actually a Gulf War relic, no doubt brought back to the UK for

evaluation and now no longer needed.
Amongst the larger vehicles around the site, and there were many of them, were several trucks wearing unfamiliar red painted rooftops and black numbering panels on the cab doors over a base colour of desert sand. From this I would assume that the trucks had been used on a range, which in all probability would have been BATUS in Canada as this is the only training area where I have encountered these red top vehicles before, but I stand to be corrected.



A Grove Coles 315M medium field crane parked close to the two Centurions in the yard and finished in a pale blue/grey colour was quite interesting having apparently come from one of the Navy's recently scrapped warships It looked to be in pretty tidy condition and if it's been on a ship I would imagine the mileage would be low and as a working vehicle will no be snapped up by someone.

**Left:** the pale grey paint and rust streaks give away the fact that this Coles crane served on one of the Navy' ships.

**Below:** this Chinese-built YW701 Command Post vehicle was one of the more unusual vehicles to have turned up at Witham Specialist Vehicles recently. The sand coloured paint beneath the flaking green and black top coat might suggest that it's a Gulf War relic.

**Bottom:** now this is a serious toy, the mighty Centurion AVRE with the massive 165mm demolition gun. Surprisingly for a vehicle of this size it was for a vehicle of this size it was hidden from view by the equally big Centurion ARV (pictured opposite) when I first arrived on site.









**Above:** the massive site was packed with all sorts of kit, including a great many trucks.

**Top right:** this Bedford TM 4x4 wore a red top to the cab and bore the name 'Starksky' on the side of the door.

Far right: another of the 'red top' vehicles was this Leyland DAF tipper.

There were a great many Land Rovers, both standard 90 and 110s, and Wolf Land Rovers to be found on site, but tucked away around a corner I came across a pair of Tomcar all-terrain buggies. The Tomcar was the basis for the British Army's Springer all-terrain vehicle, designed to carry supplies dropped by helicopters back to Forward Operating Bases (FOBs). These prototypes will no doubt appeal



to someone who will appreciate these fun little off-road buggies, and would make ideal 'Beltring Runarounds'. There's always a constant turnover

There's always a constant turnover of stock at Witham Specialist Vehicles so it's well worth checking out their website, which includes direct sales, an online auction and news of the latest tender sales. You can find the website at:





### Springer ATU Prototypes

**Below:** these two prototype Springer all-terrain vehicles were tucked out of site around a corner. Although they're actually built by Tomcar, the basic design, albeit with many modifications and additions is the same as that of the production Springer, which is currently serving with troops out in Afghanistan. Both examples were looking a little tired, no doubt having led a hard life at the hands of test drivers, but they would make an interesting project for someone and having ridden in one of these things cross country, I can attest to their off-road prowess - now where's my piggy bank?





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# ISSION BRIBAIN ATES FOR YOUR DIAR

#### **Government Surplus Sales:**

Witham Specialist Vehicles: Regular auctions of ex-military vehicles, equipment and spares. Contact Witham Specialist Vehicles, Honeypot Lane, Colsterworth, Lincs for details of the latest sales or visit: www.mod-sales.com

#### **MARCH 2012**

#### Sunday 11 March 2012:

Militaria & Medal Fair: held at Stratford Leisure Centre, Bridgefoot, Stratford on Avon, Warks, CV37 6YY. Doors open 10.30am till 2.30pm. For further details contact: Tel: 01753 534777

#### Tuesday 13 March 2012:

Dispersal sale: Orwell, Hertfordshire, to include various tractors, cultivation implements, trailers and spares. For details call: Tel: 01223 213777 or visit www.cheffins.co.uk/vintage/

#### Sunday 18 March 2012:

S.M.V.G Military Swap Meet: Institute Hall, Bridge of Earn, Perthshire, (2 mins off Jct 9, M90) For table bookings e-mail: secretary@scottishmvg.org or Tel: 07704 187739

#### Sunday 25 March 2012: Hack

Green Secret Nuclear Bunker Rally: French Lane, Nantwich, Cheshire, CW5 8BL. Call Rod on: Tel: 01270 623353 www.hackgreen.co.uk

#### Sunday 25 March 2012:

Malvern Militaria Fair: Three Counties Showground, Wye Hall, Malvern, Worcester, WR13 6NW. For details contact Amanda on: Tel: 01743 762266

#### Saturday 31 March 2012:

Heritage Transport Show and Auction: organized by the Kent County Agricultural Society. For further details contact: Tel: 01622 630975 www.kentshowground.co.uk

#### **APRIL 2012**

#### Sunday 1 April 2012: Newbury

4x4 and Vintage Spares Day: Newbury Showground, Chieveley, Berkshire, RG18 9QZ, Call Mark Woodward for more details. Tel: 016974 51882 www.4x4sparesday.co.uk

#### Sunday 1 April 2012:

Northern Military Expo: Newark Country Show Ground, Notts, NG24 2NY. For further details call Tel: 01302 739000 www.northernmilitarvexpo.co.uk

#### Sunday 22 April 2012:

Militaria & Medal Fair: held at Yate Leisure Centre, Kennedy Way, Yate, nr Chipping Sodbury, Bristol, BS37 4DQ. For further details call: Tel: 01753 534777

#### Sunday 22 April 2012: Military

WW2 Vehicle Road Run: in aid of Help For Heroes. Meet at Tesco Baldock at 9.00am, road run starts at 11.00am. Call Mr G. Baker on: Tel: 01462 630214 Mob: 07963 607143

#### Saturday 28 April 2012:

Cambridge Vintage Sale: held at Sutton, Nr. Ely, Cambs. Sale of vintage and classic tractors, classic commercials, spares, etc. Call: Tel: 01223 213777 or visit www.cheffins.co.uk/vintage/

#### **Sunday 29 April 2012:**

Militaria & Medal Fair: held at The Princes Hall, Princes Way, Aldershot, Hampshire, GU11 1NX. For further details contact: Tel: 01753 534777

#### **MAY 2012**

#### Saturday 5 Sunday 6 Monday 7 May 2012:

Llandudno Transport Festival: held at Bodafon Fields, Llandudno, North Wales, LL30 1BW. For info call: Tel/Fax: 01492 545053 (to 6pm) www.llantransfest.co.uk

#### **Sunday 6 May 2012:**

Cobbaton Clearout: Cobbaton Combat Collection, Chittlehampton, Umberleigh, N.Devon, EX37 9RZ. For details contact Tim Isaac on: Tel: 01769 540740 www.cobbatoncombat.co.uk

#### Saturday 19 Sunday 20 May

2012: 1940's Weekend: held at Halfpenny Green Airport, Bobbington, Stourbridge, West Midlands DY7 5DY. Traders contact Steve Roberts: Tel: 01733 246440 or airmiler@hotmail.com Re-enactors contact Mark Anthony Craig on: Tel: 0774 607 3914 or northernforties@gmail.com www.northernforties.org.uk

#### Saturday 19 Sunday 20 May

2012: Bunker Bash 2012: held at the Kelvedon Hatch Secret Nuclear Bunker, A128 Ongar Road, Brentwood, Essex, CM15 OLA. Tel: 07971052195 bunkerbash@hotmail.co.uk www.bunkerbash.co.uk

#### Saturday 19 May 2012: The

1940s Relived: held at Brooklands Museum, Brooklands Road, Weybridge, Surrey KT13 00N. For details see:

www.brooklandsmuseum.com

#### Saturday 19 Sunday 20 May

**2012:** Quainton 1940's Weekend: Buckinghamshire Railway Centre, Quainton Road Station, Quainton, Aylesbury, HP224BY. For details: Tel: 01296655720 Trade please contact: gm@bucksrailcentre.org

#### Saturday 19 Sunday 20 May

2012: Militracks 2012: Held at Liberty Park, Overloon, The Netherlands, Museumpark 1, 5825AM. Contact Museum Director Erik van den Dungen for details: info@militracks.nl www.militracks.nl

#### Saturday 19 Sunday 20 May

2012: Belvoir Castle Steam & Country Festival: Belvoir Castle, near Grantham, Lincs, NG32 1PE. Tel: 07860 758872 www.steamfestival.co.uk

#### Saturday 26 Sunday 27 May

2012: Trucks & Troops: held at Beaulieu National Motor Museum. For further details call: Tel: 07544 570911 www.trucksandtroops.com

# Saturday 26 Sunday 27 May

2012: Little Easton On the Home Front: North Thames Area IMPS Annual Show.

#### **JUNE 2012**

#### Friday 1 to Monday 4 June

2012: Overlord 2012: held at The Lawns, Denmead, Waterlooville, PO7 6TZ. For details call: Myrddin Evans (General & Trade) Tel: 01243 375695 Trevor Bush (Vehicle Entry) Tel: 07774 988015 or visit: www.solentoverlord.co.uk

#### Saturday 2 to Saturday 9

June 2012: D-Day Anniversary Jeep Tour: organized by Flatdog 4x4 Adventure Tours. Limited places available. For further details contact: Tel: 07773 110101 dday.tours@btinternet.com

#### **JUNE 2012**

#### Friday 8 Saturday 9 Sunday

10 June 2012: Southport Funfest: Victoria Park, Southport. For further details or to book in contact Jimmy Vasco at: mg1966uk@hotmail.com www.westlancsmvt.com

#### Friday 15 to Sunday 17 June 2012: Cholmondeley

Pageant of Power: held on the Cholmondeley Estate in Cheshire. For further details see:

www.cpop.co.uk

#### Saturday 16 Sunday June

17 2012: Lister Tynedale Steam & Country Show: held at Nibley House Farm, North Nibley, Dursley, Glos, GL11 6DL. For further details please contact John Keedwell on: Tel: 01453 890920

#### **Sunday June 17 2012:**

Duxford Military Vehicle Show: held at the Imperial War Museum, Duxford, Cambridgeshire. Vehicle entry enquiries should be addressed to: V. Chiverton, 51 Collingwood Road, Eaton Socon, Cambs, PE19 8JQ.

#### Friday 22 Saturday 23 Sunday 24 June 2012: The

Yorkshire Wartime Experience: held off Hunsworth Land, Hunsworth, Bradford, BD4 6RN. Vehicle & reenactor bookings call Stuart Wright: Tel: 07748 604461 Stuart.wright@hotmail.co.uk Stall holders contact Paul on: Tel: 07709 052501 Pdt3945@hotmail.com www.ywe-event.info

#### Saturday 23 Sunday 24 June 2012: Muckleburgh

Collection Military Display Weekend: Held at The Muckleburgh Collection, Weybourne Camp (off the B149) North Norfolk, NR25 7EG. For further details call: Tel: 01263 588284 events@muckleburgh.co.uk www.muckleburgh.co.uk

# Saturday 23 Sunday 24

June 2012: Wartime in the Vale: National MVT Show, held at Ashdown Camp, Badsey near Evesham, Worcs. For more information visit the events page on: www.ashdowncamp.webs.com

#### **Sunday 24 June 2012:**

Militaria & Medal Fair: held at Stratford Leisure Centre, Bridgefoot, Stratford on Avon, Warks, CV37 6YY. For further details contact: Tel: 01753 534777

#### **JUNE 2012**

Saturday 30 June Sunday 1 July 2012: Tankfest 10th Anniversary: held at the Tank Museum, Bovington, Dorset. For further details or to order tickets see the website at:

www.tankmuseum.org or call Tel: 01929 462359

Saturday 30 June Sunday 1 July 2012: 40th Sheffield Steam & Vintage Rally: held at Rackford Road, North Anston, Nr Sheffield, S25 4DF For further details contact: Tel: 01709 545047.

#### **JULY 2012**

Friday 6 Saturday 7 Sunday 8 July 2012: Military Vehicle Trust Show, Caple, Surrey: East Surrey & West Kent Area Show, Temple Lane, Caple, Surrey, RH5 5HJ. For further details contact Yvonne on: Tel: 01306 711 907 yvonne@g-j-anstee.demon.co.uk

Friday 6 Saturday 7 Sunday 8 July 2012: Operation Home Guard: For further details contact John & Elaine Ward on: Tel: 01524241024 www.ingletonhomeguard.co.uk

Saturday 14 Sunday 15 July 2012: Manchester Airport Aviation & Transport Fair: in associaton with Ace Mobile Living History Group & Help for Heroes at the Runway Visitor Park. For details contact: Tel: 07952 176134

www.tasmanchester.com/TAS Fair.html Wednesday 18 to Sunday

22 July 2012: The War & Peace Show: The Hop Farm, Paddock Wood, Kent. For details contact: Tel: 01304 813945

www.thewarandpeaceshow.com Tel: 01622 872068 www.thehopfarm.co.uk

Saturday 21 Sunday 22 July 2012: Woodhall Spa 1940's Festival: Held at Jubilee Park. Stixwold Road, Woodhall Spa, Lincs, LN10 6QH. For further details contact Stuart Holmes on: Tel: 01526 353215 (after 6.00pm) stupot667@talktalk.net

Friday 27 Saturday 28 Sunday 29 July 2012: Welland Steam and Country Rally: held at Woodside Far, Welland, Worcs, between Upton-on-Severn & Malvern, WR13 6LN. For details: Tel: 01531 890762 www.wellandsteamrally.co.uk

#### **JULY 2012**

Saturday 28 Sunday 29 July **2012:** Erewash Steam & 40's Show: held at West Park Leisure Centre, Wilsthorpe Road, NG10 4AA, Tel: 01159 135823 dave.hoyles@ntlworld.com www.midlandeventsclub.co.uk

Saturday 28 Sunday 29 July 2012: War Machines at Davidstow: Davidstow Airfield & Cornwall at War Museum, Davidstow, Camelford, Cornwall, PL32 9YF. Mob: 07799 194918

## **AUGUST 2012**

www.cornwallatwarmuseum.co.uk

Friday 3 Saturday 4 Sunday 5 August 2012: Woodvale International Rally: Southport, Merseyside. Contact our website for more information and entry forms contact Jimmy Vasco at: mg1966uk@hotmail.com www.westlancsmvt.com

Friday 3 Saturday 4 Sunday 5 August 2012: Gloucestershire Steam & Vintage Extravaganza: held at South Cerney Airfield, Cirencester. For details about the event please visit:

www.steamextravaganza.com

Saturday August 4 2012:

MVPA 2012 Alaska Highway Convoy: MVPA 70th Anniversary Convoy on the famous Alaska Highway. For further details contact: hq@mvpa.org www.mvpa.org

Saturday 4 Sunday 5 August 2012: Croft Nostalgia Weekend: For further details check out the website at: www.croffmilitary.co.uk

Saturday 11 Sunday 12 August 2012: Cobbaton Combat VJ Weekend: Cobbaton Combat Collection, Chittlehampton, Umberleigh, N. Devon, EX37 9RZ. For details contact Tim Isaac on: Tel: 01769 540740 info@cobbatoncombat.co.uk www.cobbatoncombat.co.uk

Saturday 11 Sunday 12 August 2012: Combined Ops 2012: IMPS Military show & Classic Aircraft weekend, held at Headcorn Aerodrome, Nr Maidstone, Kent. For details contact Malcolm Dunlop: Tel: 01303 267271 mgdunlop@aol.com www.imps.org.uk

#### AUGUST 2012

Sunday 19 August 2012: Militaria & Medal Fair: held at Yate Leisure Centre, Kennedy Way, Yate, nr Chipping Sodbury, Bristol,

BS37 4DQ. Doors open from 10.30am till 2.30pm. For details: Tel: 01753 534777

#### Saturday 25 Sunday 26 Monday 27 August 2012:

Rauceby Forties Weekend: For further details contact: Tel: 01529 488354 www.raucebywarweekend@hotmail.co.uk

Saturday 25 Sunday 26 August 2012: Eastnor Castle Land Rover Show: The Deer Park, Eastnor, Nr Ledbury, Herefordshire, HR8 1RL. Contact Mark Woodward: Tel: 016974 51882 www.4x4sparesday.co.uk

Sunday 26 Monday 27 August 2012: Northeast Military Vehicle Show: held at the Durham Light Infantry Museum, Durham City. For further details contact: nemvc@hotmail.com

#### SEPTEMBER 2012

Sunday 2 September 2012: Militaria & Medal Fair: held at The Princes Hall, Princes Way, Aldershot, Hampshire, GU11 1NX.

Tel: 01753 534777

Sunday 30 September 2012:

Newbury 4x4 and Vintage Spares Day: Newbury Showground, Chieveley, Berkshire, RG18 9QZ. Call Mark Woodward for details. Tel: 016974 51882 www.4x4sparesday.co.uk

Sunday 30 September 2012:

Manchester Militaria Fair: held at Event City, Phoenix Way, Urmston, Manchester, M41 7TB. Located next door to the Trafford centre.For Further details contact Amanda on: Tel: 01743 762266

#### OCTOBER 2012

Sunday 7 October 2012:

Hack Green Secret Nuclear Bunker Rally: French Lane, Nantwich, Cheshire, CW5 8BL. For details call Rod on: Tel: 01270 623353 www.hackgreen.co.uk

#### OCTOBER 2012

Sunday 21 October 2012:

Militaria & Medal Fair: held at Stratford Leisure Centre, Bridgefoot, Stratford on Avon, Warks, CV37 6YY. For further details contact: Tel: 01753 534777

Sunday 28 October 2012:

Dallas Dig Out: Dallas Autos, Cold Ash Farm, Long Lane, Hermitage, Newbury, RG18 9LT. Tel: 01635 201124 admin@dallasautoparts.com www.dallasautoparts.com

#### **NOVEMBER 2012**

**Sunday 4 November 2012:** 

Northern Military Expo: Newark Country Show Ground, Notts, 2 minutes off the A1M (NG24 2NY). Contact Mark Askew on: Tel: 01302 739000 jeep.promotions@btconnect.com www.northernmilitaryexpo.co.uk

Sunday 4 November 2012:

Militaria & Medal Fair: held at The Princes Hall, Princes Way, Aldershot, Hampshire, GU11 1NX. For further details contact: Tel: 01753 534777

Sunday 18 November 2012:

Military Vehicle Day at Brooklands Museum: Brooklands Museum, Brooklands Road, Weybridge, Surrey, KT13 OON. For details contact Amanda on: Tel: 01743 762266

Sunday 18 November 2012:

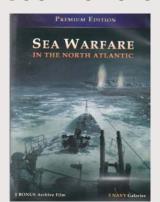
Malvern Militaria Fair: Three Counties Showground, Wye Hall, Malvern, Worcester, WR13 6NW. For details contact Neil Sinclair on: Tel: 01932 857381 neilsinclair@brooklandsmuseum.com www.brooklandsmuseum.com

Sunday 25 November 2012: Militaria & Medal Fair: held at Yate Leisure Centre, Kennedy Way, Yate,

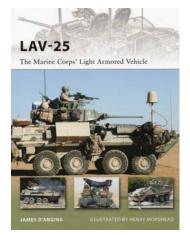
nr Chipping Sodbury, Bristol, BS37 4DQ. For further details contact: Tel: 01753 534777

Why not email your show details to: ian.young@keypublishing.com or post them to the Editorial Office, details are to be found on page 3

# **North Atlantic** Sea Warfare



Retailing at £16.99, this 55-minute long DVD from Pen & Sword includes rare and unseen archive footage portraying life at sea during the battle for the North Atlantic. The DVD looks at some of the many battles at sea between the British and American navies and the German U-Boats. The DVD also includes one bonus film and three bonus U-Boat picture galleries. For further details check out the Pen & Sword website below: www.pen-and-sword.co.uk



## Marine Corps Light Armoured Vehicle

The new addition to the popular New Vanguard series from Osprey looks at the LAV-25 light armoured vehicle. The book includes a combination of written information, photographs of in-service vehicles and a number of colour illustrations, including a fine double-page spread cutaway drawing. The book also covers the various operational deployments in which the LAV-25 has served, right up to Operation Iraqi Freedom. There's plenty of information packed between the covers, with many photos and illustrations to keep model makers happy.

**Title:** Osprey New Vanguard 185 - LAV-25

By: James D'Angina

ISBN: 978 1 84908 611 0

**Price: £9.99** 

Format: Softback

**Available From:** Osprey Publishing Ltd. www.ospreypublishing.com

# **Special Operations Patrol Vehicles**

**Title:** New Vanguard 179 - Special Ops Patrol Vehicles

**Bv:** Leigh Neville

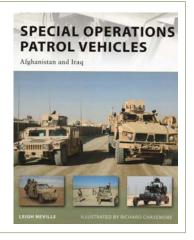
ISBN: 978 1 84908 187 0

**Price:** £9.99

Format: Softback

**Available From:** Osprey Publishing Ltd. www.ospreypublishing.com

Another new title from Osprev this month is this title that looks at some of the Special Operations Patrol Vehicles currently being deployed in areas such as Afghanistan and Iraq. The book is well illustrated with photos and colour illustrations, covering a wide variety of Special Operations Vehicles in use with a number of countries, including the USA, UK, New Zealand, Australia, Czechoslovakia and Germany. This is a fascinating introduction into the normally clandestine world of Special Operations forces and is well worth taking a look at.





# German Trench Design in the Great War

The latest book to come from Tankograd is this new addition to their recently introduced Tankograd World War One Series of books, which in this case looks at the subject of trench warfare during World War One. Using many, many fascinating archive black and white images taken at the time, the book examines the role of the trench during the Great War, as well as looking at the design and layout of the different types of trenches used together with the weapons, equipment and indeed uniforms used and worn by the German soldiers fighting in the trenches.

This is the first of two volumes looking at the subject (No.1005) with the main emphasis being on the trenches, but there are some intriguing images showing some of the different types of personal armour used by some soldiers fighting in the trenches, which looks like it has come from the medieval period rather than the 20th Century! A short colour section to the rear of the book details some preserved examples of this body armour, together with various designs of helmets and other trench warfare-related equipment. All in all it's a fascinating book on the subject.

**Title:** Tankograd German Trench Warfare Volume 1

By: Oliver Richter

ISBN: 978 3 936519 26 6

**Price:** £21.99

Format: A4 Softback

Available From: Bookworld Wholesale Ltd. www.bookworldws.co.uk

# WW1 German Trench Warfare Weapons of the Great War

**Title:** Tankograd German Trench Warfare Volume 1

By: Oliver Richter

ISBN: 978 3 936519 27 3

**Price:** £21.99

Format: A4 Softback

Available From: Bookworld Wholesale Ltd. www.bookworldws.co.uk

The second of the books to come from Tankoarad in their World War One Series of books, is this second volume of 'Grabenkrieg' or German Trench Warfare (No.1006), and this volume devotes more coverage to some of the weaponry used. Weapons covered include pistols and revolvers, rifles, sniper rifles, rifle grenades, submachine guns, machine guns, mine launchers, infantry guns, flame throwers, gas warfare and anti-tank weapons. There's less coverage of the trenches themselves in this volume, with the various weapons being the focus of

attention, which as with the first book, is done mainly with archive black and white images, although a short colour section is once again included at the end of the book, which includes images of preserved examples of the weapons. The quantity and variety of the weaponry demonstrates the horrific nature of warfare during that period, with some weapons, such as the spiked trench clubs looking like they've come from the dark gaes rather than the dawn of modern warfare. It's another fascinating book that enables the reader to delve into the grim world of trench warfare.





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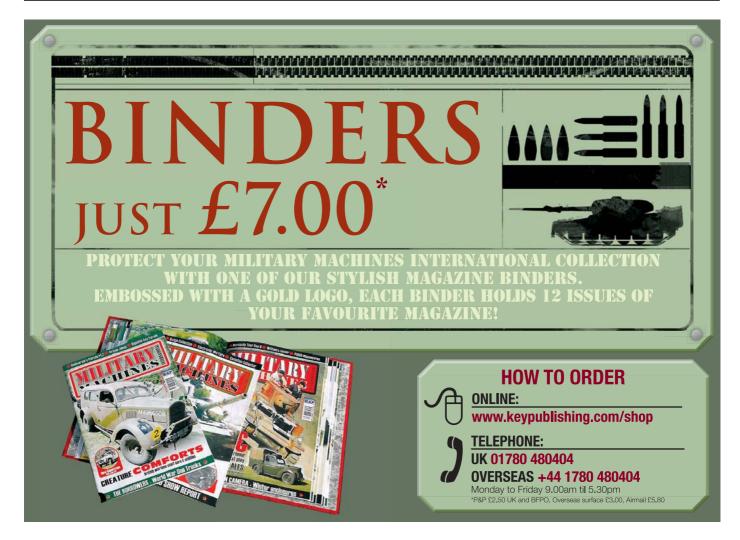
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#### MAHINDRA MILITARY JEEP 4X4, 1994,

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ebarrimore@hotmail.com

Tel: 07962319339



**BMW MOTORCYCLE R35**. Recent show winner, also V5C reg XFO734, historic class reluctant sale due to ill health. £6500.

**Tel: Mike 01562 752870** Mobile: **07532187796** (Worcs)

#### **MISCELLANEOUS FOR SALE**



HARLEY WHEEL. Came as spare on 1958 Harley sidecar, will not fit UL or Harley 45. There is no room for wheel bearing, could be off a three wheeler Harley. A very nice wheel £100 firm.

**Tel: 0208 806 9826 or 0208 534 1761** Gordon after 6pm



**ARMY SADDLE BAGS.** On the left in photo dated 1941, the other no date. Were fitted to my WD CO 350 Ryaol Enfield. Could do with a good wash — not for the faint hearted. £50 the pair, free post or exchange Harley 45 parts.

**Tel: 0208 806 9826 or 0208 534 1761** Gordon after 6pm

#### **MISCELLANEOUS FOR SALE**



**SOCKET BAYONET** .75" Land pattern musket (Brown Bess). Very good, no pitting, numbers inscribed on hilt £55. Also have British post war steel helmets, berets with badges, parade caps with badges, parade belts etc. Phone for list anytime **Tel: 07971 223707** – South Yorks



SHOTT US BOMBER JACKET. Brown leather, size 44 chest. 1970s – early 80s. No inner lining £95. Free post. Well worn in good condition, good to wear on your WWII vehicles. Tel: 0208 806 9826 or 0208 534 1761 Gordon after 6pm



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38 40 cheet. This ignified has been well.

38 – 40 chest. This jacket has been well used, not bad for 71 years old. £500, may swap for original Harley 45 forks W.H.Y.

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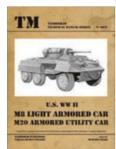
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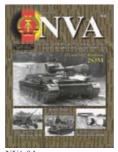
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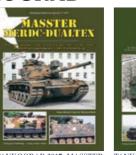
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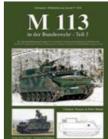
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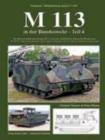
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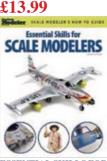
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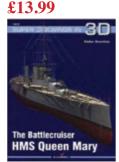
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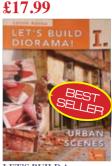
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