

Review of the Authorised Sizes of Soviet Divisions and Brigades, from 22nd June to 31st December 1941

In Part IV 3 we have looked in detail at the TOEs (*Shtaty*) of the various combat units fielded by the Soviets from 22nd June to 31st December 1941. These were the maximum strengths authorised by the Soviet high commands for each unit type, although as we shall see later very few units actually reached their full TOE strength in 1941 (or for that matter at any time in WWII).

From Part I defining the general structure of the Fully or Partially Integrated Land and Air Resource Model (FILARM-PILARM), we are able to calculate the relative size of the Soviet divisions and brigades fielded in 1941.¹ In addition the Minimum Divisional Size (MDS) value is defined. This is essentially the minimum sized combat unit that can be reasonably called ‘divisional sized’ or a ‘division equivalent’ in 1941.² Applying the size equation and MDS value to Soviet combat units designated as divisions and brigades in 1941, we get the following results.

Soviet 1941 division and brigade 'size values' and '% of MDS values' - full TOE strengths of divisions and brigades in 1941

Division designated units, June 1941	Size-Full TOE*	% of MDS value
Soviet Rifle Division, April 1941	38480	135%
Soviet Mountain Rifle Division, June 1941	32655	114%
Soviet Tank Division, June 1941	51080	179%
Soviet Mechanised Division, June 1941	49185	172%
Soviet Motorised Rifle Division [^] , June 1941	43030	151%
Soviet Cavalry Divisions, June 1941	26580	93%
Soviet Mountain Cavalry Division, June 1941	14298	50%
Soviet NKVD Motorised Division, June 1941	20700	73%
Soviet NKVD Rail/Security Division, June 1941	12680	44%
Brigade designated units, June 1941		
Soviet Naval Infantry Brigade, June 1941	13940	49%
Soviet Airborne Brigade, June 1941	8020	28%
Soviet NKVD Security-Rifle Brigade, June 1941	4619	16%
Division designated units, post June 1941		
Soviet Rifle Division, 29 July 1941	23344	82%
Soviet Militia Rifle Division, July 1941	21820	76%
Moscow Militia Rifle Division, July-August 1941	20408	72%
Soviet Rifle Division, 6 December 1941	26672	93%
Soviet Tank Division, 10 July 1941	33236	116%
Soviet Cavalry Division, 6 July 1941	11005	39%
Soviet NKVD Rifle Division, 1941	16163	57%
Brigade designated units, post June 1941		
Soviet Rifle Brigade, 15 October 1941	9418	33%
Soviet Naval Rifle Brigade, 18 October 1941	9542	33%
Soviet Airborne Brigade, September 1941	5842	20%
Soviet Tank Brigade, 23 August 1941	10370	36%
Soviet Tank Brigade, 13 September 1941	8525	30%
Soviet Tank Brigade, 9 December 1941	5408	19%

* Based on full TOE and number of personnel in the TOE rounded to the nearest 100.

[^] With attached tank battalion

¹ Refer to Part I 10. – ‘Military Simulations, and the General Structure of the Integrated Land and Air Resource Model - A ‘Divisional Sized’ or ‘Division Equivalent’ Combat Unit in WWII’ for details on the equation used for calculating division ‘size’.

² Ibid. In the FILARM model the Minimum Divisional Size (MDS) value is set at 28 540.

The reader should always bear in mind when reviewing the table above that these figures are based on full strength units (the TOE). In reality none of the Red Army's rifle divisions were at full strength on the 22nd June 1941, many tank and mechanised divisions were in a deplorable or barely formed state, and very few units mobilised after June 1941 ever reached full strength. In later sections a similar analysis to the above will be carried out on the average actual strength of Soviet units Mobilised and Deployed (MD) in 1941.

Nonetheless the above table is still very instructive because it demonstrably illustrates the true size of the combat units in the pre-war Red Army as well those mobilised after June 1941. In conjunction with the individual units TOEs, there are several important conclusions which can be drawn from the analysis above.

Pre-war Divisions and Brigades

- The Red Army's pre-war divisions were generally large formations, easily meeting the criteria to be truly called divisions. The rifle divisions were intended to be large and well balanced formations with substantial rear area infrastructures and supporting heavy weapons. Unsurprisingly NKVD divisions were relatively small and were never intended for front line combat duties.
- The Red Army's pre-war tank and mechanised divisions were particularly large. However this was primarily due to the very large numbers of tanks authorised for tank and mechanised divisions: 375 and 275 tanks respectively. Unfortunately the supporting infrastructures and other heavy weapons in these divisions were relatively weak, particularly the tank divisions. Although large, the pre-war tank divisions were particularly tank heavy formations. By way of comparison the German 1941 panzer division's TOE called for only 182 tanks (including 10 Pz I engineer vehicles) and its size was approximately 194% of the MDS value. Therefore the panzer division was significantly larger than the pre-war tank division (at 179% of MDS) despite having fewer than half the tanks. The panzer division had far more supporting infrastructure, transport, reconnaissance units, AT units and motorised infantry than the Red Army's pre-war tank division: it was also large but for very different reasons.
- The Soviet pre-war cavalry divisions were relatively small. This was due to the small number of authorised personnel, and lack of heavy weapons such as artillery and AT guns. Note, pre-war cavalry and mountain cavalry divisions were only authorised 9 240 and 6 558 personnel respectively. So the reader doesn't simply dismiss the small size of the Soviet cavalry divisions as being in the nature of cavalry divisions, it should be borne in mind that these units were far smaller than the German 1st Cavalry Division and similar in size to the contemporary Rumanian and Hungarian cavalry brigades. Despite their small size the Soviet cavalry divisions were probably the most combat ready mobile formations available to the Red Army on 22nd June 1941. Their superior mobility (and their initial deployment), rather than their absolute strength, enabled them to survive longer than any other Red Army division type during Operation Barbarossa.
- The large majority of Soviet pre-war brigades were small units with the exception of the 1st Naval Infantry Brigade, which was a genuine brigade sized unit. Apart from airborne and NKVD security brigades, there were only five other special brigades in the Red Army on 22nd June 1941.³
- The 16 pre-war airborne brigades were small units and 3-4 of them can be considered a division equivalent. The brigades were small because they only had approximately 2 600 men each and lacked all types of heavy weapons. In fact an entire airborne corps (three brigades

³ These included special garrisons on Hango Peninsula and the Baltic islands Osel and Dago. In addition three were in the Far East which were disbanded almost immediately (in June 1941) to reinforce other Far East units.

and corps HQ assets) was barely the equivalent of the western concept of an airborne division, for example the German 7th Flieger Division in 1941.

Post-June 1941 divisions and brigades

- The only new type of division mobilised after June 1941 that can be reasonably called divisional sized (i.e. at least 100% of the Minimum Divisional Size (MDS) value) was the July tank divisions. These divisions were still authorised a large numbers of tanks (215 tanks each) but they generally suffered the same weaknesses as the larger pre-war tank divisions. Accordingly they didn't survive much longer in combat in 1941.
- The vast majority of new Red Army divisions mobilised after June 1941 were the various types of rifle divisions, and they were all relatively small formations. In particular they all suffered from lack of support infrastructure, transport, AT weapons, LMGs and medium to heavy artillery. Rifle divisions mobilised between June and December 1941 were authorised approximately 75% of the personnel, 41% of the LMGs, 33% of the AT guns, 82% of the light artillery (76mm) and only 18% of the medium to heavy artillery (122-152mm) in the pre-war rifle divisions. These huge reductions meant that the July 1941 and militia rifle divisions mobilised after Barbarossa commenced can barely be called divisions: even at full strength they were easily the smallest rifle-infantry 'divisions' being fielded by any major combatant at that time. Of particular note is the lack of AT and medium to heavy artillery: these divisions were authorised only 18 AT guns and eight 122mm howitzers each. When they were first formed, the militia rifle divisions were even less well equipped.
- Soviet cavalry divisions mobilised after June 1941 should not be called 'divisions' in any modern literature on WWII. These units completely fail in every regard to conform to any definition of a WWII division and are a source of misleadingness regarding Operation Barbarossa. This is because the number of cavalry 'divisions' fielded by the Red Army in 1941 is sometimes quoted as further evidence that the Wehrmacht could never have defeated such a large force by November-December 1941. The figure of 101 cavalry divisions is sometimes quoted of which all but 13 were mobilised after June 1941.⁴ In actuality not only were the 13 pre-war cavalry divisions only 50-93% of the MDS value, but far more importantly the remaining divisions were only 39% of the MDS value. This means that the 88 cavalry divisions mobilised after June 1941 were the equivalent of around 34 truly divisional sized combat units, even if all of them were at full strength. In addition only 50 of these divisions (the equivalent to only 20 divisional sized combat units) were actually Mobilised and Deployed (MD) in the west, and few if any were at full strength. The July 1941 cavalry division's TOE included only 4 143 men, six AT guns and 20 76mm artillery pieces: at most the equivalent of a cavalry brigade by any contemporary measure of a cavalry division.
- The Soviet rifle brigades mobilised after June 1941 were small units. In terms of size, at least three rifle brigades (including naval rifle) were the equivalent of a small divisional sized combat unit. However in terms of realistic combat power, 3-4 Soviet 1941 rifle brigades were the approximate equivalent one of the newly mobilised rifle divisions, mainly because rifle brigades completely lacked heavy weapons, support infrastructures and even rudimentary training. Up to five 1941 post-June 41 airborne brigades were the equivalent of a truly divisional sized combat unit (very few of the newly mobilised airborne brigades ever saw combat as airborne brigades). Like the cavalry divisions (above), the number of rifle brigades mobilised in 1941 is again sometimes used as evidence of the colossal nature of the Red Army in 1941. This is mainly the result of tallying two rifle brigades as the equivalent of a divisional

⁴ For example: D.M. Glantz, *Stumbling Colossus*, University Press of Kansas, Lawrence, Kansas, 1998, pp. 15 and 17. Glantz quotes 101 cavalry divisions fielded in 1941 and counts them as full divisional sized combat units. This includes 9 pre-war cavalry and 4 pre-war mountain cavalry divisions that existed on the 22nd June 1941.

sized combat unit.⁵ It is possible that this stems from the western conception of an infantry brigade. Whatever the reason the large majority of current literature on Barbarossa grossly overestimates the overall combat power of all Soviet brigade types mobilised in 1941. As an aside it is worth noting the October 1941 rifle brigade was authorised more men (4 356) than the July 1941 cavalry division (4 143). This is even further confirmation of the misleading nature of calling the latter units divisions and then counting them as divisional equivalents.

- Like the rifle brigades, the Red Army tank brigades mobilised in 1941 were small units. At most 3-4 of them can be considered the equivalent of a divisional sized combat unit. The only reason the August and September 1941 tank brigades had even this size was because they were authorised 93 (64 light) tanks and 67 (38 light) tanks respectively. In terms of personnel they were authorised only 1 943 and 1 789 men respectively: barely the equivalent of a western army's tank regiment with very little infrastructure support. By December 1941 the tank brigades were authorised only 46 (16 light) tanks and 1 099 men: the equivalent of a western tank battalion. On top of all this very few of these tank brigades ever reached their full tank or equipment strength, with the August-September 1941 tank brigades averaging around 50 tanks each. It is worth noting that the strongest Red Army tank brigade fielded in 1941 was only 20% of the size of a pre-war tank division, and by December 1941 this figure had shrunk to only 11%. It is simply absurd to count two Soviet 1941 tank brigades as equivalent to any type of divisional sized combat unit. In terms of strength, a reasonably well equipped July 1941 tank division was still around 4-5 times stronger than a typical 1941 tank brigade.

⁵ For example, D.M. Glantz, *Stumbling Colossus*, University Press of Kansas, Lawrence, Kansas 1998, pp. 15 and 17, Glantz quotes 174 rifle brigades and 93 tank brigades as being mobilised from June to December 1941, and goes on to total this force as equivalent to 133 divisional sized formations. Glantz does place these in context by stating that the mobilised strength of these 'divisions' was roughly half that of their German counterparts.