

On approval of the Rules for metrological support of the Armed Forces of the Republic of Kazakhstan

Unofficial translation

Order of the Ministry of Defense of the Republic of Kazakhstan dated October 9, 2020 no. 516. Registered with the Ministry of Justice of the Republic of Kazakhstan on October 12, 2020 no. 21411

Unofficial translation

In accordance with subclause 26-25) of article 22 of the Law of the Republic of Kazakhstan dated January 7, 2005 "On Defense and Armed Forces of the Republic of Kazakhstan" I HEREBY ORDER:

1. To approve the attached Rules for metrological support of the Armed Forces of the Republic of Kazakhstan.

2. The Center of Metrological Support and Standardization of the Ministry of Defense of the Republic of Kazakhstan in accordance with the procedure, established by the legislation of the Republic of Kazakhstan, shall ensure:

1) state registration of this order with the Ministry of Justice of the Republic of Kazakhstan;

2) placement of this order on the Internet resource of the Ministry of Defense of the Republic of Kazakhstan after its first official publication;

3) Submission of information to the Legal Department of the Ministry of Defense of the Republic of Kazakhstan about execution of measures stipulated by subclauses 1) and 2) of this clause within ten calendar days from the date of state registration.

3. Control over execution of this order shall be entrusted to the supervising Deputy Minister of Defense of the Republic of Kazakhstan.

4. This order should be communicated to the officials in the part concerning them.

5. This order shall come into force upon expiry of ten calendar days after the date of its first official publication.

*Minister of Defense
of the Republic of Kazakhstan*

N. Yermekbayev

" A G R E E D "

Ministry of Trade and Integration
of the Republic of Kazakhstan

Approved
by the order of the
Minister of Defense
of the Republic of Kazakhstan
dated October 9, 2020 no. 516

Rules for metrological support of the Armed Forces of the Republic of Kazakhstan

Chapter 1. General Provisions

1. These rules for metrological support of the Armed Forces of the Republic of Kazakhstan (hereinafter referred to as the Rules) shall determine the procedure for metrological support in the Armed Forces of the Republic of Kazakhstan (hereinafter referred to as the Armed Forces).

2. The following basic concepts are used in these Rules:

1) accreditation – the procedure of official recognition of the accreditation body on the competence of the applicant to perform works in a specific area of conformity assessment;

2) metrological support of the Armed Forces – a complex of scientific and organizational-technical measures aimed at observance of the uniformity and the required accuracy of measurements, to increase the reliability of control of the measured parameters to maintain weapons and military equipment (hereinafter referred to as the WME) in a state that ensures high efficiency of its combat use;

3) metrology – the science of measurements, methods and means of ensuring their unity and ways to achieve the required accuracy;

4) metrological control – activities of the officials of metrological service for control over compliance with the requirements of the legislation of the Republic of Kazakhstan in the field of ensuring the unity of measurements;

5) metrological service – a set of subjects whose activities are aimed at ensuring the unity of measurements;

6) measurement – the process of experimental obtaining one or more quantitative values of the value, which can be reasonably attributed to the value;

7) uniformity of measurements – the state of measurements, in which the results of these measurements are expressed in units of values admitted to use, and the measurement accuracy indicators do not go beyond the established limits;

8) register of the state system for ensuring the uniformity of measurement - a document of registration record of objects, participants of works and documents in the field of ensuring the unity of measurements;

9) measuring instrument (hereinafter referred to as the MI) – a technical means designed for measurements and having metrological characteristics;

10) metrological certification of MI – establishment (confirmation) of compliance of MI, manufactured or imported in single copies, with the requirements of regulatory documents to ensure the uniformity of measurements;

11) verification of MI – a set of operations performed to confirm the compliance of the MI with mandatory metrological requirements;

12) MI verifier - an individual certified for the right to carry out verification of MI;

13) method of verification of MI – a set of operations, the performance of which allows determining and confirming the compliance of MI with the established requirements to metrological characteristics

14) a test of measuring instruments (hereinafter referred to as the MI) – a group of operations, executed for determination the quality of conformance of MI to established regulations with application of various test effects to the test objects;

15) technical maintenance of MI – is a set of organizational and technical measures ensuring their maintenance in good condition during use, transportation and storage;

16) authorized body – a state body carrying out state regulation in the field of technical regulation and metrology;

17) standard of a unit of quantity – MI, intended for reproduction and (or) storage the measurement unit (multiple or submultiple values of measurement unit) in order of transfer its size to other measurements means of this quantity, approved according to the procedure, established by the authorized body;

Chapter 2. Procedure of metrological support

3. The main goal of the metrological support in the Armed Forces is maintaining the combat readiness of troops (forces), readiness to use WME for its intended purpose, combat effectiveness of the military personnel.

4. The metrological support shall be organized as a part of logistics of the Armed Forces and shall be carried out including in the interests of their operational and logistical support.

5. Metrological support shall be organized and carried out in the following main directions:

1) metrological servicing of MI;

2) metrological servicing of WME objects;

3) control over the condition and application of MI, standards of units of quantities, over compliance with metrological rules and norms to ensure the uniformity of measurements;

4) metrological support of the military personnel of military units.

6. Main tasks of the metrological support of WME objects when operation immediately in military units and institutions shall be:

1) creation of MI proper operating and storage conditions;

2) organization of proper use of MI;

3) organization of timely verification of MI;

4) provision of regulatory documents in the field of ensuring the uniformity of measurements.

7. The planning of measures for the metrological support of WME in the form and type of troops, the regional command, the military unit and the institution of the Armed Forces shall be carried out by the head of the metrological service (a freelance metrologist). Metrological

support shall be carried out in order to ensure the proper use, timely verification, repair and constant control over technical condition of MI.

8. The head of the metrological service (a freelance metrologist) of a military unit and the institution based on verification needs and information about MI, verified and repaired by metrological and repair bodies, shall draw up a schedule for submission of MI for verification and repair to metrological and maintenance authorities of the Ministry of Defense.

9. Annually, the heads of metrological services (freelance metrologists) of the type, combat arms, regional commands, military units and institutions, submit an annual report on the state of metrological support as of December 1 of the current year to the superior metrological service.

10. Control over the state of metrological support WME in the Armed Forces shall be carried out by the Center for Metrological Support and Standardization of the Ministry of Defense of the Republic of Kazakhstan, with annual plans, through inspection of military units and institutions.

11. Metrological control in the Armed Forces includes a complex of rules, regulations and requirements of technical nature, determining the organization and procedure of performance of works on verification of measuring instruments.

12. Main tasks of the metrological control are ensuring the uniformity and required accuracy of measurements, systematic improvement of the MI stock, maintaining MI in constant readiness for use, organizing Verification of MI and repair, control over the compliance with the requirements of current regulatory legal acts and normative documents in the field of ensuring the uniformity of measurements.

13. Metrological control over MI shall be carried out through inspection of military units on the following main issues:

- 1) availability and accuracy of maintenance of records and documents on MI operation
- 2) the technical condition, care and maintenance of MI operated in units, services and in the military unit as a whole;
- 3) timeliness of verification of MI, in accordance with the established deadlines;
- 4) Storage of MI;
- 5) preparedness of personnel for the operation of MI

14. The head of the metrological service (a freelance metrologist) of the branch of the military, the regional command shall inspect the state of metrological support in all military units at least once a year.

15. The head of the metrological service of the type of troops shall inspect the state of metrological support in all military units at least once every two years.

Chapter 3. Operation of measuring instruments

16. MI means a type of military equipment and constitutes the technical basis of metrological support for the Armed Forces. Their serviceability and constant readiness for intended use depend on: the effectiveness of the use of WME, the safety of their maintenance and performance of other work, the correctness of determining the health status of personnel, the accuracy of the assessment of environmental parameters, the reliability of quality control and the correctness of accounting and expenditure of material and technical means products and other material values. The serviceability of MI and the correctness of their application determine the accuracy and uniformity of measurements in the troops.

17. MI include standards, measures, measuring instruments and converters (sensors) of quantities, measuring installations, measuring systems and complexes, as well as other technical devices.

18. The military personnel of military units directly operating MI must know their technical characteristics, maintenance rules, be able to carry out measurements, monitor their serviceability and timely verification during operation.

19. The MI used in measurements, for which the metrological requirements are established in the measurements related to state regulation, which are objects of state metrological control, after their type approval or metrological certification and registration in the Register of the state system for ensuring the uniformity of measurements of the Republic of Kazakhstan (hereinafter referred to as the register of SMI RK), shall be subject to verification before release into circulation, after repair and during operation.

20. The MI shall be subject to primary, periodic, extraordinary, inspection and expert verification.

Primary verification applies to every unit of MI.

Periodic verification applies to MI, which are operated or stored through the established periodicity of verification (verification intervals), specified in the register of SMI RK.

Extraordinary verification is carried out before:

- 1) commissioning of MI taken from the warehouse after storage and transportation (including after repair);
- 2) forwarding to the consumer of MI, not sold by the manufacturer after half of the verification interval for them.

Inspection verification shall be carried out during the implementation of state metrological control for the purposes of establishment of their serviceability, the accuracy of the results of the last verification, clarification of the accepted calibration intervals and establishment of the proper operation in the presence of representatives of MI owners.

MI expert verification shall be carried out upon written request (application) of state bodies, legal entities and individuals, in the event of controversial issues regarding the metrological characteristics, serviceability, suitability of MI for operation and the correctness of their operation. The application indicates the purpose of the expert verification and the reason that caused its need.

21. Positive results of the verification shall be acknowledged by an imprint of the verification mark, which is applied to the MI or on the operational documentation, a verification certificate.

If MI, based on the results of verification, is recognized as unsuitable for use, then the imprint of the valid verification mark is cancelled and a corresponding entry is made in the operating documentation, the current verification certificate shall be canceled and a notice of unsuitability for use shall be issued.

22. MI may not be subject to periodic verification if they are used to monitor the presence, change in the parameters of the measured object, or generate signals affecting the object, without evaluating their values with standardized accuracy (indicators).

The transfer of MI to the category of indicators shall be carried out by the head of the metrological service (freelance metrologist) of the military unit.

The list of MI, transferred to the category of indicators, shall be drawn up with an indication of MI type, serial number, scope of use and shall be approved by order of the commander of the military unit in the form according to Appendix 1 to these Rules.

On the front side of the body of MI, transferred to the category of indicators, the letter "I" shall be marked.

23. MI that are not subject to approval of the type and verification shall be calibrated according to the established procedure.

The use and verification of MI, issued in circulation during the validity period of the type approval certificate, shall be allowed.

In addition, MI shall not be subject to periodic verification in the event if they are not used in the field of state metrological control, as well as:

1) if two built-in MI are used for measurement (control) of the same parameter of a WME object. The serviceability of an MI excluded from the list of verified ones, shall be determined by the military personnel operating the MI by comparing its readings with readings of the verified MI;

2) if two built-in MI are used for measurement (control) of two parameters of a WME object, the dependence between which is known, then one of these MI, which has a higher reliability and low accuracy, shall be excluded from the number of verified ones. The serviceability of MI, excluded from the number of verified ones, shall be determined by the military personnel operating the MI, by comparing its readings with the value of the measured (controlled) parameter, determined by the known dependency between the parameters and the readings of the verified MI;

3) if built-in electrical measuring instruments of accuracy class 2.0 and below (2.5; 4.0) and pressure instruments of accuracy class 4.0 are not used to make a decision on the readiness of the WME object for use, as well as for provision of safety measures during work;

4) if MI is an object of study (it is disassembled in order to study its structure and principle of operation) and is not used to control the parameters and modes of the current

training equipment with normalized accuracy, as well as for provision of safety measures during work. MI, used for educational (demonstration) purposes, shall be clearly marked with "U";

5) if MI is on a long-term storage;

6) if MI are used as standards of measurement unit (are subject to calibration according to the Rules for provision of metrological traceability of measurements for the subjects of accreditation and legal entities, approved by the order of the Minister of Investments and Development of the Republic of Kazakhstan dated December 25, 2018 no. 909).

24. Built-in MI and the means of operational control of armored, automobile, engineering equipment shall be subject to technical verification by and at the cost of the engineering and technical staff of the military unit during WME maintenance (routine maintenance), using the necessary technical documentation, verified MI of the accuracy class not lower than the tested

25. During technical inspection, a visual check, uncertainty evaluation of the device and the variation in the readings at the working marks of the MI scale, determination of non-return of a pointer to the zero mark shall be carried out.

26. Recordkeeping of technical condition of MI shall be maintained in accordance with the requirements of current regulatory documents of WME recordkeeping.

Entries in the register of technical condition, verification and repair of MI shall be maintained for each subdivision separately by types of MI in the form according to Appendix 2 to these Rules.

27. Verification of MI in the Armed Forces shall be carried out by the metrological accredited bodies.

Where it is impossible to carry out the verification by the metrological bodies of the Armed Forces, verification of these MI on a contractual basis in the laboratories of the state metrological service or in the metrological services of legal entities accredited for this type of activity, shall be allowed.

28. Prior to presentation of MI for verification, they are cleaned of grease, dirt, dust and are checked for functioning.

29. MI, used in the systems, in which oxygen, aggressive liquids and gases are used, shall be presented for verification along with a certificate on degreasing (neutralization) of MI, operating with special media, confirming that they are degreased or neutralized, in the form, according to Appendix 3 to these Rules. The certificate shall be signed by the commander of the military unit and certified with the official seal.

30. Defective MI (with obvious failures or mechanical damage) shall not be presented for verification, but sent for repair. Breakage of plastic seals, self-adhesive labels and impressions of metal stamps in the fixing sockets when preparing MI for verification shall be prohibited. In case of breakage of seals and impressions upon acceptance for verification by the metrological authority, they shall be tested for functioning. MI presented for verification shall

be supplied with completed documentation (data sheets, passports, descriptions, instructions, graphs, tables), as well as standard tools and accessories necessary for their verification and adjustment. In case of loss of a data sheet, the military unit presents a duplicate, certified by the signature of the commander of the military unit and the official seal of the military unit.

31. Standards, as well as MI, required during work on the adjustment recordkeeping, shall be presented with certificates on the previous verification.

32. WME built-in MI shall be verified immediately at the places of their use. All work on their verification shall be carried out in the presence of a representative of the military unit, who performs all necessary connections (disconnections) of verified MI to the object.

33. MI that cannot be verified at the places of their use shall be dismantled from the object and submitted for verification to the places of work of the field metrological group (hereinafter referred to as the FMG). Persons operating the object shall carry out MI dismantling for verification and their installation after verification.

34. Delivery of MI for verification to a metrological body and back shall be carried out in specially prepared containers, ensuring complete safety of measuring devices, by and at the cost of military units operating the MI.

35. For MI, accepted for verification, a handover-takeover certificate shall be drawn up for MI accepted for verification (repair) from the military unit (institution) in duplicate in the form according to Appendix 4 to these Rules. The first remains in the file of the metrological body; the second is delivered to the representative of the military unit and serves as the basis for obtaining MI from verification.

36. In the process of use and storage, MI shall be subjected to technical maintenance. Technical maintenance of MI shall be carried out for the purposes of:

- 1) determining readiness for the intended use;
- 2) ensuring constant readiness for work;
- 3) prevention of failures and malfunctions during use and transportation, including prevention of MI metrological characteristics drifting out of permissible values;
- 4) extending the period of service;
- 5) identification and elimination of failures, malfunctions and causes of their occurrence.

37. When MI is used for its intended purpose, a control inspection (hereinafter referred to as the CI), maintenance No. 1 and No. 2 (hereinafter referred to as the TM-1, TM-2

38. CI shall be carried out daily when using MI, before work, marching, exercises, trainings, transportation and after them, as well as at the halts when marching. If MI is not used, then the CI shall be carried out at least once in a quarter.

The CI of MI shall include:

- 1) visual inspection (without unsealing the MI) to check the absence of mechanical damage, the integrity of the scales, protective glasses, fixing marks, the reliability of the fastening of the controls, the absence of backlash, the integrity of the insulating coatings, the serviceability of the connecting wires and power cables;

- 2) removal of dust and moisture from external surfaces;
- 3) cleaning and lubricating the threads of the connectors;

4) checking the possibility of zero setting for pointers, ease of movement of the adjustment knobs, the clarity of fixing the switches and the coincidence of the pointers with the marks on the corresponding scales, the state of the inscriptions;

- 5) functional check according to the MI maintenance manual;
- 6) elimination of identified deficiencies.

39. TM-1 shall be carried out once a year or during short-term storage. If the calibration interval is a year or less, then TM-1 shall not be performed on these MI, but only TM-2 is performed.

TM-1 shall include:

- 1) operations of clauses 1–5 of the CI;
- 2) restoration of paint coatings, where necessary;

3) checking the condition and completeness of spare tools and accessories (hereinafter referred to as the STA);

- 4) elimination of identified deficiencies;
- 5) checking the accuracy of maintenance of operational documentation.

CI, TM-1 shall be carried out without unsealing the MI by the military personnel, which operate the MI.

40. TM-2 shall be carried out with periodicity of verification and shall be combined with it or when putting on long-term storage.

TM-2 shall include:

- 1) operations of subclauses 1–5 of TM-1;

2) periodic verification of MI to ensure the required metrological characteristics обеспечения;

3) MI preservation (performed when MI are put into long-term storage, if it is provided for by their operational documentation).

Subclause 2 of TM-2 shall be performed by and at the cost of metrological bodies or their FMG, the other ones - by the military personnel, which operate the MI.

41. The results of performance of TM-1, TM-2 shall be entered to the MI data sheet with indication of the date of performance and shall be signed by the person, performed the TM.

42. Technical maintenance of the automated control systems (hereinafter referred to as the ACS) shall be performed by the military personnel, who operate the ACS, or by the military personnel, which operate the EME object. Verification of the ACS shall be performed by the military personnel of metrological bodies.

43. The necessary condition for maintenance of MI in good and suitable for use condition shall be their timely repair.

The repair of MI shall be carried out in repair and metrological bodies of the Armed Forces.

If it is impossible to carry out repairs by the repair and metrological bodies of the Armed Forces, it is allowed to repair these MI on a contractual basis.

44. The MI, transferred for repair, shall be cleaned from dirt, shall be completed according to the data sheet and shall be packaged in accordance with technical requirements for transportation. The submitted documentation (data sheets, passports, graphs), shall be completed on the last day of operation.

When sending for repair, MI shall be completed with the tools and accessories included with the instrument. In case of loss of the data sheet, a completed duplicate, certified by the signature of the commander of the military unit and the official seal, shall be submitted.

MI delivery for repair and back shall be carried out by rail, air, water or road transport in special containers or standard containers, accompanied by a representative of the military unit . When accepting for repair, the completeness and general technical condition of MI, the presence and accuracy of execution of documentation for them are checked.

45. For MI, accepted for repair, a handover-takeover certificate shall be drawn up in two copies, one of which is issued to the representative of the military unit and is the grounds for the receipt from the repair.

Issuance of repaired MI by the repair (metrological) body shall be with the signature of the receiving inspector in the handover-takeover certificate, under which the MI were submitted for repair, and with the entry of the repair (metrological) body in the data sheet on the performed repair with the official seal of the repair (metrological) body.

46. One of the component parts of operation of MI is organization of their storage.

The storage of MI by terms is subdivided into short-term (up to a year) and long-term (more than a year). Placement of MI for a long-term storage shall be documented at warehouses, bases, military units and shall be carried out in the procedure in accordance with ST RK 2.3 "Basic provisions, procedure for creation, approval, storage and application".

MI, included in the set of WME, shall be placed for a long-term storage based on the regulatory documents on organization of WME storage.

47. The MI shall be stored in conditions, specified in operational documents and shall be placed in heated premises separately from other types of property. In the absence of the possibility of storing MI separately from other types of property, it is allowed to store them in common areas, but always in separate cabinets or on separate racks.

During storage and maintenance of MI, do not tilt and cant boxes with MI, and do not store in the same room with MI, batteries filled with electrolyte, acids, alkalis and materials that emit chemically active vapors and gases, food and substances prone to decay or emit moisture, flammable liquids, oily rags and flammable materials. Do not place MI near windows that allow direct sunlight to pass through.

48. The transfer of MI for a long-term storage shall be executed with a certificate indicating the date of the last verification, storage conditions, as well as the type of

preservation and package; verification of such MI shall be conducted before the start of their operation.

49. Transportation of MI includes preparation for transportation, transportation by various modes of transport under specified conditions, ensuring their serviceability and completeness.

Transportation is carried out by road, rail and air. MI, which have the standard packaging of the manufacturer, shall be transported in this closure, without the standard packaging - in a container that ensures their safety during transportation.

50. The scope of work on preparing MI for transportation shall be determined by operational documents for them or for WME samples, which include them, and depends on the type, duration and conditions of transportation.

51. In order to prevent negative impacts on MI during preparation for transportation, a number of measures shall be taken to ensure their good condition:

1) in the MI the of the magnetoelectric system, close the output terminals, while the multi-limit devices close at the lower limit;

2) set the arrow indicators to the marks and divisions indicated in the operating instructions;

3) tighten the screws fixing the replaceable instrument blocks;

4) put cable jumpers, power cable, adapters in the STA package;

5) place the device, STA, operating documents in the stowage box in the places designated to them;

place the stowage box in the shipping container;

7) to protect against moisture, place a moisture-absorbing material in the stowage box;

8) the space between the walls of the stowage box and the shipping container should be filled with shock-absorbing material (shavings, corrugated cardboard).

In the absence of a standard shipping container, it is allowed to use another container that reliably protects MI from shock loads and climatic factors.

52. When transporting standards, additional measures to ensure their safety (special shipping boxes with internal shock absorbers) are applied.

53. Operational documents include a data sheet (or passport), technical description, operating instructions, as well as manufacturer's documents containing complete technical and metrological characteristics, information on the design, and the principle of operation. Operational documentation is kept in order to reflect the technical condition of MI and other information on their operation. When maintaining operational documentation, the following rules shall be observed:

1) records in operational documentation are kept clearly and legibly;

2) erasures are not allowed;

3) as the sheets of individual sections of the data sheet are used, it is allowed to paste in additional sheets in the form established for these sections;

4) information about the inserts made is entered in the "Special Marks" section of the data sheet and certified by the signature of the unit commander, to whom MI is assigned.

The correctness of the maintenance of operational documentation is controlled by the commanders of subdivisions and heads of services in charge of MI, the heads of metrological services (freelance metrologists) of military units and other officials within the time limits established by the regulatory documents.

54. In sections of the data sheet "Information about reclamations" and "Record of deficiencies" the unit commander or the person to whom MI is assigned, keeps a record of all reclamations and refusals, indicates the reasons for their occurrence and the measures taken to eliminate them.

55. Information about transfer (where from and where to) and assignment of MI to a responsible person shall be entered to the section of the data sheet "Information about the movement and assignment of the product during operation" by the unit commander, indicating the date, order numbers (outfit) and military units.

56. MI repair information is entered into the data sheet by the person directly performing the repair and certified by the signature of the official and the seal of the repair authority. The data sheet of such MI should contain a mark from the metrological body about the verification of MI after repair.

Chapter 4. Safety measures during operation of measuring instruments

57. Measures to ensure the safety of work carried out in a military unit are aimed at creating a safe operating environment for MI, preventing injuries and occupational diseases of personnel.

58. Training of personnel in safe methods of work shall be carried out both in the process of combat training and by conducting briefings on safety.

59. There are the following types of briefings: introductory briefing, initial on-the-job briefing, periodic (re-) briefing, daily briefing, unscheduled briefing.

60. Persons operating MI are allowed to work independently after training in the rules and measures for safe work on electrical installations, testing of knowledge by a qualification commission, on-the-job training under the guidance of an experienced specialist and checking the compliance of the health status with the established requirements.

61. The procedure for the safe operation of pressure MI intended for use in systems where oxygen, poisonous, corrosive liquids and gases are used is established in the operating documentation for the systems

Chapter 5. Organization of work of field metrological groups

62. Mobile laboratory of measurement technique (hereinafter referred to as the MLMT) are a highly efficient MI metrology service and enhance the mobility, productivity of

metrology bodies, their FMG. MLMT are equipped on the basis of a laboratory carriage and automotive vehicles.

63. FMG operation based on MLMT is organized through a sequential detour of served garrisons, while MLMT is deployed and applied on the basis of one of the military units or the garrison railway station. MLMT deployments require power and equipment, access roads for easy MI delivery. Delivery of MI for verification and repair to the FMG site and back is made by and at the cost of military units operating MI.

64. For the period of work in the army, a head of FMG is appointed as the head of metrological body and the FMG composition is determined.

65. For the purposes of full coverage of MI verification and repair before FMG arrival, the head of the metrological service of regional command (military unit):

- 1) By the decision of the deputy commander of the regional command (commander of the military unit) for logistics (armament), assists FMG in creating the necessary conditions for the deployment of jobs, the deployment of FMG military personnel;

- 2) 7-10 calendar days prior to the arrival of the FMG, the deputy commander of the regional command (commander of a military unit) for logistics (armament), by written order, notifies the commanders of military units (subdivisions) and chiefs of services about the upcoming verification and repair work and gives the necessary instructions on preparation and procedure for the delivery of MI for verification and repair;

- 3) prepares proposals to the FMG work plan.

66. The commanders of military units (subdivisions) presenting MI for verification and repair:

- 1) assists to FMG in creating the necessary conditions for the deployment of jobs;

- 2) provide the necessary equipment, consumables and STA for carrying out verification and repair work;

- 3) ensure protection of the material part of FMG;

- 4) provide MLMT with electricity, fuel (laboratory cars with additional water) in accordance with the established procedure;

- 5) ensure the participation of a metrologist of the military unit in the work of the FMG and monitor the implementation of the MI verification and repair plans.

For the period of FMG's operation, the metrologists responsible for MI are not involved in any work not related to the verification and repair of MI.

67. MI, built into the WME samples, if technically feasible, are verified without dismantling. The work on their verification is carried out in the presence of representatives of the military unit, who carry out the necessary MI switches, verified as part of the WME samples. If necessary, MI disassembly for verification and installation after verification is carried out by the persons operating the WME.

68. Upon completion of the work, the head of FMG draws up an act - certificate in triplicate in the form according to Appendix 5 to these Rules for each military unit of the

garrison. The act-certificate indicates data on the work done, analysis of deficiencies in the organization of metrological support of the military unit. Acts-certificates are signed by the head of FMG, the commander of the military unit and are certified with the seal of the military unit. The first copy of the act-certificate is sent to the address of the Center for metrological support and standardization of the Ministry of Defense of the Republic of Kazakhstan, the second - to the metrological body, the third - remains in the file of the served military unit.

Appendix 1
to the Rules for
metrological support
of the Armed Forces
of the Republic of Kazakhstan
Form
Approved

(position, military rank,
signature, initials, surname)
"___" _____ 20__

LIST of measuring instruments transferred to the category of indicators

(military unit, institution)

Name of measuring instruments, type	Serial number	Place of installation	Scope of application
1	2	3	4

The head of the metrological service (a freelance metrologist)

(military rank, signature, initials, surname)

"___" _____ 20__

Appendix 2
to the Rules for
metrological support
of the Armed Forces
of the Republic of Kazakhstan
Form

Register No. ____ of Technical Condition, Verification and Repair of Measuring Instruments

(military unit)

(subdivision)

Started on "___" _____ 20__

Finished on " ____ " _____ 20____

Content

Type of measuring instrument	Register pages		Type of measuring instrument	Register pages	
	initial	subsequent		initial	subsequent

Left side

_____ (Type of measuring instrument)

Date of entry	Measuring instruments	Type and cipher code	Range of measurement	Serial No.	Place of installation			Verification periodicity
					Component index	Component No.	In which subdivision is located	
1	2	3	4	5	6	7	8	9

Right side

Date of the last verification or year of manufacture	Date of verification of measuring instruments					Date of sending the measuring instruments for repair and their return from repair			Notice
	20_	20_	20_	20_	20_	first	second	third	
10	11	12	13	14	15	16	17	18	19

Appendix 3
to the Rules for
metrological support
of the Armed Forces
of the Republic of Kazakhstan
Form

Certificate of degreasing (neutralization) of measuring instruments operating with special media

Measuring instruments _____,

(types and numbers)

operating in the systems with _____

,

(name of working medium) degreased (neutralized)

(indicate what and when was degreasing or neutralization carried out)

Military unit commander _____ (number) Seal

(military rank, signature, initials, surname)

" ____ " _____ 20 ____

Appendix 4
to the Rules for
metrological support
of the Armed Forces
of the Republic of Kazakhstan
Form

Handover-Takeover Certificate No. ____ for measuring instruments accepted for verification

(repair) from the military unit (institution) _____

(no. of military unit, institution)

" ____ " _____ 20 ____

(postal address, phone number)

Item no.	Name of measuring instruments, type or cipher code	Serial number	Complete set	Quantity					Notice
				accepted for verification(repair)	issued from verification (repair)				
					verified	including adjusted repaired	unsuitable for use	total	
1	2	3	4	5	6	7	8	9	10

Total of accepted measuring instruments: _____

(number in words)

Accepted _____ Delivered _____

(signature, surname) (signature, surname)

Date of receipt of the devices from verification " ____ " _____ 20 ____

Measuring instruments from the verification in the amount of _____ pcs, including in words) verified _____ pcs and defected _____ pcs with notification on unsuitability (on withdrawal): _____

issued " ____ " _____ 20 ____

(military rank, signature, surname and initials)

Received " ____ " _____ 20 ____

(military rank, signature, surname and initials)

Document no. _____

(powers of attorneys, ID cards or passports)

Appendix 5
to the Rules for
metrological support
of the Armed Forces
of the Republic of Kazakhstan
Form

Act-certificate

"__" _____ 20__

Made by the representative of _____

(name of metrological body)

(military rank, surname and initials)

and by the representative of military unit _____

(number of the military unit, military rank, surname and initial) to certify that within the period from "__" _____ to "__" _____

_____ 20__ verification, adjustment and repair of measuring instruments was performed.

Item no.	Name of measuring instruments (by type)	Results of the work of the field group				
		verified, pcs	approved, pcs	rejected, pcs	repaired from rejected, pcs	remained defective, pcs
1	2	3	4	5	6	7
1	01 Measurements of geometric quantities					
2	02 Measurements of mass					
3	03 Measurements of strength and hardness					
4	04 Measurements of pressure					
5	05 Measurements of vacuum					
6	06 Measurements of motion parameters					
7	07 Measurements of flow and quantity of liquids and gases					
8	08 Measurements of density and viscosity					
9	09 Physical and technical measurements					
10	10 Thermophysical and temperature measurements					

11	11 Optical-physical measurements					
12	12 Acoustic measurements					
13	13 Measurements of electrical quantities					
14	14 Measurements of magnetic quantities					
15	15 Measurements of time and frequency					
16	16 Radiotechnical measurements					
17	17 Measurements of ionizing radiation					
Total:						

1. Measuring instruments not verified by the field group:

Type of measuring instruments	Serial number	From which object	For which reason they remain not verified

2. Disadvantages and difficulties in the organization of work on the verification and repair of measuring instruments: _____

3. Results of checking the implementation of measures on metrological support issues:

1) _____ (military rank, surname and initials) is appointed as the head of the metrological service (freelance metrologist) of the military unit by order of _____ no. ____ dated " __ " ____ 20__ (person issued the order)

2) availability of the regulatory documents on metrological support of WME (regulatory legal acts, orders, planning documents): _____

3) metrological instruments recordkeeping (availability of a register of technical condition, timeliness and accuracy of completion, compliance of the number of measuring instruments presented to the field group with recorded data):

4) condition of measuring instruments based on the results of inspection and verification (absence of mechanical damage, presence of fixing stamps and seals, timely submission of applications and sending MI for repair, cases of using of not verified MI, their type and number): _____

5) maintaining operational documentation (availability of data sheets, passports for MI and accuracy of their completion): _____

Proposals

Report on the implementation of these proposals to the head of the metrological service of the Armed Forces of the Republic of Kazakhstan through the head of the superior metrological service until " __ " _____ 20__

Head of the field group _____

(name of metrological body, military rank, signature, initials, surname)

Metrologist of the military unit _____

(no. of the military unit, signature, initials, surname) I have read and understood the act-certificate, and received its copy

Military unit commander _____ (no. of the military unit, signature, initials, surname) Seal " __ " _____ 20__