



REGULATION
of the contest «Engineering formula»

General provisions

1. The Contest “Engineering formula” of engineering equipment vehicles’ crews (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 – 2021 (hereinafter referred to as ARMY 2021).

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 performance of modern types of engineering equipment.

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

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

5. The Contest's venue is the High military engineering school n.a. Marshall of Engineering troops’ A.I.Proshlyakov of the city of Tyumen.

6. A participating team of the Contest consists of:

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

The Contest's team comprises: a team’s 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 - 3 persons; a crew of a floating transporter - 3 persons;

Coaches group – 2 persons;

Maintenance support group – 2 persons;

Staff – 3 persons.

II. The Contest's preparation and conduct 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 the Engineering Troops of the Armed Forces of the Russian Federation.

The Chief of the Engineering Troops of the Armed Forces of the Russian Federation is in charge of the preparation and conduct of the Contest during ARMY – 2021.

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

9. A panel of judges shall be appointed during the Contest and consists of:

the Chief Judge of the Contest; the Contest’s Secretary; field referees of the

Contest; 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's realization program by teams' representatives;
the rightfulness of preparation and arrangement of obstacles on the routes (tracks, vehicle driving water areas, etc.);
- 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 to the Panel of Judges of the Contest;
- f) to 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 provide an direct management of comprehensive support of the Contest. The composition of the Contest administration staff should be approved.

III. The Contest's order of conduct

13. The Contest is to be held in accordance with the specified Contest's program, which was approved by the Chief Judge of the Contest.

14. The Contest is to be open and closed with a solemn ceremony. All participants of the Contest should take part in the opening and closing ceremonies.

15. The arrival of the participating teams to the contests' venues and their accommodation is carried out not later than 10 days before the opening of the contest, during these days the events are held in accordance with the Program of the Contest.

IV. Conduct conditions of 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 (without modernization, not prototypes, mass-manufactured) in their features to the samples that are in service in the Armed Forces of the Russian Federation. The provision of armament and special 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 armament and special military equipment, at the end of the every competition day - they should also carry out maintenance and preparation for the events of the next day.

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

21. In the course of the Contest's stages the coaches and maintenance support groups of participating teams of the Contest are prohibited to use radio frequencies of the Panels of Judges and administration of the Contest, as well as use drones (video cameras, photo cameras, quadrocopters) not approved by the Judge board (another organizations).

22. In cases of prerequisites for violating safety requirements, force majeure or acts of insuperable force, that could affect the final results of the Contest, the Chief Judge of the Contest suspends it both for a specific team and for all teams of the Contest which are on the route until normal conditions are met for its further implementation. At the same time, the time-marking of route passing by teams should be paused. After the Contest's delay cause removal the time-marking should be resumed by the command of the Chief Judge.

Teams that have committed a gross violation of safety requirements should be disqualified from the stage of the Contest and from the Contest at all.

23. The medical examination of the participants should be made upon the arrival of participating teams and before the start of each stage of the Contest.

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

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

V. The 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 Contest in a due time with organic weapon and equipment,
have an ID document;
to stay in the special area for the participants of the Contest 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 representative should not be included in the Panel of
Judges of the Contest in which this team participates.

27. Each team of the Contest 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 Contest, 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 be present permanently on the Contest's venue, to be dismissed only with
the permission of the Chief Judge of the Contest or his acting officer;

to inform the Contest's team about the decisions of the Panel of Judges of
the Contest, changes in the daily routine and in detailed contest's program;

to submit to the Panel of Judges of the Contest additional applications,
promptly inform about members of the team who misfit the Contest due to a
doctor's decision;

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 of the Contest and to take part
in the draws.

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

VI. The Contest Stages

28. The Contest is held using an excavator MDK, a large autonomous trail-
builder BAT, a combat engineer vehicle (CEV), an amphibious carrier PTS, a UR-
77 mine clearing system, a GMZ-2 tracked mine layer (herein after refereed to 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 formalized in a protocol, signed by the Panel of Judges and representatives of
the participating teams of the Contest.

30. Preliminary stage. The **qualification race on an amphibious carrier PTS (without performing an engineering task)** is carried out to determine the order of line-up and movement of the first crews (CEV) from the start line.

The Qualification race on a PTS is held in the presence of the Panel of Judges and representatives of the teams participating in the Contest. The monitoring of track and obstacles overcoming is carried out by the recorders (field referees) at the obstacles.

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

31. Conduct of the Relay Race (determining the best team of the Contest).

The relay race is carried out in stages. The width of the track (highway) is of 16 meters, length – up to 3500 meters.

Each team should fulfill engineering tasks as a crew.

The route is equipped with:

the “Start” line (with a launching pad and a waiting area) and “Finish” line; sections (obstacles): a section of an obstacles and destructions, an extended and limited passage with a turn, a limited passage with a turn, a limited passage, a passage in a minefield, a hill, a ditch, a track-bridge, a direct limited passage, a turn between the pillars (S-turns), an area for the engineering task fulfillment (pit stop) (1 per team), a ford.

The first task of the Relay Race:

CEVs’ crews are on the start lines, taking places according to the scoring points of the qualification race, in the semifinal races; in the final stage of the Contest - in terms of overall time results. The simultaneous movement should be started by the traffic light signal (starter with a flag, team captain).

Each crew should pass 1 lap of the track. To perform the engineering task the combat engineer vehicle (CEV) crew should go to the indicated area of engineering task fulfillment (pit-stop). The crews should move 4 logs and place them in the previously prepared excavations (dug pits), after completing the task, move the implement (equipment) to the transport position and after the traffic light signal is on, move to the finish line.

The second task of the relay race: the CEVs’ crews should pass the relay to crew of the excavator (MDK), by activating the green traffic light through the Judge.

Each MDK crew should pass 1 lap of the route. In order to perform the engineering task, the MDK crews get their position at the site of the engineering task (pit stop) indicated for each team, where they organize a ditch of 4 m long and 0.8 m deep. After completing the task, they should move the implement (equipment) to the transport position and after switching on the traffic light signal, move to the finish line.

The third task of the relay race: the MDKs’ crews should pass the relay to crew of the large autonomous trail-builder (BAT), by activating the green traffic light through the Judge.

Each crew should pass 1 lap of the route. To perform the engineering task, large autonomous trail crew should go to the pit stop. The crews should backfill

the trench made by the MDK crew (by making at least three ground movements (cycles)). After completing the task, move the implement (equipment) to the transport position and after switching on the traffic light signal, move to the finish line.

The fourth task of the relay race: the BATs' crews should pass the relay to crews of the GMZ tracked mine layer, by activating the green traffic light through the Judge.

Each crew should pass 1 lap of the track. For performing an engineering task, the GMZ crews go on a pit stop. The crew should prepare 16 anti-tank mines and equip the tracked mine layer with them (fuse receipts are provided to the judge). Then go to the line of mining. The crews should place anti-tank mines on the ground at a certain location. After completing the task, move the implement (equipment) to the transport position and after switching on the traffic light signal, move to the finish line.

The fifth task of the relay race: the GMZs' crews should pass the relay to crews of the UR-77 mine clearing system, by activating the green traffic light through the Judge.

Each crew should pass 1 lap of the track. For performing an engineering task, the UR-77 crews go on a pit stop. The crew should raise the guide line and equip the UR-77 with two mine clearing charge engines. Move the guide line to the transport position and after switching on the traffic light signal extend to the finish line.

The sixth task of the relay race: the UR-77 crews should pass the relay to crews of the PTS amphibious carrier, by activating the green traffic light through the Judge.

Each crew should pass 1 lap of the track. To perform the engineering task, the PTS crews should go to the pit stop, to a vehicle loading/unloading area. The crews should be made to load a vehicle on the conveyor, fix it and perform maneuvering afloat in accordance with the specified alignment, return to the vehicle loading/unloading area, serve the penalty time (received by the crews of CEV, MDK, BAT, GMZ, UR, PTS), unload the vehicle. After performing the task, move the implement (equipment) to the transport position and after switching on the traffic light signal, move to the finish line.

The exit of equipment from the pit stop (site of the engineering task) is allowed by traffic lights and (or) judge, arbitrator.

32. Upon completion of the Contest, the results of the Contest shall be summarized and the results of the Contest shall be summed up.

Following the results of the final relay race, the winners in the nominations shall be determined:

«Best Crew of the IMR combat engineer vehicle», «Best crew of the MDK excavator», «Best crew of the BAT large autonomous trail-builder», «Best crew of the GMZ tracked mine layer», «Best crew of the UR-77 mine clearing system», «Best crew of amphibious carrier PTS».

33. The penalty time is defined in the table. The name, quantitative and temporal indicators are discussed during the meeting of the Panel of Judges.

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

34. 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 of the Contest during the relay race, with the preparation of a rating table and protocol on the results of the Contest's realization.

35. The relay race runtime is determined by the total time for completing the tasks of the Contest, taking into account the 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 relay race).

36. 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 in according with the final protocols of the Contest stages approved by the Chief Judge of the Contest.

VIII. Filing of a protest procedure

37. A protest over the results recorded at the end of the Contest stages, as well as the actions of the Panel of Judges of the Contest shall be submitted by the team leader in the form of a written request to the Panel of Judges at the day the stage is carried out before results are approved.

In case of require the decisions and inspection of the Panel of Judges of the Contest there should be attached to the request photo and video recordings made with devices that were allowed (registered) by the Panel of Judges and demonstrate the ambiguities, indicating the content of the disputed issue, time and place of the ambiguities.

38. 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, who are present at the meeting.

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

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