

# **REGULATIONS**

## **on holding the Contest**

### **«Masters of Artillery Firing-2019»**

#### **General regulations.**

The international Contest «Masters of Artillery Firing» (further - Contest) for the best field training of mortar crews is held within «The International Army Games-2019» in accordance with the following Regulations on its holding (Further-Regulations)

Regulations include:

1. Purposes of the Contest
2. Organization of the Contest
3. Contest holding
4. Sequence of placement on stages and finals of the Contest
5. Contest holding scheme (Appendix №1)
6. Target samples (Appendix №2)
7. Obstacle elements (Appendix №3)
8. Armament characteristics (Appendix №4)

Holders, the jury and contestants (teams) are to know and follow the Regulations.

#### **1. Goals of the Contest.**

1. Strengthening international military cooperation;
2. Choosing the best mortar crew and team;
3. Improving the level of mortar crew training;
4. Summing up the advanced experience, methods of mortar units training and implementing them in the army;
5. Working out proposals on armament and military equipment improvement;
6. Exchanging experience in the military service;
7. Raising military service prestige.

#### **2. Organization of the Contest.**

The Contest is held on the territory of The Republic of Kazakhstan's 40<sup>th</sup> Military base training field "Gvardeisky" (locality "Gvardeisky", Korday district, Zhambyl region) from 3/8/19 till 17/8/19.

One team from each country participates in the Contest.

Team consists of:

leading and supporting staff,

3 120-mm 2B11 mortar crews on MTLB (2 main crews and 1 reserve crew)

Team total strength – 21/23 men, including:

- Team leader – 1;
- Second in command (jury) – 1;
- Coach group – 2;
- Technician group- 2;

- Mortar crews – 15 (3 crews, 5 men each);
- Interpreter – 2 (if necessary).

Mortar crew:

- section chief – 1;
- gunner – 1;
- loader – 1;
- layer – 1;
- mechanic-driver – 1.

Armament and military equipment:

- Multipurpose Tractor of Light Armor (Further – MTLB) equipped with means of video footage from the seats of section chief and driver)
- 120-mm mortar 2B11;
- 7,62-mm machinegun PKT;
- Antitank hand grenade RPG-7V
- 5,45-mm assault rifle (AK-74)

Mortar crew equipment:

- Individual armor protection items;
- Individual weapon;
- Extra for platoon leader: portable radio station, binoculars, commander's bag, flags.

Teams arrive not later than 7 days before the start of the Contest. During these days contestants are accommodated; team's composition is corrected; tossing up is held; teams have safety measures briefing, studying the track and Contest terms; getting equipment, armament, ammunition and other supply means, readiness and correctness of armament and equipment are checked and acts are filed; weapon adjustment firing is performed; training with live firing is held on the track of the Contest (Theme of training is determined by the team leaders); medical examination is carried out; applications for participation in the Contest are submitted.

Additionally, operational (up to 10 men) and research (up to 3 men) groups may be included in the state's delegation.

Operational group comprises:

- Headquarters Chief - senior deputy of team leader;
- National center of defense coordination officer;
- General Directorate of International Military Cooperation officer; doctor;
- Telecommunication complex crew (6 men)

Main languages for the Contest are Russian and English.

### **3. Contest organizers are assigned;**

1. Preparation of the Contest sites, supply and logistics;
2. Meeting and departure arrangement, accommodation, catering, transportation and medical support;
3. Armament, military equipment, ammunition, reconnaissance and surveillance devices and liaison supply and others;
4. Contest holding;
5. Leisure time organizing and information support;
6. Providing safety measures in the course of Contest.

#### **4. Armament, military and special equipment, ammunition requirements:**

The Contest is held with the use of mortar complexes 2S12A (120-mm mortar - 2B11, truck – Ural 43206-0651). Teams with foreign armament, military and special equipment (further AMSE) having technical characteristics (TC) that comply with following requirements are allowed to participate as well:

a) For 2B11 mortar of 2C12A complex (or its analog):

Caliber – 120-mm

Transportation – truck body (towed). Self - propelled mortars (artillery cannons) are not allowed to participate;

Correspondence of time indicators on mortar firing positions placement, firing and leaving firing position after fire mission performance;

Correspondence of aiming system and locating firing positions devices (automated location firing and aiming devices are not allowed).

b) For MTLB truck (or its analog):

Tracked;

Correspondence of country and cross country road speed;

Correspondence of engine power (240 ... 320 h.p.)

c) For the shell (mine):

Unguided 120-mm high-explosive mine with a contact detonator (OF-843B, detonators M-12 or GVMZ-7)

d) For antitank hand grenade launcher RPG – 7B (or its analog):

Sight – optic;

Grenade – PG-7V hollow charge action;

Correspondence of preparation time and shooting.

In case of the team armament discrepancy to technical characteristics, the team is admitted to the participation in the Contest and has some special nomination or participates beyond the Contest.

#### **5. Jury composition**

Chief Judge of the Contest (from the state, on which territory the Contest is organized);

- Deputy Chief Judge, Practical Assistance Secretary of the Contest (from the country, on which territory the Contest is organized, with the advisory capacity);

- Judges (one from each state-participant);

- Field referees (arbitrators) (from the state, on which territory the Contest is organized, with the advisory capacity);

- Technical personnel (from the state, on which territory the Contest is organized, with the advisory capacity);

- Secretary (from the state, on which territory the Contest is organized, with the advisory capacity).

Jury council is to prepare and hold the Contest according to the Regulations, to give the results and to sum up the Contest and tossing up.

Tossing up is held by automatic procedure – by the rules of lottery (without human involved).

By means of the tossing up are determined:

1. Color of armament and number of route.
2. Sequence of route completion by 1<sup>st</sup> crews during «The Individual race».
3. Sequence of route completion by 1<sup>st</sup> crews during «The Night sprint».
4. Sequence of route completion by 2<sup>nd</sup> crews during «The Individual race».
5. Sequence of route completion by 2<sup>nd</sup> crews during «The Night sprint».
6. Sequence of route completion by crews during «The Relay race».

Tossing up results at stages are recorded by the Secretary of the Jury panel, signed by the juries from each state-participant and confirmed by the Chief Judge.

In cases of necessity caused by forced changes of some Contest rules, the Chief Judge has a right to propose changes in terms of Regulations and put it on the judge of the Jury panel. In case of agreeing on a positive decision with a majority of votes from the judges, introduced changes are registered by protocol and are verified by signatures of the judges. The protocol is transferred to the Chief Judge of International Army games (loc. Alabino) for his approval. His positive (or negative) response is delivered to every Contest participant.

### **6. Responsibilities and Rights of contest Participants**

Team leader is responsible for the military discipline, following the Regulations, dress code, safety measures, daily routine, keeping armament and military equipment in order.

#### He must:

- organize the team timely arrival and departure upon the Contest completion;
- know the Contest Regulations and strictly follow them;
- submit all the necessary documents to the secretary of the Contest;
- be always present at all stages of the Contest and is allowed to be absent with the Chief Judge permission only;
- inform the team about Jury panel decisions, changes in daily routine and Contest program;
- timely inform the Jury panel (secretary) about the participants, who have left the Contest because of medical recommendations or other reasons;
- know the results of the team, sum up the results of team performance and set up goals for upcoming days of the Contest;
- be present at the Jury panel meetings with the advisory capacity and participate in tossing up;
- report to the Chief Judge about all faults of the armament, equipment, and accidents in team;
- maintain constant observation of safety measures by all team members;
- solve all the questions and problems with Chief Judge;
- organize maintenance and delivery of all armament, equipment and other materials, their check-up and make files afterwards.

Team leader has the right to appeal to the Jury panel with his statements and protests orally or in the written form.

#### Team leader is forbidden:

- to interfere with the work of jury and referees (arbitrators);
- to make decisions alone about participant removals from the Contest without the Jury panel permission;

-to help participants of the Contest while competing.

Contestants must:

- know the Regulations and follow them strictly;
- arrive on time, have a passport, military ID and a health state medical certificate;
- be present in Contest places, follow the daily routine and behavior norms;
- unquestionably follow the jury and arbitrators instructions, safety measures and instructions for handling weapons and ammunition;
- report the team leader about all accidents, armament and equipment faults.

Contestants have the right to:

- check the state of their armament and equipment, train in special areas at time prescribed by Chief Judge;
- address referees (arbitrators) only in case of emergency questions, in all other cases address the Jury panel orally or in writing via the team leader.

Contestants are forbidden:

- to leave accommodation place or Contest places on their own;
- to make unverified footages;
- to take alcohol beverages, narcotic and psychotropic substances;
- to disclose secret or restricted usage data;
- to give an interview to mass-media sources without team leader permission;
- to conflict with judges, administration representatives and other contestants, offend them orally or with obscene gestures;
- to violate daily routine or stated dress code;
- to hide their health state.

## **7. Appealing**

Appeal to the jury panel is submitted by the team leader only in writing. It must be reasonable and introduced not later than 1 hour after completing the current stage or informing the results.

The Jury panel is to consider the appeal, to listen to the referee, technical personnel conclusion using photo or video footages if necessary and to make a decision by open voting. The decision is affirmative if the majority of state-participant's judges has voted for it. If the votes are equally divided, the Chief Judge makes the final decision. Decision is reported to the appellant before Contest stage results confirmation by the Chief Judge. If the team doesn't comply with the decision of the Jury panel, this appeal is submitted to Army Games headquarters (loc. Alabino) in writing with all photo and video evidences. Army Games Chief Judge decision is final and not subjected to revision.

## **8. Holding of the Contest**

The contest consists of 3 stages:

1. "Individual Race"
2. "Night Sprint"
3. "Relay Race"

Results of target engagement and "minefield treadway passage" obstacle surpassing are observed and screened, in special cases by observing targets in the field at the request of one jury member without jury voting.

Truck leaving firing range, has an advantage over truck taking the main track. Truck leaving penalty round must give way to the truck driving along the main track.

During the Contest it is forbidden:

- to give access to mortar crews without medical certification;
- to use invalid armament and shells;
- to fire in inappropriate places.

Mortar crew is disqualified and takes the last place in case of:

- noncompliance with the requirements of Chief Judge, referees (arbitrators), connected with observation of safety measures;
- lack of radio communication due to the fault of a crew.
- mortar crew moving along the route having any types of ammunition;
- firing at angles of elevation less than 45 degrees;
- firing after "Halt!" command;
- mortar or truck breakdown due to the fault of a crew (after technical team conclusion, see appendix 3)
- aiming weapons or mortars at tribunes or people;
- crashing of trucks along the route.

In case of violating safety measures, following personnel injury, crew is disqualified if consequences of trauma don't allow contestant to continue participating.

In case of noncompliance with the requirement of the Contest exercise, a field referee (arbitrator) must get them to be fulfilled.

If mortar or a truck is out of order, they can be replaced. It is done on the command of Chief Judge. The reserve crew in the truck with the mortar is moving along the route of the Contest from the starting point to the point of replacement.

To avoid problems with safety measures during the Contest Chief Judge has the right to command to stop the crew and the countdown:

- If there are people, animals or flying objects in firing sector;
- if there are accidents;
- if mortar or truck is out of order through no fault of the crew until it is fixed or replaced;
- if fire occurs;
- if target equipment is out of order;
- if there are other force-majore circumstances.

The crew is moving on as soon as section chief has reported on fault elimination and on the command of Chief Judge with the countdown (considering time before stop)

In case of misfire while shooting:

- the countdown is stopped;
- technical support group is identifying the fault, reporting to Chief Judge, who makes a decision on the basis of their conclusion. If the misfire is because of the crew, the target is not engaged. If the misfire is because of the mortar or mine disorder, crew gets an additional mine, the countdown is on again after loading the mine.

If mine hasn't exploded (during the flight)((expanding\surpassing flight time)) crew chief is reporting to referee (arbitrator) "NOT EXPLODED". Referee is reporting to the Chief Judge and the countdown is stopped. Mortar crew gets an additional mine. After additional mine explosion countdown continues.

### **9.Target acquisition for mortar firing**

Targets for carrying out the fire mission are determined by tossing up at the command post for each crew:

During 1<sup>st</sup> stage: new target for each round;

During 2<sup>nd</sup> stage: target for each crew;

During 3<sup>rd</sup> stage: target for each crew.

Tossing up is held by automatic procedure – by the rules of lottery (without human involved) immediately before the start.

Here with, crews of the particular team can't carry out firing mission on the same target.

Practical Assistance Secretary of the Contest Chief Judge (Chief Judge) transmits tossing up results to the field referee at the start line by radio communication, and the referee informs crew chiefs, and all field referees.

### **10. The First stage «The individual race»**

The route is 4 km (2 rounds, 2 km each):

1<sup>st</sup> round – firing mission accomplishment with the 2B11 mortar and machine gun PKT;

2<sup>nd</sup> round – firing mission accomplishment with the 2B11 mortar, grenade launcher RPG-7V and assault rifle AK-74;

At every round crews have to carry out the firing mission with the use of mortar from the same firing position, but on different targets at each round and crews overcome such types of obstacles as: «Snake-like obstacle», «Minefield passage», «The Hill», «Treadway bridge model».

The start is non-simultaneous (interval 1.5 – 2 min).

**1<sup>st</sup> round: firing mission accomplishment with the 2B11 mortar and machine gun PKT.**

Rules of accomplishment.

Starting position:

The ordinary crew is at the start line, the engine is stopped, the hatches are closed, the mortar is fixed on its organic position, and crew is lined up 2 meters before the truck.

On the field referee's command the crew gets on the truck "at combat position" at the start line, mechanic driver starts the engine, the crew chief reports to the Chief Judge (on practical actions) about the readiness to move. Chief Judge commands to start the mission. The countdown is on. Mortar crew starts moving.

Having overcome the obstacles «Snake-like obstacle» and «Minefield passage», the commander stops the truck at the firing position №1. The mechanic stops the engine. The crew gets off the truck, section chief gets the ammunition (in box, loaded into a tape), the crew take their positions in a truck. The section chief loads the machine gun and reports about the readiness to fire to Chief Judge.

The target rises up on Chief Judge's command.

The crew chief carries out the firing mission on the target, an antitank hand grenade (target №9), using the machine gun PKT, the range is 300-400 m, 12 rounds with tracing bullets are given to accomplish the mission.

The section chief unloads the weapon and reports on it to the Chief Judge at the end of firing. Unexpired ammunition along with tape (empty box and tape) should be handed in to the arbitrator. When expired, the box and tapes remain in the truck.

The Chief Judge commands the crew to go on moving, indicating whether the penalty circle is essential (in case of engagement failure).

Penalty: one extra round in case of target engagement failure.

After arriving at the firing position area to execute the mission using the mortar, the section chief stops the engine near the trench, the crew gets off. On the command of field referee, the crew unloads the mortar and brings it into combat position in trenches, the mechanic-driver stops the engine. After occupying the position, the crew chief reports on the readiness to carry out the mission to the field referee at the fire position (personnel is covered), chief commands to the crew to load the mortar and carry out the mission on the target pointed by the field referee.

The mortar firing is accomplished from the trench until the target engagement or ammunition expiring (The crew is covered, when firing, and mortar fires using the cord).

The aim is a full-size figure (target №8) located in the center of a circle (15 m radius) at the range of 1000-2000 m from the firing position.

To carry out the mission, the crew gets the 1<sup>st</sup> category 3 high explosive shells from the same batch, the same year of explosive charge equipment and the same weight marks. Before firing all the shells are located at the firing position (in weapon slit and projectile pit) in a package and fully loaded, extra powder banks are in a sealed package. Here with, extra powder banks are to be produced at the mortar shell producer state factory (factory code number, the number of batch and the production year are to be similar for all the mortar shells).

After every shot the crew chief estimates target burst derivation and reports on the results of burst observation to the field referee at the firing position.

Target is engaged if mine bursts within the circle, 15 m radius, and firing on the line of the circle is also considered to be a target hitting.

As soon as the firing mission is accomplished (the third mine is burst) the section chief reports on completing the mission and mortar being discharged to the referee.

On the command of the referee the crew brings the mortar into travel position, loads it in the truck and occupies their own positions. The crew chief reports to the Chief Judge on their readiness to start moving. The Chief Judge commands to continue the movement on the route (with penalty rounds indication).

Penalty: one extra round in case of every target engagement failure.

Further on, having overcome the obstacles «The Hill» and «Treadway bridge model» (penalty rounds), the crew goes to the 2<sup>nd</sup> round.

**2<sup>nd</sup> round: firing mission accomplishment with the 2B11 mortar, grenade launcher RPG-7V and assault rifle AK-74.**

Rules of accomplishment.

Having overcome the obstacles «Snake-like» and «Minefield passage», the crew arrives at the firing range for the mortar firing mission.

The order of execution mortar firing mission is similar to the order and sequence determined in conditions of completing the first round.

After mortar firing mission accomplishment on the command of the Chief Judge, crew proceeds along the route.

Upon the arrival at the place of firing mission execution from the antitank hand grenade launcher, chief of the crew stops the truck at marked position. Mechanic-driver stops the engine, crew gets off and takes up defense. Gunner and loader having received two grenades for RPG-7V occupy firing position and mechanic-driver performs firing mission to hit the target. The target is «Tank» (target № 12), range - 250-300 m., ammunition – 2 grenades. Firing continues until the target engagement or ammunition expiring. Loader receives 4 rounds with tracing bullets for AK-74, loads the magazine and occupies the firing position. Firing position is prone, fire mode is up to shooter. The target is №8 («Life-size figure»), range – 250-300 m. The fire continues until the target engagement or ammunition expiring.

As soon as the firing mission is accomplished the section chief reports on weapons being discharged to the referee and referee reports to the Chief Judge in his turn. Unexpired ammunition remains at the limit of opening fire.

The crew take their positions in a truck, the crew chief reports to the Chief Judge on their readiness to move and starts moving after getting permission.

Penalty: one extra round in case of target engagement failure.

Further on, having overcome the obstacles «The Hill» and «Treadway bridge model» (penalty rounds), the crew finishes.

Countdown is stopped as soon as: the finish line is crossed, the engine is stopped and crew is lined up 2 meters before the truck.

The total result of the crew is summed up from the time of the route passing, taking into account the penalty time.

**In the course of overcoming the obstacles the crew may be charged with:**

penalty round (rounds):

for avoiding the obstacle;

for hitting a mine (mines) at obstacle «Minefield passage»;

for stopping the engine or sliding down when overcoming obstacle «The Hill»;

for falling down from obstacle «Treadway bridge model»;

penalty time is one minute:

when the crew moves with mortar unfixed on its organic position in the truck.

penalty time is 30 seconds:

for stopping the engine or sliding down when overcoming obstacle «The Hill» at the last round;

for falling down from an obstacle «Treadway bridge model» at the last round;

for overcoming the obstacle (obstacles) on the other crew's way;

for moving without the field arbitrator permission along the section of the route, if they haven't intentionally delayed this permission;

for breaking the rules of truck moving priority, creating obstacles;

for movement with open hatch (hatches);

for loading the mortar before the previous mine burst in the target area;

for firing without aiming recovery;

for bringing the mortar into travel position on the firing range before seeing the third mine burst in the target area;

for presence of personnel in small arms fire sector ( RPG, also behind the grenade launcher);

for violation of passing the baton (during the 3<sup>rd</sup> stage).

penalty time is 10 seconds:

for each knocked limiter (pole) when overcoming obstacles or on the route;

for shooting from a mortar or its loading in the presence of personnel outside the cover;

for personnel getting on (off) truck with a working engine;

for starting a truck engine with open hatches;

for the report on readiness of movement when the truck is not started.

for the lack of fixation of formation lining up near the truck with each crew getting off .

#### 11. The second stage “Night sprint”

The second stage rules are the same as of first stage “Individual race”.

Peculiarities of the second stage:

the first round – firing mission accomplishment with 2B11 mortar;

the second round – firing mission accomplishment with the grenade launcher RPG-7V and assault rifle AK-74;

target illumination for reconnaissance and engagement is provided by the Armed Forces of the Republic of Kazakhstan (cannons, mortars);

illumination units are ruled by arbitrator during the firing mission accomplishment;

target illumination is carried out constantly after taking firing position and ends after target engagement (the third mine explosion);

one crew is allowed to be on the track at a time;

firing mission against targets with antitank hand grenade RPG-7V and assault rifle AK-74 is accomplished with the help of night vision scopes;

tracks movement is conducted with lights turned-on and with the use of blackout device.

#### 12. The third stage “Relay race”

The third stage rules are the same as of first stage - “Individual race”.

Purpose: to determine the winner of the Contest.

Peculiarities of the third stage are following:

start is non-simultaneous (interval 1.5 - 2 minutes);

after passing the first round, crew carries out a firing mission against the target using machine gun PKT, RPG and AK-74, after passing the second round they use mortar;

both crews participate on the same truck and carry out firing missions from the same mortar and PKT;

the route is equipped with a line for passing the baton (50 m far from the start);

after finishing the second round the first mortar crew stops near the start line, mechanic-driver stops the engine, crew gets off the truck on the chief of section command and runs 50 m to the second crew, waiting at the start for passing the baton;

the relay race is done if all the servicemen of the first crew have touched the corresponding servicemen of the second crew. With that, the second crew should not cross the line until the baton is passed;

After taking up the baton the second crew runs to the starting point, gets on the truck, driver starts the engine, the section chief reports to the arbitrator on the readiness to move and starts after his command.

Countdown is stopped as soon as: the finish line is crossed, the engine is stopped and crew is lined up before the truck.

The final result is made up from the results of route passing of two crews, including their penalty time.

### **13. Order of award distribution at stages, finals result of the Contest.**

The best mortar detachment in the individual race is determined according to the total placings in the first and second stages (Appendix 1). In case of similar results, the preference is given to the mortar detachment having the best scores at the first stage.

The best crew is determined in accordance with the result of the third stage, including individual race results (Appendix 2).

Winners are rewarded with cups, medals, diplomas and valuable gifts.

Awarding winners is held in a triumphal atmosphere during the Contest closing ceremony according to the final protocol of the Contest stages.

**Order  
of individual championship determination (*example*)**

№	Team	Crew	1 <sup>st</sup> stage place	2 <sup>nd</sup> stage place	Total placing	Final place	Remarks
1	№1	1	1	5	6	<b>2</b>	
2		2	2	3	5	<b>1</b>	
3	№2	1	3	7	10	6	
4		2	4	8	12	7	
5	№3	1	5	4	9	4	
6		2	6	1	7	<b>3</b>	
7	№4	1	7	2	9	5	
8		2	8	6	14	8	
9	№5	1	9	10	19	9	
10		2	10	9	19	10	

Remark: 1. In case of similar results, the preference is given to the mortar detachment having the best scores in the first stage.

**Order  
of team championship determination (*example*)**

№	Team	Crew	Final place in the individual race	The place taken in the 'Relay race'	Total placing	Final place	Remarks
1	№1	1	<b>2</b>	1	4	<b>1</b>	
2		2	<b>1</b>				
3	№2	1	6	2	15	<b>3</b>	
4		2	7				
5	№3	1	4	3	10	<b>2</b>	
6		2	<b>3</b>				
7	№4	1	5	5	18	4	
8		2	8				
9	№5	1	9	4	23	5	
10		2	10				

Remark: 1. In case of similar results, the preference is given to the team with the best results at the third stage.

**Vehicle breakdowns  
due to the fault of Contest participants, leading to the crew withdrawal from the  
stage and getting the last place in the Contest**

1. Track idler shackle breakage or bending.
2. Balance shaft bending.
3. Vehicle bottom deformation.
4. Engine`s overheating\*.
5. Reverse engine starting.
6. Fire raising of steering or stopping brake belt.

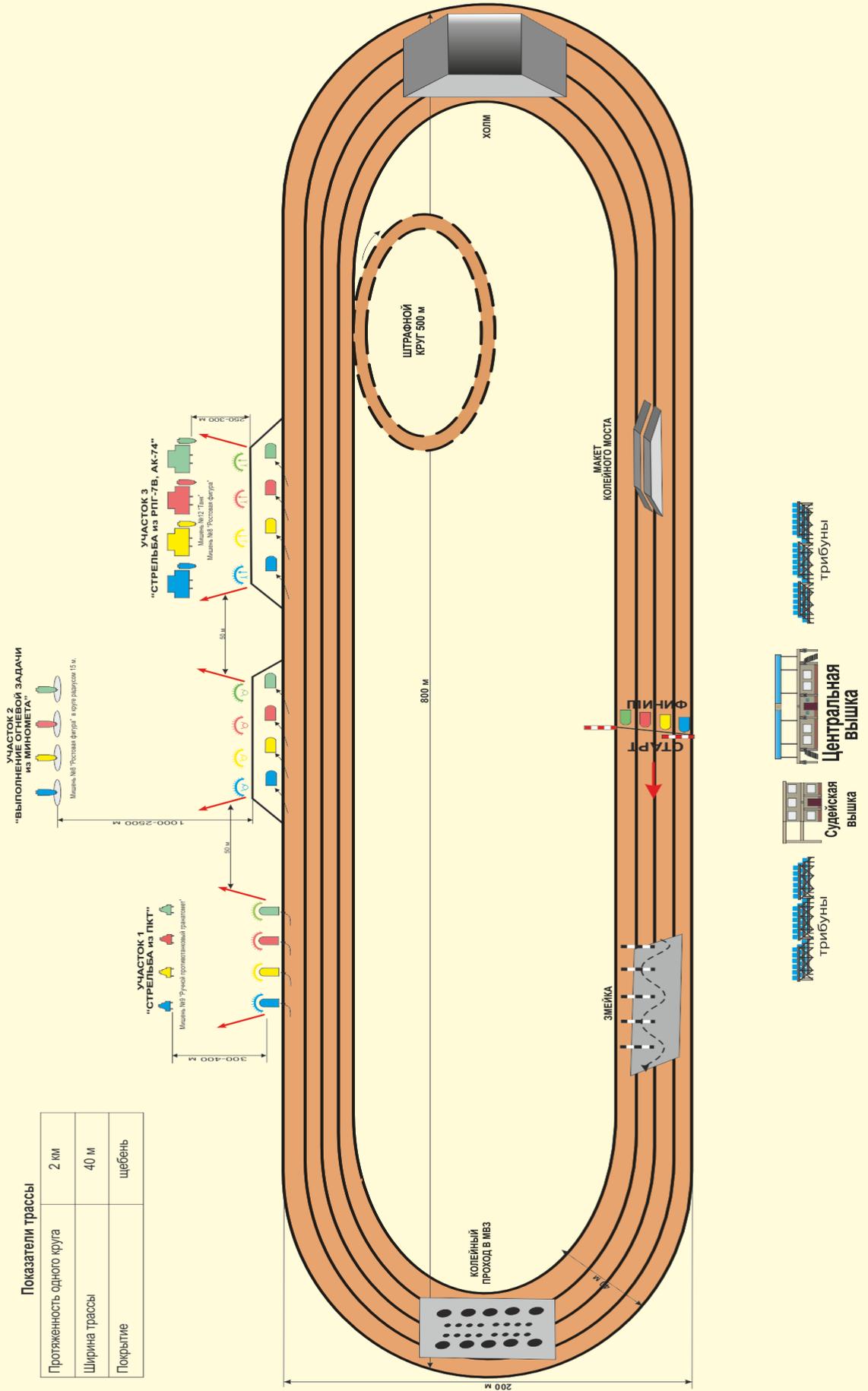
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\* Engine is considered to be overheated if the coolant temperature is higher than allowed in a short term, mentioned in the manuals.

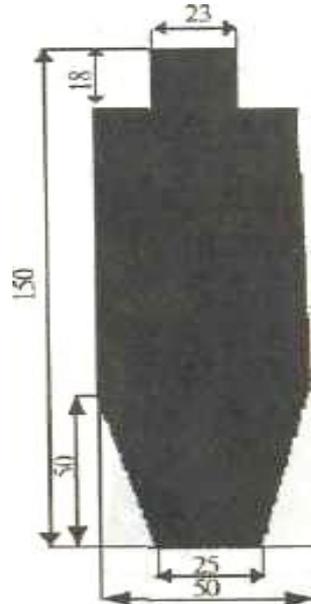
Схема проведения конкурса «Мастера артиллерийского огня»

Показатели трассы

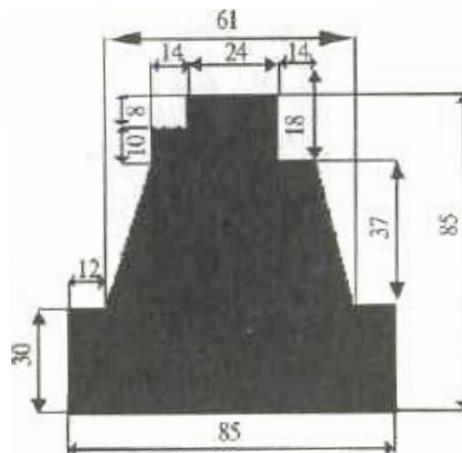
Протяженность одного круга	2 км
Ширина трассы	40 м
Покрытие	щебень



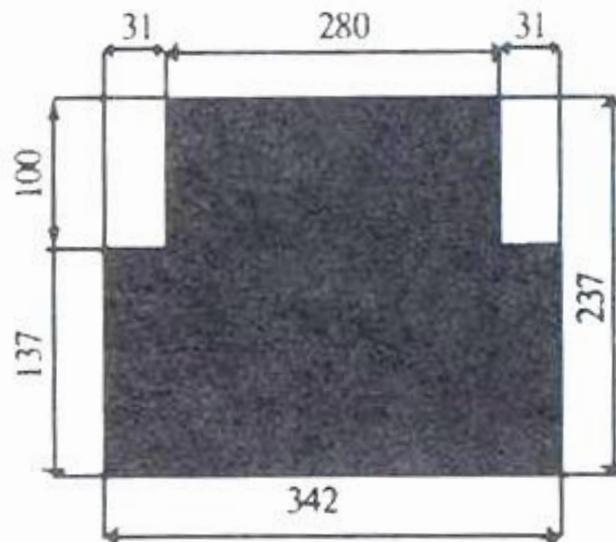
**Targets Samples**  
(dimensions are given in centimeters)



**Life-size figure (target № 8)**

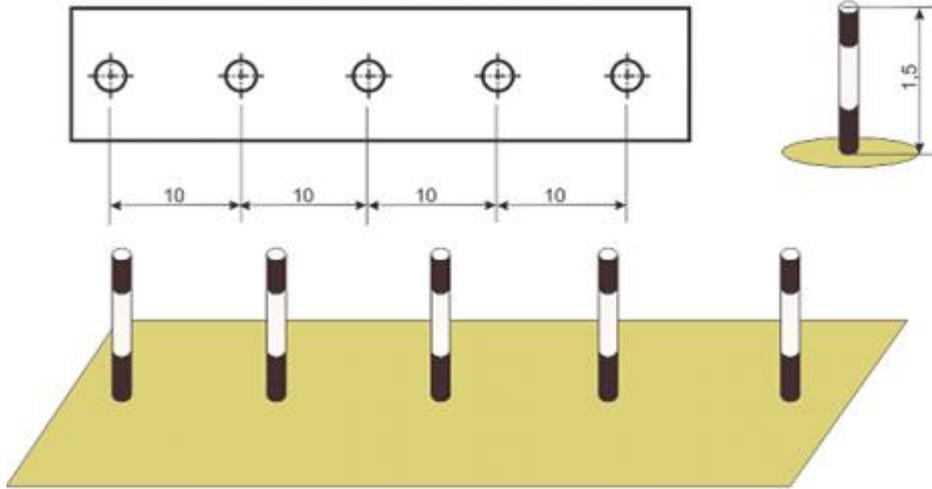


**Hand grenade launcher (target № 9)**

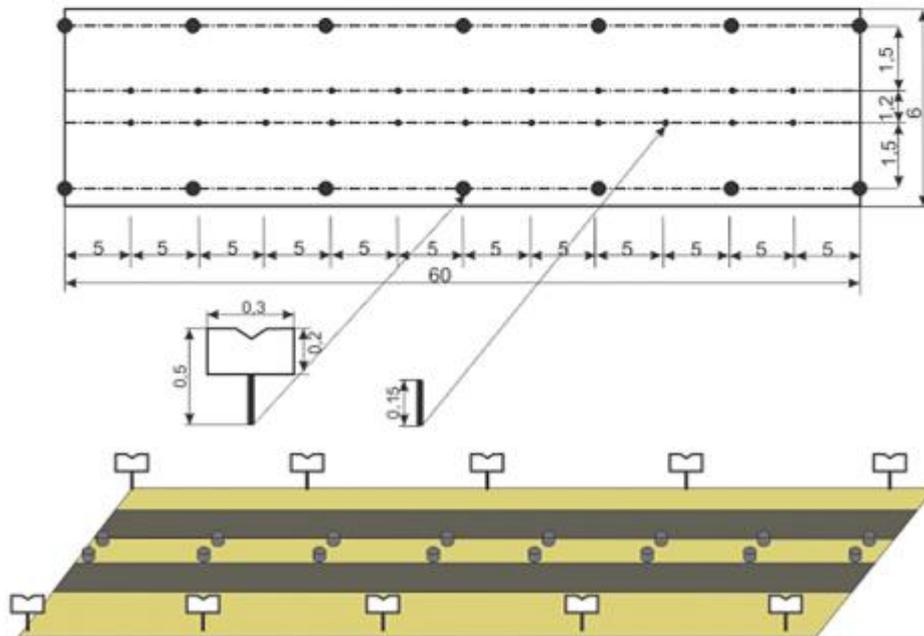


**Tank (target № 12)**

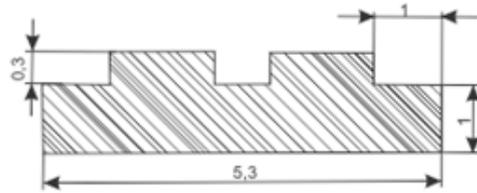
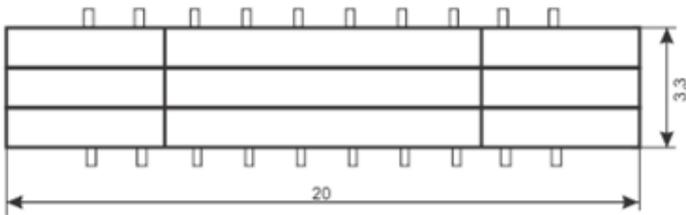
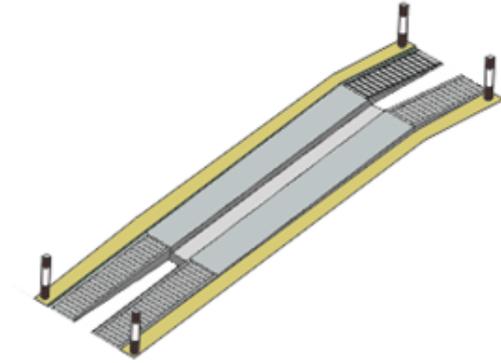
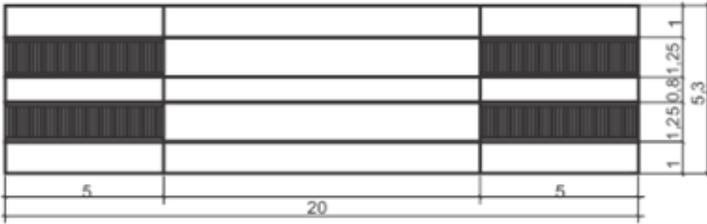
Obstacle №1  
 "Snake-like obstacle"  
 (dimentions are given in metres)



Obstacle №2  
 "Minfield treadway passage"



**Obstacle №4**  
**"Treadway bridge model"**



## TECHNICAL CHARACTERISTICS

### Multipurpose tractor of light armor MTLB

Armament:	7,62-mm machine gun PKT
Combat mass, t:	11,9
Frame length, m:	6,454
Width, m:	2,86
Height, m:	1,865
Clearance, m:	0,4
Engine power, h.p.:	240
Maximum speed, km/h:	40
Cruising range, km:	500
Ground pressure, kg/cm <sup>2</sup>	0,45
Max. Elevation, deg.:	35
Wall height, m:	0,61
Ditch Width, m:	2,41



### 120 mm mortar 2B11

Caliber, mm:	120
Weight, kg:	
- mortar:	
travel position	300
combat position	210
- barrel	74
- base plate	82
- bipod	54
Barrel length, mm:	1740
Firing range, m:	
- minimum	480
- maximum	7100
Rate of fire, rounds/min:	15
Time for switching, min:	
- to combat position	3
- to travel position	4
Angle of elevation, deg.:	+45..+80
Steering angle, deg.:	-5..+5



### High-explosive mine HE-843B

Mine weight with fuse, kg:	16
Explosive charge weight, kg:	1,4
Manpower coverage area, m <sup>2</sup> :	1200
Armament coverage area, m <sup>2</sup> :	200
Mine muzzle velocity, m/sec:	325



### Antitank hand grenade RPG-7V



Weight, kg:	6,3
Length, mm:	950
Range of fire, m:	up to 500
Rate of fire, rounds/min:	4-6

### RPG-7V rocket (PG-7V grenade)



Caliber, mm:	
- Grenade	40
- Warhead	85
weight, kg:	2,2
Muzzle velocity, m/sec:	120
Armor piercing capability, mm:	260

### Kalashnikov tank machine gun PKT



Caliber, mm.:	7,62
Muzzle velocity, m/sec:	855
Firing range, m:	3800
Rate of fire, rounds/min:	600 - 800
Capacity, rounds:	250
Weight, kg:	
- machine gun (without ammunition)	10,5
- full magazine	9,4
Length, mm:	1098

### Assault rifle AK-74



Caliber, mm:	5,45
Muzzle velocity, m/sec:	960
Range, m:	
- destructive	1350
- maximum	3150
Rate of fire, rounds/min:	
- single shots	50
- burst	150
Capacity, rounds:	30
Weight, kg:	
- without bayonet with empty magazine	3,1
- with full magazine	3,69
Length, mm:	
- with bayonet	1020
- without bayonet	880