

Patria launches NEMO mortar

CHRISTOPHER F FOSS *Jane's Land Forces Desk Contributing Editor*
London



- NEMO's key asset is its light weight
- NEMO's modular design meets various user requirements

Patria Weapon Systems is displaying a new 120 mm smoothbore turreted mortar system, dubbed NEMO (NEW MOrtar), integrated onto a Patria Vehicles 8 x 8 Armoured Modular Vehicle (AMV) at Eurosatory.

NEMO, which has been developed as a private venture, is seen by the company as complimentary to the twin 120 mm Advanced MOrtar System (AMOS) developed by Patria and BAE Systems Hägglunds of Sweden.

AMOS is in production for the Finnish Defence Forces (FDF), which have ordered a total of 24 (four plus 20) systems for integration on the Patria Vehicles AMV; the first two were handed over earlier in 2006.

The main advantage of NEMO is its light weight – around 1,500 kg – which allows it to be integrated onto a much wider range of tracked and wheeled chassis than AMOS, which typically weighs around 4 tonnes.

From an early stage in the development programme it was decided to make NEMO as simple as possible in its baseline configuration to drive down costs but with a clear growth path to the future.

The 120 mm smoothbore mortar barrel used in NEMO is ballistically identical to that installed in the twin 120 mm AMOS and was successfully fired for the first time in February with the full-up system fired in May.

A typical NEMO self-propelled system would have a crew of four: driver, commander and two loaders who would prepare/load the ammunition trays located below the turret ring. Loading is semi-automatic once the projectiles have been put onto the loading trays.

According to Patria, a burst rate of fire of three rounds in 12 seconds can be achieved, while the



Patria Weapon Systems 120 mm NEMO mortar system integrated onto a Patria AMV 8 x 8 chassis

Patria Weapon Systems; 1132733

system is also capable of six multiple-round simultaneous impact missions.

Turret traverse and weapon elevation is all-electric with manual back-up controls.

The system has a day/night sight for direct fire as well as the normal indirect-fire capability, with the crew in the hull under full armour protection.

NEMO's low profile will allow the system to be integrated onto a wheeled chassis at the same time as retaining its air transport requirement in a C-130 Hercules tactical transport aircraft. A Patria Vehicles AMV 8 x 8 chassis fitted with NEMO would have space for at least 50 rounds of 120 mm ammunition.

The first example of NEMO has the same computerised fire system as the FDF AMOS, but other options will be available according to mission requirements, including a muzzle velocity radar.

Although the first application is for a land system, NEMO also has a naval application and is seen by Patria as filling a gap in its product range stretching from AMOS to the standard 120 mm towed mortar. ■

Philippines and Australia seal forces deal

Philippine President Gloria Macapagal-Arroyo approved a draft Status of Forces Agreement (SOFA) with Australia on 7 June, opening the door to an expanded range of bilateral military activity.

The new agreement is similar to the Philippine-US Visiting Forces Agreement (VFA) of 1999, but will allow the two nations to conduct joint military exercises.

The draft agreement covers training, the movement of forces and equipment, communications, the employment of local civilians, the use of public utilities and services, the import and export of goods, tax exemptions and the occupation of land and buildings.

Like VFA, provisions on criminal jurisdiction are expected to generate the most local controversy. Philippine officials say the SOFA grants Manila jurisdiction over offences committed by visiting Australian forces, with the exceptions of treason, sabotage, espionage and laws relating to the security of Australia. However, either party can request the other to waive its right to exercise jurisdiction.

In formal terms, SOFA is an agreement between the Philippine and Australian executive departments and does not require legislative ratification. However, for domestic political reasons, the Philippine government plans to submit the accord to the Senate for its concurrence.

Raymond Quilliam

JDW Correspondent, Manila

Protect against network-enabled capability attack, urges UK chief

As the UK armed forces come to increasingly rely on an overarching network there is a danger that insurgents in Afghanistan and Iraq will attempt to exploit the resulting vulnerability, the Chief of the UK Royal Navy has warned.

Admiral Sir Jonathan Band, First Sea Lord and Chief of the Naval Staff, said communication networks and infrastructure will increasingly come under attack as the UK moves further down the network-enabled capability (NEC) highway.

"If the network is degraded or lost through failure or adversary action, we

long as it remains our critical vulnerability, they will take great steps to deny us the network," Adm Band said.

Speaking at the Defence IQ Network Centric Warfare Europe conference in London on 6 June, Adm Band advocated an NEC approach as key to meeting future threats but warned that a "broad feel" for the resultant dependency was needed to adequately manage risk.

Insurgents in Afghanistan and Iraq had proven to be "great students of their opposition", quickly identifying areas in which coalition forces lacked agility.

Adm Band cited the Liberation Tigers of

deny the government an effective level of surveillance, as an example of an insurgency neutralising technology.

It is clear the UK has still to put the finishing touches to the applied concepts behind the NEC vision. Air Commodore Garfield Porter, Director Air and Space at the UK Ministry of Defence's (MoD's) Joint Doctrine and Concepts Centre, said an NEC Benefits Study had recently been completed and there was only the "applied conceptual work to be finished".

Air Cdre Porter said future priorities include the need to move from platform ownership to joint priorities to take full

(ISTAR) assets; the need to dominate the virtual battlespace; and the separation of command from control.

"There will be a separation of command from control. The concept work describes how command is human centric while control is information centric," Air Cdre Porter said.

Concerns were raised by some delegates about whether current ambitions are affordable within the UK's resource constraints as well as the ability of the armed forces to meet the risks inherent in NEC such as network failure, decision paralysis and information overload.