

CVR(T) HQ

Somewhere in Warwickshire, a group of enthusiasts are accumulating a collection to none, as John Blackman reports. All photos by the author



Winner of the *CMV* 'understatement of the month' competition (and the editor's decision is final) goes to Andrew Baker of the Alvis Fighting Vehicle Society.

When asked if he and his compatriots had a sizeable collection of Alvis CVR(T) (Combat Vehicle Reconnaissance Tracked) series vehicles, he replied, 'we've got a few'. Andrew, modesty is all very well in its' place, but 'few' doesn't cover it. You've enough Alvis armour to declare independence for Warwickshire, and stand a good chance of defending the borders.

Post-war vehicles are becoming more popular, and you don't need a degree in economics to work out why - cost and availability. Moreover, you are more likely to

find someone who worked on them while they were in service, to assist with advice or more. Well, that's the theory, but first you have to find that 'someone'. When Andrew

Baker restored his first CVR(T), he went it alone, which is no mean feat.

Andrew, a mechanic by trade, can trace the roots of his infatuation with military vehicles back to when he attended a Land Rover off-roading weekend at Bovington, many years ago. 'On the same course were guys with heavy vehicles,' he recalls, 'Bedford trucks and things, and they were using an old tank to pull the vehicles out of the mud. I watched them and thought it looked

Heaven

Continuation of Alvis fighting vehicles second



A rare line-up of Alvis firepower: Scorpion, Sabre, Scimitar, and Scorpion 90.

interesting. A few years later, I bought a Stalwart and started doing heavy vehicle trials in it. Then the dealer I bought the Stalwart from, got an Abbot in stock, which I also bought... then he got an FV432 and 434, and I ended up getting those as well, plus various other vehicles.

"When I got married, they became a pain to maintain, and I sold most of them off. But I'd always wanted a CVR(T), which at that

time were rare. So about five years ago, I swapped my last two vehicles, an FV434 and Stalwart, for the wrecked hull of a Scorpion that had sat in a field for about eight years.

'...the old Jaguar engines are probably the weakest link.'

I stripped it all down, rebuilt the engine - rebuilt everything in fact. Was it a difficult job? Yes, I didn't know anyone who could

help, nobody had any parts, and I'd never even driven a CVR(T). It wasn't until the Scorpion was finished and I took it to a local show in 2002, that I met the others - they were there with their diesel Scimitar.'

The 'others' Andrew refers to are Mick Browning, Lew Hall and Keith Gossage, all ex-Alvis men who now work at BAe Systems in the old GKN plant at Telford. Their interest in Alvis



The first in the CVR(T) line: the FV101 Scorpion. When Andrew Baker restored this, his first CVR(T), he did it virtually single-handed. No mean feat.

vehicles extends well beyond the nine to five working day, and they are happy to, literally, take work home - with permission of course. They had bought the unwanted remains of a Scimitar diesel-trials vehicle, as Mick Browning explains.

'There was a competition between Cummins, Perkins and Steyr as to which diesel engine should power the British fleet. When Cummins won, the Perkins Phaser-powered Scimitar was thrown outside where

it was cannibalised and left to rot for about five years. They were going to throw the remains into a skip, so a couple of us bought it for £360. It took about four years to rebuild. We met Andrew in 2002 and started

'Our aim is to see every type of CVR(T) that has been produced, running and working.'

going to shows together.'

The group are voraciously acquiring Alvis vehicles, mainly CVR(T)s, but they also have a rare Stormer configured as a command vehicle. Some vehicles have come direct from Alvis, like the Stormer and Scorpion 90. They were both donated

by the company and are unique in private hands. 'The Scorpion 90 is still owned by the company,' Mick Browning confirms, 'but has been donated to us. They could take it back if it were needed for demonstration purposes,

but that is unlikely because they've cut up all the jigs and will never make another.

'The Scorpion 90 was produced for Venezuela, Indonesia and Malaysia, and only 200 were built in all. We had three sales-demonstrators at Alvis. The British Army would never take it on because they didn't like the single-fuse ammunition fired by its 90mm Cockerill Mk 3 gun, despite it being able to take out a main battle tank. When they decided they weren't going to sell anymore, and Alvis closed, two of the demonstrators were cut up. The one we have was destined for the same fate, but was donated to a farm college where it was stuck in a shed for four years. It was in a right state, the fuel tank was leaking, and it wouldn't run properly. So I suggested to the company that if they didn't want it anymore, we'd look after it, and if they wanted to borrow it back they could. At first, it was painted in British Army colours, but nobody really noticed it. So last year we changed some of the detail, like moving the headlamps down and adding a front step, so it represented an Indonesian vehicle. Andrew then spent a lot of time spraying on the intricate camouflage - all the Indonesian Scorpions were

The Sabre was introduced in 1995, and is basically a surplus FV721 Fox armoured-car turret mounted on a surplus Scorpion hull.



THE CVR(T) RANGE

The CVR(T) range came from a requirement formulated during the 'sixties that called for a vehicle to replace existing reconnaissance vehicles, including the Ferret, Saladin and Saracen, but that would be faster, lighter and air-portable. Initially it was hoped that one vehicle would be capable of fulfilling three roles: reconnaissance; anti-tank; and fire support. However, design studies revealed that such a vehicle would be too heavy to be air-portable, and it was therefore decided that a family of tracked vehicle be produced. They would be based on the same running gear, but specialise in particular roles.

In September 1967, following development work at the Fighting Vehicles Research and Development Establishment at Chertsey, in Surrey, Alvis Limited of Coventry were awarded the contract to produce 17 prototypes of what was to become the FV101 Scorpion. The first prototype appeared in January 1969, with the rest following in a little over a year. Extensive trials were conducted and, in May 1970, Alvis were awarded a production contract for 2000 vehicles. The first production FV101 Scorpion was delivered in January 1972.

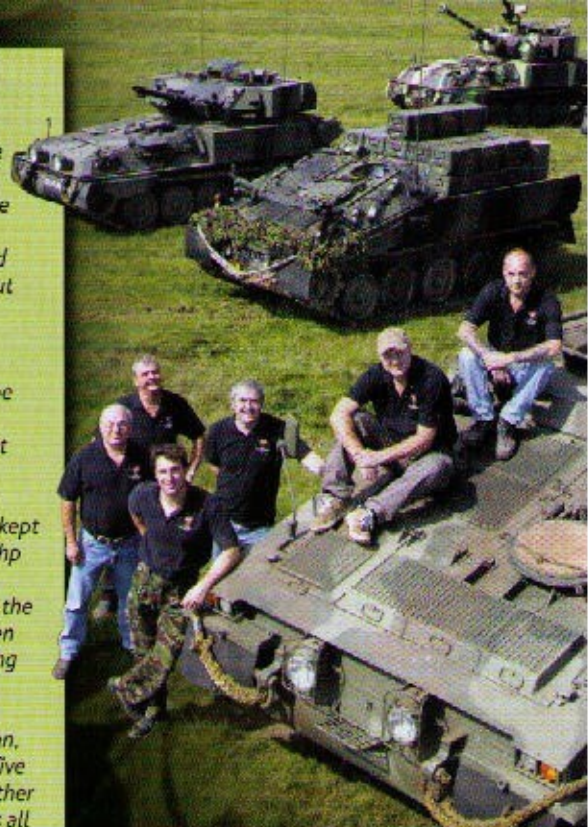
The Scorpion, and the rest of the CVR(T) family that soon followed, made much use of welded aluminium-alloy armour, the thickness of which reduced the need for internal strengthening and kept the vehicle's weight to a minimum. The engine used was a Jaguar 4.2-litre J60, de-rated from 265hp to 192hp (and subsequently de-rated further during service).

The Scorpion was armed with a 76mm L23A1 gun. The next CVR(T) variant to enter service was the FV107 Scimitar - basically the same vehicle as the FV101 Scorpion, but armed with a 30mm Rarden gun in a modified turret. It was intended to complement the Scorpion's fire-support role by dealing with lightly-armoured hostile vehicles.

The FV102 Striker anti-tank guided weapons carrier, and FV103 Spartan armoured personnel carrier, share very similar box-like bodies built on the basic Scorpion hull and running gear. Spartan, which can carry five men in addition to its two-man crew, entered service in 1976. Striker carries five Swingfire wire-guided anti-tank missile in a ready-to-fire bin at the back of the vehicle, with a further five missiles stored internally. The bin is elevated to 35° for firing, but when lowered, the vehicle is all but indistinguishable from Spartan. Firing can be controlled either from inside the vehicle, or remotely from outside. Originally, missile flight was controlled manually via a joystick, but an upgraded semi-automatic system has since been installed whereby the operator has only to sight the target.

The FV104 Samaritan armoured ambulance and FV105 Sultan command post vehicle, also share a similar body, but of a higher profile as befits their role and the need for additional interior space. Last of the original CVR(T) family to go into production (in 1979) was the FV106 Samson armoured recovery vehicle, which also made use of the Striker/Spartan box-like hull. However, in 1995 the Sabre was introduced into service. This hybrid vehicle featured surplus FV721 Fox armoured-car turrets, mounted on surplus Scorpion hulls, to produce something akin to a Scimitar, but with a lower profile.

Also produced by Alvis, but not taken into service, was the Streaker high-mobility carrier. Only two were produced, and Andrew Baker has one. The other virtually unique vehicle within the AFV Society group is an Alvis Stormer. This is essentially a larger (it has an extra road-wheel on each side) modernised version of the CVR(T). In service with the British Army is a version fitted with a roof-mounted, eight-round, Starstreak high velocity missile-launcher.



Members of the AFV Society - what they don't know about Alvis vehicles...



Right: Here the Striker's Swingfire missile-bin is shown elevated into the 'ready' position.

Below right: This FV102 Striker is owned by AFV Society member Richard Morris and, as a result of countless hours of restoration work, is probably in better condition now than it ever was while in service.

painted exactly the same - and it certainly gets noticed now!

Many of the group's other vehicles originated from military sales, such as Withams. It seems that people buy CVR(T)s to play with, thinking they can look after them, and when they discover it isn't quite so easy, get rid of them. Mick Brown is a development fitter, a job that used to involve testing new Alvis models to destruction. Now that civilians maintain much of the British Army's stock of vehicles, Mick spends most of his time travelling around the UK repairing, rather than trying to destroy, CVR(T)s. Either way, he and his colleagues know a thing or two about Alvis fighting vehicles.

Ask about CVR(T) problem areas and two in particular will be cited - the gearbox and the engine. 'We strip and rebuild CVR(T) gearboxes,' Mick Browning says. 'It's a rare skill, but one of the guys who was an expert at Alvis, and who has since retired, lives just down the road and comes and helps us. Andrew is his apprentice!

Although the gearbox is so complicated, the old Jaguar engines are probably the weakest link. When they first came out, the Jaguar engine was rated at 200hp and revved to about 6000rpm: it was a powerful unit, but overheating led to problems with

the cylinder head. To overcome that, they detuned the engine to the point where, when they came out of service, they were down to between 160 and 165hp.

A weakness of the Jaguar engine was that over-revving led to dropped valves. You hear >>>




The Alvis Stormer is essentially a stretched CVR(T). This virtually unique vehicle is configured as a command vehicle, and was donated to the Society by Alvis.

tales of how you can get 70mph out of CVR(T)s, but valve collision occurs at 6100rpm, so you can't actually achieve that speed. But people try. You can also take out a fuse to bypass the governor, and really rev it hard - which doesn't do the engine any good at all. The diesel engines are much better.

Although the diesel trials went ahead in 1991 and 1992, the Army didn't bother about installing Cummins engines until they had a lot of problems with mines in Bosnia. When the vehicles went over a mine, the crew were sitting on 100 gallons of petrol, so the diesellisation project was pushed forward. The Cummins diesel has given the CVR(T) a new lease of life.'

As well as collecting more than 30 CVR(T)s (and I'm being deliberately vague because, between our visit and this feature going to press, I'm confident more will have been acquired), the guys have accumulated tons of spares, reams of technical data, and untold experience. What better now than to share it, so in 2006 they launched the Alvis Fighting Vehicle Society. The intention is to be a resource centre, available to all who wish to learn about the history and development of Alvis AFVs.

'Our aim is to see every type of CVR(T) that has been produced, running and working,' says Mick Browning. 'Also, there are dealers out there who will charge a lot of money for parts, whereas we have spares to trade or swap. We just want to see more CVR(T)s running, and although there are people who say they know a lot about them, we work with them. We like to help people and thought that forming the Alvis Fighting Vehicle Society was the best way of doing it.'

For more information about the Alvis Fighting Vehicle Society check out their website www.afvsociety.co.uk, or call 07803 080028. 



What goes up must come down... Mick Browning having fun in the diesel powered Scimitar.



Above: Only two Streaker high-mobility carriers were ever produced - Andrew Baker has one.

Right: This Scorpion 90, finished in Indonesian Army colours, is unique in private hands.