

**REGULATION  
ON ENGINEERING UNITS CONTEST  
«ENGINEERING FORMULA»**

**I. General provisions**

1. The Contest “Engineering formula” of engineering units (hereinafter referred to as the Contest) of participating states’ armed forces (hereinafter referred to as Contest’s participants) is carried out in the framework of “International Army Games” (hereinafter referred to as ARMY 2019).

2. The objectives of the Contest are:

to strengthen international military and military-technical cooperation of Contest’s participants;

to promote the credibility of military service in the engineering units;

to boost the level of field training of Contest’s participants;

to promote competitiveness;

to show up tactical and technical features of modern types of engineer equipment.

3. The official symbol of the competition is the emblem of the Contest.

4. The official languages of the competition are Russian and English.

5. Competition venue - Tyumen Higher Military Engineering School, city of Tyumen (Training ground near Lake of Andreevskoye).

6. The participating team consists of:

Team’s leader – of Contest’s participant (representative of the participating state, who is in charge of liaison with with the Chief Judge of the Contest and the Panel of Judges of the Contest);

Team is comprised of: a team leader, team members- engineering vehicles crews consisting of: a crew for ditch emplacement- 2 persons, a crew of a track-layer - 2 persons, a crew of a combat engineer vehicle - 2 persons, a crew of a mine clearance vehicle - 2 persons; a crew of a track-laying mine-layer - 2 persons.

Coaches – 2 persons;

Maintenance support group – 2 persons;

Staff – 3 persons.

**II. The Contest's management**

7. The organizing committee is established to carry out management of the Contest, consisting of the representatives of the Russian Federation Ministry of Defense and local administration (as agreed), its composition

should be approved by the Chief of Engineering Troops of the Armed Forces of the Russian Federation.

The Chief of Engineering Troops of the Armed Forces of the Russian Federation is in charge of the preparation and conduct of the Contest during ARMY – 2019.

8. The commanding officer hosting the Contest is in charge of the preparation of the venue, accommodation and catering arrangements.

9. The following Panel of Judges of the Contest should be established: the Chief Judge of the Contest, the Contest's Secretary; field referees; members of the Panel of Judges of the Contest, which includes representatives of the teams - participants of the Contest (as agreed).

The Chief Judge of the Contest is obliged:

a) to lead the work of the Panel of Judges;

b) to exercise control over:

the fulfillment of conditions of the Contest by teams' representatives; the rightfulness of preparation and arrangement of obstacles on the route (track, vehicle driving water areas);

c) to monitor the correct execution of field referees' duties;

d) to notify the team leaders in due time about all changes in the conduct of the Contests (changes in the timing of the Contest stages, etc.);

e) to consider protests and personally make decisions on them or to bring them for discussion of the Panel of Judges of the Contest;

f) to see and approve the results of the Contest, and upon its completion - report (submit the protocols, as well as the rating table of the Contest) to the Chief Judge of the Games about the Contest held;

g) to approve the list of names of team members in accordance with the final protocols of the Contest and submit it to the Chief Judge of the Games;

h) to suspend (cancel) the Contest if conditions have arisen that prevent its normal conduct, as well as the prerequisites for violating safety requirements;

i) to withhold teams from the Contest stages in case of violations of the requirements of this Regulation.

10. The Secretary of the Contest is obliged to record the results, keep protocols and paperwork of the Contest.

11. The field referees of the Contest are obliged to ensure that the respective obstacles along the routes (tracks, vehicle driving water areas, etc.) are properly overcome.

12. The Contest administration staff is appointed from the hosting military unit (organization) in order to manage comprehensive support of the

competition. The composition of the Contest administration staff should be approved.

### **III. Contest's set up**

13. The competition is held in accordance with a detailed competitive program approved by the Chief of Engineering troops of the Armed Forces of the Russian Federation.

14. The Contest is to be open and closed with a solemn ceremony.

All participants of the competition should take part in the opening and closing ceremonies.

15. The arrival of the participating teams to the competition venues and their accommodation is carried out not later than 15 days before the opening of the competition, during these days the events are held in accordance with the program of the Competition.

### **IV. Arrangements for the Contest**

16. States should ensure the readiness and the arrival of their teams in due time as to make them eligible to participate in the Contest.

17. The participating teams in the Contest use their own samples of the military equipment, which are similar in their features to the samples (without modernization, not prototypes, mass-manufactured) that are in service in the Armed Forces of the Russian Federation.

The provision of military equipment by the Russian side is carried out in coordination with the participating teams.

18. The preparation of armament and special military equipment is carried out in accordance with the requirements for the operation of these samples.

19. In the course of the Contest, the participating teams should carry out a control inspection of the arms and equipment at the end of the competition day - they should also carry out maintenance and preparation for the events of the next day.

20. In the event of the malfunction of arms or equipment, it should be replaced with back-up samples by the evacuation team by the command of the Chief Judge.

21. Coach groups and technical support teams must not use the radio network of the Panel of Judges and administration staff during the Contest's stages.

22. In cases of prerequisites for violating safety requirements, force majeure or acts of insuperable force, that could affect the final results of the Competition, the Chief Judge of the Contest suspends it both for a specific team and for all teams of the Contest that are on the route until normal conditions are met for its further implementation.

At the same time, he should pause the stopwatch.

After trouble shooting of Competition's delay by the command of the Chief Judge the time-marking should be resumed.

Teams that have committed a gross violation of safety requirements should be sent off from the stage.

23. The medical examination of the participants should be made upon their arrival and before the start of each stage of the Competition.

24. The Panel of Judges should carry out a draw, which determines the order of start and route number for each unit (crew) before the start of the Contest's stages.

25. Issues related to the comprehensive support of the game's participants, as well as their responsibility in terms of harm or damage to the health of the participants, armament and equipment, as well as the compensation should be decided in agreement with participants.

## **V. Contest's Participants' responsibilities**

26. Contest's participants are obliged:

to be aware of the requirements of this regulation, strictly comply with them;

to come to the Competition in a due time with organic weapon and equipment, have an ID document;

to maintain in the special area for the participants and comply with the Contest' daily schedule;

to execute instructions of the Panel of Judges of the Contest in full obedience;

to adhere to the rules of weapons handling.

Participating team's member should not be included in the Panel of Judges of the Contest.

27. Each team should appoint a team leader.

The team leader is responsible for the safety of weapons and ammunition, military discipline, compliance by the representatives of the team with the rules of the Competition, safety requirements and the daily routine.

He is obliged:

to submit to the Panel of Judges in due time the documents stipulated by these Regulations;

to present permanently on the Competition's venue, to be dismissed only with the permission of the Chief Judge or his acting officer;

to inform the team about the decisions of the Panel of Judges, changes in the daily routine and in detailed competitive program;

to submit to the Panel of Judges of the Contest additional applications, promptly inform about medically misfit members of the team;

to be aware of the scoring points of the team, to make debriefing at the end of the competition day, to set tasks for the following days;

to attend the meetings of the Panel of Judges and to take part in the draws.

The team leader must not interfere in the work of the Panel of Judges, as well as make decisions to send off representatives of the team without re-entry application form and notification of the Panel of Judges.

## **VI. Contest's Stages**

28. The Contest is held using an excavator, a large autonomous trail-builder, a combat engineer vehicle (CEV), an amphibian carrier PTS, a UR-77 mine clearing system, a GMZ-2 tracked mine layer (herewith in after refereed as engineering vehicles), which are in service and mass-manufactured.

29. The draw is held by the Panel of Judges in the presence of representatives of the teams participating in the Contest.

The results of the draw are recorded by the protocol, signed by the Panel of Judges and representatives of the teams.

30. The first stage of the Contest.

Crew competitions in the following nominations:

“The best crew of an excavator”, the organization of the ground anti-tank non-explosive barriers using an excavator; “The best crew of a trail-builder”, the organization for crossing an anti-tank ditch, the organization of a trail road using a large autonomous trail-builder (BAT).

31. The second stage of the contest.

Crew competitions in the following nominations:

“The Best Crew of an amphibian carrier”, the organization of an airborne crossing on an amphibian carrier; “The best crew of a tracked mine layer”, installation of an anti-tank mine field sector with the use of tracked mine layer (GMZ).

32. The third stage of the contest.

Crew competitions in the following nominations: “The Best Crew of a combat engineer vehicle”, the organization of passes in engineering barriers using a combat engineer vehicle; “The best crew of mine clearing system”, the charging of UR-77 mine clearing system.

### 33. The fourth stage of the Contest.

The qualification race is carried out in order to determine the order of line-up and movement of the first crews from the start line.

The Qualification race is held in the presence of the Panel of Judges and representatives of the teams participating in the competition.

The monitoring of track and obstacles overcoming is carried out by the recorders at the sites.

The qualification race result is recorded by a protocol, signed by referees and representatives of the teams participating in the Contest.

### 34. The fifth stage of the Contest.

The race relay competition (determining the best team of the Contest)

The relay is carried out in stages. The width of the track (highway) is of 16 meters, length - 4000 meters.

Each team should fulfill engineering tasks as a crew.

The track is equipped with: the “Start” line (with a launching pad and a waiting area) and “Finish” line; sections (obstacles):

a section of an obstacle and destruction, an extended and limited passage with a turn, a limited passage with a turn, a contamination area, a limited passage, a passage in a minefield, a hill, an escarpment with a track-bridge, a railway crossing, a ditch, a track-bridge, a direct limited passage, a turn between the pillars (S-turns), a platform for the engineering task fulfillment (1 per team), a ford.

The first task of the relay: the excavators of the crews are on the start lines, taking places according to the scoring points of the qualification race.

The simultaneous movement should be started by the traffic light signal.

Crews of the excavators should race for 1 lap of the track.

To accomplish the engineering task, the crew should go to the platform for the engineering task (hereafter referred to as the pit stop) installed for each team, where they will dig a pit 4 m long at the bottom and 0.8 m deep, and then move to the finish line.

The following penalty time is added to the total runtime of the crew and the team:

for touching limiters at the obstacle site - 30 seconds;

for knocking down obstacles - 60 seconds;

for each violation of the sequence of the task (standard), which leads to an accident, damage (breakdown) of equipment and weapons - 120 seconds;

for the organization of a ditch with the dimensions less than stipulated - 60 seconds.

The second task of the relay: the excavator crews (MDK) should pass the relay to crew of the large autonomous trail (BAT), by activating the green traffic light through the Judge.

Each crew should pass 1 lap of the track.

To perform the engineering task, large autonomous trail crew (BAT) should go to the pit stop.

The crews should fill the trench, organized by excavator crew (MDK), and then move to the finish line.

The following penalty time is added to the total runtime of the crew and the team:

for touching limiters at the obstacle site - 30 seconds;

for knocking down obstacles - 60 seconds;

for each violation of the sequence of the task (standard), which leads to an accident, damage (breakdown) of equipment and weapons - 120 seconds;

if the ground subsided for more than 20 cm. after the large autonomous trail drove through- 30 seconds.

The third task of the relay: BAT crews should pass the relay to the combat mobility vehicle crew (IMR-2), by activating the green traffic light through the Judge.

Each crew should pass 1 lap of the track.

To perform the engineering task the combat mobility vehicle crew (IMR-2) should go to the platform of engineering task fulfillment.

The crews should transfer 4 logs and place them in the previously prepared notches (pit) of the adjacent strip, then move to the finish line.

The following penalty time is added to the total runtime of the crew and the team:

for touching limiters at the obstacle site - 30 seconds;

for knocking down obstacles - 60 seconds;

for each violation of the sequence of the task (standard), which leads to an accident, damage (breakdown) of equipment and weapons - 120 seconds;

for the dropping of the transferred log - 20 seconds;

for not putting a log into the prepared pit – 30 seconds.

The fourth task of the relay: IMR crews should pass the relay to the UR-77 crews, by activating the green traffic light through the Judge.

Each crew should pass 1 lap of the track.

To perform the engineering task the UR-77 crews should go to the launching line of the demining charge.

The crews should charge two engines and set up the mine clearance system in the combat position.

The charge should be exploded by means of imitation of the special imitation group.

The following penalty time is added to the total runtime of the crew and the team:

for each violation of the sequence of the task (standard), which leads to an accident, damage (injury) of equipment and weapons - 120 seconds.

The fifth task of the relay: UR-77 crews should pass relay to the tracked mine layer crew (GMZ-2) by activating the green traffic light through the Judge.

Each crew should pass 1 lap of the track.

To accomplish the engineering task, the GMZ crew should reach the line of mining.

Crew should install anti-tank mines on the ground.

The following penalty time is added to the total runtime of the crew and the team:

for each violation of the sequence of the task (standard), which leads to an accident, damage (injury) of equipment and weapons - 120 seconds.

35. The meeting of the Panel of Judges is considered legitimate if at least half of the members of the Panel of Judges is present.

The meeting of the Panel of Judges is recorded by a protocol, approved by the Chief Judge of the Contest and then should be brought to the teams.

36. The order of the Contest may be changed by the Chief Judge.

## **VII. The procedure to determine Contest's winners and awardees**

37. The winners and awardees of the Contest are determined by the decision of the Panel of Judges of the Contest, considering the best time shown by the teams during the relay race, with the preparation of a rating table and protocol on the results.

38. The relay race runtime is determined by the total time for completing the tasks, taking into account the added penalty time.

In the team scoring, the teams that took the first, second and third places are determined according to the results of the fifth stage of the Contest (the race-relay).

39. The winners in the first, second, third and fourth stages (nominations) are also determined.

40. Awarding the winners and awardees of the Contest with cups and medals is carried out in a solemn atmosphere, during the award ceremony at

the end of the Contest stages and by the final protocols of the Contest stages approved by the Chief Judge.

### **VIII. Protest procedure**

41. A protest over the results recorded at the end of the Contest stages, as well as the actions of referees shall be submitted by the team leader in the form of a written request to the Panel of Judges during the Competition day before the scoring points are approved.

Photo and video recordings, that demonstrate the ambiguities and require the decisions and inspection of the Panel of Judges should be attached to the request, indicating the content of the disputed issue, time and place of the ambiguities.

42. Decisions on these protests are made by open voting of the Panel of Judges of the Contest by a simple majority of votes of its members at the meeting.

43. The meeting of the Panel of Judges is considered legitimate if at least half of the members of the Panel of Judges is present.

The meeting of the Panel of Judges is recorded by a protocol, approved by the Chief Judge of the Contest and then should be brought to the teams.