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Doctrine and Command Channels for Artillery

1. The "Artillery Manual" issued by Supreme Artillery Academy (Vysshaya Artilleriskaya Akademiya), Moscow, 1949, pre-
scribes tactics and techniques for artillery. 50X1
2. [redacted] artillery units from battery
up, are placed under the command of the tactical troops which
they support. 50X1
 - (a) An artillery battery may be placed under an infantry
battalion or regiment as necessity demands
 - (b) An artillery battalion may be placed under an infantry
regiment or division

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- (c) An artillery regiment may be placed under an infantry division
- (d) In all cases, the CO of the tactical troops becomes the CO of the combined forces
3. In combat the next higher command above an artillery division would be corps or army. A separate artillery regiment in combat may be subordinated to an infantry division.
4. Artillery firing positions are selected and occupied according to terrain and are based on air and/or ground reconnaissance of possible enemy target locations. For example, AT guns are placed to cover only that terrain which is suitable for operation of tanks.
5. My experience in peacetime moves and instruction in NCO school indicates that the roads used by Soviet artillery are always secondary, cross-country roads, through forests and mountainous terrain, with a grade up to 30 degrees. [redacted] The routes are reconnoitered by reconnaissance men (razvedchiki). The march order of a battalion is as follows: reconnaissance men, battalion headquarters and then gun batteries (the latter are always on the alert). Supply vehicles and guns are towed by Studebaker prime movers and travel in column at an interval of 30 meters between vehicles. Vehicles travel at maximum possible speed (up to 60 kmas depending on terrain). [redacted] A chemical officer is with battalion headquarters, and is alert for possible gas attacks. EM (usually ammo carriers) are selected to guide traffic. If the column encounters impassable ditches or streams, the artillery men, themselves, and not the engineers, build rafts or makeshift bridges from trees.
6. Light artillery 57, 76 and 85 mm are in the front lines with tanks and infantry, both in offense and defense, in support of an attack, withdrawal or defense. Heavy artillery of 152 and 300 mm, mortars and rocket launchers are two to six kms behind the front line troops, and displace forward in conjunction with them. [redacted]
7. One gun of a battery will, before combat, fire three to four rounds to zero on a potential target and subsequently note the reference points. When the actual target is sighted, the command is given according to these reference points.

Example:

Rubezh (Terrain Line) 4
 Pritzel (Sight Marking) 30

All other guns of the battery close on the base weapon and fire is opened on the target.

8. Considerable detail is devoted to aerial survey and ground reconnaissance, but only high ranking officers know the exact technique, the time required to accomplish and the personnel who perform such surveys.

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9. [redacted] special firing charts in each battery show how to allow for wind, rain and other weather conditions. [redacted]
10. Only one gun of a battery unit will register on a target. The other guns will compensate by adding so many mills to the left or right, as the case may be.
11. Hostile batteries and mortars are located by aircraft, observers and reconnaissance patrols, and by plotting the trajectory of enemy shells. This information is then used to conduct counter-battery and counter-mortar missions. NCO's are not well informed on exact details.
12. [redacted] Soviet artillery employs direct fire, (priyamaya navodka) whenever possible. During the latter part of World War II (1944 & 45), the Soviets found direct fire to be the most effective, and at present very little training is devoted to firing from position defilade.
13. Soviet tank guns and light artillery are used as supplemental artillery, in that they are always employed as direct support weapons.
14. In combat imitation guns are set up, partly camouflaged, while the real batteries are heavily camouflaged. [redacted]
- [redacted] Soviet artillery will zero on a given point and open fire only when hostile units are actually within the target area. In connection with this subject, an actual battle film of the war in Korea was shown to Soviet artillery troops in the fall of 1951. In the film a US gun battery fired a harassing mission. After the battery moved on, the North Koreans came out of concealment and continued their march. Soviet officers and EM laughed at this because it was contrary to Soviet practice. Soviet artillery would not have moved on until the assigned mission (which would have been to wipe out the concealed North Koreans) had been accomplished. If the conditions permit, reinforcing artillery will move into position areas the night before a contemplated attack, so as to have time for observation and camouflaging. (Including rocket artillery and mortars.) Artillery commences firing about one-half hour prior to an attack. Besides artillery, mortars, AT guns and rocket launchers are employed in pre-attack fire. [redacted] the tactical air effort is coordinated with that of the artillery, prior to an attack, but can give no definite data.

Fire Control Procedures

15. The manual mentioned in 1., above, governs methods and techniques of adjustment and control of fire.
16. The division artillery officer of the CO of a tank, rifle or mechanized division, or of an artillery unit of regimental size, decides what targets to fire upon, how many rounds and guns are to be employed and what ammunition will be used against a particular target. Difficult decisions may be made by the artillery officer of an army.

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17. [redacted] 50X1
18. Firing charts are for peacetime training only. In actual combat, the fire must be immediate, and the gun commander blankets fire on the target in hopes of obtaining a few direct hits. 50X1
19. [redacted] The intelligence platoon performs reconnaissance and corrects fire. 50X1
20. In all training utmost speed in delivery of fire is stressed. A battalion CO brings all guns of his battalion simultaneously on the same target by calling battery CO's on the telephone or radio. [redacted] from the time a target is reported a platoon will fire within 60 to 90 seconds, a battery within three to five minutes and a battalion within five to seven minutes. [redacted] TOT fire [redacted] is not employed by Soviet artillery. The Soviets employ massed fire, ie intermittent blanket firing. 50X1
21. [redacted] if more than one battalion fires simultaneously on a target of opportunity. 50X1

System of Forward Observers

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22. [redacted] a forward observer is not limited to his assigned zone, but will report the location of a target outside that zone to the forward observer in whose area the target appears. These two forward observers will then decide between themselves which artillery unit can fire most effectively on the target. There is definite liaison between forward observers. Positions for forward observers and observation posts are selected for good visibility and for concealment from enemy observation. A platoon forward observer controls the fire of two guns. A battery or battalion observer controls all guns of his respective unit; however [redacted] knowledge on the maximum number of guns a forward observer may control. Targets are located and designated by the use of outstanding terrain features, which are called reference points (orientirovki). [redacted] 50X1
- [redacted] 50X1
- [redacted] Forward observers [redacted] vary in rank from Lt to Col, and Pvt to NCO, depending on whether they are assigned to battery, battalion, regiment, division or army. A forward observer does not function alone but always has a telephone and/or a radio operator. He may also have a runner. These men are NCO's or privates. 50X1

Communications

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23. Supported troops request fire on a particular target by phone or radio through the tactical commander to the supporting artillery. [redacted] radio or telephone communication is maintained from battery level up, but am not certain. Forward observers communicate with their units by radio or telephone. [redacted]

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Organization and Equipment

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24. [redacted] on division level and above, the unit commander can get liaison and/or observation aircraft but do not know if they are always assigned to these units.

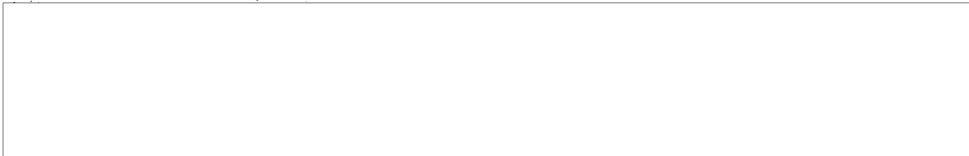
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25. [redacted] Weight of weapon in traveling position: 1250 kg; in firing position: 1150 kg. The maximum effective range is considered to be 800 meters; best results are obtained at ranges of 300 to 500 meters. Total weight of the shell is 6.8 kg. Weight of the explosive in shell is approximately 600 grams. There are no changes or zones in the propellant. A 122 mm howitzer weights three tons; the shell, 23 kg.

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26.



27. The HVAP Composite Rigid (Arrowhead) projectile is known by the Soviet terminology "Podkalibernyi Snaryad", (Subcaliber shell). The shell was first introduced at the end of 1944 and was used with great effectiveness against German tiger tanks. The 57 mm "subcaliber shell" has a total weight of approximately 6.8 kg and the projectile itself approximately three kg. Inside the soft nosed projectile is a hard core of wolfram. The projectile has a velocity of 1270 meters per second and will penetrate 20 cm (eight in) of armor at a range of 300 to 500 meters on a direct hit. Angle hits will ricochet.

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[redacted] The unit of fire for a 57 mm AT gun was 240 rounds, of which 10 were "subcaliber".

28. The following ammunition is available for 76, 85 and 100 mm guns: fragmentation/HE, and AP.

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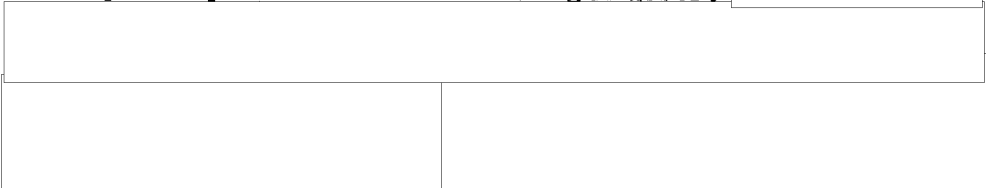
29. Anti-tank ammunition is provided for 57, 76, 85 and 100 mm guns. [redacted] no additional details regarding ammunition other than that given in the preceding paragraph.

30. During WW II (1945) the Soviets developed delayed action fuzes MD seven and MD eight (mimbrannoye deistviye). These fuzes are attached to fragmentation/HE projectiles and are used against pill boxes and machine gun nests.

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