

Operation Barbarossa: the Complete Organisational and Statistical Analysis, and Military Simulation

Volume IIIA

The Soviet Armed Forces, Mobilisation and War Economy from June to December 1941

Table of Contents

Introduction

1. **Overview of the Structure and Terms Used in the Soviet Fully Integrated Land and Air Resource Model (FILARM)**
2. **The Soviet Personnel and Equipment Resource Database**
 - 1) Soviet Light Infantry Weapons
 - a. Machine Guns
 - b. Small Arms
 - 2) Soviet Squads Equipped with Light Infantry Weapons
 - 3) Heavy Infantry Weapons
 - a. Anti-Tank Rifles
 - b. Anti-Tank Guns (AT Guns)
 - c. Mortars
 - d. Infantry Guns
 - 4) Artillery Weapons
 - a. Light Divisional Artillery (75-105mm Guns, Howitzers, Gun-Howitzers)
 - b. Medium to Heavy Divisional Artillery (122-155mm Howitzers)
 - c. Heavy Corps Artillery (100-152mm Guns-Cannons)
 - d. Super Heavy Corps Artillery (200-305mm Guns, Howitzers and Mortars)
 - e. Railway and Coastal Artillery
 - f. Rocket Artillery
 - 5) Anti-Aircraft Weapons
 - a. Anti-Aircraft Machine Guns (AAMGs)
 - b. Light to Medium AA guns (20-40mm)
 - c. Heavy AA guns (75-105mm)
 - 6) Tanks
 - a. T-27 Tankette
 - b. T-37 Amphibious Tankette
 - c. T-38 Amphibious Tankette
 - d. T-40 Amphibious Tankette
 - e. T-26 Light Tank
 - i. The T-26 and Fire Control Efficiency
 - f. T-50 Light Tank
 - g. T-60 Light Tank
 - h. BT-2 and BT-5 Fast Tanks
 - i. BT-7 Fast Tank
 - j. T-28 Medium Tank
 - k. T-34 Medium Tank
 - i. The T34 in WWII: the Legend vs. the Performance
 - l. T-35 Heavy Tank
 - m. KV-1 Heavy Tank
 - i. KV-1 Shortcomings during 1941-42
 - n. KV-2 Heavy Tank
 - 7) Armoured Cars
 - a. Light and Medium Armoured Cars
 - i. BA-27 and BA-27M Medium Armoured Car
 - ii. D-8 and D-12 Light Armoured Cars

- iii. D-13 Medium Armoured Car
- iv. FAI and FAI-M Light Armoured Car
- v. BA-20 and BA-20M Light Armoured Cars
- b. Heavy Armoured Cars
 - i. BAI Heavy Armoured Car
 - ii. BA-3 Heavy Armoured Car
 - iii. BA-6 and BA-6M Heavy Armoured Cars
 - iv. BA-10 and BA-10M Heavy Armoured Cars
- c. The Dearth of Soviet Wheeled and Semi-Trackled AFVs, and its Effect on the Success of ‘Deep Battle’
- 8) Armoured Trains
- 9) Transport and Prime Movers
 - a. Horse Teams
 - b. Trucks
 - i. *Gorkovskiy Avtomobilny Zavod (GAZ)*
 - ii. *Zavod Imeni Stalina (ZIS)*
 - iii. *Yaroslavskiy Auto Zavod (YaAZ)*
 - iv. Soviet Motor Vehicle production from 1941 to 1945, and the Effects of Lend Lease
 - v. Trucks in the Soviet FILARM Model
 - c. Light Transports
 - i. GAZ-A
 - ii. GAZ-M1 and GAZ-415
 - iii. GAZ-11
 - iv. GAZ-61
 - v. GAZ-64
 - vi. ZIS-101 and ZIS-101A
 - vii. KIM-10
 - viii. Light Transports in the Soviet FILARM Model
 - d. Tractors (Prime Movers)
 - i. T-27 Tankette, Light Tractor
 - ii. T-20 Komsomolets, Light Armoured Tractor
 - iii. *Chelyabinskiy Traktorny Zavod (ChTZ)*
 - iv. ChTZ S-60 Medium-Heavy Tractor Stalinets
 - v. ChTZ S-65 Heavy Tractor Stalinets
 - vi. S-2 High Speed Heavy Tractor Stalinets
 - vii. *Stalingradskiy Traktorny Zavod (STZ)*
 - viii. *Kharkovskiy Traktorny Zavod (KhTZ)*
 - ix. STZ-3 Medium Tractor
 - x. STZ-5 High Speed Medium Tractor
 - xi. *Kharkovskiy Parovoznyi Zavod (KhPZ)*
 - xii. *Kommunar* Medium Tractor
 - xiii. *Komintern* Medium-Heavy Tractor
 - xiv. *Voroshilovets* Heavy Tractor
 - xv. Soviet Halftrack Vehicles
 - xvi. ZIS-22 and ZIS-22M Halftracks
 - xvii. GAZ-60 Halftrack
 - xviii. ZIS-33 Halftrack
 - xix. Tractors in the Soviet FILARM Model
- 10) Fighter Aircraft
 - a. Polikarpov I-16
 - b. Curtiss P-40
- 11) Fighter Bomber Aircraft
 - a. Polikarpov I-153, I-15bis and I-15
 - b. Yakovlev Yak-1
 - c. Lavochkin LaGG-3
 - d. Mikoyan-Gurevich MiG-1 and MiG-3
 - e. Petlyakov Pe-3bis
 - f. Hawker Hurricane IIB
- 12) Ground Attack and Close Support Aircraft
 - a. Ilyushin Il-2
 - b. Sukhoi SU-2
 - c. Arkangelskiy Ar-2
- 13) Bomber Aircraft
 - a. Tupolev SB-2
 - b. Ilyushin DB-3/Il-4

- c. Petlyakov Pe-2
 - d. Tupolev TB-3
 - e. Petlyakov Pe-8/TB-7
 - f. Yakovlev Yak-2/Yak-4
- 14) Short Range Reconnaissance, Army Cooperation and Support Aircraft
- a. Polikarpov R-5
 - b. Polikarpov R-Z
 - c. Nyeman R-10
 - d. Polikarpov U-2/Po-2
- 15) Coastal Aviation, Patrol and Anti-Ship Aircraft
- a. Beriev MBR-2/Be-2

3. The Tables of Organisation and Equipment (TOE) for Soviet Land Combat Units from 22nd June to 31st December 1941

- 1) Red Army Rifle Units
- a. Rifle Divisions, 5th April 1941
 - b. Rifle Divisions, 29th July 1941
 - c. Rifle Divisions, 6th December 1941
 - d. Rifle Brigades, 22nd June 1941
 - e. Rifle Brigades, 15th October 1941
 - f. Ski Battalions, 1941
- 2) Red Army Armoured, Mechanised and Motorised Units
- a. A Brief History of Soviet Pre-War Mechanised Forces
 - b. Tank Divisions, 22nd June 1941
 - i. Soviet Tank Division TOE vs German Panzer Division TOE, June 1941
 - ii. The Soviet 1941 Tank Division and its failure in 'Deep Battle'
 - c. Tank Divisions, 10th July 1941
 - d. Tank Brigades, 1941
 - e. Mechanised Divisions, 22nd June 1941
 - f. Motorised Divisions, 22nd June 1941
 - g. Motorcycle Regiments, June 1941
- 3) Red Army Cavalry Units
- a. A Brief History of Soviet Pre-War Cavalry Forces
 - b. Cavalry Divisions 22nd June 1941
 - c. Mountain Cavalry Divisions, 22nd June 1941
 - d. Cavalry Divisions, 6th July 1941
- 4) Red Army Mountain Units
- a. A Brief History of Soviet Pre-War Mountain Forces
 - b. Mountain Rifle Divisions, 22nd June 1941
- 5) Red Army Airborne Units
- a. A Brief History of Soviet Pre-War Airborne Forces
 - b. Soviet Airborne Brigades, April 1941
 - c. Soviet Airborne Brigades, September 1941
- 6) Soviet Naval Ground Combat Units
- a. Soviet Naval Infantry Brigades, 22nd June 1941
 - b. Soviet Naval Rifle Brigades, 18th October 1941
- 7) NKVD Combat Units
- a. NKVD Border Guard Forces
 - i. NKVD Border Guard Detachments/Units, 22nd June 1941
 - ii. NKVD Border Regiments, Post 22nd June 1941
 - b. NKVD Internal Guard Forces
 - i. NKVD Rail Security Divisions and Regiments, 22nd June 1941
 - ii. NKVD Security or Rifle Brigade
 - iii. NKVD Armoured Trains
 - c. NKVD Tactical Forces
 - i. NKVD Motorised Divisions, 1941
 - ii. NKVD Rifle Divisions, 1941
- 8) Soviet Militia Units
- a. Militia Rifle Divisions, 1941
 - b. Moscow Militia Rifle Divisions, 1941
 - c. Militia Fighter Battalions

- 9) Red Army Corps, Army and Front Level Units
 - a. Red Army Corps and Army Level Artillery Units
 - i. Corps Artillery Regiments
 - ii. RVGK Cannon and Howitzer Regiments
 - iii. RVGK Super Heavy Howitzer Regiments, (BM)
 - iv. RVGK High Power Artillery Battalions, (OM)
 - v. RVGK Mortar Battalions
 - vi. RVGK (Army) Artillery Regiments, September 1941
 - vii. RVGK Rocket Artillery Regiments and Battalions
 - b. Red Army Corps and Army Level Anti-Tank Units
 - i. RVGK Anti-Tank Brigades, April 1941
 - ii. Anti-Tank Regiments, July-November 1941
 - c. Red Army Corps and Army Level Anti-Aircraft Units
 - i. Army Anti-Aircraft Battalions
 - d. Red Army Corps and Army Level Engineer Units
 - i. Engineering Regiments and Battalions, June 1941
 - ii. Pontoon Bridge Regiments and Battalions, June 1941
 - iii. Army Construction Battalions
 - e. Soviet Headquarter (HQ) Units
 - i. Rifle Corps HQs
 - ii. Mechanised Corps HQs
 - iii. Cavalry Corps HQs
 - iv. Airborne Corps HQs
 - v. Army HQs
 - vi. Front HQs
 - vii. PVO Air Defence Corps HQs
 - 10) Soviet Strategic Defence Ground Forces
 - a. PVO-strany, National Air Defence Ground Units
 - b. Fortified Sectors or Regions
 - c. Coastal Artillery
 - 11) Railroad Artillery and Armoured Trains
 - a. Railroad Artillery
 - b. Armoured Trains
 - 12) Review of the Authorised Sizes of Soviet Divisions and Brigades, from 22nd June to 31st December 1941
 - a. Pre-war Divisions and Brigades
 - b. Post-June 1941 divisions and brigades
- 4. The Order of Battle (OOB) of Soviet Land Combat Units on 22nd June 1941**
 - 5. The Transfer Schedule of Soviet Land Combat Units, which were a Deployed (D) State, to the USSR's Western Fronts from 23rd June to 31st December 1941**
 - 1) The Siberian Divisions
 - 6. The Actual Strength of all Soviet Land Combat Units in a Deployed (D) State on 22nd June 1941**
 - 1) Review of the Overall Strengths of Selected Red Army Units and PVO forces on 22nd June 1941
 - a. The Rifle Divisions
 - b. The Mechanised Corps
 - c. The AT Brigades
 - d. The Fortified Sectors
 - e. The PVO Ground Forces
 - 2) The Leningrad Military District (Northern Front from 24th June 1941)
 - a. Rifle Divisions
 - b. 1st Mechanised Corps
 - c. 10th Mechanised Corps
 - d. The Hango Peninsula Garrison
 - e. Leningrad Military District, Front, Army and Corps Support Units
 - f. Total Manpower and Equipment in the Leningrad Military District, 22nd June 1941
 - 3) The Baltic Special Military District (Northwestern Front from 22nd June 1941)
 - a. Rifle Divisions
 - b. NKVD Rifle Divisions

- c. 5th Airborne Corps
 - d. 3rd Mechanised Corps
 - e. 12th Mechanised Corps
 - f. Garrisons on the Islands of Oesel (Saaremaa) and Dago (Hiiumaa)
 - g. Baltic Special Military District, Front, Army and Corps Support Units
 - h. Total Manpower and Equipment in the Baltic Special Military District, 22nd June 1941
- 4) The Western Special Military District (Western Front from 22nd June 1941)
- a. Rifle Divisions
 - b. 4th Airborne Corps
 - c. 6th Cavalry Corps
 - d. 6th Mechanised Corps
 - e. 11th Mechanised Corps
 - f. 13th Mechanised Corps
 - g. 14th Mechanised Corps
 - h. 17th Mechanised Corps
 - i. 20th Mechanised Corps
 - j. Western Special Military District, Front, Army and Corps Support Units
 - k. Total Manpower and Equipment in the Western Special Military District, 22nd June 1941
- 5) The Kiev Special Military District (Southwestern Front from 22nd June 1941)
- a. Rifle Divisions
 - b. Mountain Rifle Divisions
 - c. 1st Airborne Corps
 - d. 5th Cavalry Corps
 - e. 4th Mechanised Corps
 - f. 8th Mechanised Corps
 - g. 9th Mechanised Corps
 - h. 15th Mechanised Corps
 - i. 16th Mechanised Corps
 - j. 19th Mechanised Corps
 - k. 22nd Mechanised Corps
 - l. 24th Mechanised Corps
 - m. Kiev Special Military District, Front, Army and Corps Support Units
 - n. Total Manpower and Equipment in the Kiev Special Military District, 22nd June 1941
- 6) The Odessa Military District (Including the 9th Separate Army)
- a. Rifle Divisions
 - b. Mountain Rifle Divisions
 - c. 3rd Airborne Corps
 - d. Cavalry Divisions
 - e. 2nd Mechanised Corps
 - f. 18th Mechanised Corps
 - g. Odessa Military District, Front, Army and Corps Support Units
 - h. Total Manpower and Equipment in the Odessa Military District, 22nd June 1941

TOC Volume IIIA (Draft)