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SYSTEMS** PTY LTD

## **MEDIA RELEASE**

### **PROTECTOR 2 BLAST PROTECTED UTILITY VEHICLE DEVELOPMENT 16 February 2010**

Protected Transport Systems Pty Ltd [PTS], submitted a response to the RFP Land 121 PH4 01/09 in 29 September 2009 to supply 1,300 light armoured vehicles to the Australian Defence Force [ADF]. PTS has used the time since then to continue development and testing of the Protector 2 [P2] and the development of product acquisition and whole of life support systems.

#### **Protector 2 Development & Testing**

The design and development of the Protector 2 was well underway in September 2009 and the offered specification has been confirmed. Development and testing is nearing completion with the current schedule to a build prototype 6-man command variant by the end of March 2010.

The design and development of the P2 vehicle has been the product of the Mobile Armoured Vehicles LLC [MAV] development team under direction and design leadership of the Australian armour designer Koos de Wet of PTS. This has produced a new vehicle specifically designed to meet the requirements of the ADF, utilizing the earlier MAV Protector 1 vehicles' Cummins-Allison installed drive line, which has now been extensively tested [over 40,000 km].

#### **Developing Protector 2**

The hull shape, material, welding processes and manufacturing processes have ensured the heaviest variant will not exceed 7,000 kg in its empty condition with Stanag level 2 (plus) blast protection and the ballistic protection level as detailed in our Response. In-field up armouring to higher ballistic standards will be available in fly-in kits which are now in the process of development.

Air conditioning and seating are similar to the standard of the Bushmaster which enables the occupants to comfortably wear body armour.

During the development phase, improvements have been incorporated into the wheel wells and engine bay to accommodate increased wheel movement, the cooling system has been further optimized for hot and high operation under dusty conditions and the powerpack [radiator, engine, gearbox, battery and reserve fuel unit] has been further simplified and unitized for easier field removal and replacement. The powerpack is the basis of effective in-service support system.

#### **Testing Protector 2 Design Elements**

The welded steels have been successfully ballistically tested and exceed the required level.

Two special blast test hulls were built for blast protection test purposes. The first test confirmed the conservative position in the Response of meeting STANAG L2 as a minimum.

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The centre blast under the transfer case housing (most vulnerable part of the vehicle) was conducted on January 28, 2010 at the Aberdeen test ground by ATC using a 15lb charge of TNT (6.8kg) instead of the lower 6kg charge specified in STANAG 4569 for a level 2b blast which it passed well with low internal overpressures and shock loads recorded on the hybrid 111 dummies. The following picture was taken on that occasion.



An internal overpressure of only 2.3 psi was recorded during the blast and the front of the vehicle lifted only 2 ft vertically during the blast. Hull deformation was minimal and there were no hull or transfer case cover breaches nor did any shrapnel enter the crew compartment.

The two test dummies recorded no potentially serious injuries and the different seats both performed well. One of the seating options (helicopter type) tested would allow for 8 people in high levels of comfort and safety, though this option costs more than the offered seats which allow for 6 people. One US military observer noticed and remarked that it appeared that the vehicle would still be driveable after that level of blast.

Since PTS believes the P2 is capable of protecting the occupants against even more powerful blasts, two additional blast tests are scheduled before the end of February 2010 when the blast test hulls will be subjected to blasts equivalent to 8kg of TNT (Stanag level 3) and 9kg of TNT (US Army standard)

### **Protector 2 Overall Readiness**

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In summary, performance improvements have been made [including the powerpack, air-conditioning, engine cooling, variant layout, and seat options]; the established drive-line continues to perform well in testing; and the ballistic and blast protection levels have been verified by testing.

Essentially PTS has now verified the performance offered in the Response and is confident that it is able to expeditiously prototype and manufacture vehicles that meet or exceed the offered performance and also provide for increased payload with options for seating a total of 8 people, and the capability to uparmour in field to increase ballistic protection.

### **Manufacturing**

The prototypes are to be built by PTS utilizing proven suppliers and production facilities and labour.

The design data packs, supply chain, manufacturing processes and jigs have been developed.

For serial production, PTS would contract the hull fabrication and vehicle assembly work to Great Western Manufacturing [GWM] using Australian sourced material and components and utilising the existing capability and infrastructure of GWM's facility, located in Toowoomba Queensland.

This provides for close control, flexibility of response and Australian content exceeding 80%.

### **Economic Impact**

Australian purchases for material, components, labour, and services will exceed \$1 billion. Direct employment, primarily in Toowoomba is assessed at 250 people for 5 years.

Steel from Australian steelworks, armoured glass, seats and vehicle components actually manufactured in Australia are preferred for the Protector 2. This provides for a high Australian economic value add.

### **Further Information**

The PTS website, [www.protectedtransport.com.au](http://www.protectedtransport.com.au) is aimed at openly providing regularly updated information on the P2 development, specifications and progress together with PTS structure, associates, capabilities and other PTS products. There is provision to register interest as a supplier or to make other enquiries.

Further Protector 2 information or clarification in relation to PTS and the Response to the RFP is available.

### **Contact**

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