French Connection

Auverland is a French manufacturer that we're going to be hearing a lot more of in the future - Shaun Connors reports.

Auverland can trace its beginnings back to the mid-1960s and one Bernard Cournil, an inventive mechanic. Cournil - among other things a Hotchkiss Jeep dealer - had spent many years selling and repairing tractors and forestry vehicles in central France, and his experiences led him to develop a vehicle that could be used both on the road and in the fields; a not dissimilar train of thought to one had by a certain Maurice Wilks of Rover Cars back in 1948. Over a period of 12 years, and with the help of his son, Cournil produced over 850 examples of his multipurpose 4x4 vehicle. His design - known simply as the Cournil - was well liked by French farmers and for reasons that are unclear, in 1977 Cournil sold the licence for his design to Gervarm, a small tractor manufacturer and subsidiary of the Gevelot organisation. Around the same time, a licence was also sold to well-established Portuguese manufacturer, Uniao Metalo Mecanica (UMM) of Lisbon.

The Cournil was a simple, robust and functional vehicle, attributes that ensured military appeal and in 1977 the

Main Photo; ***Auverland's saviour, the A4 AVL, the PVP (Petit Vehicle Protégé), with a contract for 933 examples being awarded in Sept 2004.***

inevitable militarised variant was shown for the first time at the Satory Military Exhibition (now Eurosatory). The military Cournil was branded the SAMO, although very briefly appears to have been known as the Fennec.

By the late 1970s the Tag Vehicles Group had established itself as the UK importer/distributor for the Cournil vehicle. Gervarm's association with the Cournil (according to magazine reports of the time) ended in March 1980 and from December 1980 the design was in the hands of SIMI (Societe International de Materiel Industrial), apparently a consortium of former Gervarm employees and managers. By November 1981 SIMI was owned by the Belin Group.

The vehicle produced by SIMI had changed little in appearance from the original Cournil product, although there had been the inevitable mechanical upgrades/changes. During 1982 SIMI produced some 500 vehicles, with a projection for 1,200 during 1983, this figure including 230 military vehicles ordered by Zimbabwe. Claiming the delivered vehicles were not of the specification ordered, or something similarly ridiculous, Zimbabwe paid only 50% of its bill, this ultimately leading to the near-bankrupt SIMI being acquired by French businessman Francois Servanin in August 1984. Francois Servanin renamed the company Autoland

The A3F VAL (Vehicule Aeromobile Logistique) can carry a 750kg pallet with maximum dimensions of 1.2 x 1.2 x 1m; loading is assisted by a winch behind the two front seats.

although a dispute over the use of that name ensued, and so the name Auverland was adopted. Production was initially based on two models, the Series A (later known as the A2) and the SC II. The Series A was a modified/ updated Cournil, while the SC II was essentially the Cournil design. Not content to rest on its laurels, Servanin's company was soon developing of a new light vehicle that would continue the Cournil tradition of simplicity and robustness.The new vehicle - the Auverland A3 - was ready for commercial production by 1988.

Military Orders

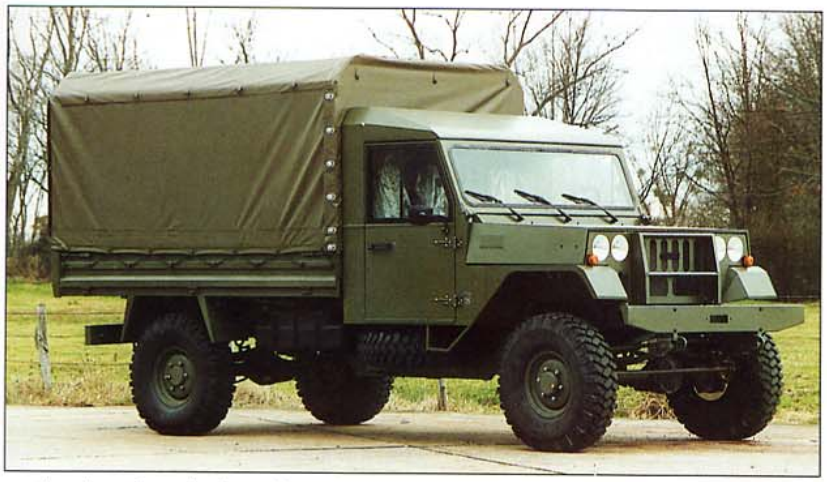
The first military/governmental order for the A3 came from France's Gendarmerie and was placed in 1988. Production in France of the A2/SAMO was completed in 1990, by which time it was reported to have been sold (military applications) to Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Ivory Coast, Madagascar, Zaire (now The Democratic Republic of the Congo), Zimbabwe and some other undisclosed countries.

Production of the Cournil design, albeit substantially modified, continued in Portugal by UMM and by the early 1980s UMM had embarked on an aggressive campaign to sell the design all over Europe. Powered by new Peugeot diesel engines, a few examples (badged UMM Trans Cat) even reached the UK between 1983-1986. Between 1986-1988 there was a longer-wheelbase, the Alter I, and then a year later the UK's SMC Industrial Products Ltd picked up the franchise and started bringing in the improved Alter II.

Above; ***French Army TC-10SL stripped down with windscreen folded flat.***

Left; ***French Army TC-10 hard-top.***

Left; ***French Marines A3 four-door soft-top.***



Left; *this is arguably the ugliest truck in the world, ever - the TC-24.*

continuation of production without the PVP contract award was in no way a certainty. Following the PVP contract award the shareholders of SNAA set about reinforcing Auverland as a manufacturer of light armoured vehicles, and it surprised many commentators when in January 2005 it was announced that SNAA had acquired Panhard, builder of the Vehicule Blindé Leger (VBL), ERC Sagaie and other light armoured military vehicles.

Panhard's parent company, the car manufacturer PSA Peugeot Citroen, is understood to have been open to offers for Panhard for a number of years, but the loss of the PVP contract is understood to have been the catalyst in bringing disposal plans for France's oldest builder of light armoured military vehicles to the fore. Renault Trucks in conjunction with Thales were reportedly also interested in Panhard, and are understood to have made an offer.

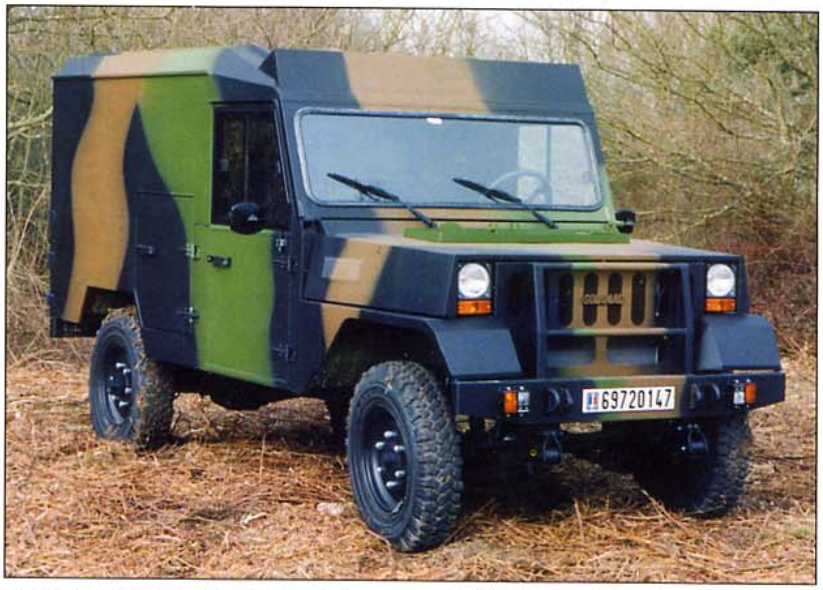
Details of SNAA's securing deal have not been disclosed, however the company is thought to have paid between EUR0 20 million and EUR0 25 million for Panhard. Panhard vehicles have been bought by the armed forces of 45 countries and the company had net earnings of around EUR0 4 million on sales of EUR0 65 million in 2004.

Following the award of the PVP contract, a rejuvenated Auverland further developed the PVP platform and at Eurosatory 2004 displayed a softskin variant of the design, the A4 FAST (Flexible Army Smart Transport), for the first time. The A4 FAST is essentially an enlarged next-generation A3 designed to meet many of the current and emerging light vehicle requirements, these calling for larger vehicles with increased payload and performance, plus the ability to accept appliqué protection from small arms fire and anti-personnel mines without payload or capability degradation.

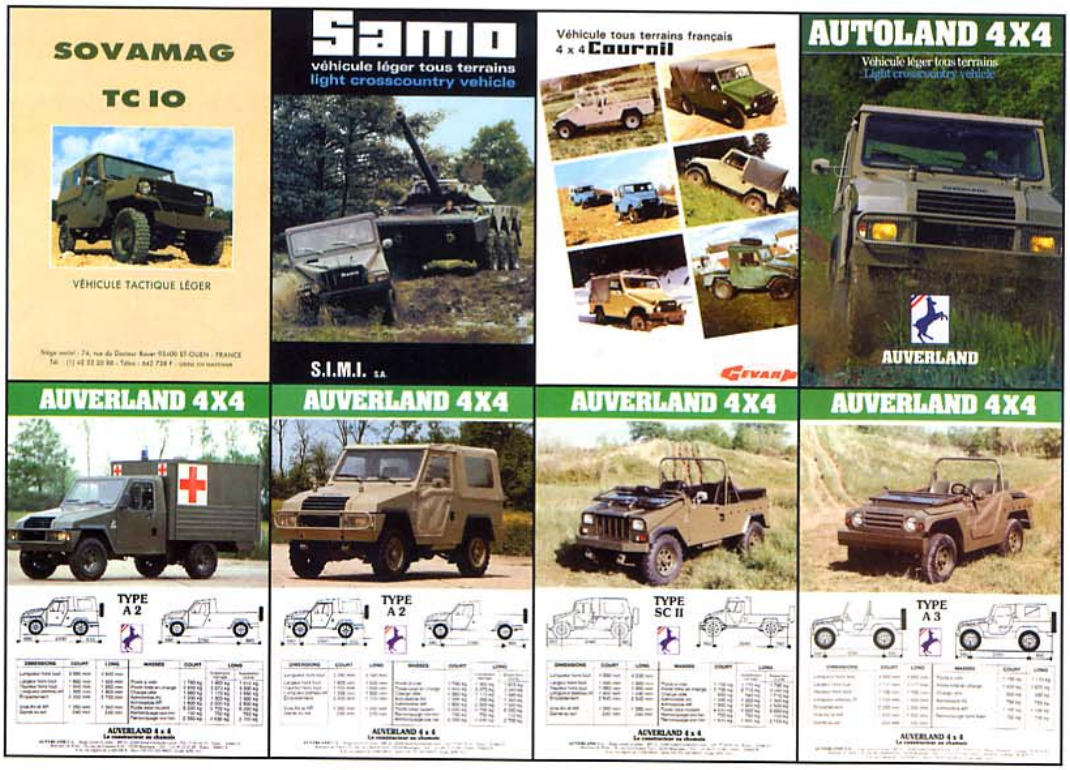
It is understood the A4 platform was offered by Auverland to meet a French Army requirement for 41 armed patrol vehicles. Tender responses are understood to have been submitted mid-2004 for a requirement that is essentially a further incarnation of the abandoned 63-vehicle VRI (Vehicule Rapide d'Investigation) requirement. In brief, the requirement is understood to call for a four-door, four-person vehicle with a payload of 1,100kg. A mine-protected floorpan (DM 31) is required, and mounting points (ringmount) for a 12.7mm HMG and a front-mount for a 7.62mm LMG are required. A turbocharged diesel engine (with a 24V electrical system) is required.

This must provide a maximum speed of 120km/h and provide sufficient acceleration to cover 400m from a standing start in 25 secs. An 800km range is required. Other requirements include a winch, two spare wheels and blackout lighting. The base vehicle must have EU homologation. As this article was being prepared some sources suggested the RVI contract would be awarded to Panhard.

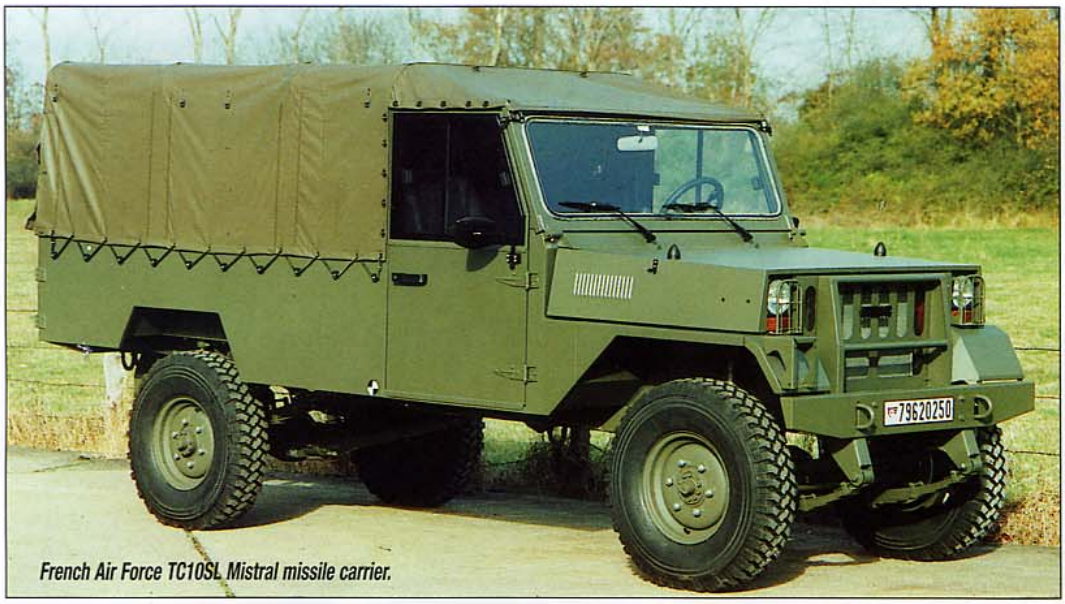
The softskin A4 has also been proposed to meet a Belgian Army requirement, the Light Protected Vehicle (LPV). The LPV is the intended replacement for the Belgian Army's 2,673 Iltis light vehicles and tenders in this much-delayed programme were finally submitted on the 13th of October 2004. A decision was anticipated during December 2004, with deliveries of the 440 vehicles and 120 appliqué protection kits required running through until 2008. However, on 24 December it was announced the LPV procurement process



Left; *French Army TC-10 hard top; new hard tops are currently being supplied.*



Below; *an assortment of brochures covering Cournil, Samo, Autoland, Auverland and Sovamag.*



French Air Force TC10SL Mistral missile carrier.

December 2000 and these vehicles are currently deployed by the French Army's 11th Airborne Division.

In November 2003 it was announced that two A3F vehicles had been supplied to Sweden for trials for possible use with Sweden's to-be-acquired NH90 helicopters (Swedish military designation Hkp 14).

In July 2001, Auverland-Sovamag were acquired by (and recapitalised by) SNAA (Société Nouvelle des Automobiles Auverland). Mr Christian Mons became the new (and current) CEO of SNAA, with Francois Servanin remaining in a consultancy capacity. The name Auverland again remains the one generally used when referring to the company.

In April 2001 Auverland-Sovamag responded to a DGA tender for the Petit Vehicle Protégé (PVP) and in January 2002 was one of four companies awarded

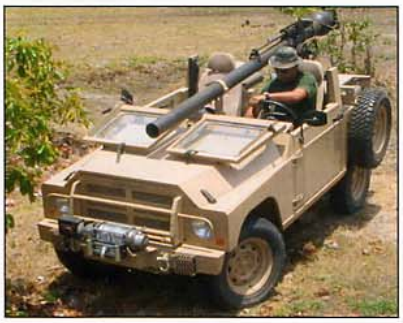
Far right; ***A3 armament option include a 106mm recoilless rifle (Venezuela trials vehicle) and the MILAN ATGW.***

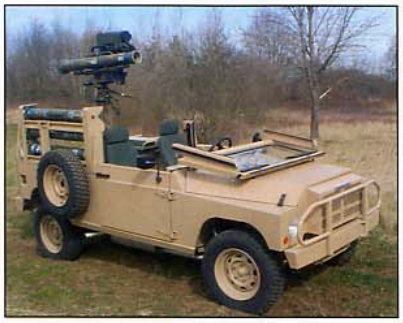
Below; ***destined for trials in Bangladesh, the simplistic, functional and durable A3 is clearly a 'no frills' design optimised for the most demanding of users and environments.***

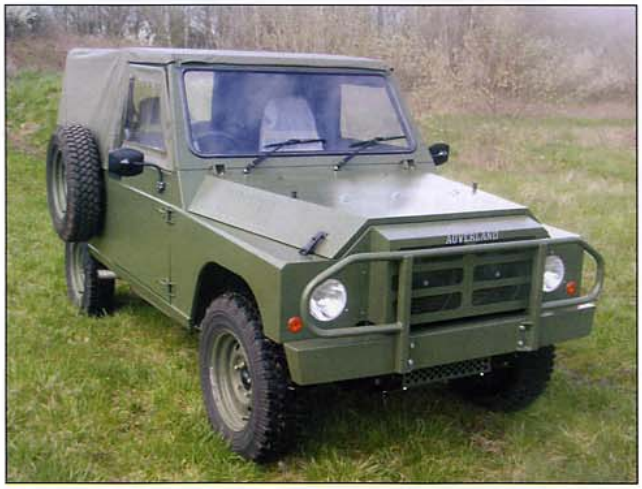
As of January 2005 trials in Bangladesh were ongoing, while an initial order for 100 vehicles for Venezuela is likely to be awarded mid 2005.

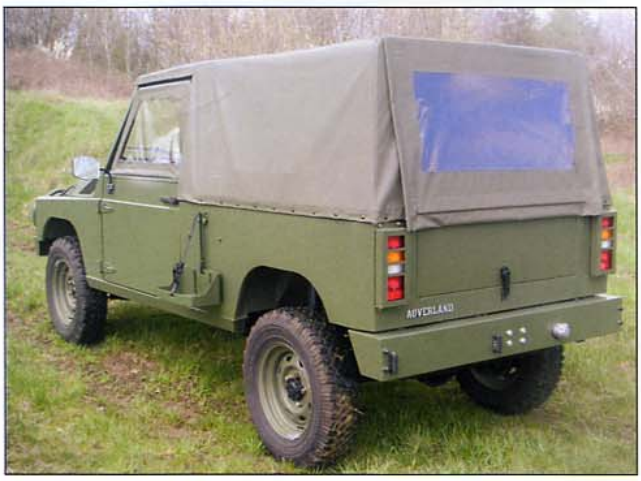
Trials in Saudi Arabia during 2002-2003 are understood to have resulted in an order, and as this article was being written an order for an estimated 50 vehicles was thought to be pending.

The A3 is available in three wheelbase options, 2.25, 2.65 and 3m, the two-door A3L base vehicle for the range being based on the 2.65m wheelbase. This model has a 900kg payload capacity. Four-door models (also based on the 2.65m wheelbase) were originally marketed as the Auverland A4, but are now known as A3, four-door models.









A wide variety of body styles and configurations are available for the A3 including hardtop, soft-top, crew-cab and pick-up truck. Cargo platform lengths may be 0.8, 1.4 or 1.9m. Specific variants include: The type A3MH intended for transport by helicopter, the type A3 'Gendarmerie' with a long wheelbase and hardtop, the type A3 produced for the French Air Force armed with a 7.62mm machine gun, and the type A3-SL armed with a 12.7mm machine gun or configured with two lateral benches for six passengers in the rear. There is also a type A3L armed with a 106mm recoilless rifle or configured to carry MILAN or other anti-tank missiles.

The A3F is an armed fast attack/light strike variant of the A3 designed for use by airborne and light forces, and was first shown publicly in June 1994. The A3F features a revised coil spring suspension, rigid axle and drive shaft arrangement, and features a frame-type rear superstructure. It was developed in response to a French Army requirement, and mid-1998 the French Army placed an order for an initial 100 vehicles in two configurations; 50 each of Vehicule Aeromobile de Commandement (VAC) and the Vehicule Aeromobile Logistique (VAL). A follow-on second order called for 50 VAC and 56 VAL and a third and final order called for a further 48 VAC, making a grand total of 254 vehicles; 106 VAL and 148 VAC. Deliveries ran from January 1999 to

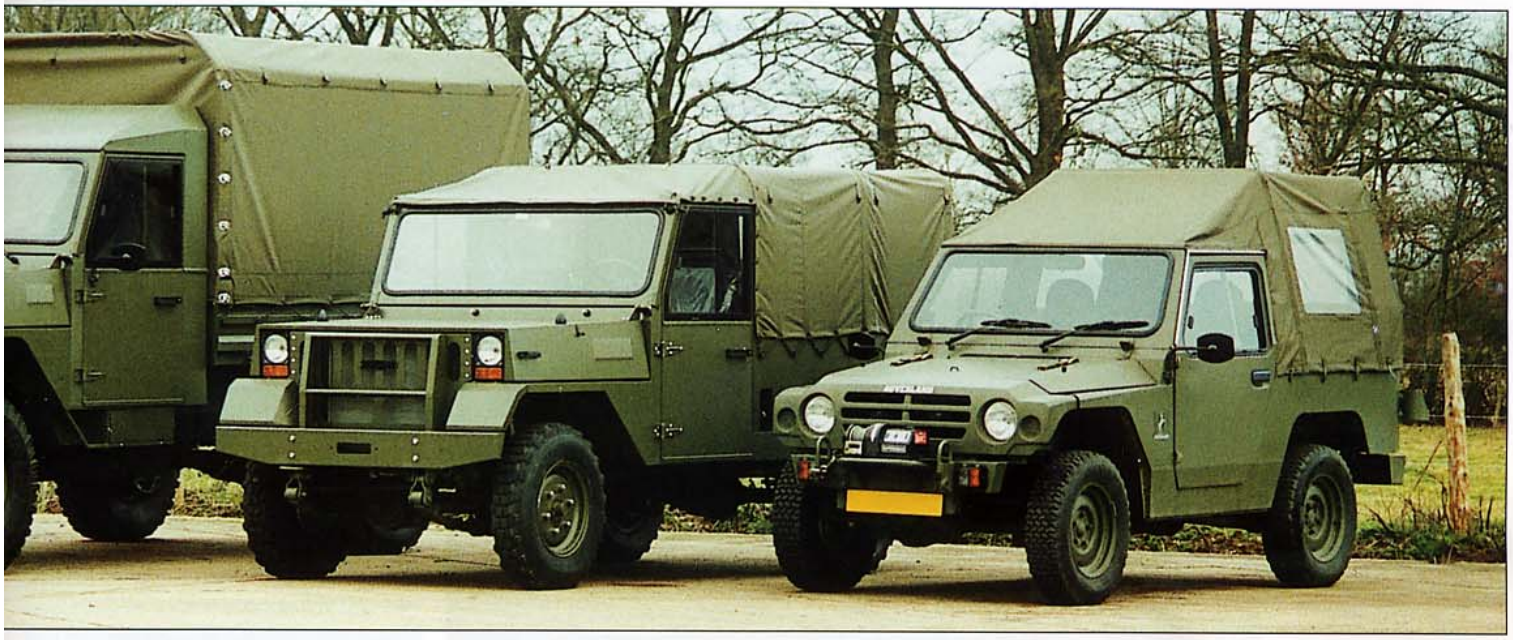
contracts for prototype vehicles. Those four companies were: Auverland, Panhard (teamed with DaimlerChrysler), Soframe (previously LOHR) and Vickers Defence Systems (now BAE SYSTEMS Land Systems) of the UK. Each company was required to supply a single prototype vehicle, with trials commencing in September 2002.

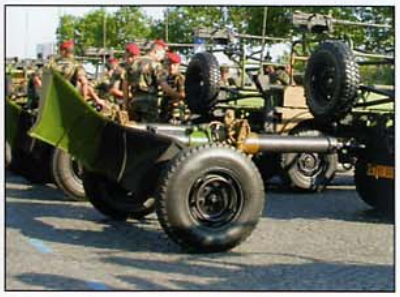
Funding permitting the French Army stated a requirement for up to 1,544 PVPs, and initially in two versions - infantry and command post - with up to five people and their combat equipment to be carried. The initial order was expected to be for 312 vehicles, the second for 232 vehicles, with five follow-on batches of 200 vehicles per batch. Deliveries would be spread over a seven-year period.

The PVP contract (valued at EURO 108 million (inc options)) was finally awarded to SNAA in Sept 2004 and calls for 933 vehicles. Two pre-production prototypes will be delivered mid 2005, with delivery of the first batch of 314 vehicles (contract value EURO 40 million) commencing late 2005/early 2006 at approximately 15 vehicles per month. Further details of the PVP can be found in MMI Nov 2002, Oct 2003 and Oct 2004.

Difficult times

Over the past 20 years SNAA and its predecessor companies have sold in excess of 8,000 light vehicles to more than 20 countries, however prior to the PVP contract award times had been difficult, and although financially still sound, the

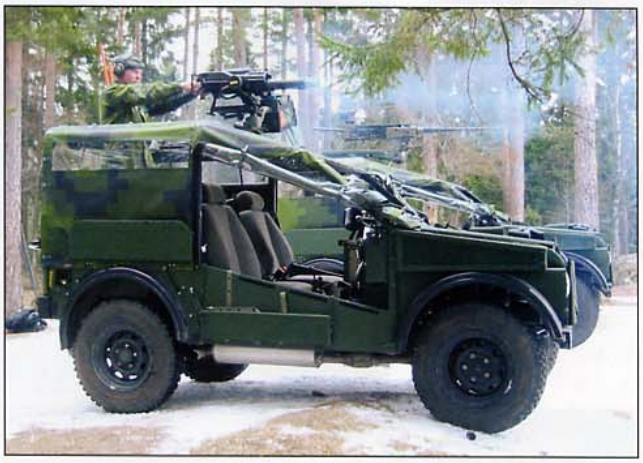




In 1996, the Sovamag TC-10 SL appeared. This is basically similar to the TC-10 and is powered by the same engine but has a longer 3.07m wheelbase, increasing the overall length to 4.85m. This enables the vehicle to carry up to 12 personnel and their equipment or a payload of approximately 1,500kg.

Wishing to capitalise on the success of the functional TC-10, by 1992 Auverland had begun development of the larger Sovamag TC-24, a 2,500kg payload light truck. The TC-24 has been supplied to the French Ministry of Foreign Affairs who have taken delivery of 50 vehicles. A small batch of vehicles for the Central African Republic will be in production when this edition of the magazine hits the newsagent's shelves. The TC-24 has been evaluated by Bangladesh armed forces in the gun tractor role and at the time of writing (February 2005) a decision and possibly contract award was pending. The TC-24 has also been evaluated in Mauritania (2003, decision pending) and Morocco. A single example has also been shipped to China for examination/ evaluation by NORINCO.

Numerically, Auverland's most successful product to date has been the A3 light vehicle series, over 8,000 of which have so far been produced in commercial and military forms. Since securing its first military order in 1990 when France's DGA awarded a French Air Force contract, around 5,000 A3 light vehicles have been sold to French governmental organisations and armed forces, these including the French Air Force Army and Navy, the Gendarmerie Mobile and Gendarmerie Nationale. Other known users include the Indonesian Marine Corps who received 21 vehicles in 2000, a further 21 vehicles in 2001.



By late 2003 all commercial production of the Auverland A3 had ceased, the company opting to concentrate on military sales. In November 2003 it was announced that examples of an A3 mounting a 106mm recoilless rifle would shortly be sent for trails in Bangladesh and Venezuela. The Bangladesh requirement called for 84 vehicles; Venezuela could require up to 600 vehicles.

Top left to right; ***here we see the TC-24, TC-10, and A3.***

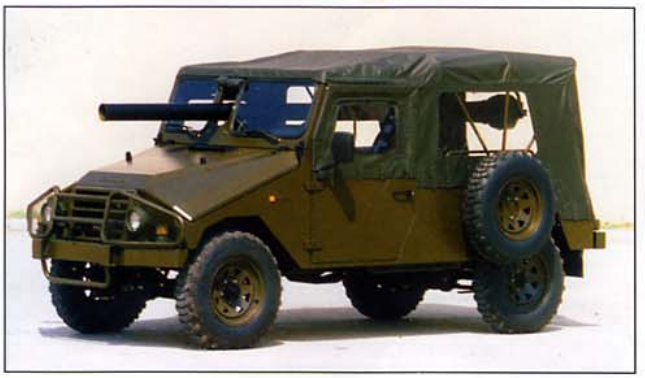
Above; two A3F vehicles have been supplied to Sweden for trials

Far left centre; ***the A3F often tows the 120mm Thomson Brandt Mortar.***

A3F Vehicule Aeromobile de Commandement (VAC) of the French Army's 11th Airborne Division.

Right; *this is the Cournil-based UMM Model 100 General Purpose light vehicle, a revised version of the original Cournil light vehicle.*

Below; *here we see another of the many variants of the UMM Alter, with this one equipped with recoilless rifle and side mounted spare wheel.*

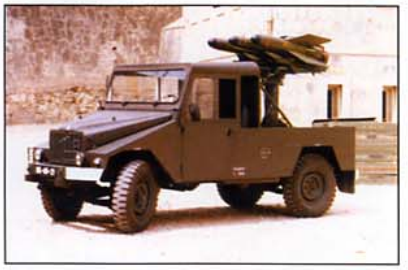


A further revitalised range was announced in 1991, the majority of vehicles remaining in the UK being of this type. Country Vehicle Services of Devon now offers service and support for UMM vehicles here in the UK.

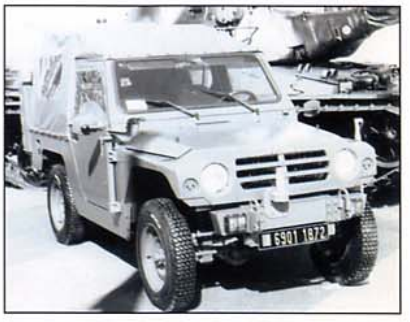
UMM ceased production for private customers in 1993, but kept on taking orders from military and utility services until 1996.

Above centre right; *an early promotional photograph of the Sovamag TC-10, a vehicle easily recognisable by its square and functional lines.*

Right; *a missile equipped variant of the Umm Alter.*



Right; *an early short wheelbase version of the Auverland A3.*



Below; *the Autoland Series A (later the Auverland A2) on display at the then Satory Military Exhibition.*

Back to France...

By the late 1980s Auverland was looking to expand its military business and was keen to get a slice of France's Ministry of Cooperation business with the considerable number of French-friendly/speaking countries in the African region. Access to this market was gained by the acquisition of the Sovamag concern in 1989 (occasionally presented SOVAMAG) producing the TC-10 light vehicle.

Following its acquisition of Sovamag, Auverland became known as Auverland-Sovamag although this was generally disregarded in written references to the company.

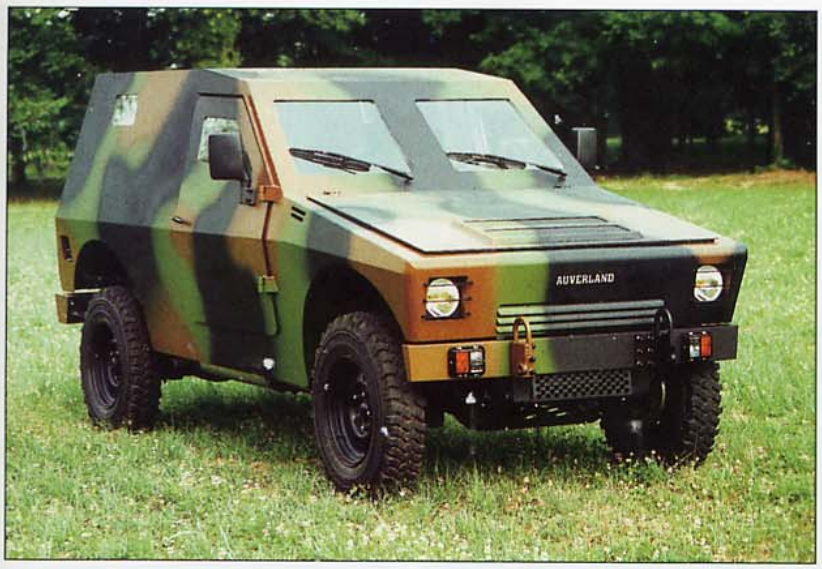
Ministry of Cooperation contracts for the TC-10 continue and since 1990 of more than 1,300 TC-10s produced, over 840 have been supplied to the French Military of Cooperation. Details are sketchy, but TC-10s are known to have been supplied to a number of African countries, those in production during MMI's visit being a follow-on batch destined for the Central African Republic (CAR).

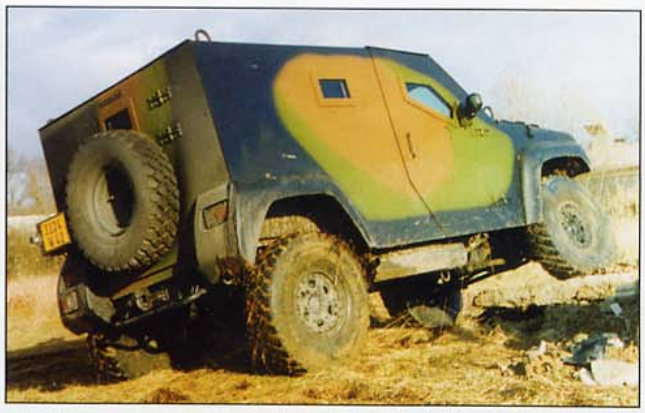
The TC-10 is also in service with the Mauritanian Army, Auverland having secured a direct sale contract with Mauritanian Ministry of Defence in 1991 for 50 vehicles. Follow-on orders in 1993 (45); 1995 (60); 1997 (150) and 2000 (100) have brought the total supplied to 405 vehicles. Other disclosed users of the TC-10 include the French Air Force (300) and Army (68).

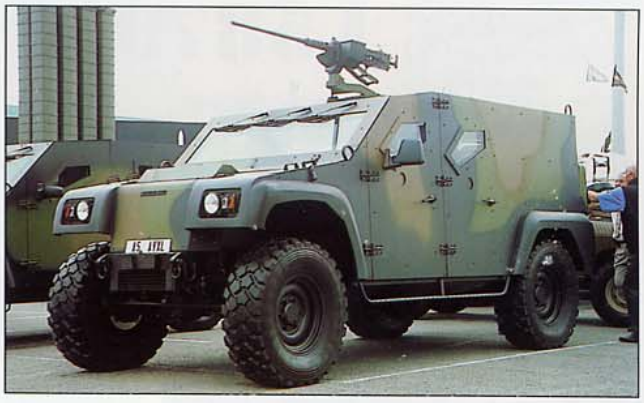
The French Army vehicles (ordered in 1995 for a communications role) are currently being upgraded and new hard tops were in production at Auverland's production facility during MMI's visit.

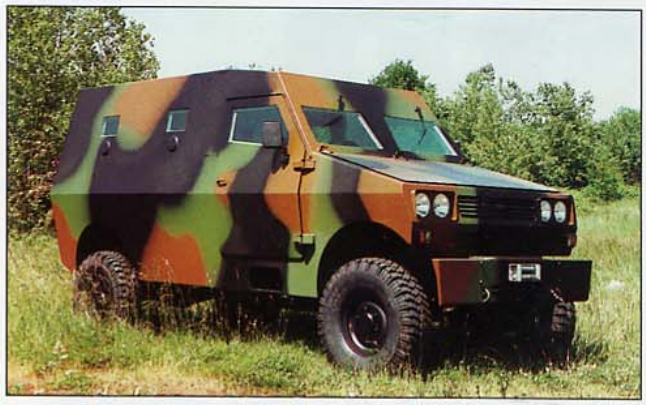
	TC-10	TC-24	A3L	A3F	A4 FAST(prototype)	A4 AVL (PVP)	A5 AVXL (prototype)
Cab seating:	1 + 1 (up to 8 in rear)	1 + 1 (up to 14 in rear)	1 + 1 (up to 4 in rear)	1 + 1 (up to 2 in rear	1 + 1 (up to 2 in rear)	1 + 1 (up to 5 in rear)	1 + 1 (up to 9 in rear)
Configuration:	4x4	4x4	4x4	4x4	4x4	4x4	4x4
Weight:							
(unladen):	1,900kg	2,430kg	1,400kg	1,350kg	2,700kg	3,870kg	4,770kg
(GVW):	3,000kg	5,000kg	2,300kg	2,510kg	4,000kg	5,000kg	7,000kg
Max front axle load:	1,200kg	2,200kg	890kg	1,000kg	2,000kg	1,130kg	2,230kg
Max rear axle load:	2,200kg	3,200kg	1,680kg	1,680kg	2,500kg	2,500kg	3,500kg
Max payload:	1,100kg	2,570kg	900kg	1,160kg	1,300kg	3,000kg	4,000kg
Towed load (braked):	3,500kg	3,500kg	1,590kg	n/avail	n/avail	n/avail	n/avail
Towed load (unbraked):	750kg	750kg	605kg	n/avail	n/avail	n/avail	n/avail
Length:	4.45m	5.15m	3.85m	3.4m	4.546m	4.282/4.18m	4.976/4.773m
	chassis-cab					with/without spare wheel	
Width:	1.654m	1.974m	1.54m	1.58m	1.97m	1.97m	2.11m
Height:	2.12m	2.27m	1.7m	1.9m (1.4m rollbar folded)	1.95m	2.135m	2.16m
Ground clearance:	240mm	280mm	250mm	255mm	312mm	272mm	330mm
Track:	1.34m	1.7m	1.342m	1.34m	1.64m	1.64m	1.75m
Wheelbase:	2.77m***	3.6m***	2.65m***	2.25m***	3.08m	3m	3.4m
Angle of approach:	53°	65°	50°	50°	60°	76°	80°
Angle of departure:	44°	45°	45°	50°	48°	55°	49°
Max speed:	130km/h	110km/h	130km/h	130km/h	130km/h	120km/h	110km/h
Range:	900km	1,200km	800km	800km	800km	800km	650km
Fuel capacity:	100 litres	2x80 litres	80 litres	80 litres	135 litres	125 litres	135 litres
Gradient:	45°/100%	45°/100%	45°/100%	45°/100%	45°/100%	45°/100%	45°/100%
Side slope:	40°/89%	35°/78%	40°/89%	30°/66%	40°/89%	30°/67%	30°/67%
Fording:	600mm	900mm	600mm	600mm	533mm	535mm	1m
Engine:	IVECO/SOFIM 2.8 litre 4-cylinder in-line water-cooled turbocharged 4-stroke diesel developing 103hp @ 3,600rpm and 240Nm torque @ 1,900rpm*	IVECO/SOFIM 2.8 litre 4-cylinder in-line water-cooled turbocharged 4-stroke diesel developing 122hp @ 3,600rpm and 285Nm torque @ 1,800rpm	Peugeot XUD9 TF 1.905 litre 4-cylinder in-line water-cooled turbo-charged 4-stroke diesel**developing 92hp @ 4,000rpm turbocharged @ 2,250rpm		IVECO 2.8 litre 4-cylinder in-line water-cooledinjection EURO III emissions compliant diesel developing 146hp @ 3,600rpm and 410Nm torque @ 1,250 rpm @1,500rpm		IVECO 3 litre 4-cylinder in-line water-cooled turbocharged 4-stroke direct injection EURO III emissions compliant diesel developing 167hp @ 3,500 rpm &
Gearbox:	Peugeot BA 7/5 5F/1R manual	IVECO 2826 5F/1R manual	Peugeot BA 7/5 5F/1R manual; Peugeot BA 10/5 5F/1R manual was an option for the A3		5F/1R manual (automatic option)	ZF 4F/1R automatic	ZF 4F/1R automatic
Clutch:	single dry plate	single dry plate	single dry plate	single dry plate	single dry plate	n/app.	n/app.
Transfer box:	Auverland A80 2-speed, part-time four-wheel drive	New Venture Type 241 2-speed, part-time, four-wheel drive	Auverland A80 (A80R in the A4 FAST) 2-speed, part-time four-wheel drive				Auverland A100 2- speed, part-time four-wheel drive
Steering:	power-assisted	power-assisted	power-assisted	power-assisted	power-assisted	power-assisted	power-assisted
Turning radius:	6.5m	7m	5.5m	5m	6.5m	6.25m	7m
Axles:	beam type, differential lock in rear axle (TC-10), limited slip differential (TC-24)		beam-type (semi-portal on AVXL), located longitudinally by front and rear by leading or trailing (front and rear, respectively) lower radius arms and laterally by an A-frame arrangement. Limited slip rear differential (A3); rear differential lock (A4, AVL, AVXL)				
Suspension:	semi-elliptic leaf springs and hydraulic shock absorbers, front and rear; pneumatic assistors (TC-24)		long-travel variable rate coil springs with internal hollow rubber bump stops, hydraulic shock absorbers and anti-roll bars, front and rear				
Chassis:	welded box-section, 120x60mm	welded box-section, 150x70mm	welded box-section, 120x60, 3mm gauge	welded box-section, 100x50	welded box- section, 120 and 140 x 60mm		
Tyres:	7.50R 16	9.00R 16	215/80R 16 or 7.00R 16	7.00R 16	255/100R 16 (CTI optional)	255/100R 16 Michelin XZL with runflat inserts	335/80R 20 with runflat inserts; CTI optional
Brakes:	dual circuit, discs front, drums rear				dual circuit discs all-round, ABS	dual circuit, discs front, drums rear, ABS	dual circuit discs all-round, ABS
Electrical system:	24V	24V	12V (24V option)	24V	dual 12/24V.....		
Battery(ies)	2x12V, 55Ah	2x12V	1x12V, 60Ah	n/avail	n/avail	n/avail	n/avail

* Prior to 1991 a naturally aspirated Peugeot XD3P 2.498 litre 4-cylinder in-line water-cooled naturally aspirated 4-stroke diesel developing 72.5hp @ 4,000rpm was used.
** Prior to 1996 a naturally aspirated Peugeot XUD9 1.905 litre 4-cylinder in-line water-cooled naturally aspirated diesel developing 65hp @ 4,600rpm was used; other options were also available.
*** Wheelbase options are available: 3.07m for the TC-10 (TC-10 SL); 4.4m for the TC-24 (TC-24 SL); 2.25 (A3) and 3m (A3SL) for the A3; 2.65m for the A3F. In all instances some of the given dimensions, weights and possibly performance specifications will vary slightly.









had been halted. Sources have suggested that only one of the offered vehicles, the IVECO LMV, fully met the requirements of the tender, but at an estimated EURO 200,000 per unit the LMV was too expensive.

In addition to Auverland, the following are known to have bid for the Belgian requirement: BAE Systems Land Systems South Africa OMC (RG-32); Gluckauf Logistics Gmbh (G-Class?); IVECO (LMV); PGAM Advanced Technologies AG (G-Class), Santana (PS-10?); URO (VAM-TL). Land Rover and Mercedes-Benz are known to have looked at the tender, but for differing reasons opted not to bid. Mercedes-Benz could be involved in the anticipated re-tender.

Auverland were expected to have bid for the Belgian requirement in partnership with another French company (understood to be Renault), thereby enabling it to meet the particularly stringent business/finance part of the tender requirement. For contractual reasons this did happen.

Following Auverland's acquisition of Panhard, the company will be in a far stronger position when the Belgian requirement (likely diluted technically to further reduce cost) is re-advertised.

The largest vehicle currently offered by Auverland is the A5 AVXL (Armoured Vehicle Xtra Large). The prototype was also publicly displayed for the first time at Eurosatory 2004. At its crudest the 7-tonne GVW A5 AVXL could be described as an A4 on steroids and was developed by Auverland in conjunction with Thales for the French Army's Rapsodie radar programme.

Auverland has also produced prototype light armoured vehicles on the A3 and TC-24 chassis. These are no longer offered, having been superseded by the AVL and AVXL designs, plus current models from the Panhard line up.

by Shaun Connors

Top left; ***some years ago Auverland developed an armoured variant of the A3 as a private venture, the type remains available.***

Top right; ***viewed from the rear we have Auverland's A4 AVL PVP.***

Above centre; ***Auverland's A5 AVXL, the 'big brother' of the A4 AV pictured at last year's Eurosatory Show.***

Above; ***a real rarity this one, this is the only image I've ever seen of the Sovamag TC-24 armoured prototype dating from 1996.***

Left; ***tailored to modern light vehicle requirements, Auverland's A4 FAST.***