

Table Sov Res Database 1

Created by Nigel Askey, 12/08/2008

Soviet Non-Mobile Weapon Systems and Squads (Stationary, Towed, or Carried Weapons and Squads)

Light Infantry Weapons name/designation	Data Base Designation	Rate of Fire	No of Potential Targets per Strike	Relative Incap Effect	Range factors (Max Effective Range or MV based)			Accuracy	Reliability	Self Propelled Art Factor	Multi Barrelled Effect	Typical Target Dispersion Factor	WCPC all main weapons	Tactical Responsiveness Factor	Battlefield Weapons, Time into action in minutes	Fire Control Effect	Concealment/Protection factor	Defensive Dispersion factor	Attack & Defence			
		RF	PTS	Projectile Mass Kg	RIE	RN (range)	Eff Range metres	RN (MV)	Muzzle Vel m/s	Calibre mm	A	RL	SPA	MBE	TDI	W	FCE	CPF	DDF	OCPC		
Light Machine Gun, DP 1928.	LMG	2200	1	0.012	0.8	2.1	1300	1.6	838	7.62	0.70	0.90	1	1	2000	1.04	3.23	0.20	1.00	2.00	1.00	5.37
Medium Machine Gun, Maxim 1910.	MMG	4213	1	0.012	0.8	2.6	2700	1.6	853	7.62	0.81	0.92	1	1	2000	2.70	2.57	0.40	1.00	1.70	1.00	8.63
Mosin-Nagant, M1930G (7.62mm Bolt Action Rifle)		300	1	0.012	0.8	2.4	2000	1.6	811	7.62	0.90	0.96	1	1	2000	0.21						
Sub Machine Gun, PPSH-1941G.		2800	1	0.012	0.7	1.5	300	0.9	488	7.62	0.25	0.80	1	1	2000	0.24						
Revolver, Nagant Model 1895.		600	1	0.012	0.6	1.4	150	0.6	305	7.62	0.20	0.94	1	1	2000	0.03						
Grenade, Model 1914/30 (Stick Hand Grenade)*		10	250	0.595	1	1.2	30		10		0.15	0.82	1	1	1500	0.24						
Fragmentation Grenade F-1, (Egg Hand Grenade)**		10	170	0.566	1	1.2	40		10		0.15	0.85	1	1	1500	0.17						
Light Infantry Weapon Equipped Squads																						
11-12 man Sqd with DP 1928 LMG	Rifle Sqd															3.79	3.00	0.25	1.00	4.00	5.00	31.38
11-12 man Sqd with no LMG	L Rifle Sqd															2.96	3.00	0.25	1.00	4.00	5.00	28.87
11 man Sqd, all with sub machine guns	Rifle Sqd (SMG)															3.17	3.00	0.25	1.00	4.00	5.00	29.50
12 man Mounted Sqd and DP 1928 LMG	Cav Sqd															3.74	2.57	0.40	1.00	2.50	4.00	19.60
8 man Motorcycle Sqd and DP 1928 LMG	Motor Cycle Sqd															2.84	2.57	0.40	1.00	2.50	4.50	18.50
2x9 man Eng Squds with no lmg/10 man Flame Squad	Light Eng Sqd															4.65	2.39	0.50	1.00	3.80	5.00	30.12
5 man Bridging Eng Sqd with no LMG	Ferry Br Sqd															1.27	2.39	0.50	1.00	3.00	2.50	10.54
5 man NKVD Sqd with no LMG	MP Sqd															1.38	2.83	0.30	1.00	3.00	2.50	11.41
10 man Militia/Construction Sqd with no LMG.	Irregular Squds															2.18	2.25	0.60	1.00	4.00	5.00	24.91
5 man Rail Construction/Repair Sqd with no LMG	Rail Repair Sqd															1.07	1.97	0.90	1.00	3.00	2.50	9.60
Heavy Infantry Weapons name/designation																						
PTRD 1941, (14.5mm Anti Tank Rifle)	AT Rifles	180	3	0.04	1.00	2.6	2500	2.7	1006	14.50	0.92	0.93	1	1	2000	0.61	1.90	1.00	1.00	2.90	1.00	4.05
50mm Mortar, M1941.	50mm Mor	232	175	0.68	1.00	1.9	800	0.4	80	50	0.48	0.80	1	1	4000	4.06	1.79	1.20	1.00	2.00	1.00	9.98
82mm Mortar, M1941.	82mm Mor	168	532	3.36	1.00	2.8	3100	1.3	210	82	0.50	0.80	1	1	4000	18	1.26	3.50	1.00	1.20	1.00	24.24
120mm Mortar, M1938.	120mm Mor	114	1330	15.42	1.00	3.5	6049	2.2	283	120	0.52	0.78	1	1	4000	43	0.96	8.00	1.00	1.01	1.00	42.55
107mm Mortar, M1938.	107mm Mtn Mor	131	1005	9.40	1.00	3.1	4500	1.7	240	107	0.50	0.78	1	1	4000	31	0.96	8.00	1.00	1.10	1.00	30.98
76.2mm M1927/39 Regimental Gun	76mm Inf Gun	148	640	6.23	1.00	3.9	8550	2.4	387	76.2	0.65	0.80	1	1	3000	52	1.02	6.50	0.76	1.05	1.00	41.07
45mm M1937 Anti Tank Gun	45mm ATG	203	208	2.14	1.00		1500	3.6	760	45	0.76	0.94	1	1	3000	36	1.05	6.00	0.76	1.07	1.00	29.71
57mm M1941 Anti Tank Gun**	57mm ATG	180	325	3.75	1.00		2000	5.2	990	57	0.70	0.70	1	1	3000	50	0.96	8.00	0.85	0.99	1.00	41.78

Soviet Non-Mobile Weapon Systems and Squads (Stationary, Towed, or Carried Weapons and Squads)

Artillery Weapons name/designation****	Data Base Designation	Rate of Fire	No of Potential Targets per Strike	Relative Incap Effect	Range factors (Max Effective Range or MV based)			Accuracy	Reliability	Self Propelled Art Factor	Multi Barrelled Effect	Typical Target Dispersion Factor	WCPC all main weapons	Tactical Responsiveness Factor	Battlefield Weapons, Time into action in minutes	Fire Control Effect	Concealment/Protection factor	Defensive Dispersion factor	Attack & Defence			
		RF	PTS	Projectile Mass Kg	RIE	RN (range)	Eff Range metres	RN (MV)	Muzzle Vel m/s	Calibre mm	A	RL	SPA	MBE	TDI	W	FCE	CPF	DDF	OCPC		
76.2mm M1939 (F22-USV) Gun**	76mm Gun	148	640	6.23	1.00	4.6	13290		0.84	0.90	1	1	1	4000	83	0.59	35.00	1.00	0.98	1.00	50.05	
76.2mm M1938 Mountain Gun	76mm Mtn Guns	148	640	6.23	1.00	3.9	8600		0.65	0.85	1	1	1	3000	69	0.59	35.00	0.76	1.05	1.00	31.81	
152mm M1909/30 Howitzer**	152mm How	62	3220	40.00	1.00	4.1	9854		0.78	0.80	1	1	1	4000	129	0.52	50.00	1.00	0.90	1.00	67.30	
122mm M1910/30 Howitzer**	122mm How	93	1975	21.76	1.00	4.0	8940		0.75	0.80	1	1	1	4000	110	0.54	45.00	1.00	0.94	1.00	60.93	
122mm M1931 (A-19) Gun	122mm Gun	93	1975	25.00	1.00	5.6	20800		0.95	0.90	1	1	1	4000	218	0.49	60.00	1.00	0.83	1.00	107.80	
107mm M1910/30 Gun	107mm Gun	109	1435	17.20	1.00	5.0	16350		0.92	0.86	1	1	1	4000	156	0.52	50.00	1.00	0.87	1.00	82.01	
152mm M1937 (ML-20) Gun-Howitzer	152mm Gun/How	62	3220	43.56	1.00	5.2	17265		0.95	0.90	1	1	1	4000	220	0.49	60.00	1.00	0.83	1.00	108.62	
203mm M1931BM (B-4) Howitzer	203mm How	31	5620	98.75	1.00	5.2	18025		0.90	0.85	1	1	1	4000	175	0.42	100.00	1.00	0.79	1.00	74.20	
280mm M1939 (BR-5) Mortar**	280mm Mor	18	6800	246.00	1.00	4.3	10650		0.82	0.85	1	1	1	4000	91	0.40	110.00	1.00	0.78	1.00	37.15	
152mm Kanet Guns**	Coastal Guns**	62	3220	43.56	1.00	4.9	15000		0.90	0.80	1	1	1	4000	175	0.49	60.00	0.76	3.00	1.00	68.21	
356mm Naval Rail Guns, (TM-1-14).	356mm Rail Guns	12	7671	700.00	1.00	6.0	25000		0.95	0.86	1	1	1	4000	113	0.43	90.00	1.00	0.51	1.00	49.02	
305mm/40 Naval Rail Guns, (TM-2-12 or TM -3-12)	305mm Rail Guns	16	7100	470.00	1.00	5.6	21000		0.94	0.86	1	1	1	4000	128	0.43	90.00	1.00	0.55	1.00	55.66	
180mm Rail Gun, (TM-1-180)	130-203mm R Guns	39	4600	80.00	1.00	5.4	19000		0.92	0.86	1	1	1	4000	190	0.54	45.00	1.00	0.63	1.00	103.32	
305mm M1915 Howitzers	305mm How	16	7100	330.00	1.00	4.2	10000		0.81	0.80	1	1	1	4000	77	0.40	110.00	1.00	0.65	1.00	31.29	
210mm M1939 (BR-17) Gun	210mm Gun	28	5850	133.00	1.00	6.4	29360		0.95	0.78	1	1	1	4000	195	0.37	140.00	1.00	0.58	1.00	72.64	
305mm M1939 (BR-18) Gun-Howitzer	305mm Gun	16	7100	330.00	1.00	5.1	16580		0.90	0.82	1	1	1	4000	106	0.37	145.00	1.00	0.57	1.00	39.90	
Rocket Artillery Weapons name/des***																						
BM-8-36, 82mm rocket launcher.	BM8	61	208	0.50	1.00	3.4	5900		0.55	0.81	1	1	4.18	4000	20	1.00	7.00	1.00	0.95	1.00	21.27	
BM-13-16, 132mm rocket launcher	BM13	24	1975	4.90	1.00	3.9	8470		0.59	0.81	1	1	3.82	4000	85	0.89	10.00	1.00	0.92	1.00	76.21	
Anti Aircraft Weapons name/designation																						
DShK 1938 12.7mm HMG/AAMG	12.7mm AAMG	3511	1.2	0.023	1.00	2.8	3200	2.2	884	12.7	0.83	0.90	1	1	2000	3.93	2.57	0.40	1.00	1.65	1.00	11.75
Maxim 1910 7.62mm MMG X 4, Quad AAMG.	Quad MMG	4213	1	0.012	0.80	2.6	2700	1.6	853	7.62	0.81	0.92	1	2.08	2000	5.61	2.39	0.50	1.00	1.10	1.00	14.50
37mm M1939 (61-K) Anti Aircraft Gun.	25/37/40mm AAG	314	148	0.72	1.00		2000	3.7	880	37	0.89	0.94	1	1	3000	48	0.96	8.00	0.85	0.94	1.00	40.51
85mm M1939 Anti Aircraft Gun**	76/85mm AAG	163	832	9.20	1.00		3000	5.2	800	85	0.94	0.95	1	1	3000	209	0.92	9.00	0.85	0.85	1.00	164.03

* Assumes a PTS factor equivalent to a 50mm HE round. The RF factor is the number normally carried by a typical Rifle Squad.

** Assumes a PTS factor equivalent to a 40mm HE round. The RF factor is the number normally carried by a typical Rifle Squad. Note the F-1 was a defensive grenade, i.e. smaller explosive filling and better fragmentation causing design, (heavy casing).

** Only 320 of these guns were produced in 1941 before production stopped. The 1941 production gun had major technical problems relating to accuracy and shot stability, mainly due to barrel rifling problems/errors during design and manufacture.

*** In this case the Relative Anti Armour Value (AT) is multiplied by the gun Accuracy Factor (A).

**** In 1941 the Soviets also had very large numbers of 76mm M1902/30, 76mm M1933 and 76mm M1936 (F-22) cannon in service in 1941. The 76mm M1942 (ZIS-3) cannon entered service in February 1942. They all fired a 6.23Kg HE round, and had a maximum practical range of 13200-13600m. Note however the 76mm M1902/30 were heavy, only partially modernised, and old Tsarist guns. These guns were generally unsuited to motorisation, longer into action, less reliable, less accurate and harder to conceal. The 76.2mm M1939 Cannon could penetrate 49mm of 30deg armour at 1000m with APHE ammunition. Using an FCE factor of 0.76 this gives it an AT value of 5 when used as an AT gun.

**** In 1941 the Soviets also had the old 152mm M1910/37 Howitzer and the very good new 152mm M1938 (M-10) Howitzer in service as Divisional Artillery. However the majority available through 1941 were 152mm M1909/30 Howitzers (refer text for full discussion on this).

**** The 152mm M1910/37 had lower weight and range than the 152mm M1909/30. The new 152mm M1938 (M-10) weighed 1425 Kg more, and had an additional range of 2540 meters over the 152mm M1909/30.

**** In 1941 the Soviets also had the old 122mm M1909/37 Howitzer and the new 122mm M1938 (M-30) Howitzer in service as Divisional Artillery. However the vast majority available throughout 1941 were the old 122mm Howitzers (refer text for full discussion on this).

**** In 1941 the Soviets also had considerable numbers of the old and less effective 280mm M1914/15 Mortar in service.

**** Coastal Defence Batteries were usually in fixed emplacements in fortifications. Typical Guns include:- 100 mm B24 Guns,