CLASSIFICATION OF APC BASED ON CAPABILITY

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

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

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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.**

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

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						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	2	6 kg (explosive mass) Blast AT	1

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
2.	Mobility	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
		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	Soft soil + 2.5meter trench +> 0.5 meter step + satellite (local area) cum inertial navigation system	3	Soft soil + 2-meter trench + 0.5 meter step + satellite navigation (local area)	2	Hard surface + < 2 meter trench + < 0.5-meter step + magnetic compass / gyro-based navigation	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	Stabilized 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 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)
5.	Command & Control	VHF/HF communication	3	≥ 1 VHF + 1 HF radio set & communication feasible on the move plus	3	≥ 1 VHF radio set & communication 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, Commander & Gunner	3	Day + Thermal imaging sight for one crew member	2	Only Day Sights for Driver, Commander & Gunner (no night vision)	1
		Inter Communication	3	Inter Communication between all crews and commander and dismounted commanders	3	Inter Communication between all crews and commander but not between vehicle commander and dismounted commanders	2	No inter communication capability.	1

Breakdown of Proposed Capabilities and Corresponding Points Allocated (Wheel 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: 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)**
2.	Mobility	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
		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 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/hatches 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)**

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

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 – 39
Class II = 14 – 26
Class 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 range on paved road	3	≥ 500 kms	3	401-499 kms	2	≤400 km	1
2.	Mobility	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	Soft soil + 2.5 meter trench + >0.5 meter step + Satellite (local area) cum Inertial Navigation System	3	Soft soil + 2-meter trench + 0.5 meter step + Satellite navigation (local area)	2	Hard surface + < 2 meter trench + < 0.5-meter step + magnetic compass / gyro-based navigation	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)**
		VHF/HF communication	3	≥ 1 VHF + 1 HF radio set & communication feasible on the move	3	≥ 1 VHF radio set & communication feasible on the move	2	≥ 1 VHF or 1 HF radio set but communication not feasible on the move	1
4.	Command & Control	Situational Awareness	3	Day + Thermal Imaging Sights for Driver, Commander & Gunner	3	Day + Thermal imaging sight for one crew member	2	Only Day Sights for Driver, Commander & Gunner (no night vision)	1
		Inter Communication	3	Inter Communication between all crews and	3	Inter Communication between all crews and	2	No intercommunication capability	1

				commander and dismounted commanders		commander but not between 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 & communication 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 Communication between all crews and commander but not between vehicle commander and dismounted commanders	2	No intercommunication 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