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Factsheet: Mortar Tracked Carrier

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The MTC (Mortar Tracked Carrier) is jointly developed by the SAF, DSTA and Singapore Technologies Kinetics. A variant of the BRONCO All-Terrain Tracked Carrier, the MTC is able to overcome difficult terrain and water obstacles. Operating on a 4 men crew, the MTC has an Improved Mortar System which enables better operational effectiveness with automation and computerisation, thereby providing good mobility, fire-power, accuracy and survivability.

Its primary weapon is the Recoiled Mortar System, which is capable of engaging targets quickly and accurately at a high rate of firing. It is also augmented with a 7.62mm calibre General Purpose Machine Gun (GPMG) and Smoke Grenade Launcher System. The built-in Automatic Fire Control System (AFCS) comprises a Fire Control Unit and an Inertia Navigation System, allowing it to conduct immediate deployment without conventional surveying methods. This enhances survivability during deployment.

A Hydro-pneumatic Recoil System reduces the overall recoil force, thus allowing minimal reinforcement of the original hull structure, and post-firing stabilising time. This increases the rate of firing with improved accuracy. The Blast Diffuser reduces the impact of shockwaves generated from the blasts, further enhancing the safety of its crew. The AFCS is also equipped with a Mortar Platoon Management System (MPMS) which enables it to be networked to the 3rd Generation Armoured Battle Group via the Battlefield Management System (BMS).

Performance

Physical Parameters

Recoiled Mortar System (RMS)

No. of Crew : 4 men crew

Deployment Time

: 1 minute (Day)

1.5 minutes (Night)

Firing Rate

: a. Maximum Rate - 10 bombs per minute for 3 minutes

b. Sustain Rate - 4 bombs per minute for 20 minutes

Maximum Range

: 6,500 m

Minimum Range

: 400 m

Maximum Road Speed

: 60 km/h

Swimming Speed

: 4.5 km/h

Slope Climbing

: Gradient 60%

Side Slope 30%

Vertical Obstacle

Rightional Archives of Singapore

Trench Crossing

: 1.5 m

Height

: 2.6 m

Length

: 8.9 m

Width

: 2.35 m

Gross Weight : <16,000>

Characteristics

Calibre

: 120 mm Smoothbore

Barrel Length Diffuser: 2.0 m (Inclusive of Blast)

Elevation

: 45° to 80° (800 mils to 1422 mils)

Traverse

 $:\pm 28^{\circ} (\pm 498 \text{ mils})$

Elevation/Traverse Slew Speed

: >60 mils per sec or 3.4° per sec powered & Automatic Manual Backup

Firing Mode

: Trigger or Drop

News Release

Exercise Wallaby 07 - Integrating the 3rd Generation Forces (MINDEF_2007) 118001-pdf)