The Cube Division:
A New Template for Armored Warfare?

by Michael McCabe

In a war against a peer adversary such as Russia or China, armored divisions will play a central role. The purpose of this article is to propose a new template for armored divisions in high-intensity mechanized warfare in the plains or desert.[1]

This design, hereafter referred to as the "cube division," is built from a binary template with two armored battalions forming a "binary regiment," two regiments forming a "square brigade," and two brigades forming a cube division: 2x2x2, or two-cubed.

The use of the binary template offers advantages compared to a three-battalion "triangle" template that are more advantageous to armored divisions than to infantry divisions, and this article will articulate how and why.

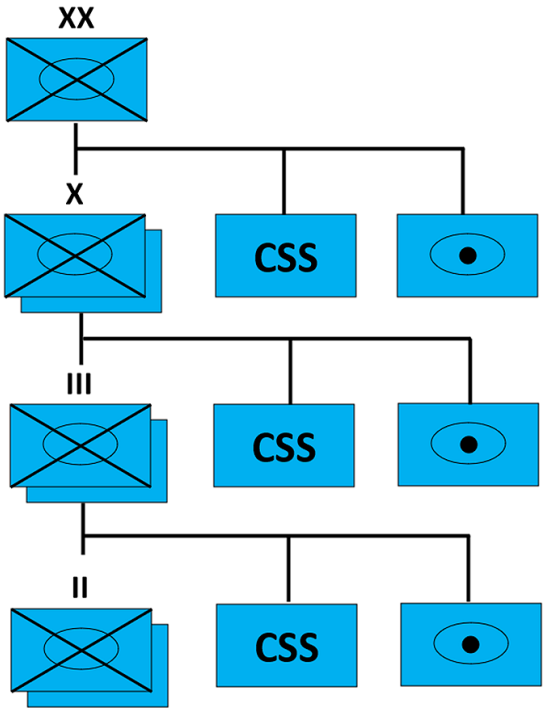

Figure 1. Organization chart of "cube" division.

Why the binary template?

The first question to be answered is: why is the binary template better for armored divisions than triangle templates? The answer is threefold: First, it is inherently more agile. Second, it puts more combat power at the brigade level compared to a triangle template, with four battalions per brigade rather than three. Third, it allows a higher ratio of support units without making the division oversized and bloated.

Agility

In an infantry brigade or division, the need for mobility must be balanced with static staying power. This is a difference in kind from armored divisions, which are more lopsided in favor of mobility.

On the open steppes of Eastern Europe or comparable desert terrain, mounted infantry has similar operational mobility to armor but must dismount to fight. On foot, an infantryman is capable of seizing a building or manning a trench but is nowhere near as tactically speedy or powerful as a main battle tank. In a featureless battlefield bereft

of infantry's usual choices for cover, tanks' speed and protection will become more critical, and battles will become more fluid.

This is not to discount the importance of infantry in an armored battle but merely to point out that they play a supporting role to tanks, a reversal of the Army's recent experiences in counterinsurgency. Battalions designed for conventional warfare against a peer opponent will resemble reinforced battalions, and this means the infantry "reinforcing" the armored battalion will be organic and permanent, as opposed to mixing pure infantry/pure armor battalions in a brigade and then blending them temporarily on a case-by-case basis.

With a binary template, a regimental commander has two reinforced maneuver battalions. While two battalions may seem weaker than three on the surface, they are inherently more responsive to changes and can reliably beat the enemy to the punch. Getting inside the enemy's observe-orient-decide-act loop will be crucial for armored divisions, as they cannot adopt Maginot tactics like infantry can.

Coordination and synchronization of a multi-battalion formation is necessary to prevent piecemeal actions, and the fewer subunits one has to manage, the better. Thus, a command level with more than one battalion, but still smaller than a brigade, will enable junior officers to seize fleeting opportunities with minimal staff work, while brigade commanders can focus on larger actions requiring greater amounts of staff work – all without either commander or operation becoming overwhelmed.

The brigade and division also benefit from this binary template, and the cube division uses it on all three levels. This consistency throughout all levels of command will smooth the path for officers rising through the ranks, something which will be indispensable should the officer corps suffer heavy casualties in a slugfest. Using an agile template at higher levels of command will also foster a culture of bold, aggressive action from all officers, and this will preserve the spirit of armored warfare and the armored division's *espirit de corps* in an age when the Army is largely dominated by infantry culture.

Greater brigade power

While a binary regiment has the tactical-agility advantage over a three-battalion regiment or brigade, the square brigade is larger and has more capacity to inflict and sustain damage than its three-battalion counterpart. In a future war involving armored divisions, most tank battles will be fought at the brigade level; the cube division emphasizes this command level over the others. The square brigade has more combat battalions than a triangular template and can therefore deliver heavier knockout blows, but it is divided into pairs for ease of management and command so as to not become unwieldy.

Should any peer conflict go nuclear, square brigades and binary regiments will furthermore be necessary for power projection without offering juicy targets for tactical nukes.

The four-battalion model is useful in both concentrated and dispersed actions. The American way of war is predicated on the assumption that our forces must fight outnumbered and win, especially when the enemy attempts to encircle us. To counter this, our military has traditionally relied on slashing attacks throughout the enemy's strategic depths rather than encirclements, and mechanized/tank warfare is no exception. An armored brigade would be capable of attacking and counterattacking in four locations at once with reinforced battalion-sized forces, or be able to use one regiment to screen a wide area and/or both flanks while the second concentrates for an attack.

Even when an armored brigade cannot blunt an enemy's thrust or destroy it, such dispersed counterattacks can still throw off the timing of the enemy's attacks and buy time for any units in danger of encirclement to escape the noose. Without the binary regiments, a four-battalion brigade would be slow and lumbering compared to a three-battalion opponent, but with the regimental commands, this brigade becomes both larger and quicker than a three-battalion brigade designed for semi-mobile, semi-static infantry warfare.

Higher ratio of support

Concurrent to smaller, more nimble and responsive multi-battalion formations, the cube division emphasizes combat support more than a triangle division does. Armored divisions have much larger support requirements than mechanized infantry in sustained combat, and thus copying infantry-support ratios is less than ideal. The cube

division offers an improvement – first by reducing the total number of combat battalions from nine to eight, and second, by increasing the number of organic support units.

The first improvement, reducing the number of battalions, makes the division smaller and therefore easier to transport and resupply. Since armored divisions consume more supplies per capita than infantry divisions, smaller, more nimble formations will consume less overall. Smaller two-battalion formations can recover more quickly than three-battalion formations and sustain the tempo of operations above what the enemy can sustain, granting a tactical advantage. Smaller armored divisions would also be easier to deploy strategically, and the ability to rapidly introduce armor to hotspots is desirable for readiness and deterrence.

The second advantage is tied directly into the binary regiments; their existence in the chain of command allows a third tier of command and support. Three tiers of command creates new slots for support but also allows modularity, mixing and matching.

For instance, medical support might be better suited for a regiment; transport for the brigade; and chemical, radiological, biological and nuclear units for division level. Engineering could be useful at more than one level, and so on. Instead of a binary "brigade/division" choice, it becomes an all-you-can-eat buffet. All three levels, however, would possess fuel-resupply trucks and armed escorts, plus self-propelled artillery. These are crucial because fuel consumption is a major concern for armored warfare, resupply will always be targeted, and towed artillery is as obsolete on a mechanized battlefield as black-powder muzzleloaders.

Dispersed, mobile, armored artillery will offset any quantitative artillery advantages enjoyed by the Russians and Chinese, and also provide a place for anti-weaponry (particularly against drones). By giving smaller units more organic support, the division can readily keep its widely dispersed regiments and brigades resupplied and supported at all times. These are not only beneficial for sustained high-tempo combined-arms warfare but also provide redundancy when the division sustains heavy losses.

Conclusion

While this essay has been fairly broad and brief in describing the cube division, the principles are consistent: armored warfare is not the same as infantry warfare, and armored divisions will benefit from stronger brigades, greater support and smaller overall size. Dispersal is critical in modern warfare, and the cube division is purpose-built for dispersed action.

Yet the cube division still avoids the pitfalls of the pentomic division, which emphasized dispersed strength too excessively and thus could not function without tactical nukes. The cube division's design is better suited to tanks than infantry's jack-of-all-trades approach and is an original, modern design for the 21st Century.

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Notes

[1] Infantry divisions would be best served by separating into light-heavy versions rather than a one-size-fits-all approach, with heavy infantry working alongside tanks and in urban combat; however, this is a whole essay unto itself and therefore omitted.

Acronym Quick-Scan

CSS – combat service support