

Fact Sheet – Dynamic Defence Display (D3) Assets

A. New in NDP D3

1. Belrex Protected Combat Support Vehicle
(The Singapore Army)



Technical Specifications	
Engine	Cummins 6 cylinder turbo diesel engine delivering max 250 bhp
Crew	4,8 or 10
Length	7.25m
Height	2.75m
Weight	20,000kg
Speed	110km/h
Weapons	7.62mm Remote Machine Gun 76mm Smoke Grenade Launcher
Capability	Configured for a wide range of missions to provide close proximity support to the infantry forces. Carry a payload of up to 4,000kg. Facilitate efficient information exchange via the Army Battlefield Internet Resist small arms fire and close proximity mine blasts

The Belrex provides Combat Support and Combat Service Support forces with protected mobility. The vehicle is equipped with a Remote Machine Gun (RMG) and a Smoke Grenade Launcher, providing it with enhanced survivability. The Belrex variants provide the flexibility of carrying a range of combat load to fulfil different combat support and logistic functions. The Belrex also has a suite of C4 systems, putting them on the network of the Terrex Infantry Carrier Vehicles. The introduction of Belrex, together with the Terrex, enhances our Army's motorisation.

Quantity in D3: 2

2. Peacekeeper Protected Response Vehicle
(The Singapore Army)



Technical Specifications	
Length	7.48m
Width	2.55m
Height	3.54m
Weight	17.5 tonnes
Top Speed	90km/h
Crew	2 + 10
Primary Weapons	AGL/HMG/CMG
Calibre	40/ 12.7/ 7.62mm
Max. Effective Range	1000/ 1700/ 1200m
Rate of fire	500/ 600/ 100rpm
Max. Payload	4000kg
Negotiable gradient/side slope	60%/ 30%

The Peacekeeper Protected Response Vehicle (PRV) is a 6x6 armoured vehicle jointly developed by the SAF and the DSTA.

The vehicle was inducted into service with the SAF's 2nd People's Defence Force (2 PDF Command) in July 2015 with the role of performing security missions at key civilian and military facilities, as well as using its precise firepower for island defence operations.

The Peacekeeper PRV is installed with a Remote-Control Weapon System (RCWS) for mounting a range of weapon systems such as the Automatic Grenade Launcher (AGL), Heavy Machine Gun (HMG), and the Coaxial Machine Gun (CMG). It is further fitted with an integrated optical/thermal imaging/eye-safe range finder, allowing the gunner to aim and engage targets accurately whether the vehicle is stationary or on the move.

The PRV will replace the Army's ageing V200 armoured vehicles that were introduced in 1970.

Quantity in D3: 2

3. Heron 1 Unmanned Aerial Vehicle
(The Republic of Singapore Air Force)



Technical Specifications	
Engine	ROTAX 914 Engine (1211cc)
Overall Length	8.8m
Wingspan	16.6m
Maximum Take-off Weight	1,100kg
Maximum Operating Range	About 200 km
Endurance	Greater than 24 hours
Cruise Speed	60-70 knots
Payload Capability	Multi-mission Optronic Stabilised Payload

The Heron 1 Unmanned Aerial Vehicle (UAV) is equipped with state-of-the-art avionics, detection capabilities and communication systems, as well as a fully automatic take-off and landing capability. Its longer flight endurance and enhanced surveillance capabilities ensure that the Singapore Armed Forces (SAF) has greater situational awareness on the battlefield for mission effectiveness. The Heron 1 UAV is operated from a Ground Control Station (GCS), allowing the UAV pilot to send control signals to the platform. The GCS also undertakes the processing, retrieval and storage of flight information and real-time images captured by the UAV.

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Quantity in D3: 1

4. Tactical Response Motorcycle
(Singapore Police Force)



The Tactical Response Motorcycle (TRM) is used by the Rapid Deployment Troops (RDTs) from the Special Operations Command to respond to public security and public order incidents.

The TRM allows the RDTs to manoeuvre through traffic and navigate uneven terrain to reach incident sites.

Quantity in D3: 4

5. Tactical Response Vehicle
(Singapore Police Force)



The Tactical Response Vehicle (TRV) is used by the Police Tactical Troopers (PTTs) to reach incident sites during an armed attack.

Quantity in D3: 1

6. Fire-Medical Vehicle
(Singapore Civil Defence Force)



Technical Specifications	
Vehicle Classification	Class 4
Dimensions	7m x 2.2m x 2.9m
Tank Capacity	150L Foam Concentrate Tank & 600L Water Tank
Weight	8000KG (with equipment)
Pump Capacity	2000L per minute

Recently launched in May 2017, the Fire-Medical Vehicle (FMV) integrates fire-fighting and rescue and medical response capabilities onto a single platform. The FMV also incorporates a patient cabin which allows for the conveyance of up to three seated patients or two lying patients to hospital. This versatility allows the SCDF to deploy a single vehicle for a fire/rescue and medical emergency.

Quantity in D3: 1

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7. Rapid Response Fire Vessel (RFV)
Singapore Civil Defence Force



Technical Specifications	
Dimensions	20m x 4.8m x 8.5m
Tank Capacity	1,365L Foam Concentrate Tank & 286L Freshwater Tank
Weight	41,400KG (with equipment)
Fire Pump Capacity	7,083L per minute
Top Speed	40knots
Propulsion	Water Jet
Engine Power	1,213KW @2,300RPM

Launched in May 2017, the RFV is the latest vessel to join the SCDF fleet. Designed with a low draft of one metre and high speed water jet propulsion of up to 40 knots, this nimble vessel is the equivalent of the Light Fire Attack Vehicle (LFAV) on land. Equipped with two firefighting monitors, a purpose-built Rescue Zone and modular seating arrangements, the RFV is able to accommodate lying casualties, provide swift fire-fighting and rescue services within Singapore's waters.

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Quantity in D3: 1

B. Other D3 Assets

Singapore Self-Propelled Howitzer Primus
(The Singapore Army)



Technical Specifications	
Length	10.5m
Width	3m
Height	3.28m
Weight	28.3 tonnes
Calibre	155mm 39 calibre
Crew	4
Cross Country Mobility	25km/h
Engagement Range	19km (Standard) 30km (Extended)
Max. Rate	6 rounds/min
Burst Rate	3 rounds/20secs
Sustained Rate	2 rounds/min for 30mins

Quantity in D3: 2

High Mobility Artillery Rocket System
(The Singapore Army)



Technical Specifications	
Crew	3
Vehicle Platform	Wheeled
Length	8.4m
Width	2.4m
Height	3m
Weight	16.2 Tonnes
Air Transportability	C130
Accuracy	<10m
Payload	6 rockets / LPC
Fuze	Proximity Point Detonating Delay

Quantity in D3: 2

Light Strike Vehicle Mark II
(The Singapore Army)



Technical Specifications	
Engine	Peugeot DW10B 2.0L, 4 cylinder, Turbo Diesel 100kW (136HP) @ 4000rpm
Crew	3 to 6
Length	4.9m
Height	1.8m
Speed	110km/h
Weight	2800 kg
Weapons	<ul style="list-style-type: none">• 7.62mm General Purpose Machine Gun (GPMG)• 40mm AGL• Spike System
Maximum Range	500km (50 litres)
Capability	Equipped with enhanced networking capabilities. Excellent off-road mobility. LSV's versatile weapon platform allows for different weapon systems to be mounted on it.

Quantity in D3: 4

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Leopard 2 Armoured Engineer Vehicle
(The Singapore Army)



Technical Specifications	
Engine	Turbocharged diesel engine
Crew	3
Length	14.02m (Mine Breaching Configuration) 11m (Earthmoving Configuration)
Height	3.52m
Weight	62.79 tonnes
Speed	68km/h
Weapons	CIS 50 MG
Maximum Range	500km
Capability	Provides a high level of protection against small arms firing and land mines threats. Equipped with a powerful hinged-arm excavator with different excavator tools. Cut through minefields and to erect or dismantle artificial obstacles. Paves the way, removing all obstacles by means of heavy lifting and dozing.

Quantity in D3: 1

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Leopard 2SG Tank
(The Singapore Army)



Technical Specifications	
Engine	V12 Turbocharged Diesel Engine – 1500 hp.
Crew	4
Length	9.9m
Height	3.0m
Weight	60.4 tonnes
Width	4.1m
Operating Range	280km
Top Speed	68km/h
Weapons	1 x 120mm L44 Main Gun 1 x 7.62mm Co-axial machine gun 1 x 7.62mm loader machine gun 16 x 76mm smoke grenade launcher

Quantity in D3: 2

Bionix II Infantry Fighting Vehicle
(The Singapore Army)



Technical Specifications	
Crew	3 crew + 7 troopers
Length	5.97m
Height	2.77m
Weight	24.6 tonnes
Width	2.78m
Top Speed	70km/h
Weapons	1 x 30mm MK44 Cannon 1 x 7.62mm co-axial machine gun 1 x 7.62mm commander machine gun 1 x 7.62mm general purpose machine gun 6 x 76mm smoke grenade launcher
MK44 Cannon Effective Range	Armoured Piercing – 2500m High Explosives Incendiary – 2000m

Quantity in D3: 2

Terrex Infantry Carrier Vehicle
(The Singapore Army)



Technical Specifications	
Engine	Caterpillar C9 turbocharged diesel engine, delivering 400 max bhp
Crew	13
Length	7.78m
Height	2.46m
Weight	24,000kg
Speed	105km/h
Weapons	7.62 GPMG + 40 mm AGL RCWS 0.5" Heavy Machine Gun RCWS 76 mm Smoke Grenade Launcher Up to 2 x Rear GPMG
Capability	Remote Control Weapon Station (RCWS) Battlefield Management Systems (BMS) Vehicle Navigation System (VNS) All Round Surveillance System (ARSS) Closed Hatch Driving System (CHDS) Weapon Detection System (WDS)

Quantity in D3: 3

Leopard Armoured Recovery Vehicle
(The Singapore Army)

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Technical Specifications	
Crew	3
Length	9.50m
Width	3.50m
Height	3.40m
Weight	55,300kg
Horsepower	1475hp
Towing Capability	MLC70
Recovery Winch	35 tonnes
Lifting Crane	30 tonnes

Quantity in D3: 1

Mercedes-Benz 2636 Recovery Vehicle
(The Singapore Army)



Technical Specifications	
Crew	3
Length	8.60m
Width	2.55m
Height	3.20m
Weight	38,000kg
Horsepower	355hp
Towing Capability	25 tonnes
Lifting Crane	15 tonnes

Quantity in D3: 1

Protected Light Utility Vehicle
(The Singapore Army)



Technical Specifications	
Engine	3-litre TDCi, 4-cylinder DOHC 16v
Length	5.1m
Width	2m
Height	2.23m
Weight	3500kg
Full tank	71 litre, Diesel
Operating Range	430km

Quantity in D3: 2

Fast Response Vehicle
(The Singapore Army)

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Quantity in D3: 1

Protector Unmanned Surface Vessel
(The Republic of Singapore Navy)



Technical Specifications	
Engine	Single diesel engine and water jet propulsion
Crew	0
Length	9m
Width	3.2m
Weight	5 tonnes
Operational Range	5 nautical miles
Endurance	24 hours
Speed	In excess of 30 knots
Weapons	Mini-typhoon Gun
Sub-Systems	Electro-Optics Device 360° Navigation Camera Navigation Radar Speakers GPS Remote Hailing System

Quantity in D3: 1

Combatant Craft Medium (11m)
(The Republic of Singapore Navy)



Technical Specifications	
Engine	2 X 400HP Volvo Penta Engine
Capacity	15 Troopers
Length	11.5m
Height	3.2m
Weight	8 tonnes
Weapons	7.62 GPMG CIS 50 MG
Endurance	200 nautical miles
Speed	In excess of 40 knots
Sub-systems	Electro-Optic System Navigation Radar
Capability	Equipped with Electro Optic System for stand-off target identification. Provides fire support using its mounted crew served weapon.

Quantity in D3: 4

F-15SG
(The Republic of Singapore Air Force)



Technical Specifications	
Engine	Two General Electric F110-GE-129 engines
Combat Ceiling	65,000 ft.
Wingspan	42.8 ft
Length	63.8 ft
Height	18.5 ft
Maximum Speed	Mach 2.5 plus
Weapons	<ul style="list-style-type: none"> • M61 20mm Gatling Gun • AIM-120 air-to-air missiles • AIM-9X air-to-air missiles • Maverick air-to-ground missiles • Laser-guided bombs

Quantity in D3: 3

AH-64D Apache Longbow Helicopter
(The Republic of Singapore Air Force)



Technical Specifications	
Length Overall	17.73m
Rotor Diameter	14.63m
Wingspan	5.23m
Height	4.05m, 4.95m (Longbow)
Maximum Speed	150kts
Weapons	<ul style="list-style-type: none"> M230 30mm Chain Gun Hellfire II semi-active laser or Hellfire RF missiles Hydra-unguided rockets

Quantity in D3: 2

CH-47 Chinook
(The Republic of Singapore Air Force)



Technical Specifications	
Length	30.18m
Rotor Diameter	18.29m
Max Speed	170 kts
Max Range	650 nautical miles
Crew Composition & Capacity	Up to 55 pax

Quantity in D3: 1

Fast Response Car
(Singapore Police Force)



Quantity in D3: 1 National Archives of Singapore

Sport Utility Vehicle
(Singapore Police Force)



Quantity in D3: 2

Fast Response Bike
(Singapore Civil Defence Force)



Technical Specifications	
Dimensions	2.21m x 1.46m x 0.8m
Engine	Single Cylinder, 4-Stroke
Engine Capacity	500CC
Weight	300KG (without equipment)
Transmission	Automatic

Quantity in D3: 2

5th Generation Light Fire Attack Vehicle
(Singapore Civil Defence Force)



Technical Specifications	
Vehicle Classification	Class 3
Dimensions	5.5m x 2m x 2m
Tank Capacity	100L Foam Concentrate Tank
Weight	3100KG (with equipment)
Pump Capacity	2000L per minute

Quantity in D3: 1

New Generation Ambulance
(Singapore Civil Defence Force)



Technical Specifications	
Vehicle Classification	Class 3
Dimensions	5.9m x 2.4m x 2.9m
Engine Capacity	2,980CC
Weight	3500KG (with equipment)

Quantity in D3: 1

Compressed Air Foam Pump Ladder
(Singapore Civil Defence Force)



Technical Specifications	
Vehicle Classification	Class 4
Dimensions	8.8m x 2.5m x 3.3m
Tank Capacity	1200L Foam Concentrate Tank & 2400L Water Tank
Weight	18,200KG (without equipment)
Pump Capacity	4000L per minute

Quantity in D3: 1

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