

Sub-Working Group on major equipment

LIST OF ISSUE PAPERS

Secretariat Issue Paper #1: Classification of armored personnel carriers based on capability instead of value

FOCAL POINTS

India

SUMMARY OF PROPOSAL

The Sub-working group on major equipment has discussed the UN issue paper regarding introduction of a new classification system of Infantry Carrier Armored Personnel Carriers

PROPOSED TEXT FOR 2023 COE MANUAL

COE Manual, Chapter 3, Annex A, Appendix 2, new para 1bis

Classification of Infantry Carrier Armored Personnel Carriers

Classification is determined based on the capabilities of the Armored Personnel Carriers (APC). The capabilities include protection level, fire power, mobility, payload or carrying capacity, and command and control in respect of Armed APCs. For Unarmed APCs the capabilities will include protection, mobility, payload or carrying capacity and command & control. The Statement of Unit Requirement will state the

□ Agreed by the sub-working group on 23/01/2023

☐ ADOPTED BY WORKING GROUP ON [INCLUDE DATE]

LAST CHANGED 4:10 PM 23 JANUARY 2023

1

critical capabilities that an APC is required to have based on the operational need of the unit/mission. APC capabilities will be assessed using the assessment sheets contained in Appendices 7 to 10. The capabilities will be confirmed by the troop/police contribution countries along with documentary proof and verified during the Pre-Deployment Visits or Arrival Inspection, as necessary.

The above system to classify APCs would come into effect from **01 July 2025** for all new deployments or APC equipment rotations for currently deployed TCCs once eligible under the policy of rotation of COE at UN expense. **The existing fleet of APCs currently deployed would continue to be reimbursed under the existing classification in the signed MOUs in place with those Member States.**

2

FINANCIAL IMPLICATIONS

There are no financial implications.



ANNEX A

Breakdown of Proposed Capabilities and Corresponding Points Allocated (Track APC – Armed)

Ser	Parameter	Sub-Parameter	Highest Possible Point (HPP) per sub parameter	Measured sub parameter	Weighted Point allocated	Measured sub parameter	Weighted Point allocated	Measured sub parameter	Weighted Point allocated
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1.	Protection	Ballistic 360/Kinetic Energy threat	3	Protection against Heavy Machine Gun, 14.5 mm and above: Ammunition AP Distance: 200 m Angle: azimuth 360°; elevation 0°	3	Protection against Machine Gun and Sniper rifles ≥ 7.62 mm but less than 14.5 mm Ammunition: AP tungsten carbide and AP hard steel core Distance: 30 m Angle:	2	Protection against Assault rifles, 7.62 mm and below Ammunition: AP steel core Distance: 30 m Angle: azimuth 360°; elevation 0-30°	1

 \boxtimes Agreed by the sub-working group on 23/01/2023

☐ ADOPTED BY WORKING GROUP ON [INCLUDE DATE]

LAST CHANGED 4:10 PM 23 JANUARY 2023

					azimuth 360°; elevation 0- 30°		
	Blast Under the body/ track (Mine Explosion/IED)	3	10 kg (explosive mass) Blast AT	3	8 kg (explosive mass) Blast AT	6 kg (explosive mass) Blast AT	1

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Horsepower	3	≥ 20HP/T	3	16 - 19 HP/T	2	≤ 15 HP/T	1
		/Tonnage							
		Operating range	3	≥ 500 kms	3	401-499	2	≤ 400 km	1
		on paved road				kms			
		Amphibious	3	Float and Ford	3	Ford ≥ 1.5 m	2	Ford < 1.5 m	1
2.	Mobility	ability Off road driving	3	on the move Soft soil +	3	on the move Soft soil + 2-	2	Hard surface +	1
۷.	Wiodility	Oil road driving	3	2.5meter trench	3	meter trench	4	< 2 meter	
				+> 0.5 meter		+ 0.5 meter		trench + < 0.5-	
				step + satellite		step +		meter step +	
				(local area) cum		satellite		magnetic	
				inertial		navigation		compass / gyro-	
				navigation		(local area)		based	
				system				navigation	
		Air	3	C-130 & Hel	3	C-130/ IL-76	2	C-17	1
		transportability		underslung	15				
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		≥ 7.62mm / .30	3	Stabilized	3	Remote Control	2	Manual	1
		calibre		Remote- Controlled		acquisition &		acquisition & firing with	
				acquisition &		firing but un-		Gunner	
				firing without		stabilised		exposed /	
				exposing gunner		system		partially	
				+ ≥1500 round		mount +		protected + <	
	Fire Power			magazine		1000 to		1000 round	
3.						1499 round		magazine	
						magazine			
		Portholes for	3	≥ 3 port holes on	3	1-2 port hole	2	No portholes.	1
		firing personal		sides & at least 1		on sides &		Troops required	
		weapons by troops		on rear		rear		to open hatches for firing	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
()	Payload	No of Pax	3	10 or more	3	9	2	8 or less	1

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		VHF/HF	3	≥ 1 VHF + 1 HF	3	≥ 1 VHF	2	≥1 VHF or 1 HF	1
		communication		radio set &		radio set &		radio set but	
				communication		communicati		communication	
				feasible on the		on feasible		not feasible on	
				move plus		on the move		the move	
		Situational	3	Day + Thermal	3	Day +	2	Only Day	1
		Awareness		Imaging Sights		Thermal		Sights for	
				for Driver,		imaging		Driver,	
5.	Command			Commander &		sight for one		Commander &	
	& Control			Gunner		crew		Gunner (no	
		1.4				member		night vision)	4
		Inter	3	Inter	3	Inter	2	No inter	1
		Communication		Communication		Communicat		communication	
				between all crews and		ion between		capability.	
				crews and commander and		all crews and			
				dismounted		commander			
				commanders		but not			
				Commanders		between			
						vehicle			
						commander			
						and			
						dismounted			
						commander			
						s			



Breakdown of Proposed Capabilities and Corresponding Points Allocated (Wheel APC- Armed)

Ser	Parameter	Sub-Parameter	Highest	Measured sub	Weighted	Measured	Weighted	Measured sub	Weighted
			Possible	parameter	Point	sub	Point	parameter	Point
			Point		allocated	parameter	allocated		allocated
			(HPP) per						
			sub						
			parameter						
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1.		Ballistic	3	Protection	3	Protection	2	Protection	1
		360/Kinetic		against Heavy		against		against Assault	
		Energy threat		Machine Gun,		Machine		rifles, 7.62 mm	
				14.5 mm and		Gun and		and below	
				above		Sniper rifles			
				Ammunition: AP		≥ 7.62 mm		Ammunition:	
				Distance: 200 m		but less than		AP steel core	
	Protection			Angle: azimuth		14.5 mm		Distance: 30 m	
				360°; elevation		Ammunition:		Angle: azimuth	
				0°		AP tungsten		360°; elevation	
						carbide and		0-30°	
						AP hard			
						steel core			
						Distance: 30			
						m Angle:			
						azimuth			
						360°;			
						elevation 0-			
						30°			

		Blast Under the body/ Wheel (Mine	3	10 kg (explosive mass) Blast AT	3	8 kg (explosive mass) Blast AT	2	6 kg (explosive mass) Blast AT	1
		Explosion/IED))							
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Horsepower /Tonnage	3	≥20HP/T	3	16 -19 HP/T	2	≤15 HP/T	1
		Operating range on paved road	3	≥ 500 kms	3	401-499 kms	2	≤400 km	1
	Mobility	Amphibious ability	3	Float and Ford on the move	3	Ford ≥1.5 m on the move	2	Ford < 1.5 m	1
2.		Off road driving	3	8 x 8	3	6 x 6	2	4 x 4	1
		Air transportability	3	C-130 & Hel underslung	3	C-130/ IL-76	2	C-17	1
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
3.	Fire Power	≥7.62mm / .30 calibre	3	Stabilised Remote- Controlled acquisition & firing without exposing gunner + ≥1500 round magazine	3	Remote Control acquisition & firing but un- stabilised system mount + 1000 to 1499 round magazine	2	Manual acquisition & firing with Gunner exposed / partially protected + < 1000 round magazine	1
		Portholes/hatch es for firing personal weapons by troops	3	≥ 3 port holes on sides & at least 1 on rear	3	1-2 port hole on sides & rear	2	No portholes. Troops required to open hatches for firing	1
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
4.	Payload Capacity	No of Pax including Crew	3	10 or more	3	9	2	8 or less	1
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)

		VHF/HF	3	≥ 1 VHF + 1 HF	3	≥ 1 VHF	2	≥ 1 VHF or 1 HF	1
		communication		radio set &		radio set &		radio set but	
				communication		communicati		communication	
				feasible on the		on feasible		not feasible on	
				move		on the move		the move	
		Situational	3	Day + Thermal	3	Day +	2	Only Day	1
	Command	Awareness		Imaging Sights		Thermal		Sights for	
	& Control			for Driver,		imaging		Driver,	
5.				Commander &		sight for one		Commander &	
				Gunner		crew		Gunner (no	
						member		night vision)	
		Inter	3	Inter	3	Inter	2	No	1
		Communication		Communication		Communicat		intercommunic	
				between all		ion between		ation capability	
				crews and		all crews			
				commander and		and			
				dismounted		commander			
				commanders		but not			
						between			
						vehicle			
						commander			
						and			
						dismounted			
						commander			
						s			



Abbreviations in use:

- 1. HP Horsepower.
- 2. AT Anti Tank

Classification for armed APCs:

The Highest Possible Point (HPP) per sub parameter is 3. The total possible points for the sub parameters (3 x 13) = 39 Consequently, the classification would be as follows:

Class I = 27 - 39Class II = 14 - 26Class III = 13



Annex B

Breakdown of Proposed Capabilities and Corresponding Points Allocated (Track APC – Unarmed)

Ser	Parameter	Sub- Parameter	Highest Possible Point (HPP) per sub parameter	Measured sub parameter	Weighted Point allocated	Measured sub parameter	Weighted Point allocated	Measured sub parameter	Weighted Point allocated
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1.	Protection	Ballistic 360/Kinetic Energy Threat	3	Protection against Heavy Machine Gun, 14.5 mm and above Ammunition: AP Distance: 200 m Angle: azimuth 360°; elevation 0°	3	Protection against Machine Gun and Sniper rifles ≥ 7.62 mm but less than 14.5 mm Ammunition: AP tungsten carbide and AP hard steel core Distance: 30 m Angle: azimuth 360°; elevation 0- 30°	2	Protection against Assault rifles, 7.62 mm and below Ammunition: AP steel core Distance: 30 m Angle: azimuth 360°; elevation 0-30°	1
		Blast Under the body/ Track (Mine Explosion/IED))	3	10 kg (explosive mass) Blast AT	3	8 kg (explosive mass) Blast AT	2	6 kg (explosive mass) Blast AT	1
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Horsepower	3	≥ 20HP/T	3	16 - 19 HP/T	2	≤15 HP/T	1

		/Tonnage							
		Operating	3	≥ 500 kms	3	401-499 kms	2	≤400 km	1
		range on paved							
		road							
		Amphibious	3	Float and Ford	3	Ford ≥1.5 m on	2	Ford < 1.5 m	1
2.	Mobility	ability		on the move		the move			
		Off road driving	3	Soft soil + 2.5	3	Soft soil + 2-	2	Hard surface +	1
		3	-	meter trench +	-	meter trench +		< 2 meter	
				>0.5 meter step		0.5 meter step		trench + < 0.5-	
				+ Satellite (local		+ Satellite		meter step +	
				area) cum		navigation		magnetic	
				Inertial		(local area)		compass / gyro-	
				Navigation		(rosar arsa)		based	
				System				navigation	
		Air	3	C-130 & Hel	3	C-130/ IL-76	2	C-17	1
		transportability	· ·	Underslung	· ·	0 100/ 12 10	_		•
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
. ,	Payload	No of Pax	3	10 or more	3	9	2	8 or less	1
3.	Capacity	including Crew	_				_		-
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		VHF/HF	3	≥ 1 VHF + 1 HF	3	≥ 1 VHF radio	2	≥1 VHF or 1 HF	1
		communication		radio set &		set &		radio set but	
				communication		communicatio		communication	
				feasible on the		n feasible on		not feasible on	
				move		the move		the move	
		Situational	3	Day + Thermal	3	Day + Thermal	2	Only Day	1
		Awareness		Imaging Sights		imaging sight		Sights for	
				for Driver,		for one crew		Driver,	
4.	Command			Commander &		member		Commander &	
	& Control			Gunner				Gunner (no	
								night vision)	
		Inter	3	Inter	3	Inter	2	No	1
		Communication	-	Communication	-	Communicatio	_	intercommunic	-
				between all		n between all		ation capability	
								ation capability	

commander	commander	
and	but not	
dismounted	between	
commanders	vehicle	
	commander	
	and	
	dismounted	
	commanders	



Breakdown of Proposed Capabilities and Corresponding Points Allocated (Wheel APC – Unarmed)

Ser	Parameter	Sub- Parameter	Highest Possible Point (HPP) per sub parameter	Measured sub parameter	Weighted Point allocated	Measured sub parameter	Weighted Point allocated	Measured sub parameter	Weighted Point allocated
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1 .	Protection	Ballistic 360/Kinetic Energy Threat	3	Protection against Heavy Machine Gun, 14.5 mm and above Ammunition: AP Distance: 200 m Angle: azimuth 360°; elevation 0°	3	Protection against Machine Gun and Sniper rifles ≥ 7.62 mm but less than 14.5 mm Ammunition: AP tungsten carbide and AP hard steel core Distance: 30 m Angle: azimuth 360°; elevation 0- 30°	2	Protection against Assault rifles, 7.62 mm and below Ammunition: AP steel core Distance: 30 m Angle: azimuth 360°; elevation 0-30°	1
		Blast Under the body/ Wheel (Mine Explosion/IED)	3	10 kg (explosive mass) Blast AT	3	8 kg (explosive mass) Blast AT	2	6 kg (explosive mass) Blast AT	1
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
		Horsepower /Tonnage	3	≥20HP/T	3	16 -19 HP/T	2	≤15 HP/T	1

2.	Mobility	Operating range on paved road	3	≥ 500 kms	3	401-499 kms	2	≤400 km	1
		Amphibious ability	3	Float and Ford on the move	3	Ford ≥1.5 m on the move	2	Ford < 1.5 m	1
		Off road driving	3	8 x 8	3	6 x 6	2	4 x4	1
		Air transportability	3	C-130 & Hel underslung	3	C-130/IL-76	2	C-17	1
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
3.	Payload Capacity	No of Pax including Crew	3	10 or more	3	9	2	8 or less	1
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
4.	Command & Control	VHF/HF communication	3	≥ 1 VHF + 1 HF radio set & communication feasible on the move	3	≥ 1 VHF radio set & communicatio n feasible on the move	2	≥ 1 VHF or 1 HF radio set but communication not feasible on the move	1
		Situational Awareness	3	Day + Thermal Imaging Sights for Driver and Commander.	3	Day + Thermal imaging sight for one crew member	2	Only Day Sights for Driver, Commander (no night vision)	1
		Inter Communication	3	Inter Communication between all crews and commander and dismounted commanders	3	Inter Communicatio n between all crews and commander but not between vehicle commander and dismounted commanders	2	No intercommunic ation capability	1



Abbreviations in use:

- 1. HP Horsepower.2
- 2. AT Anti Tank

The Highest Possible Point (HPP) per sub parameter is 3.
The total possible points for the sub parameters (3 x 11) = 33
Consequently, the classification would be as follows:

Class I = 23 – 33 points Class II = 11-22