# **YUKTHI RATH**

MINE PROTECTED VEHICLE





#### MINE PROTECTED VEHICLE

Mine Protected Vehicle (MPV) Manufactured
At OFPM Is Intended To Address The Threat Of
Terrorist Activities And Provide Safety To The
Personnel Against Land Mine Blast. The Hull
Built With High Strength Alloy Armour Steel Offer
Protection Against Small Arms And Can Withstand
Mine Blast Of 10 Kg TNT.

#### SALIENT DESIGN FEATURES

The mine protected vehicle consists of a mineprotected monocoque hull/body.

Max. safety of the crew from ballistic and mine blasts attack due to 'v' shaped Envelope of the hull.

Minimum down time to restore after detonation of landmines under the vehicle.

Power assisted steering.

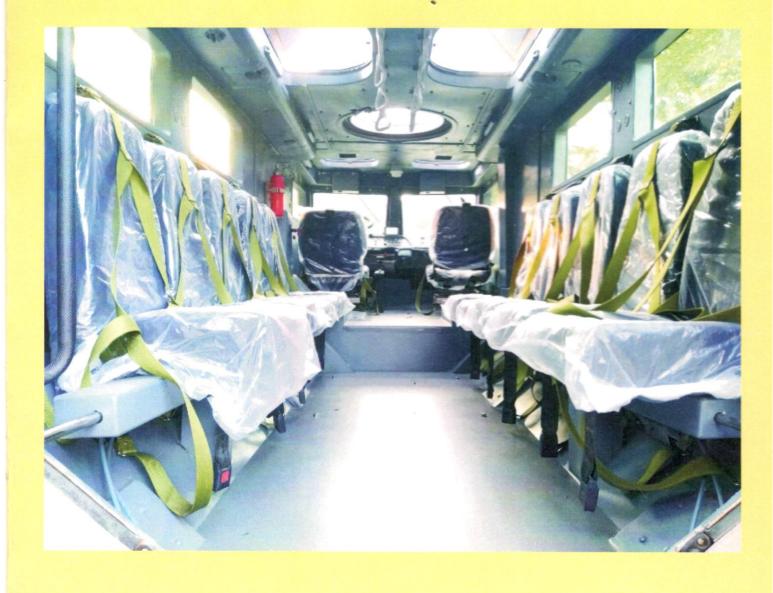
Ease of replacement of axles and other aggregates in the field.

The engine transmission and fuel tank-all contained within armour hull for maximum protection from detonation.

Side prot holes for personal weapons.

High impact resistant windows, replaceable transparent glass to provide protection againsparent small arms ammunition attack.









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# NUCLEAR BIOLOGICAL & CHEMICAL RECONNAISSANCE VEHICLE (NBCRB)





**MANUFACTURED BY** 

### ORDNANCE FACTORY MEDAK

A UNIT OF INDIAN ORDNANCE FACTORIES

#### ORDNANCE FACTORY MEDAK

Most modern high-tech Engineering
Factory, in the chain of Indian Ordnance
Factories, established in 1987 with core competence in
Manufacturing of Infantry Combat Vehicles and its Variants.



#### **BRIEF OF NBCRV**

An IS/ISO 9001 - 2015 Certified unit.

- The Nuclear Biological & Chemical Reconnaissance Vehicle (NBC RV) is based on the versatile BMP Amphibious Infantry Combat Vehicle.
- O It is designed to meet the tactical requirements of the Military Engineers for carrying out Nuclear, Biological & chemical contamination survey. It is equipped with state -of-the-art systems designed to meet the user requirements.
- NBCRV provides the reconnaissance capability in hatch down condition. There are eleven instruments fitted and integrated to provide the real time data of contamination by Engineers.
- O The vehicle can cross the water obstacles affoat.

#### **GENERAL**

Type of vehicle Full-tracked, armoured, amphibious, Air-Transportable

Combat loaded mass 14.5 ton + 2%

Personnel capacity 6 persons (commander, gunner, driver & crew 3 Persons)

Engine Power 300 hp

#### **DIMENSIONS**

Overall Length 6735 mm

Overall Width with PDS 3550 mm

Overall Height 2450

Max. Speed over Highway 65 kmph

Max Speed in water 7 kmph

Cross country speed 45 kmph

Vertical obstacle max. 0.7m

Trench crossing max. 2.5m

Gradient 35 deg.

#### **ARMAMENT**

Automatic Gun 2A 42, 30 mm Caliber

Coaxial Machine Gun PKT 7.62mm

#### **SPECIAL EQUIPMENTS INTEGRATED**

1. Control Console 2. Advance Land Navigation System (ALNS) 3. Ruggedised Lap top

4. STARS V MK II Radio set 5. Communication Link Controller (CLC) 6. Roentgen meter

7. Pocket dosimeter (PDM) 8. Portable Dose Rate Meter (PDRM) 9. Solid State Anemometer (SSA)

10. RPL Dosimeter 11. Portable Gas Chromatograph 12. RVD Kit 13. GID -3 14. Motorola Set

15. Power Distribution Box 16. Ruggedized Scooping Device 17. Picket Driving System

18. NBC Items 19. AC System





THE GENERAL MANAGER

ORDNANCE FACTORY MEDAK

YEDDUMAILARAM,

SANGAREDDY – DIST – 502 205, (T.S)

GRAMS : ARMOUR

TELEPHONE : 040 - 23283000,08455 - 238256

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# CARRIER MORTAR TRACKED BUILT TO CONQUER MANUFACTURED BY ORDNANCE FACTORY MEDAK A UNIT OF INDIAN ORDNANCE FACTORIES



#### ORDNANACE FACTORY MEDAK

Most modern high-tech Engineering

Factory, in the chain of Indian Ordnance

Factories, established in 1987 with core Competency in

Manufacturing of Infantry Combat Vehicles and its Variants.

An ISO 9002 Certified unit.

#### TECHNOLOGICAL STRENGTH

- Laser Cutting (3 & 5 Axis)
- Plasma Cutting
- Thermo Pressing
- State-of-Art CNC Systems
- Pressing Capacity upto 4000T
- Most Modern Foundry

#### **DIMENSIONS**

Length - 6735 mm

Width Over Track Guards - 3150 mm

Height (Max) - 2345 mm

Ground Clearance - 420 mm

Weight - 14.0 mm

Crew Capacity - Driver & Commander

+ 4 Mortar crew



#### **COMBAT CHARACTERISTICS**

Max. Speed (Over Highway

- 65 kmph

**Patrolling Speed** 

- 45 kmph

Cruising Range (Over Highway) - 600 km

**Engine Power** 

- 300 HP

#### **WEAPON SYSTEMS**

81 mm Mortar

1 No.

84 mm Rocket Launcher

1 No.

7.62 mm MAG Gun

1 No.



81 mm Mortars

108 Rds

84 mm Rockets

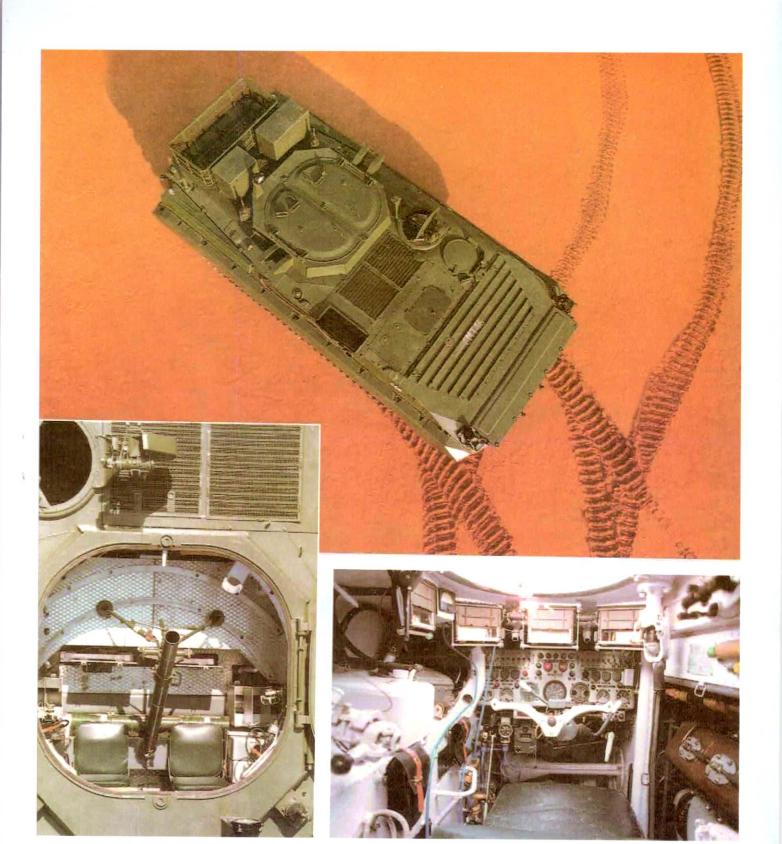
12 Rds

7.62 mm Cartridges

(Combination possible)





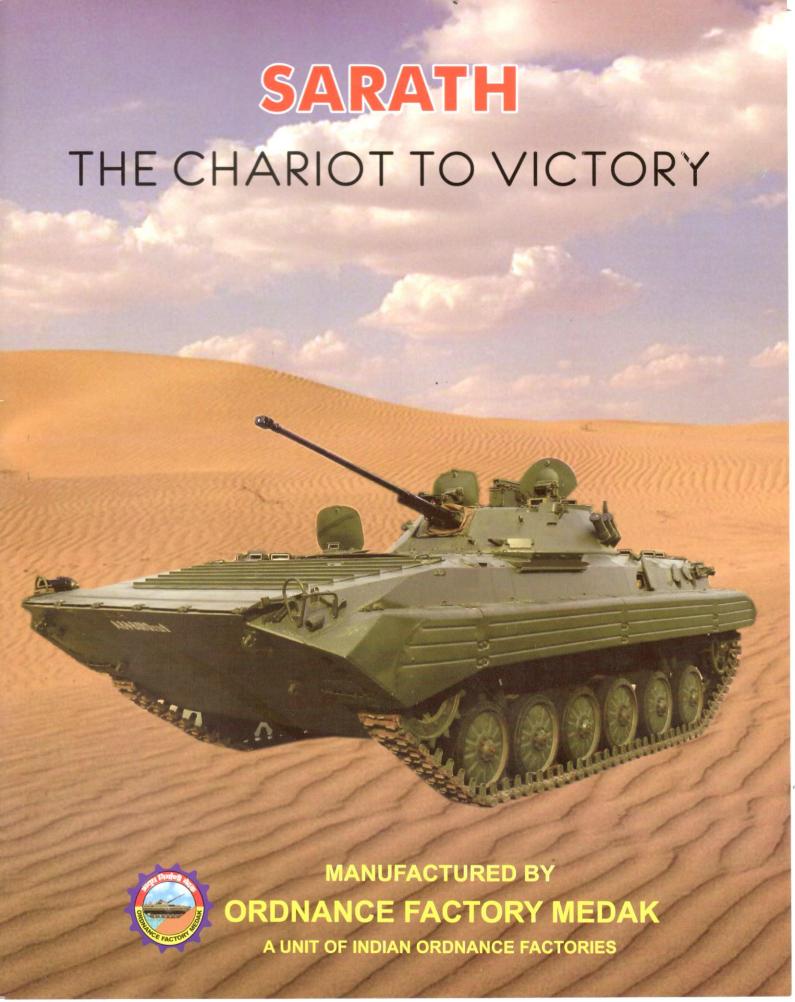


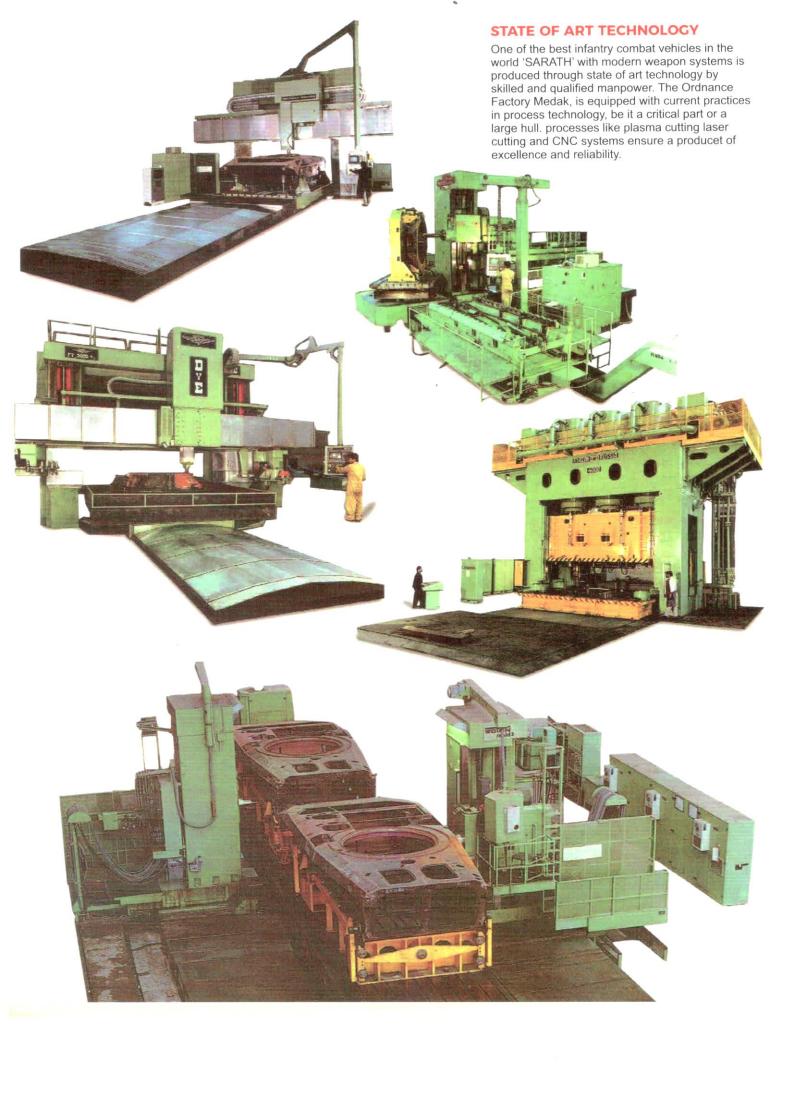


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SARATH - TESTED TO LAST

#### **SARATH - THE VERSATILE**

MOBILITY: Powered by a powerful 300 hp Engine, SARATH is a highly mobile vehicle which meets all tactical requirements of mobility in a battlefield, travels at an incredible 65 KMPH, with easy steering ability in cross country terrain

Sarath is a truly amphibian vehicle which can travel at 7 KMPH on water and can over-come slopes upto 35° and can cross obstacles of 0.7 M. SARATH can be easily transported by air due to its low weight.

with armoured plates all around there by ensuring a high degree of protection to the chameleon. sarath offers a chameleon like camouflage with the help of smoke grenades creating of smoke screen.

FIRE POWER: Equipped with a rapid fire 7.62 MM medium coaxial machine gun, a 30MM cannon and a second generation homing type anti tank guided missile, the SARATH can Neutralise all kinds of Land based and low flying military objects

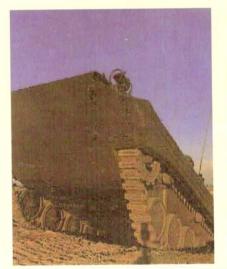
NIGHT VISION: provided with sharp night vision devices and a low silhotte, SARATH is a dream come true for an infantry man in the battle field.

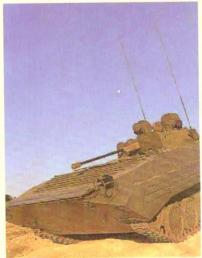
**SARATH** - ideal for fighting night battle with speed, surprise and deadly precision.

SARATH - THE INVINCIBLE CHARIOT



**EAPON TESTS FOR ACCURACY IN FIRING TUNNEL** 





PERFORMANCE TESTS ON TEST TRACKS



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# ARMOURED ENGINEER RECONNAISSANCE VEHICLE (AERV)





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#### **BRIEF OF AERV**

The Armoured Engineer Reconnaissance Vehicle (AERV) is based on the versatile BMP-II Amphibious Infantry Combat Vehicle.

It is designed to meet the tactical requirements of the Military Engineers for carrying out terrestrial and under water survey.

There are Navigation equipments with land and water Recee Instruments fitted and integrated to provide the real time data to predict mobility of vehicles and bed profile of the water obstacle for laying of bridges by Engineers.

The vehicle can cross the water obstacles afloat.

#### SYSTEMS INTEGRATED ON AERV

a) Navigation Instruments:

i) Advanced Land Navigation System [ALNS]

b) Land Recce Instruments:

i) Digital Cone Penetrometer [DCP]

ii) Laser Range Finder [LRF]

iii) Thermal Sight

iv) Range and Angle Measuring Device

v) Inclinometer [INCL]

c) Water Recce Instruments:

i) Echo Sounder [ES]

ii) Water Current Meter [WCM]

iii) Electronic Distance Meter [EDM]

iv) Hand held Water Current Meter [HHWCM]

v) Water Depth Measuring Device [WDMD]

d) Integration Instruments:

- i) Control Console [CC]
- i) Power Distribution Box [PDB]
- ii) Ruggedised Dot Matrix Printer [R-DMP]

e) Other Systems

- i) Air Conditioning System 1.5 ton
- ii) Picket Driving System [PDS]

#### COMBAT CHARACTERISTICS

Combat loaded mass 13.4 + 2% ton

Personnel capacity 6 persons

Troop 3 persons

Hull length 6735 mm

Width with PDS 3555 mm

Height: over commander's

vision device spotlight 2450 mm

#### **COAXIAL MACHINE GUN**

PKT 7.62 mm Caliber

#### COMMUNICATION

Tadiran Radio Set VRC-1465 M1-80/A 1(5/50W)
Intercom: Digital Control Harness (DCH)

#### **FIRE FIGHTING EQUIPMENT**

Instant Fire Detection & Suppression System (IFDSS)











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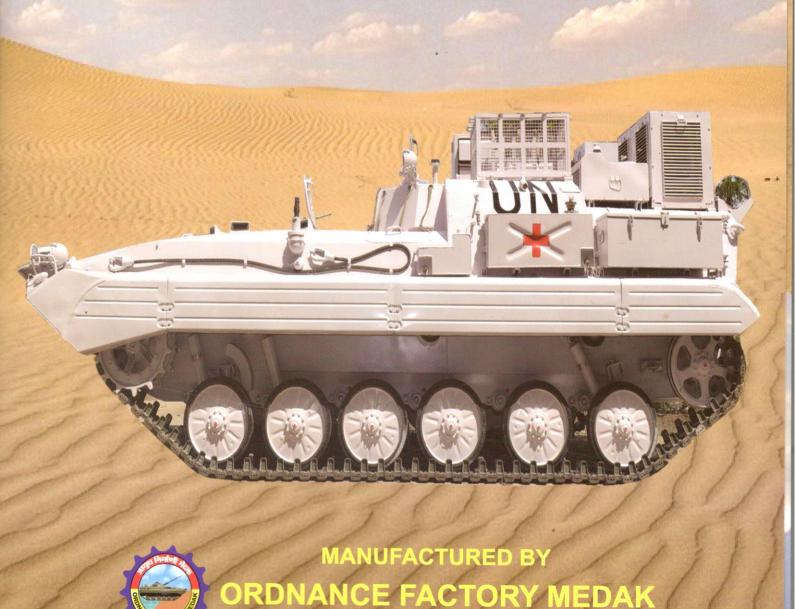
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## **ARMOURED AMBULANCE TRACKED**

FOR SPEEDY EVACUATION OF BATTLE FIELD CASUALITIES WITH IMMEDIATE MEDICAL CARE



A UNIT OF INDIAN ORDNANCE FACTORIES









#### **PROVISION FOR**

- Four stretcher patients (or) Two stretcher & four sitting patients (or) Eight sitting patients.
- ☐ Two medical attendants.
- ☐ Blood & saline transafusion.
- Oxygen administration.
- Stowage of Thomas Splints & Crammers (conventional and inflatable), kidney tray, Urine Bottle, Bed pan, Oxygen cylinders, Saline bottles, Medicines.

#### SPECIALIZED MEDICAL EQUIPMENTS

- ☐ Defibrillator With NIBP

  For continuous ECG monitoring with printout, automated external defibrillation & pacing, measurement of Non Invasive Blood Pressure, Pluse rate and Oxygen saturation.
- Ventilator
   For artificial respiration with various modes of ventilation.
- Suction unit
   Electrical suction unit for removal of unwanted secretions and fluids.
- □ DC Refrigerator with cooling & heating facility for preserving life saving drugs.

#### **SPECIAL FEATURES**

- 3 Tr Air conditioner with heating facility using a dedicated auxiliary power unit for patient and crew comfort.
- Provision to power medical equipments from vehicle / auxiliary power unit.
- Stowage bins for the personal arms of injured casualties.
- Adequate bins for stowage of essential medicines.
- Stowage adequate drinking water.
- Excellent mobility and obstacle crossing capability in various battle field terrain and amphibious.
- Special blower and absorbent filter for NBC protection.
- External and internal
   communication using radio set
   R173/Tadiran and R174.
- ☐ GPS 9312A1 for navigation.
- External bin and basket for keeping vehicle tools and accessories













#### Technical Specifications

General Crew

: Driver, Commander / Medical Officer, Two medical attendants.

Combat loaded mass Overall Length Overall Width Overall Height Engine Power Max Speed on road

**Cross Country Speed** 

: 3150 mm : 2600 mm : 300 hp : 65 kmph : 45 kmph : 7 kmph

14t + 2% 6735 mm

Max Speed in water Crusing range on highway Vertical obstacle Trench crossing

550 to 600 km 0.7 m (max) 2.5 m (max)

Gradient

1. Defibrillator with NIBP

Transport ventilator
 Suction Unit

4. D.C. Refrigerator

5. Inflatable & conventional Thomas splints and Crammers

6. Oxygen cylinders 1246 ltrs. (2 nos.)

7. Kidney Tray

8. Urine bottle & Bed Pan

9. Pillows & Blankets

Air Conditioning system Communication System

: 3 Tr with dedicated APU

: Radio Set R 173 / Tadiran for external communication & R 174 for internal communication

: GPS 9312A1 & GPK 59

**Navigation** 



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