



ARMORED CAR

The Wheeled Fighting Vehicle Journal



Issue #15

January 1993

\$2.00

The Dutch Pantserwagen M39 Armored Car

by Raymond Surlémont

INTRODUCTION

On the eve of the Second World War, the Dutch Army had only a small armored force composed of three squadrons of wheeled armored cars. They were supplemented by five tiny Vickers-Cardon-Lloyd two-man tankettes and one Renault FT light tank, the latter having been acquired in France for test purposes.

Two armored car (Paw) squadrons were equipped with vehicles of Swedish origin. Twelve *L-181* six-wheeled armored cars (renamed *Pantserwagen M36*) or Armored Car, Model 1936 by the Dutch Cavalry formed the complement for the first squadron. The second unit was provided with a further batch of twelve armored cars of the *L-180* pattern, renamed *Pantserwagen M38*. Based on a 6 x 4 truck chassis, both models were built by the Landsverk AB company, the Swedish affiliate of the German Fr. Krupp AG concern. In Dutch service, both cars were fitted with a Bofors 37mm antitank gun as primary armament.

DEVELOPMENT

When it was decided to acquire enough armored cars for a third Cavalry squadron, a suggestion was put forward that the Dutch DAF automobile company should build, under license, an armored car of British origin.

...continued on page 2

*Rear deck of an M39 showing engine access and rear gunner's machinegun.
The license plate reads N-44946 Photo via R. Surlémont*



Pantserwagen M39, continued from page 1

Managed by the brothers Hubertus and Wilhelmus Van Doorne, the DAF company (or Van Doorne's Aanhangwagen Fabriek) had been founded in 1928 at Eindhoven. This company took up the challenge to produce their own armored car. Design work began under Hub. Van Doorne and Captain P.H. Van der Trappen, with Sergeant J. Addink as technical advisor.

On 9 September 1938 a pilot model of the DAF 'Pantrado 3', or *PT-3* armored car undertook comparative trials at Vucht with a *Paw M38* of the 1e Eskadron Pantserwagen (1EPaw), in front of officials from the Commissie Pantserautomobielen. The DAF car proved quite satisfactory on tests, and its cross-country performance was clearly better than that of the Landsverk machine. Further tests were successfully conducted in October by the Artillerie Inrichtingen which resulted in the DAF *PT-3* design being adopted for the Dutch Army as the *Pantserwagen M39*, or *Paw. M39* for short.

THE TRADO

About 1935, DAF had begun to produce various types of military vehicles, all based on low-cost truck chassis, such as Ford, Chevrolet and others. By this time,

Messers P. Van der Trappen and H. Van Doorne had developed an ingenious four-wheel conversion system for standard automobile and truck rear axles. Dubbed the Trado (a contraction of the surnames of both its designers) this system permitted an easy conversion of a four-wheeled, two-wheel drive vehicle into a six-wheeled, four-wheel drive one.

Basically, the Trado device consisted of a pair of two-wheel balancer units, one on each side of the vehicle, attached to a single rear axle fitted with a crown wheel at each end. This crown wheel acted as a relay to the final drives for the motive power, through two half-axes with smaller bevel pinions at each end. The two-wheel sets pivoted independently on the axle ends, and the whole assembly was housed in a steel casing which moved with it. The action of the differential and the link between each wheel of a pair made it impossible for one wheel to skid while the other gave traction. This system was adopted from the start as a component for the new DAF armored car.

DESCRIPTION

The DAF armored car incorporated many advanced features such as a self-supporting armored body. The latter acted as a frame for various components like the engine, transmission and so on. To avoid getting stuck on rocks or tree stumps when traversing rough terrain, the car had a

smooth underbelly, like the British Straussler AC. II of 1935 vintage. In front, partly enclosed in a hull recess, there were two small rubber-tired wheels to help the vehicle when crossing small ditches.

A commercial Ford 'Mercury' V-8 engine rated at 95 bhp, was situated at the rear on the right hand side; and was accessible from inside for maintenance, simply by removing a smoke and heat proof bulkhead. The engine supplied power to the Trado units through a four-speed forward and four-speed reverse transmission, complemented by a special gear for cross-country travel.

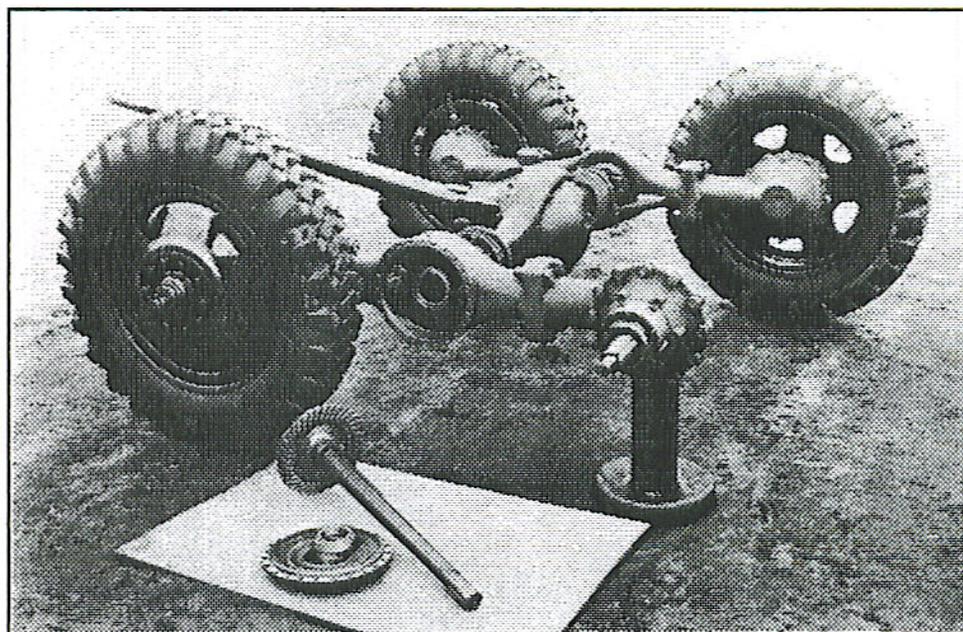
Steering could be effected on the front wheels only, but the car had controls for driving backwards at the disposal of the rear machine gunner who sat beside the engine. The *PT-3* was capable of a maximum speed of 75 kph and had a range of 300 km. It also could eventually be powered by a Lincoln 'Zephyr' engine, which took up approximately the same space.

The front wheels were supported by coil springs while the rear ones were provided with leaf springs. The combination of the latter with the Trado unit gave the vehicle an excellent off-the-road performance. The maximum turning circle was 11.5 meters.

Manned by a crew of five, the *PT-3* was equipped with a Swedish turret mounting both a 37mm antitank gun and a co-axial machinegun; with an additional two machineguns mounted at either end of the hull. All of the machineguns were enclosed in an armored jacket. The cannon had an elevation of 23 degrees and a depression of minus 9 degrees 30 minutes. The machineguns could be traversed at an angle of 30 degrees in both direction and elevation/depression.

The armored body shell was well sloped ballistically and featured front and rear sloping glacis plates. Vision was also exceptionally good; the two drivers each

...continued on page 3



Left: A disassembled view of the Trado unit. Photo via R. Surlémont

had a large vision opening provided through the front and rear glacis plates and these were supplemented by several episcopes giving a half-panoramic view over the upper deck. At different points around the armored body there were several vision ports provided with quick-closing shutters and the laminated glass vision blocks which backed the episcopes and vision ports could be replaced from within the car when damaged by enemy fire. Large escape doors were also provided in each side side of the hull and turret.

PRODUCTION AND SERVICE USE

On 25 April 1939, the Van Doorne's Aanhangwagen Fabriek was awarded a contact by the Staatsbedrijf der Artillerie Inrichtingen. Worth of 529,600 Dutch Gulden, this deal was for twelve armored cars of the *PT-3* design; the first production machine being required for delivery before 1 December 1939. When what was called the 'Venlo incident' took place (a border clash between Holland and Germany on 9 and 10 November 1939.

Those cars which were in the process of assembly at Eindhoven were evacuated for two weeks to the De Nieuwe Waterweg shipyard in Rotterdam. In spite of this inconvenience, DAF supplied their first *PT-3* on 27 November and followed with another on the 30th of the same month.

The production version of the *DAF M39 (PT-3)* was slow in getting under way, as the armored plates were to be supplied by Belgium and the electrical components came from Germany. Only five more cars had been released by the end of February 1940.

When Germany invaded Holland on 10 May 1940, these seven cars were on store at the Cavalry Depot in Amersfoort. Few of the machines had received their full allotment of equipment, and most were still waiting for the Philips radio sets and bullet-proof tires.

On the second day of the war, one *Paw M39* platoon escorted an ammunition convoy towards Delft and briefly fought against German paratroops. Some uncompleted cars were also used in patrolling near Den Haag. Later, the Germans took over at least two of these cars and pressed them into service.

BIBLIOGRAPHY

ICKS, Col. Robert J. Tanks & Armored Vehicles, 1900-1945 WE Inc., Old Greenwich, Conn.

SCHULTEN C.M. & THEIL J. Nederlandse Pantseroertuigen Van Holkema & Warendorf, Bussum (1979)

VANDERVEEN, Bart H. The Observer's Army Vehicles Directory, to 1940 Frederick Warne & Co. Ltd., London (1974)

VOS, Fred Dutch Armor Before 1940 AFV G-2, Vol. 6 No. 7, La Puente (1979)

VOS, Fred Pantseroertuigen 1 De Alkenreeks, Alkmaar (1979)

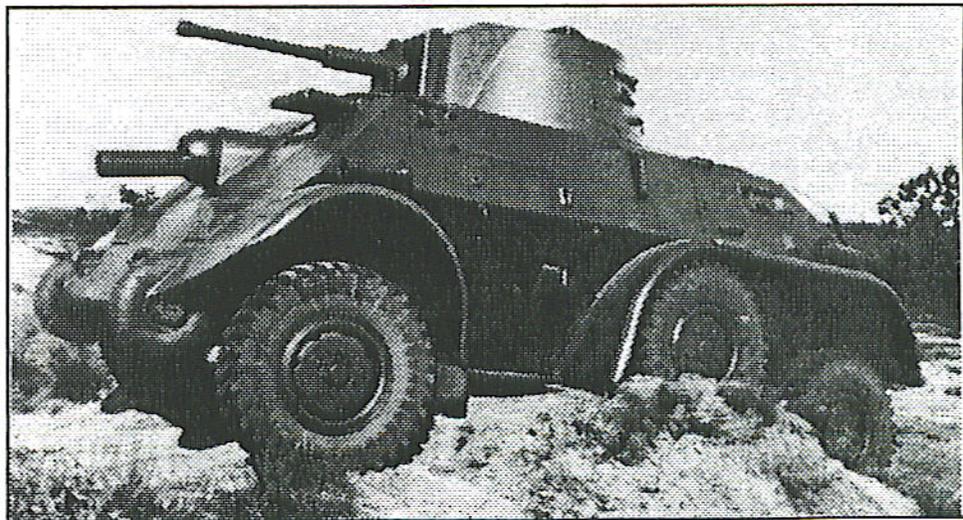
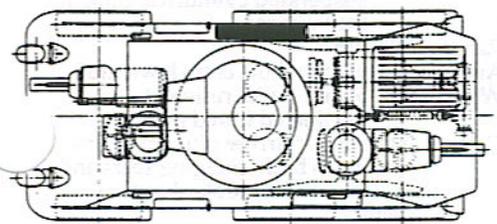
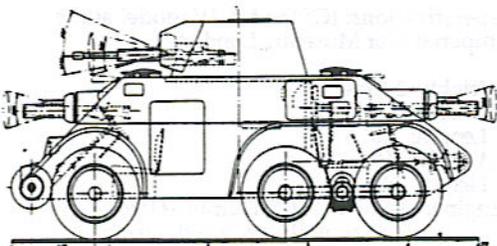
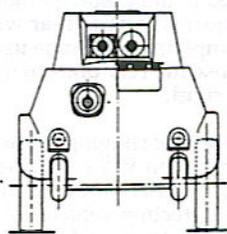
WHITE, B.T. Tanks and Other AFVs of the Blitzkrieg Era 1939-41 Blandford Press, London (1972)

TABULATED DATA

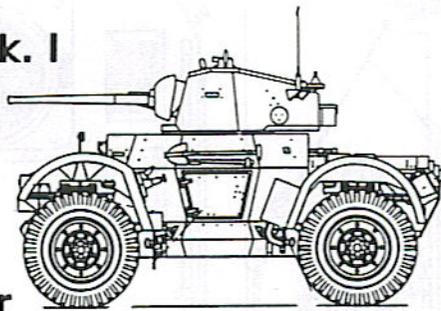
Crew:	Five
Dimensions:	
Length:	4.75m
Width:	2.08m
Height:	2.16m
	(1.6m without turret)
Wheelbase:	2.5m
Distance between rear axles:	1.12m
Tires:	9.00x16
Armament:	(1) 37mm antitank gun
	(3) 7.9mm M20 machineguns
Engine:	(1) Ford 'Mercury' V-8
	95 bhp @ 3,600 rpm
	water-cooled
Transmission:	4 forward and 4 reverse
Fuel capacity:	100 liters
Fuel consumption:	
	30 liters for 100 km
Weight (loaded):	5,800 kg
On front wheels:	1,800 kg
On rear wheels:	4,000 kg
Maximum speed:	75 kph forward
	50 kph reverse
Cruising range:	300 km
Turning circle:	11.5m

Below: Front view of N-44946 during trials.
Photo via R. Surlémont

DAF Pantserwagen M39 Drawing 1/76th



Apex Models' Daimler Mk. I Armored Car



Reviewed by John Rauscher

The Daimler Armored Car carries the likely distinction of being in British service longer than any other WWII production armored vehicle. The Mk. I began production in 1941, ceasing in 1945; but saw service with British Army reconnaissance units until 1963, when it was finally replaced by the *Saladin*. The final armament of the Mk. I was a 2 pounder gun turret with a coaxial BESA 7.92mm machinegun, as originally designed for the *Tetrarch* light tank, making the Mk. I one of the most formidable armored cars in service as it rolled off the production lines.

In North Africa, (where the Daimler outclassed all enemy light armor it was likely to encounter as a recon vehicle), the Daimler was most often scattered out to units already using the Humber armored car, with the ratio of service usually favoring the Humber.

In Europe, the Daimler saw service with most regiments, with the Daimler or Humber scout cars acting as basic vehicles. Later, the *Staghound* was used for command, with support from M5 halftracks and the A.E.C. Mk. IIs for fire support. The Daimler saw limited service in Italy, where the heavier *Staghound* was more widely found, the Daimler being passed on to the Canadian Armored Car Regiments by the end of the war.

The Daimler may have been close to the perfect recon vehicle, small and very maneuverable. Carrying a crew of three, top speed on the road was 50 mph and a range of 205 miles, was delivered from a 95 hp engine.

The inclusion of a second steering wheel, hand throttle, ignition cut-out switch and hand brake for the commander to use in emergency "bug-out" procedures was a unique feature on the Daimler Armored Car (the scout car did not have the second wheel), but these weren't often used as it could result in entanglement of interphone wires. The turret rested on a ball bearing system with the turret operated via a hand traversing gear.

The 1/76th scale offering by Apex Models is a cleanly cast pewter kit of 33 pieces (including a metal rod to form the axle handle). The small parts showed little or no seam line and there wasn't any flash except around the axles on the lower hull half. The makeup of the kit is logical and fits together well. The hull is split into upper and lower halves, the resultant seam from joining appearing to be a natural seam

when finished. The fenders fit well, as does the turret. I used slow setting super glue for assembly, having never attempted solder, and not feeling overly confident on trying out a new technique here.

The mantlet is a separate part that attaches to the front of the gun turret and it is superb! Clean, no seams, and straight as a rod. The mounting pin on the turret proper has to be removed, because if the mantlet is fitted in the one way it will sit properly, the BESA machinegun will be on the wrong side of the 2 pounder. I scraped the pin off the turret and glued the mantlet on by sight.

I broke off an axle pin (this is, I might add, my first all-metal kit), but the metal drilled out nicely and I placed a brass rod inside the axle. The suspension system is a bit fiddly, and it takes some coercion to get it all fitted right. The slightly oversize suspension should be whittled down a hair to make fit easier. This small problem and the mounting pin error on the turret are the only negative aspects of the whole neat kit. There is a lovely shovel, four storage boxes, muffler, axe and rod for a handle, searchlight and smoke dischargers. I might add that a second fire extinguisher could be added although the kit provides one, but my reference shows two at the end of the engine deck. When compared against a ruler and my references the model measures out a little too long and slightly narrow, but this in no way detracts from the "look" of the model, which is excellent.

My kit came packaged in zip-lock baggies with a folded 8x11 history and instruction sheet. There is one line drawing showing placement of detail parts, and a narrative for the other assembly. It goes together straightforward except for the two steps noted. The whole kit took me about eight hours to put together, a fair part being spent on the suspension to get it right and putting on a proper paint job. I ended up painting my Daimler in the colors of the 11th Hussars in Northern Europe.

This kit is available from Apex Models, c/o Tommy Atkins, 17 Ashbourne Avenue, Bridlington, YO16 4PE, GREAT BRITAIN. I believe it will retail for about \$18 (U.S.) and considering all the detail included on the kit - rivets, vision slits and periscope, I think it's a great buy.

Reference sources:

Apex Models Daimler Mk. I kit leaflet
Profile AFV Weapons #21 - Armored Cars
by B.T. White

Editorial

Even though this column is titled 'Editorial', I always think of it more as an open letter to everyone; a bimonthly hello! I try to make it a point to always respond to those that write me directly (other than those letters that are strictly business). I must admit however, that sometimes it takes me a little while to get to them. Usually if there's a delay I either had to do some research to answer a question, or I wanted to enclose something with the letter. What doesn't change is that I appreciate your letters, contributions, and comments. So, if you have an urge to write, please do so.

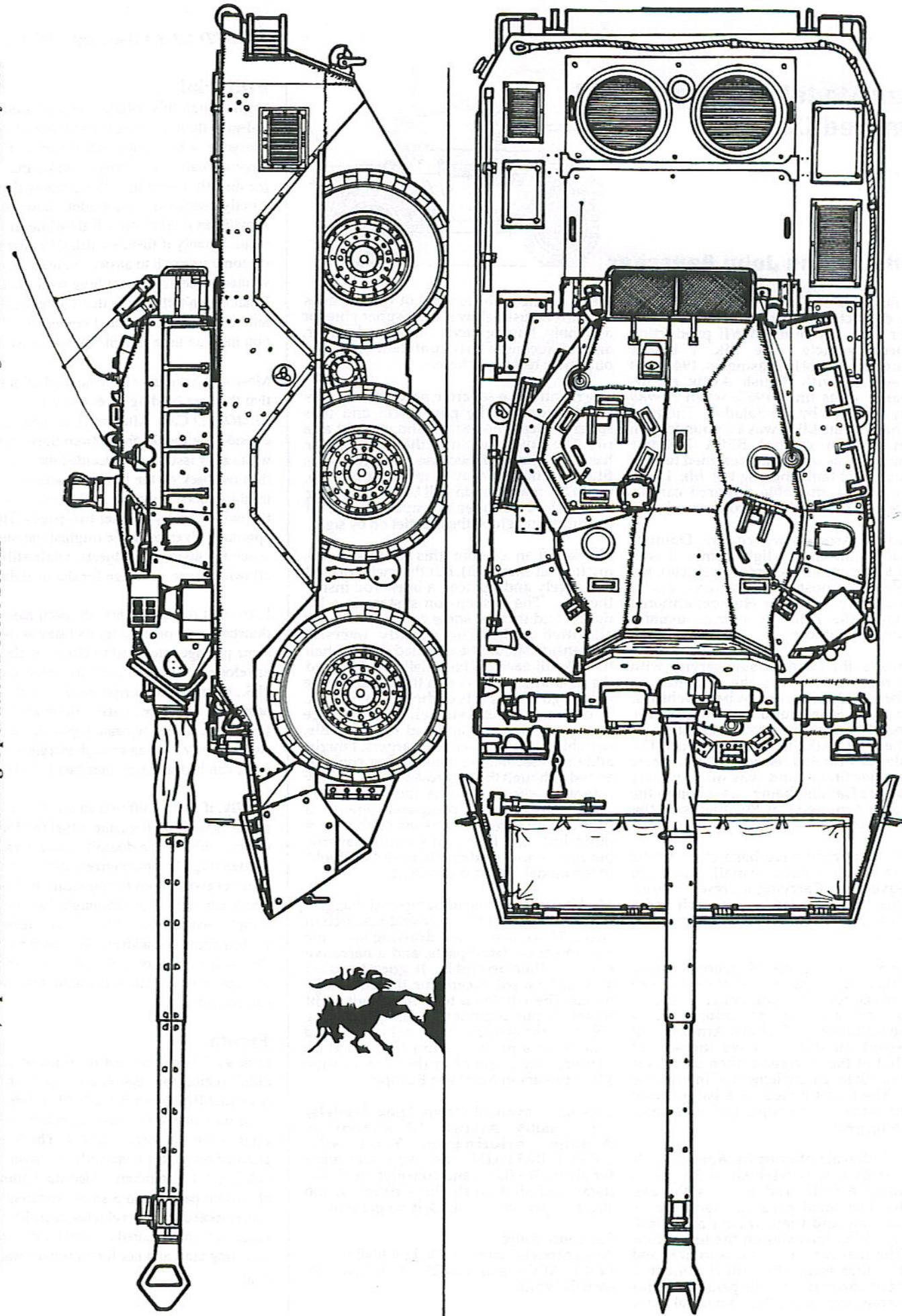
Most will have hopefully noticed by now that they are holding an expanded *ARMORED CAR*. After much thought and considering the feedback from those that wrote after issue #14, I decided that rather than cut back on the limited amount of space used for modeling subjects, I would expand the newsletter by another two pages. This approach gives back the original amount of space for historical subjects, while still allowing some coverage for the modelers'.

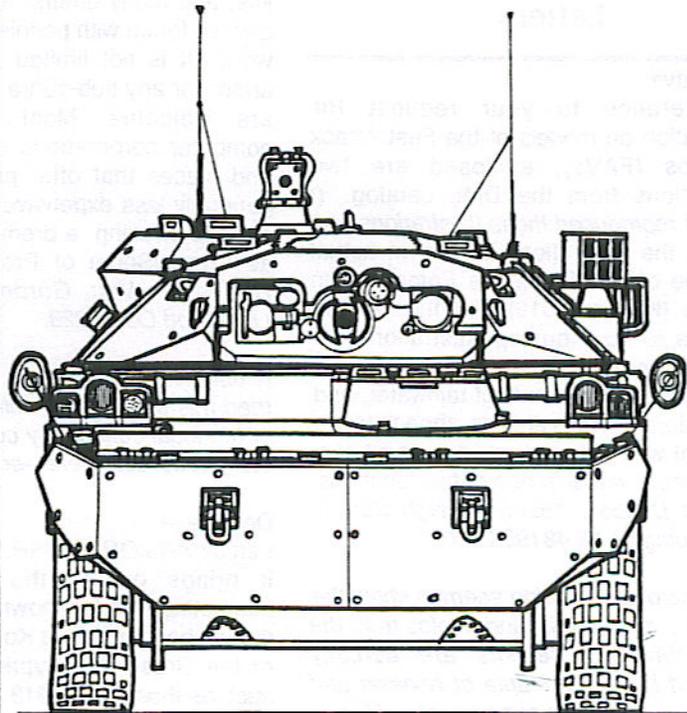
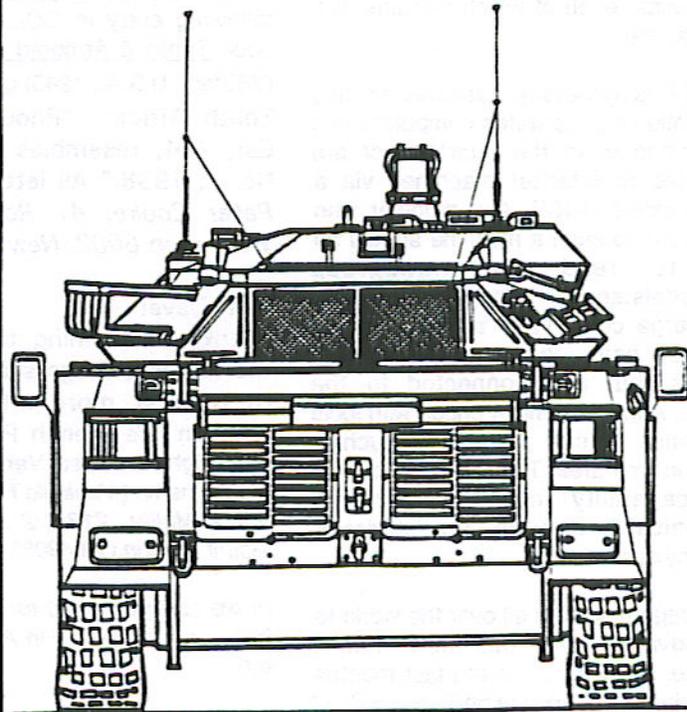
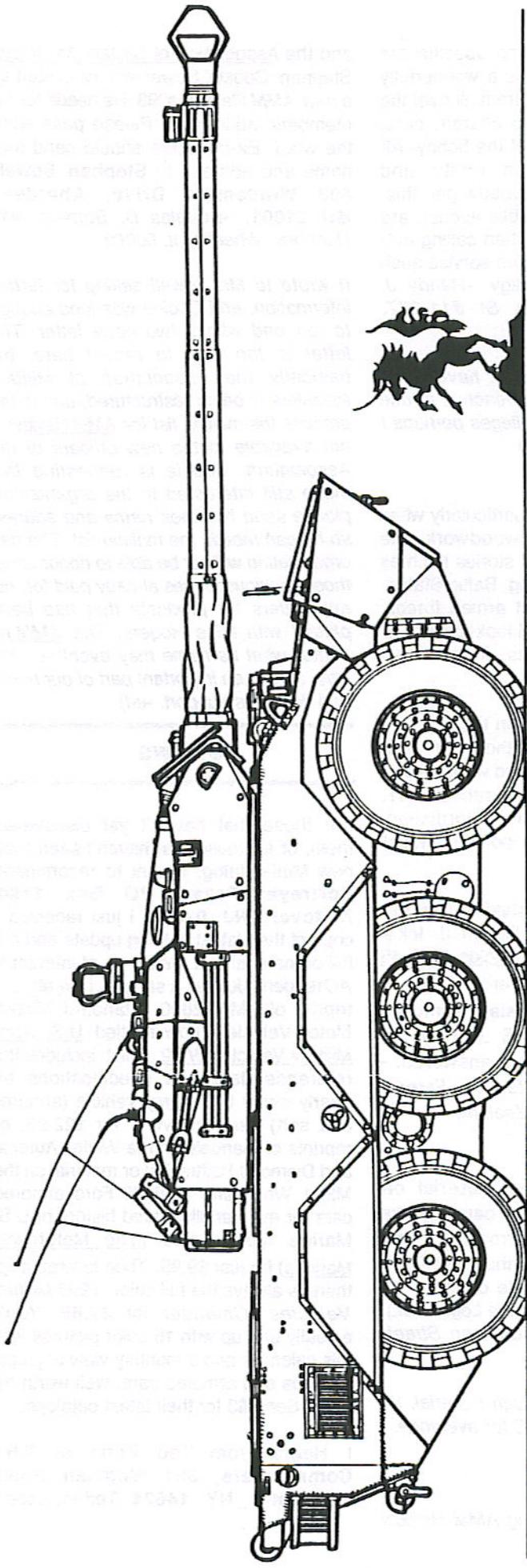
Like most decisions this approach has some drawbacks. In order to try and stay at the same postage rate I had to eliminate the envelope and make *AC* a self-mailer in the U.S., overseas subscriptions will still be sent in an envelope. I also reformatted the look of *AC* using separate pages (rather than folded) and allowing enough margin so the issue can be three hole punched for a binder.

Finally, if you've offered an article for *AC*, please send it in. Remember that the format of your submission doesn't matter, hand written, typed, computerized, drawn, I'll clean everything up for publication. Also if you know of anyone that might like to see a sample issue of *ARMORED CAR*, please send in their name and address. The more readers, the more sources of information, the more sources of information, the more material I can put into *AC*.

Errata

Issue #14. For those that for some reason didn't notice, the caption on page 4 should have said BA-10 not BA-20! Also Barry Marriott wrote with some corrections to the captions on the Saracen article. The Saracen pictured on page 1 is actually a British vehicle, not Australian. Also the bottom photos on page 2 and 3 show apparently waterproofed RAAC vehicles, actually these vehicles were prepared merely for driving off a landing craft and not for an actual 'wading trial'.





Letters

Dear Dave:

In reference to your request for information on models of the Fast Attack Vehicles (FAVs), enclosed are two illustrations from the DML catalog. *(I haven't reproduced these illustrations -ed)* One of the illustrations shows an actual machine of a U.S. Marine Force Recon Vehicle (Kit No. 3019) and the second appears to be a boxtop illustration of a machine from US Seal Team 5 in Kuwait City. (art shows all kinds of rainwater, and no fenders!). The vehicles appear to be identical with different weapons perhaps, and a spare wheel in one of two locations. -Robert Driscoll, 16285 Raleigh Square Dr., Southgate MI 48195-2860.

(The photo and drawing seem to show the FAV as seen on CNN and photos from the area. When these kits are actually released I'll run a couple of reviews and photos of an actual example of a Marine vehicle. -ed)

Dear Dave:

In early September of this year, the means for international communication between modelers via computer, became readily available. A proposal to create a discussion forum on scale modeling in the InterNet news system **USENET** was voted on and passed. The USENET is a collection of discussion areas, called newsgroups, each of which pertains to a particular topic.

USENET is generally available to any organization that operates computers that are connected to the InterNet, or are connected to InterNet machines via a system called UUCP. Any modeler who has access to such a machine should be able to read the newsgroup "rec.models.scale" from their system. Many large cities such as Denver and Chicago have public-access UNIX systems that are connected to the InterNet. A modeler might check with local universities to see if there is such a service in their area. Those with electronic mail capability may contact me electronically through the address "rray@nyx.cs.du.edu".

I encourage modelers all over the world to take advantage of this new means available. Discussions in the last months have included information on Tupolev SB-2 aircraft in Finnish service during World War

II, requests for help finding specific car kits, and many others. It is a wonderfully diverse forum with people from all over the world. It is not limited to aircraft, cars, armor, or any sub-genre of the hobby. All are welcome. Most university and computer corporations already get this, and places that offer public-access are generally less expensive than calling out-of-state or using a premium service such as CompuServe or Prodigy. -Randy J. Ray, 383 Van Gordon St #11-257, Lakewood CO 80228.

(I don't have a modem so I haven't yet tried this system, my wife teaches at one of the local community colleges perhaps I can get access there. -ed)

Dear Dave:

I enjoy **ARMORED CAR**, particularly when it brings out of the woodwork the interesting little 'unknown' stories such as those about the Hong Kong, Baltic States, or the Greek and Cypriot armed forces, such as those in AC#13. I look forward to many, many more issues. Your efforts ARE appreciated.

I am preparing an article on the armored vehicles developed by Rhodesia (now Zimbabwe) from 1965-80 and would like to hear from anyone with any, repeat ANY, interest in the topic. Any information, photographs, thoughts or pointers would be most welcome.

For starters, can anyone shed light on the following entry in COL. Robert J. Ick's book Tanks & Armored Vehicles 1900-45 (WE Inc., U.S.A., 1945) under the Union of South Africa: "Rhodesian Armored Car, 4x4, resembles US Jeffery AC No. 1, 1938." All letters answered. -Peter Cooke, 47 Rolleston Street, Wellington 6002, New Zealand.

Dear Dave:

Thanks for running the material on the Turreted Dingo scout cars. I'd like to request more information, this time on the French Panhard ULTRAV M11 Light Armored Vehicle or under its French name (*Vehicule Blinde Leger VBL*). -Mark Muller, 213 1/2 Adamson Street, Mount Vernon OH 43050.

(If we can gather up enough material, I'd like to run an article in AC for everyone. -ed)

Dear Dave:

More information regarding **AMM Review**

and the Association of Military Modelers. Stephen 'Cookie' Sewell will try to start up a new **AMM Review** in '93. He needs former members' addresses. Please pass along the word. Ex-members should send their name and address to **Stephen Sewell, 493 Windemere Drive, Aberdeen MD 21001.** -Douglas B. Somers, 417 Harmony, Wheeling IL 60090.

(I wrote to Mr. Sewell asking for further information, and Cookie was kind enough to respond with a two page letter. The letter is too long to repeat here, but basically the Association of Military Modelers is being restructured, and in the process the mailing list for AMM Review is not available to the new officers of the Association. Cookie is requesting that those still interested in the organization please send him their name and address so he can rebuild the mailing list. The new organization will not be able to honor either those previous issues already paid for, nor any orders for products that had been placed with Mike Rogers. The AMM no matter what its name may eventually be; was, and is, an important part of our hobby and deserves support. -ed)

Reviews

For those that haven't yet discovered them, or for those that haven't seen their new Mini-catalog, I want to recommend **Portrayal Press, PO Box 1190, Andover, NJ 07821.** I just received a copy of their latest catalog update and it is full of material that should be of interest to AC readers. Just as a sample, how about a reprint of TM 9-2800 "Standard Military Motor Vehicles" now retitled U.S. Army Military Vehicles WW2, which includes the reference data and specifications for nearly every U.S. Army vehicle (armored and soft) used in WW2, for \$22.95; or reprints of manuals on the White, Autocar and Diamond Halftracks; or material on the M3A1 White and M8/M20 Ford armored cars; or even an illustrated history of U.S. Marine motorcycles (The Motorcycle Marines) for just \$9.95. Then to wrap it up, there is always the full color, *1993 Military Vehicles Calendar* for \$7.45. You'll actually end up with 15 color pictures with this calendar and a monthly view of jeeps, 3/4-tons and armored cars, well worth the price. Send \$3 for their latest catalogs.

I Heard from Ted Paris at **The Commanders, 551 Wegman Road, Rochester NY 14624.** Ted included a

photo of his new Marmon-Herrington Mk I in 1/35th (looks good in the photo) and information on new activity since the last issue. New on the list is another French VAB 4x4, this time with the European HOT missile turret, and for those of you out there that still like tread on your models, a British Matilda I, British Mk VI Light Tank and a German Pz IV tank crew, all in 1/35th. If you haven't yet written for Ted's catalog you should. Highly Recommended.

The following is an alphabetical list of those publications that I know of that are related to AFV groups or magazines that should be of interest to AC readers, I have omitted those that are commercially available and widely known such as Military Modelling, Tank or Wheels & Tracks:

AFV-News. AFV Association. c/o George Bradford, RR 32, Cambridge, Ontario, CANADA N3H 4R7. Subscriptions \$14.00 (US) a year for three issues. AFV-News has been around for many, many years, recommended.

Dragon. South Wales MAFVA. c/o Gwyn Evans, 33 Pill Street, Cogan, Penarth, South Glamorgan, CF6 1JS, GREAT BRITAIN. Subscriptions \$8.00 (US) a year or six issues. I haven't yet seen this publication so I can't make a recommendation.

IL Notiziario. IPMS Italy. c/o Giorgio Pini, Casella Postale 36, 41010 Fossoli, Modena, ITALY. Subscriptions \$40.00 (Europe), \$50.00 (US) for four issues (subscription is part of membership in IPMS-Italy). This is a beautifully reproduced quarterly, my only reservation is that there may not be enough armor and/or armored car related material per issue, it would also be helpful if at least the captions were in English as well as Italian.

MILCIV. The Dutch Society of Military and Civil Scale Modellers. c/o Hans Molter, A. Jacobsdreef 106, 2135 NB Hoofddorf, THE NETHERLANDS. Subscriptions \$33.00 (US) for four issues. Even though the text is in Dutch, it is easy enough to figure out most of the publication. Articles cover the range of military and civilian vehicle modeling, while including some very good drawings and interesting photos, recommended.

Museum Ordnance. U.S. Army

Ordnance Museum. c/o Darlington Productions Inc., PO Box 5884, Darlington MD 21034 U.S.A. Subscriptions \$13.00 in the U.S., \$18.50 by surface and \$27.00 by air to the rest of the world for six issues. This is a very nice publication with good production values and varied articles on all aspects of ordnance and vehicles, both U.S. and foreign, recommended.

NEA. IPMS Greece. c/o IPMS-Greece, PO Box 79167, 175 02 Amfithea, Athens, GREECE. Membership/subscriptions are \$25.00 (US) for four issues. I have purposely not mentioned most of the various IPMS publications from around the world, because for the most part, they are heavily into aircraft and any armor, much less wheeled armor, receives little attention; the exception is NEA. This publication is well reproduced on coated paper with usually clear (and certainly for most readers) rare photos of Greek vehicles, both armored and soft-skinned. There are also a steady supply of excellent drawings (usually in 1/35th). For those that don't read Greek an English summary is supplied, and most photos and drawings are captioned in Greek and English, recommended.

Pansar. Swedish Armour Historical Society. c/o Tommy Nilsson, Violstigen 9, 264 00 Klippan, SWEDEN. Subscriptions (was approximately \$28.50 US) for four issues of Pansar and membership in the Society. I haven't seen an issue in the last year so can't make a recommendation. This is however the primary source on information on Swedish armored vehicle development. Worth writing to ask for more information.

The RAM. Canadian Armor Modelers Organization. c/o Don Crawford Jr., PO Box 312, Brampton, Ontario CANADA L6V 2L3. Subscriptions \$25 Canadian (Approx. \$22 U.S.) for six issues, which includes membership in the organization. Lots of kit reviews and information on Canadian vehicles that you'll find no where else, recommended.

Tank TV. c/o Peter Cooke, P&P Publishing, PO Box 9724, Wellington 6001, NEW ZEALAND. Subscriptions \$12 (US, Australian or New Zealand) for four issues by air, or 2 IRCs for a sample copy. If you haven't yet sent for your sample issue you should. This is an excellent newsletter of the same size and format as

AC with a wide variety of subjects. The last issue even included railway armor in the Boer War, recommended.

Tankette. Miniature AFV Association. c/o Gary Williams, 15 Berwick Avenue, Heaton Mersey, Stockport, Cheshire SK4 3AA GREAT BRITAIN. Subscriptions \$25.00 (US) for airmail delivery around the world for six issues. Another publication that has been around for many, many years. One nice thing is that the Association keeps a good supply of backissues on hand so you can get that article that appeared ten or fifteen years ago, recommended.

Tracklink. Friends of the Tank Museum (RAC Center, Bovington). c/o Membership Secretary, The Society of Friends, Tank Museum, Bovington Camp, Wareham, Dorset, BH20 6JG, GREAT BRITAIN. A year's membership which includes a subscription to Tracklink is \$24.00 (US) for four to six issues depending on the frequency during the year. Similar to *Museum Ordnance*, but smaller, there always seems to be some unique information in this publication. Heavy emphasis is of course on British vehicles and operations but other countries are covered as well, recommended.

(The above information reflects the most current information I have as of the date of this column. As with most transactions involving international payment today, it would be best to write to any of the above listed publications before sending money, and determining the current subscription/membership rates and exchange charges for checks or money orders that may apply. Including a couple of Postal International Reply Coupons (IRCs) will also tend to speed up the process. If any reader knows of other similar publications I've missed, please write in with the information so I can add them to the list. - ed)

Sources

A good mail order source for Schmidt and Airmodel vacuform and resin kits, in the U.S. is **C & M Hobbies, 8775 SW Maverick #503, Beaverton OR 97005**, write for information.

Quality Casting continues to expand their line of 1/108th (approx. 15mm scale)



EDITORIAL POLICY: The purpose of the *ARMORED CAR* Newsletter is to: "promote interest in; and ex-change information on; the history, development, collection, preservation and modeling of wheeled fighting vehicles from around the world". In support of this goal, *ARMORED CAR* encourages international cooperation in researching the history of the development and usage of wheeled fighting vehicles from their initial introduction to the present time. Subscribers are asked to support *ARMORED CAR* by submitting material (photos, drawings, articles, etc.) for publication. A subscriber's subscription will be extended by one issue for each use of their material. All material is copyrighted by *ARMORED CAR* and no reproduction in whole or in part is permitted without written authorization.

SCHEDULE: *ARMORED CAR* is published six (6) times a year in January, March, May, July, September and November.

SUBSCRIPTION RATE: U.S. \$10.00 for six issues via surface mail. Canada \$12.00 via airmail. All others, \$15.00 via airmail. Payment should be in US funds. Checks or Money Orders should be made payable to *ARMORED CAR*. You may send cash at your own risk. At times an exchange can be arranged for foreign subscribers, write for details. Subscriptions begin with the first issue after receipt of payment.

Send remittance or correspondence to *ARMORED CAR*, 556 N THIRD STREET, WOODBURN, OR 97071-3904, U.S.A.

BACK ISSUES:

Copies of *ARMORED CAR* #2 through #14 are available for \$2.00 each.

CONTENTS:

- #2 DAF YP-408, Uparmored HMMWV, AB-40/41.
- #3 FUG (OT)-65, Armored Cars in the Baltic States 1918-40, Fiat-Oto Melara Puma.
- #4 Panhard ERC-90S, L'automitrailleuse White-Laffly, Australian LAV.
- #5 Cascavel EE-9, Armored Cars in Greek Service, PSZH-IV.
- #6 Pandur ARSV-25, FMC XR-311.
- #7 TPz1 Fox, Armored Cars at the Royal Tournament, Morris Commercial CS-9.
- #8 Marmon-Herrington MkIVf, Putilov-Garford.
- #9 Hungarian Armored Cars, Croatian "Homebuilt" Armored Vehicles.
- #10 Lanchester Six-wheeled ACs, ACs of the Hong Kong Reg 1925-65.
- #11 ACs of the Spanish Army 19231, Spanish Bilbao AC.
- #12 ACs of the Cyprus National Guard, Centauro, LAV-105.
- #13 The 'Death Special' and the Shelton and Birger 'Tanks', Turreted Daimler 'Dingos', Detailing the Dragon BTR-70.
- #14 FV603 Saracen, Soviet Armored Car Brigades.

STAFF:

David R. Haugh, Publisher & Editor
Bryce P. Haugh, Circulation manager

This issue of *ARMORED CAR* is © January 1993 by *ARMORED CAR*.

Sources ... continued from page 9

metal military vehicles and weapons. Their 1993 catalog includes a GAZ truck with quad/Maxim machineguns in an AA mount from WWII, and the Italian AS37 truck and the TL37 Wheeled artillery prime mover, as well as various artillery, tanks and figures. Write to **Quality Castings Inc., PO Box 11714, Alexandria VA 22312** for a price list. *(I haven't seen any of these vehicles so I can't make a recommendation -ed)*

Mike Dobiesz has a line of brass 1/35th scale cannon barrels to go with a wide range of kits (everything from a Sherman 75mm to a PZ VI "Jagdtiger" 128mm) write

to **Michael R. Dobiesz, 249 Greenbriar Townhouse Way, Las Vegas NV 89121** for a listing. *(I hope to have a review sample of Mike's barrels by next issue -ed)*

I received *Scale Links'* 1992 catalog and price list last week and was surprised at the range of their 1/32nd scale offerings; figures, accessories, weapons, dogs, horses, artillery, even tanks, motorcycles, bicycles, an armored car, wagon and a truck are offered. My favorite is the Belgian dog cart with Maxim machinegun. You should definitely write for this catalog to: **Scale Link Ltd., R/O The Talbot Hotel, Blandford Road, Iwerne Minster, Nr. Blandford Forum,**

Dorset DT11 8QN GREAT BRITAIN.

Lastly, for our European readers' I received a large illustrated catalog of models and figures from *WMB* in Belgium. Products covered include ADV, Airmodel, Airwaves, Almark Decals, Andrea Miniatures, Armour Models, Cheshire Volunteers, Chota Sahib, Fire Force, Fort Royal, Hornet, KK castings, Le Cimier, Mascot, Mil-Art, Model Art, Model Transport, New Hope Design, NKC, Puchala, Scale Model Accessories, Show Modelling, Tiny Troopers and TV Models. Write to **WMB, PB 83, 214: Borgerhout 1, BELGIUM** for the price of a catalog.