

On approval of the Rules for aeromedical safety of state aviation of the Republic of Kazakhstan

Unofficial translation

Order of the Minister of Defense of the Republic of Kazakhstan No. 699 as of September 5, 2019. Registered with the Ministry of Justice of the Republic of Kazakhstan on September 12, 2019, No. 19372.

Unofficial translation

In accordance with subparagraph 25) of Article 15 of the Law of the Republic of Kazakhstan "On Use of Airspace of the Republic of Kazakhstan and Aviation Activity" as of July 15, 2010, I hereby ORDER:

1. To approve the appended Rules for aeromedical safety of state aviation of the Republic of Kazakhstan.

2. In accordance with the procedure established by the legislation of the Republic of Kazakhstan, the Office of the Commander-in-Chief of the Air Defense Forces of the Armed Forces of the Republic of Kazakhstan shall:

1) ensure the registration of this order in State Registration Register of Regulatory Legal Acts of the Republic of Kazakhstan;

2) within ten calendar days of the state registration, send this order to the Republican State Enterprise with the Right of Economic Management "Institute of Legislation and Legal Information" of the Ministry of Justice of the Republic of Kazakhstan for its official publication and inclusion into the Reference Control Bank of Regulatory Legal Acts of the Republic of Kazakhstan in Kazakh and Russian;

3) place this order on the website of the Ministry of Defense of the Republic of Kazakhstan after its first official publication;

4) within ten working days of the state registration, submit information on the implementation of measures, provided for in subparagraphs 1), 2) and 3) of this paragraph, to the Legal Department of the Ministry of Defense of the Republic of Kazakhstan.

3. The control over the execution of this order shall be assigned to the heads of state aviation authorities of the Republic of Kazakhstan.

4. This order shall be brought to the notice of officials to the extent it is applicable to them

5. This order shall take effect ten calendar days after its first official publication.

Minister of Defense of the Republic of Kazakhstan Major General

N. Yermekbayev

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Ministry of Healthcare of the Republic of Kazakhstan " 11 2019 "AGREED" State Security Service of the Republic of Kazakhstan " " 2019 "AGREED" National Security Committee of the Republic of Kazakhstan " " 2019 "AGREED" Ministry of Internal Affairs of the Republic of Kazakhstan " 2019

> Approved by Order № 699 of the Minister of Defense of the Republic of Kazakhstan as of September 5, 2019

Rules for aeromedical safety of state aviation of the Republic of Kazakhstan

Chapter 1. General provisions

1. These Rules for aeromedical safety of state aviation of the Republic of Kazakhstan (hereinafter referred to as the Rules) establish the procedure for aeronautical safety of state aviation of the Republic of Kazakhstan.

2. It is necessary to ensure the aeromedical safety of state aviation in order to maintain the health and performance of aviation personnel in the interests of their effective and safe fulfillment of flight tasks during flight operations.

2-1. The following terms shall be used herein:

1) aviation personnel means persons specially and/or professionally trained to perform and maintain aircraft operations, air transportation and aviation work, aircraft maintenance, air traffic organization and maintenance and air traffic control;

2) aviation unit - republican state institution of state aviation of the Republic of Kazakhstan, responsible for organization and execution of flights of state aviation aircraft, their operation and storage;

3) military-medical (medical) units - structural subdivisions of central executive bodies and other central public authorities and their territorial subdivisions, as well as military-medical (medical) institutions (organizations) and other subdivisions providing military-medical (medical) support;

4) military and medical (medical) support: a set of measures, including the organization and provision of military and medical (medical) care, medical examinations, and ensuring sanitary and epidemiological well-being, supply of medicines and medical devices, health expertise, and scientific and methodological development and training in military medicine for troops, units and agencies of special public and law enforcement agencies, with a view to restoring the combat capabilities and work capacity of personnel;

5) military-medical service - a set of military-medical (medical) units where the laws of the Republic of Kazakhstan provide for military service or a special type of public service intended for military-medical (medical) support to the activities of these bodies;

6) medical examination - determining or confirming the presence or absence of illness of aviation personnel, ascertaining their state of health as well as temporary incapacity for work and professional suitability for work.

Footnote. The Rules as supplemented by paragraph 2-1 under Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall enter into force ten calendar days after the date of its first official publication).

2-2. Medical support for flights shall be provided by the military medical service or a military medical (medical) unit of a military unit or institution of state aviation of the Republic of Kazakhstan (hereinafter, the medical service of an aviation unit).

Footnote. The Rules as supplemented by paragraph 2-2 under Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be put into effect ten calendar days after the date of its first official publication).

2-3. The chief of the military medical service of a military unit (institution) or the medical officer acting in his/her stead (hereinafter referred to as the chief medical service of an aviation unit) shall organise medical support for flights).

Footnote. The Rules as supplemented by paragraph 2-3 pursuant to Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

Chapter 2. Procedure for medical supervision of the health status of aviation personnel

3. Medical observation of the health status of aviation personnel shall be performed for the purpose of:

1) early diagnosis of changes in health and work capacity, linking these changes to occupational activity and implementing the necessary preventive, therapeutic and rehabilitative measures;

2) identifying and investigating occupational factors that have an adverse effect on functional status, health and performance and taking measures to eliminate them;

3) studying the psycho-physiological characteristics of;

4) studying and preventing aviation accidents and incidents;

5) studying the body's reactions to flying (flight tolerance);

6) studying the organisation of work, rest and nutrition.

Footnote. Paragraph 3 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

4. Medical observation of the health status of aviation personnel includes:

1) daily on-the-job observation;

2) routine medical examinations;

3) medical examinations during flights (pre-shift, selective).

5. Aviation personnel, upon arrival from their basic annual paid leave, business trips (30 calendar days or longer) or treatment, are subject to extraordinary medical examination.

6. Aviation personnel (pilots and navigators), who are retrained and master combat use on new aviation equipment, and aviation personnel newly arrived at the aviation unit are subject to monthly medical examination during the first 3 months.

7. Aviation personnel with diagnosed illnesses or injuries preventing the performance of professional activities shall be suspended from flying, directing flights or parachute jumps and sent to the military medical (medical) units of the military unit or institution (hereinafter medical units of the aviation unit) for medical examination or treatment.

The medical service of an aviation unit shall be guided by the indicative time limits for admission of aviation personnel to professional activities upon recovery from illness and injury as specified in Annex 1 hereto.

Footnote. Paragraph 7 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

8. Aviation personnel with health problems are prescribed physical therapy for the prophylactic or curative and recreational purposes. Aviation personnel in need of limited physical activity for health reasons and included in the list of physical therapy groups are not admitted to flights, flight control or parachute jumps.

9. Aviation personnel shall undergo periodic medical examinations once every 3 months in the medical unit of an aviation unit as per the plan approved by the commander of the military unit or the head of the institution (hereinafter referred to as the commander of the aviation unit).

Footnote. Paragraph 9 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be put into effect ten calendar days after its first official publication).

10. Six months after every routine medical examination by the medical unit of the aviation unit, the aviation personnel are subject to medical examination involving a therapist

and a neurologist. For medical reasons, a surgeon, an ophthalmologist, an otorhinolaryngologist can be invited.

11. Medical examination results are recorded in the medical history form in chronological order indicating the following data:

1) examination date;

2) complaints about the state of health;

3) past diseases (injuries) between medical examinations and their outcomes;

4) study of body responses to flights (flight tolerance);

5) how a disease affects the performance and the quality of flight tasks' fulfillment;

6) results of anthropometric measurements and studies of the functional capacity of the cardiovascular system;

7) brief objective data of the medical examination. With regard to persons having health problems, it is necessary to enter objective data in accordance with the nature of the disease and changes that occurred between examinations;

8) the result of a functional stress test;

9) conclusion about the health status. In case of no health problems, the entry "Healthy" is made;

10) decision to admit to flights.

12. Pre-shift medical examination (hereinafter referred to as the preflight medical examination) includes:

1) the checking of a certificate issued by the medical-flight commission;

2) individual interviewing on the state of health, compliance with the regime of work, rest and diet, complaints about the state of health;

3) identification of emotional problems and signs of fatigue (in appearance, behavior, form of communication);

4) measurement of body temperature;

5) examination of open skin and visible mucous membranes, examination of the pharynx, nasal breathing;

6) examination of arterial pulse in the radial artery (during 30 seconds). Aviation personnel with a heart rate of up to 50 beats or more than 90 beats per minute are suspended from flights, flight control or parachute jumps;

7) blood pressure measurement. Aviation personnel are allowed to fly, control flights or make parachute jumps with the following blood pressure indicators: systolic - not more than 140 and not less than 100 millimeters of mercury, diastolic - not more than 90 and not less than 60 millimeters of mercury.

For medical reasons, the volume of preflight medical examination can be increased because of the use of ancillary methods, including tests for the indication of alcohol, narcotic and psychotropic substances. 13. Between and after flights, aviation personnel are subject to selective medical examination in the volume of preflight medical examination (hereinafter referred to as between-flight and post-flight medical examination). Given indications, the between-flight (post-flight) medical examination can be increased because of the use of ancillary methods or reduced to individual interviewing and visual examination.

14. Pilots and navigators shall undergo an inter-flight (post-flight) medical examination:

1) pilots and navigators shall undergo an inter-flight (post-flight) medical examination:

1) those retraining and mastering combat use of new aircraft - for 10 flying shifts;

2) those newly arrived in an air unit - for 5 flying shifts;

3) those starting to fly after in-patient or out-patient treatment - for 2 flying shifts;

4) the first year of service in the unit after graduation - at least once a month for 1 year of flying service in the unit;

5) after a break in flying of more than 4 months - for 5 flying shifts;

6) those of interest to the doctor (medical officer) in terms of individual flight tolerance (flights in night vision goggles, with overloads exceeding 7, with aeroplane refuelling, at extremely low altitudes with terrain rounding, in minimum landing conditions, after holidays or business trips).

Footnote. Paragraph 14 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

15. Aviation personnel going on combat duty are subject to medical examination in the volume of preflight medical examination. In this case, the regime of work, rest and diet shall be similar to the preflight regime.

16. Preflight medical examination is reduced to individual interviewing and visual examination in case of bringing the aviation unit into highest levels of combat readiness, urgent departure. The personnel are interviewed and visually examined out of ranks.

17. The results of medical examinations of aviation personnel (preflight, between-flight or post-flight ones, before going on combat duty, when making parachute jumps or training ejections, before special studies and trainings) are recorded in the register of medical examination results in accordance with the form in Appendix 2 to these Rules.

18. Based on the results of the medical examination, the following decisions are made:

1) to admit to professional activities;

2) to suspend activities;

3) to take prophylactic, curative and rehabilitation measures;

4) to give rest;

5) to refer to consultation, medical examination or treatment;

6) to carry out extraordinary medical examination.

Chapter 3. Procedure for aeromedical safety before and during flights

19. Aeromedical safety before and during flights is carried out in order to timely identify persons with initial forms of acute disease or exacerbation of chronic diseases, with performance decrement and suspend them from flights, flight control, parachute jumps or maintenance of aircraft equipment.

20. Aeromedical safety before and during flights includes:

1) study of the planned flight table for compliance of the planned flight load with the state of health and physical endurance of the aviation personnel scheduled to fly;

2) planning of aeromedical safety in accordance with the conditions and nature of upcoming flights;

3) informing aviation personnel about the psychophysiological features of upcoming flights in the form of lessons (conversations), conducting classes on aviation medicine and survival under conditions of autonomous existence, special studies and trainings in relation to the nature of the planned flights (if necessary);

4) selection of protective equipment and its adjustment, checking of operation, sanitary and hygienic condition and storage conditions of protective equipment;

5) checking the staffing level and condition of the property of the airdrome medical post, the medical equipment of the rescue parabattle group and the ground search and rescue team, on-board medical first-aid kits and emergency reserve medicine group;

6) checking the diet's compliance with the nature of upcoming flights;

7) checking the adequacy of the diet and observance of the preflight diet.

21. For the flight period, a duty doctor (medical worker) is assigned to attend flights and a doctor (medical worker) is assigned to be part of the rescue parabattle group; an airdrome medical post is arranged. The duty doctor (medical worker) attending flights simultaneously heads the airdrome medical post and participates in search and rescue operations as part of the ground search and rescue team.

22. The aerodrome medical post shall be designated to render emergency medical assistance at the aerodrome, evacuate the patients and injured persons to the medical units of the aviation unit or medical organisations (regardless of their form of ownership).

The aerodrome medical post shall be equipped with an airfield ambulance and appropriate medical equipment. The aerodrome medical post ambulance shall not be used other than for its intended purpose.

Footnote. Paragraph 22 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall become effective ten calendar days after the date of its first official publication).

23. If the aviation unit is based at several airdromes, the set of aeromedical safety measures is organized by the head of the medical service of the aviation unit, and is carried out by the medical worker of the aviation unit with an aeromedical safety permit.

24. Before and during flights, the duty doctor (medical worker):

1) carries out preflight, between-flight and post-flight medical examination;

2) checks the sanitary and hygienic condition of the airdrome areas where aviation personnel eat and have a rest.

25. The preflight medical examination of aviation personnel is carried out individually, without unauthorized persons in the preflight medical examination room.

26. Aviation personnel (engineers and technicians) preparing aviation equipment for flights shall be subject to individual interviewing and visual examination (given indications, medical examination is carried out in the volume of preflight medical examination).

27. Aviation personnel are not admitted to (are suspended from) flights, flight control, parachute jumps or flight support:

1) without preflight medical examination (interview);

2) in case of any complaints about health problems, performance decrement;

3) in case of violations of the preflight regime of work, rest and diet;

4) with identified health problems.

28. The decision of the official conducting the preflight medical examination on suspension from flight, flight control, parachute jumping or flight support is final and binding.

29. To make a decision on admission to subsequent flights, it is necessary to compare the results of between-flight and preflight medical examinations. If between-flight medical examination identifies persons to be suspended from further flying, the duty doctor (medical worker) informs the flight manager thereon in a timely manner, makes a relevant note about the suspension in the flight plan table.

30. During the flight period, the duty doctor (medical worker) is provided with technical means to maintain constant communication with the commander of the aviation unit, the flight manager and aviation personnel.

Chapter 4. Procedure for aeromedical safety of parachute jumps

31. For the parachute jump period, the medical service of the aviation unit assigns a duty doctor (medical worker) with appropriate equipment to provide medical assistance. A medical post is deployed at the landing site.

32. Persons recognized by the medical-flight commission as fit for flight work or parachute jumping are admitted to parachute jumping. In case of emotional superexcitation or freeze response of aviation personnel performing the parachute jump for the first time, the duty doctor (medical worker) temporarily suspends them from the parachute jump.

33. On the day (night) of parachute jumps, the doctor (medical officer) on duty shall perform a medical examination to the extent of a pre-flight medical examination, but not earlier than 1 hour prior to the first jump, explaining the need to empty the bowels and bladder prior to jumping. Prior to parachute jumps, parachute jumpers shall observe the same work, rest and diet regime as prior to flight.

After each jump, questioning and external examination shall be performed to check for injuries.

Footnote. Paragraph 33 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

34. On the day (night) of parachute jumps, aviation personnel involved in performing parachute jumps are not admitted to flights.

35. When organizing aeromedical safety of parachute jumps, the duty doctor (medical worker) checks the compliance with the following conditions:

1) jumping may be no earlier than 1 - 1.5 hours after eating;

2) rest after jumps shall be like that after a flight shift;

3) uniforms and shoes shall fit the climatic and weather conditions.

Chapter 5. Procedure for aeromedical safety of training ejections

36. When preparing for training ejections, the medical service of the aviation unit explains to the trainees the peculiarities of the effect on the body of adverse factors arising during inflight ejection (shock overloads when the squib is triggered, after the seat's separation from the aircraft, when the parachute canopy is inflated and at the time of landing, quick changes in barometric pressure and air flow pressure when the canopy is removed, and also in case of low temperatures at high altitudes).

37. For the period of training ejections, the medical service of the aviation unit assigns a duty doctor (medical worker) with the required equipment to provide medical assistance.

38. Before training ejections, aviation personnel shall observe the regime of work, rest and diet like that before flights. The duty doctor (medical worker) conducts medical examination of aviation personnel in the volume of preflight medical examination.

On the day of training ejections, aviation personnel are not admitted to flights. Second training ejection on the same day is not allowed.

39. During the period of training ejections, the duty doctor (medical worker):

1) assesses the severity of neuro-emotional stress;

2) checks the ability of aviation personnel to take correct ejection attitude to avoid injuries of the spine and limbs;

3) checks the correctness of training ejections, the appropriateness of flight gear and protective equipment, the ability of trainees to independently jettison protective equipment after training, observance of safety measures.

40. After a training ejection, the duty medical staff examines the musculoskeletal system paying particular attention to the condition of the spine, evaluates the emotional reaction of the trainee, and shall be ready to provide emergency medical care.

Chapter 6. Procedure for aeromedical safety of simulator training

41. The medical service of the aviation unit is involved in the simulator training of those pilots (cadets):

1) who recently arrived at the aviation unit, who practice exercises that are new to them and young pilots (serving their first year after graduation);

2) who embark on the training of the most complex types of flights;

3) with a break in flight work longer than 4 months;

4) who lag behind in flight training or in retraining for a new type of aircraft and make gross errors during flights.

42. In the course of aeromedical safety of simulator training, the medical service of the aviation unit:

1) studies individual characteristics of the behavior of a pilot (cadet) performing various flight tasks (flight elements) and actions in special cases;

2) determines the level and dynamics of neuro-emotional stress (stress index) and residual attention during training according to psychophysiological indicators (pulse rate, pulmonary ventilation rate, respiratory rate) recorded using special equipment;

3) teaches pilots the methods of self-rating of their state and methods of self-regulation and stress reduction when performing the flight task;

4) participates in the preparation of a joint opinion on the level of professional readiness of the pilot (cadet) for flying.

43. Information obtained during the training of pilots (cadets) is recorded in the register of the values of psychophysiological indicators of pilots (cadets) at the basic flight phases in accordance with the form in Appendix 3 to these Rules.

Chapter 7. The medical service's activities carried out to inspect the operation and storage of protective equipment and flight gear

44. For the purpose of checking the operation and storage of protective equipment and flight clothing, the medical service of the aviation unit shall:

1) train aviation personnel in the use of protective equipment (altitude, overload and water protection equipment);

2) take part in testing the knowledge and skills of aviation personnel in the use of protective equipment;

3) participate in choosing the height and size of the protective equipment and in fitting it;

4) verify that the flight uniforms of aviation personnel conform to the climatic and weather conditions of the flight area and the nature of the flight task;

5) check that the protective equipment is suitable for the conditions of the flight;

6) checks the sanitary and hygienic condition and storage conditions of protective equipment.

Footnote. Paragraph 44 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall come into force ten calendar days after the date of its first official publication).

45. The medical service of the aviation unit shall choose the growth and size of protective equipment, and adjust it, together with the specialists of the altitude equipment maintenance team of the aviation unit.

46. The results of adjustment (checking the adjustment, re-adjustment) of protective equipment, data on the sizes (sizing) of protective equipment are recorded in the passport of protective equipment and a medical history form.

Chapter 8. Aeromedical safety during special studies and trainings of aviation personnel

47. Special studies and trainings of aviation personnel include:

1) study of the tolerance of moderate and large degrees of hypoxia, rarefied atmosphere and quick changes in barometric pressure;

2) study of the tolerance of breathing oxygen under overload pressure;

3) study of the tolerance of static muscle loads;

4) study of the tolerance of radial accelerations.

48. When preparing for special studies and trainings, the medical service of the aviation unit explains to aviation personnel the specific effects of oxygen starvation (hypoxia), quick changes in barometric pressure, oxygen respiration under overload pressure, radial accelerations and measures to protect against the adverse effects of flight factors.

49. Before special studies and trainings, aviation personnel shall observe the regime of work, rest and diet as before flights and undergo medical examination in the volume of preflight medical examination.

50. On the day of special studies and trainings, aviation personnel are not admitted to flights. Special studies and trainings are not carried out if aviation personnel participated in flights or other studies on the day of the study.

51. The results of special studies and trainings are recorded in the register of special studies and trainings of aviation personnel in accordance with the form in Appendix 4 to these Rules.

52. Contraindications to the conduct of special studies and trainings are as follows:

1) complaints about the state of health, performance decrement;

2) non-compliance with the regime of rest and diet (the state after eating is less than 1 hour and more than 5 hours);

3) acute diseases;

4) the recovery period after acute illness;

5) resting heart rate is more than 90 beats per minute;

6) resting blood pressure: systolic - more than 140 and less than 100 millimeters of mercury, diastolic - more than 90 and less than 60 millimeters of mercury.

53. Aviation personnel with reduced tolerance of hypoxia are temporarily suspended from flight work and are referred to medical examination. In this case, it is necessary to clarify reasons for the decrease in the tolerance of hypoxia and prescribe a set of rehabilitation measures. When reduced tolerance of hypoxia is identified again, they are referred to extraordinary inpatient medical examination.

54. The study of the tolerance of breathing oxygen under overload pressure of aviation personnel performing flights at altitudes of more than 12,000 meters is carried out using a training oxygen device (if any in the aviation unit).

55. The study of the tolerance of static muscle loads of aviation personnel performing flights is carried out using the effects of aerobatic overloads on a static ergometer (if any in the aviation unit).

56. The medical service of the aviation unit conducts studies of the tolerance of breathing oxygen under overload pressure, static muscle loads and training of aviation personnel together with specialists of the altitude equipment maintenance team.

57. The study of the tolerance of radial accelerations is conducted by aviation personnel embarking on maneuvering flights with overloads of more than 7 units. At the same time, protective muscle and respiratory antigravity techniques are drilled.

Chapter 9. Involvement of air unit medical service in the study and prevention of air accidents and incidents

Footnote. The title of Chapter 9 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be put into effect ten calendar days after the date of its first official publication).

58. The aviation unit's medical service shall be involved in the study of aviation accidents and incidents to determine, record and analyse the causes reducing the professional reliability of the pilot (aircraft crew), develop and implement measures to prevent them. Information gained in the process of studying aviation accidents and incidents, as well as measures for their prevention shall be presented on a quarterly basis to the superior chief of medical service in the form specified in Annex 5 hereto.

Footnote. Paragraph 58 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be put into effect ten calendar days after the date of its first official publication).

59. Depending on the causes of accidents and incidents, general and/or individual preventive measures shall be developed.

Footnote. Paragraph 59 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

60. General preventive measures shall involve:

1) developing and submitting proposals to the air unit commander to correct deficiencies in organisation, flight operations and pre-flight work, rest and catering regimes;

2) medical support for simulator training for special cases of flight;

3) training of aviation personnel in the psycho-physiological mechanisms and prevention of accidents and incidents;

4) training aviation personnel in the use of protective techniques and exercises that increase resilience to the adverse effects of flight.

Footnote. Paragraph 60 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

61. Individual preventive measures shall comprise:

1) examination, treatment, rest or suspension from flying;

2) submission of proposals to the air unit commander on the planning of flight load, regulation of work, rest and meal regimes;

3) monitoring the dynamics of the functional state of aviation personnel experiencing professional difficulties in flight;

4) medical support for simulator and physical training to develop psycho-physiological qualities;

5) interviewing aviation personnel on a one-to-one basis.

Footnote. Paragraph 61 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be brought into force ten calendar days after the date of its first official publication).

Chapter 10. Activities of the medical service on the rehabilitation of aviation personnel

62. The rehabilitation measures of the aviation unit medical service (restoration of professional efficiency, functional condition, health status) of aviation personnel shall be arranged in phases:

1) the first stage shall be performed in the aviation unit;

2) the second stage - shall be implemented in outpatient and polyclinic conditions;

3) the third stage shall undertaken in special rehabilitation centres, hospital rehabilitation units and sanatorium and health resort organisations.

Footnote. Paragraph 62 - as worded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall come into force ten calendar days after the date of its first official publication).

63. The time and duration of restoration activities for aviation personnel depend on the daily routine and are approved by the commander of the aviation unit.

64. The planning and implementation of rehabilitation activities shall take into account:

1) medical observation data;

2) age;

3) conclusion of the medical and flight commission;

4) psychological characteristics (level of development of attention, operational thinking, memory, spatial orientation and basic character traits);

5) tolerance characteristics of different types of flight;

6) the degree of physical development and level of physical fitness;

7) risk factors and habits affecting health and performance.

Footnote. Paragraph 64 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall come into force ten calendar days after the date of its first official publication).

65. The main indications for prescribing rehabilitation measures are as follows:

1) performance decrement;

2) fatigue, excessive fatigue;

3) functional impairment developed as a result of flight or general load;

4) after interruptions in flights (over 15 calendar days) when retraining for new equipment and performing flights in new climatic and geographical conditions.

Chapter 11. Medical support in the search for and rescue of aircraft that suffer or have suffered distress, their passengers and crews

66. Medical support for search and rescue of aircraft, their passengers and crews experiencing distress or who have suffered distress shall comprise:

1) managing the aviation unit's medical service, coordinating their actions during search and rescue operations;

2) provision of medical assistance and timely evacuation of victims to medical organisations (regardless of ownership);

3) interaction with medical organisations (irrespective of ownership) to provide medical care and treatment to victims;

4) ensuring the readiness of the aviation unit's medical forces and facilities for search and rescue operations.

Footnote. Paragraph 66 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

67. A medical officer involved in search and rescue work as part of a ground search and rescue team or parachute rescue team must:

1) have specific training in the provision of medical assistance to victims of distress and methods for their evacuation;

2) have practical skills in the provision of emergency medical care;

3) know the location of medical organisations (regardless of ownership) in the search and rescue area, their specialisation, evacuation routes and communication arrangements;

4) be fitted out and equipped with necessary medical equipment and gear as per climatic conditions.

Footnote. Paragraph 67 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be put into effect ten calendar days after its first official publication).

68. A medical officer involved in search and rescue operations shall render emergency medical aid to the injured immediately on the site of a disaster, determine the order of evacuation of victims of distress and the method of their transportation to medical units of aviation units or medical organisations (irrespective of their form of ownership).

Footnote. Paragraph 68 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall come into force ten calendar days after the date of its first official publication).

Chapter 12. Procedure for aeromedical safety of various types of flights

Clause 1. Aeromedical safety of altitude and stratosphere flights

69. When ensuring aeromedical safety of altitude and stratosphere flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of altitude and stratosphere flights;

2) checks the appropriateness of altitude protective equipment and flight gear for the upcoming flight;

3) participates in the selection of altitude protective equipment and in its adjustment, checks its correct operation, sanitary and hygienic condition and storage conditions;

4) conducts special studies and trainings depending on the completeness of protective equipment;

5) trains aviation personnel to breathe oxygen under overload pressure and to use altitude life support equipment;

6) conducts between-flight (post-flight) medical examination when flights are performed at altitudes higher than 12,000 meters;

7) identifies persons with symptoms of fatigue, takes necessary rehabilitation measures.

Clause 2. Aeromedical safety of aerobatic flights

70. When ensuring aeromedical safety of aerobatic flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of aerobatic flying;

2) teaches aviation personnel protective muscle and respiratory antigravity techniques, behavioral and respiratory features under the influence of overloads;

3) trains aviation personnel on a static ergometer (if any in the aviation unit) for the purposes of drill training in protective muscle and respiratory antigravity techniques;

4) participates in the selection of antigravity protective equipment and in its adjustment, checks its correct operation, sanitary and hygienic condition and storage conditions;

5) trains aviation personnel in the features of operation of regular antigravity protective equipment;

6) checks the appropriateness of antigravity protective equipment and flight gear for the upcoming flight;

7) conducts between-flight and post-flight medical examinations when flights are performed with overloads over 7 units;

8) identifies persons with symptoms of fatigue, takes necessary rehabilitation measures.

71. After flights with overloads over 7 units, aviation personnel undergo post-flight medical examination (0.5-2 hours after the flight or the next day).

The post-flight medical examination includes:

1) interview about the state of health during and after the flight;

2) examination of the skin of the body, especially the lower body;

3) measurement of heart rate and sitting blood pressure (after a 5-minute rest);

4) questionnaire (assessment of well-being, activity and mood);

5) breath holding at exhalation (Genchi test);

6) three-stage static ergometer testing (in the presence of a static ergometer);

7) clinical blood panel and clinical urinalysis.

Summarized data of post-flight medical examinations are recorded in the medical history form.

72. With regard to the aviation personnel regularly flying with overloads over 7 units (at least 4 times a month), the medical service of the aviation unit at routine medical examinations carries out additional medical examination, including: 1) clinical blood panel and clinical urinalysis (monthly);

2) full static ergometer testing (if a static ergometer is available);

3) breath holding at exhalation (Genchi test);

4) spirometry;

5) questionnaire (assessment of well-being, activity and mood);

6) conventional 12-lead ECG.

The examination is carried out no earlier than 2 days after flights with overloads over 7 units.

73. Given a decrease in the tolerance of aerobatic overloads, aviation personnel are suspended from flights. In this case, it is necessary to clarify reasons for decrease in the tolerance of aerobatic overloads, prescribe a set of rehabilitation measures and decide on the referral for extraordinary medical checkup and examination.

Clause 3. Aeromedical safety of low-altitude and NOE flights

74. When ensuring aeromedical safety of low-altitude and NOE flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of low-altitude and NOE flights;

2) brings to the attention of aviation personnel the ways and methods of increasing the organism tolerance of alternating overloads and optokinetic stimuli (training on a trampoline, loping, rotating swing, outdoor sports, gymnastic exercises, swimming, short-term visual fixation on the dashboard when illusory sensations appear);

3) draws the attention of aviation personnel to possible errors in visual determination of flight altitude and the need for its control according to instrument readings;

4) conducts between-flight and post-flight medical examinations when NOE flights are performed hugging the terrain;

5) identifies persons with symptoms of fatigue, takes necessary rehabilitation measures.

Clause 4. Aeromedical safety of long-haul flights

75. When ensuring aeromedical safety of long-haul flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features and hygienic conditions of activity during a long-haul flight;

2) is involved in testing the aviation personnel's knowledge of inflight operation of oxygen-breathing equipment and protective equipment;

3) participates in the checking of preparation of inflight rations;

4) checks whether the aircraft has the required amount of first-aid kits;

5) teaches aviation personnel the ways and methods of maintaining operational efficiency during a long-haul flight (breathing pure oxygen, a set of special physical exercises, acupressure of biologically active zones), as well as first aid methods for self-care and mutual aid in emergency situations;

6) assesses the individual tolerance by aviation personnel of long-haul flights, the organism tolerance of physical inactivity, the duration of maintaining inflight optimal performance;

7) identifies persons with symptoms of fatigue, takes necessary rehabilitation measures.

Clause 5. Aeromedical safety of bad weather flights

76. When ensuring aeromedical safety of bad weather flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of bad weather flights and the features of spatial orientation in flight;

2) draws the attention of aviation personnel to possible spatial illusions;

3) teaches the methods of overcoming illusions (energetic head movements, changing posture, muscle tension, temporary attention switching, radio communication with the flight manager);

4) explains the ways and methods of preventing illusions (inadmissibility of flying when sick, strict observance of the regime of work, rest and diet, regular physical training aimed at training the vestibular apparatus, no alcohol drinking and smoking, improving the skills of assessing the spatial position of the aircraft by basic and duplicate instruments);

5) conducts between-flight and post-flight medical examinations when flying in landing minimum conditions;

6) identifies persons with symptoms of fatigue, takes necessary rehabilitation measures.

77. When conducting medical observation of the state of health and admission of aviation personnel to perform bad weather flights, the medical service of the aviation unit:

1) identifies cases of inflight illusions among aviation personnel, finds out the nature and causes of their occurrence (hyper-excitability of the vestibular apparatus, excessive fatigue, violation of the regime, interruption in flight work, individual characteristics of the organism, emotionalism, hyper-excitability, tendency to neurotic conditions, technical defects in cockpit 's equipment) in order to take measures to eliminate them;

2) teaches aviation personnel a set of special physical exercises that increase the statokinetic tolerance of organism.

78. In the event of persistent and systematic occurrence of illusions not related to the features of the display system and flight conditions, aviation personnel are suspended from flights, referred to extraordinary medical examination and checkup.

Clause 6. Aeromedical safety of night flights

79. When ensuring aeromedical safety of night flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of night flights and the physiological mechanisms of night vision;

2) draws the attention of aviation personnel to possible spatial illusions during night flights;

3) explains the ways and methods of preventing illusions (inadmissibility of flying when sick, strict observance of the regime of work, rest and diet, observance of the light regime in the aircraft cockpit and in the airdrome premises, no alcohol drinking and smoking, regular physical training aimed at training the vestibular apparatus);

4) teaches aviation personnel how to prevent the decline in night vision, also when suddenly exposed to bright light sources (switching to instrument flight, creating maximum illumination and brightness of indicator instrument scales, using light filters, tilting the head or covering the eyes with the hand palm, switching to visual flight only when restoring the initial level of vision);

5) monitors the work of aviation personnel in low light conditions in order to assess the state of night vision;

6) checks the state of night vision of aviation personnel before performing night flights using an adaptometer, night vision scope (if any in the aviation unit).

80. When night flights are performed, at the airdrome the light regime is observed as follows:

1) in the premises for aviation personnel's work and rest immediately before flights and between them, lighting devices with lightproof caps shall direct light only to workplaces;

2) the rooms are lit red, which helps to reduce the time of dark adaptation;

3) for working with the map, reading and performing other visual operations on the tables, local lighting with white light is arranged, providing illumination of about 30 - 40 lux, illumination of walls and floor within 5 - 15 lux;

4) bright light sources at the airdrome are positioned so that their direct rays do not fall into the pilot's visual field;

5) traffic at the airdrome is organized in such a way as to prevent direct light from entering the pilots' eyes in the parking lots, taxiways and runway;

6) to avoid the pilots' blinding, cars moving around the airfield shall have headlights with special protective devices.

81. A decline in night vision (dark adaptation time over 60 seconds, visual acuity below 0.3 with an illumination of the adaptive field of 0.008 lux) is the basis for suspending aviation personnel from night flights with subsequent examination by an ophthalmologist in order to find out and eliminate the causes of this problem.

82. When ensuring aeromedical safety of night flights with night-vision goggles, the medical service of the aviation unit:

1) explains to aviation personnel the features of the functioning of the vision organ in night-vision goggles;

2) teaches aviation personnel special techniques to determine the initial signs of visual fatigue;

3) specifies the presence of flight tasks requiring the use of night-vision goggles;

4) takes into account the pilot's flying time in night-vision goggles;

5) ensures the participation of medical personnel in individual fitting and adjustment of night-vision goggles;

6) conducts between-flight (post-flight) medical examination.

Clause 7. Aeromedical safety of formation flights

83. When ensuring aeromedical safety of formation flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of formation flights

;

2) teaches aviation personnel how to train eye-to-eye determination of distances on the ground and in flight, how to control the parameters of the combat formation (order);

3) in case of repeated errors while maintaining the combat formation (order) parameters, assesses the condition of the visual analyzer of the wingman (pilot following the aircraft flying in front);

4) recommends that wingmen develop the skills of visual assessment of the spatial position of the aircraft flying in front (leader pilot) with visual fixations not exceeding 1 second.

Clause 8. Aeromedical safety of flights over mountainous areas

84. When ensuring aeromedical safety of flights over mountainous areas, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of flying over mountainous areas;

2) takes measures for the personnel's acclimatization in order to prevent mountain sickness;

3) ensures the prevention of snow ophthalmia (wearing safety glasses), sunburns, injuries, colds and excessive fatigue;

4) checks the appropriateness of the flight gear of aviation personnel for climatic and weather conditions of the flight area and the nature of the flight task;

5) conducts classes with aviation personnel on methods of survival and self-care and mutual aid in the event of emergency aircraft evacuation and landing in the mountains.

Clause 9. Aeromedical safety of over-water flights

85. When ensuring aeromedical safety of over-water flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of over-water flying ;

2) draws the attention of aviation personnel to possible spatial illusions during over-water flights;

3) teaches the methods for overcoming illusions (energetic head movements, changing posture, muscle tension, temporary attention switching, radio communication with the flight manager);

4) explains the ways and methods of preventing illusions (inadmissibility of flying when sick, strict observance of the regime of work, rest and diet, regular physical training aimed at training the vestibular apparatus, no alcohol drinking and smoking, improving the skills of assessing the spatial position of the aircraft by basic and duplicate instruments);

5) participates in the selection and adjustment of protective equipment for aviation personnel used for over-water flying;

6) conducts classes with aviation personnel on methods of survival and self-care and mutual aid in the event of emergency aircraft evacuation above water surface.

Clause 10. Aeromedical safety of flights at low ambient temperatures

86. When ensuring aeromedical safety of flights at low ambient temperatures, the medical service of the aviation unit:

1) trains aviation personnel to provide self-care and mutual aid in case of cold injuries and freezing, and also to take actions to preserve life and health in the event of emergency landing or aircraft evacuation;

2) ensures the prevention of snow ophthalmia (wearing safety glasses) on sunny days in the presence of snow;

3) checks the temperature conditions in the premises (stationary and field ones);

4) checks the appropriateness of the flight gear of aviation personnel for climatic and weather conditions of the flight area and the nature of the flight task;

5) checks the completeness and condition of protective equipment.

Clause 11. Aeromedical safety of flights at high ambient temperatures

87. When ensuring aeromedical safety of flights at high ambient temperatures, the medical service of the aviation unit:

1) participates in organizing a rational daily routine;

2) participates in the planning of flight load, taking into account the individual tolerance of high temperature and performance of aviation personnel;

3) identifies persons with hyperthermia, suspends them from professional activities and arranges treatment and rehabilitation for them;

4) takes prophylactic measures aimed at preventing the hyperthermia of personnel;

5) carries out work to prevent diseases caused by sudden changes in temperature during the day and dusty air at airfields in desert regions;

6) participates in checking the conditions of aviation personnel's stay at the airdrome (equipment of places for between-flight rest, the presence of showers, air conditioners and fans , the availability of drinking water);

7) participates in the planning of combat and physical training;

8) explains to aviation personnel the need for proper operation of altitude and antigravity protective equipment.

88. Aviation personnel with hyperthermia are suspended from flights with immediate adoption of measures to normalize their thermal state (water procedures, rest in well-ventilated or air-conditioned rooms).

In case of acute vascular disorders (fainting, collapse) caused by hyperthermia, the aviation personnel, after medical care according to urgent indications, shall be hospitalized with subsequent extraordinary examination by the medical-flight commission.

Chapter 13. Procedure for aeromedical safety of flights of various branches of aviation

Clause 1. Aeromedical safety of frontline flights

89. When ensuring aeromedical safety of frontline flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of flying a highly maneuverable aircraft, the effects of adverse inflight factors on the organism and their preventive measures;

2) teaches aviation personnel protective muscle and respiratory antigravity methods;

3) trains aviation personnel on a static ergometer (if any in the aviation unit) for the purposes of drill training in protective muscle and respiratory antigravity methods;

4) participates in the selection of altitude and antigravity protective equipment and its adjustment, checks its correct operation, sanitary and hygienic condition and storage conditions;

5) conducts special studies and trainings depending on the completeness of protective equipment;

6) draws the attention of aviation personnel to possible spatial illusions during flights;

7) checks the aviation personnel's knowledge how to deal with illusory sensations and the features of using protective equipment;

8) takes part in the special training of aviation personnel in survival under conditions of autonomous existence and the provision of self-care and mutual aid when landing (ditching) in an uninhabited area;

9) conducts between-flight and post-flight medical examinations of aviation personnel performing flights on aircraft with overloads over 7 units, and also those who performed flight tasks with aerial refueling, NOE flights hugging the terrain.

Clause 2. Aeromedical safety of transport aviation flights

90. When ensuring aeromedical safety of transport aviation flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of flights, the effect of inflight adverse factors (hypokinesia, physical inactivity, monotony, desynchronosis) on the organism and their preventive measures;

2) draws the attention of aviation personnel to possible spatial illusions during flights;

3) teaches aviation personnel the ways and methods of maintaining operational efficiency in flight (breathing pure oxygen, a set of special physical exercises in the cockpit, acupressure of biologically active zones);

4) takes part in the special training of aviation personnel for survival under conditions of autonomous existence and the provision of self-care and mutual aid when landing (ditching) in an uninhabited area;

5) identifies persons with the symptoms of fatigue, excessive fatigue and desynchronosis and arranges rehabilitation measures for them.

Clause 3. Aeromedical safety of army aviation flights

91. When ensuring aeromedical safety of army aviation flights, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological characteristics and hygienic conditions of inflight activity in helicopter, the effects of adverse inflight factors on the organism and measures for their prevention;

2) draws the attention of aviation personnel to the need for piloting a helicopter with non-instrumental signals, controlling their actions with short visual fixations on instrument readings not longer than 1 second;

3) draws the attention of aviation personnel to possible errors in the visual determination of flight altitude and the need for its control according to instrument readings;

4) checks the aviation personnel's knowledge how to deal with illusory sensations and sudden changes in illumination during night flight and the features of using night-vision goggles;

5) takes part in the special training of aviation personnel for survival under conditions of autonomous existence and the provision of self-care and mutual aid when landing (ditching) in an uninhabited area;

6) during routine medical examinations, identifies persons with functional impairments associated with the prolonged influence of noise, vibration, and given medical indications, arranges rehabilitation measures for them.

Chapter 14. Procedure for aeromedical safety of flights during combat duty

92. When ensuring aeromedical safety of flights during combat duty, the medical service of the aviation unit:

1) explains to the aviation personnel the psychophysiological features of flying a highly maneuverable aircraft, the effects of adverse inflight factors on the organism and their preventive measures;

2) explains to the aviation personnel the psychophysiological and physiological-hygienic features of combat duty, paying particular attention to the reduction of night performance and measures to maintain it at a high level;

3) trains aviation personnel to operate protective equipment, life support systems and rescue equipment;

4) checks the completeness and condition of protective equipment and flight gear;

5) explains to aviation personnel the need for proper operation of altitude and antigravity protective equipment;

6) studies individual psychophysiological characteristics and the performance of aviation personnel in the process of combat duty;

7) draws the attention of aviation personnel to the need to observe the pre-flight regime of work, rest and diet in order to maintain high performance;

8) teaches aviation personnel the ways and methods of maintaining operational efficiency (breathing pure oxygen, a set of special physical exercises, acupressure of biologically active zones);

9) checks on-duty sanitary-hygienic and living conditions;

10) checks the organization of night meals in order to prevent breaks longer than 4 - 5 hours between meals;

11) takes part in the special training of aviation personnel for survival under conditions of autonomous existence and the provision of self-care and mutual aid when landing (ditching) in an uninhabited area;

12) during flights, conducts between-flight and post-flight interviews, and, if necessary, a medical examination;

13) identifies persons with the symptoms of fatigue, excessive fatigue and desynchronosis and arranges rehabilitation measures for them.

93. Aviation personnel shall have pre-flight and post-flight rest before and after going on combat duty, no matter whether they flew or not.

94. In order to restore the functional state and performance after 50 combat duties, aviation personnel shall have a rest for 7-10 calendar days with subsequent admission to flights.

Chapter 15. Procedure for aeromedical safety of flights of aircraft crews performing overflights

95. In providing medical support for flight crews of aircraft operating overflights, the medical service of the aviation unit shall:

1) inspect accommodation, pre-flight rest and meal arrangements for flight crews, especially when flying to other climatic and geographical zones;

2) check that crews are supplied with food, including on-board meals;

3) inspect the completeness and condition of protective equipment and flight clothes;

4) arranges medical care for the sick and the injured ones, as well as their evacuation to medical organisations (irrespective of their form of ownership).

Footnote. Paragraph 95 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

96. Crews of flying aircraft shall undergo a pre-flight medical examination with a note on the readiness checklist in the medical unit of the aviation unit no earlier than 2 hours prior to departure. A doctor (medical officer) on duty of the aviation unit's medical unit shall conduct the pre-flight medical examination at off-base aerodromes.

Footnote. Paragraph 96 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall come into force ten calendar days after the date of its first official publication).

Chapter 16. Procedure for aeromedical safety of training flights

97. In providing medical support for the flight training of cadets enrolled in the flight specialties of military aviation training schools (hereinafter referred to as "cadets"), the military medical service of the military aviation training school shall:

1) monitor the health and performance of cadets and conduct a range of necessary preventive and therapeutic measures;

2) examine the individual psycho-physiological characteristics of cadets' performance during flight training and during simulator training, identify factors that reduce the effectiveness of the formation and consolidation of flight skills;

3) examines the flight plan sheet to ensure that the planned flight load is consistent with the health and physical stamina of the cadets and flight instructors;

4) analyse the tolerance of different types of flight, take part in drawing up a rational work , rest and diet regime;

5) inspect the sanitary condition of the accommodation, catering and teaching facilities of the cadets, paying particular attention to lighting and temperature conditions;

6) provide cadets with training in aviation medicine.

Footnote. Paragraph 97 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be enacted ten calendar days after the date of its first official publication).

98. Medical observation of cadets' health includes:

1) daily observation of health during flight training;

2) routine medical examinations;

3) medical examinations during flights (pre-flight, between-flight and post-flight medical examinations).

99. Cadets shall undergo periodic health checks at the military medical (medical) unit of the military aviation training school once every three months as per the plan approved by the head of the military aviation training school.

Footnote. Paragraph 99 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be put into effect ten calendar days after the date of its first official publication).

99-1. Cadets shall undergo a health check-up six months after their regular medical examination at the military medical (medical) unit of the military aviation training school with the participation of a general practitioner and a neurologist. A surgeon, ophthalmologist, otorhinolaryngologist may be involved, if medically indicated.

Footnote. The Rules have been supplemented by paragraph 99-1 under Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be put into effect ten calendar days after the date of its first official publication).

100. A cadet with persistent deviations in the state of health discovered in the course of medical observation is subject to referral to in-patient medical examination and extraordinary medical checkup to decide on his fitness for flight training.

101. Aviation medicine classes teach:

1) psychophysiological features of flight activity;

2) protective measures against adverse flight factors;

3) requirements for the state of health and the level of physical development during the implementation of flight activities;

4) the need to comply with the pre-flight regime of work, rest and diet to maintain high performance in flight.

102. Between-flight and (or) post-flight medical examinations of cadets during flight training are conducted:

1) before their first independent flight (at least once a week);

2) after an independent flight (at least 5 flights - after each flight);

3) for those who embarked on flights after inpatient or outpatient treatment (during the first week, but at least 2 flight shifts).

103. Aviation personnel who were on station (on duty) on the eve or on the day of the flight shift are not allowed to fly.

104. In organizing medical support for flights at the camp aerodrome, the military medical service of the military aviation training institution shall inspect:

1) accommodation conditions for aviation personnel and cadets;

2) the ability of cadets and aviation personnel to comply with the pre-flight work, rest and food regime;

3) sanitary and hygienic conditions of catering and water supply facilities.

Footnote. Paragraph 104 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall become effective ten calendar days after the date of its first official publication).

Chapter 17. Procedure for aeromedical safety of flights during retraining and mastering combat use on new aviation equipment

105. When ensuring aeromedical safety of flights during retraining and mastering combat use on new aviation equipment, the medical service of the aviation unit:

1) participates in the selection of aviation personnel for retraining, taking into account his state of health, focus on the continuation of flight work, tolerance of flights on mastered equipment;

2) participates in the selection and adjustment of protective equipment for aviation personnel, training in breathing oxygen under overload pressure;

3) explains to the aviation personnel the psychophysiological characteristics and hygienic conditions of inflight activity on the aircraft to operate which the aviation personnel are retrained, ways to protect against adverse effects of flight factors, the need to observe the regime of work, rest and diet;

4) studies individual psychophysiological characteristics of activities of aviation personnel on new aircraft and during simulator training, identifies factors weakening the formation and consolidation of new flight skills;

5) studies the flight schedule for compliance of the planned flight load with the state of health and physical endurance of aviation personnel;

6) draws the attention of aviation personnel to inadmissibility to interrupt flight work for more than 10 calendar days when being retrained to operate new aviation equipment (it adversely affects the formation and consolidation of flight skills), more than 15 calendar days when mastering combat use (it is fraught with regression of flight skills, decreased quality of performance of flight tasks);

7) trains aviation personnel to operate protective equipment, life support systems and rescue equipment;

8) conducts between-flight (post-flight) medical examinations;

9) identifies persons with symptoms of fatigue, takes necessary rehabilitation measures.

Chapter 18. Procedure for aeromedical safety of tactical flight training

106. Aeromedical safety of tactical flight training (hereinafter referred to as TFT) consists of four periods:

the first period – preparation for aeromedical safety of TFT;

the second period - aeromedical safety of a flight (relocation) to and from a training site; the third period - aeromedical safety of flights in the TFT area;

the fourth period - medical service activities at the end of TFT.

107. While preparing for the medical support for the flight-tactical exercise, the medical service of the air unit shall:

1) draw up a medical support plan for flight and tactical exercises by period and determine, depending on the tasks to be performed, the necessary forces and means of the aviation unit's health service;

2) check the completeness and condition of equipment, instruct medical personnel departing with a ground or air escort to deploy a medical unit for the duration of the exercise and a medical post at the aerodrome of dispersal;

3) inspect the medical care layouts and instruct the forward team medical personnel assigned to arrange medical support for the flight of the air unit to the dispersal airfield prior to the arrival of the main force;

4) determine a list of aviation personnel who are not permitted to participate in air tactical exercises for medical reasons and report this to the unit commander;

5) obtain information from the superior military health service and health organization on the epidemic situation and hygienic state of the exercise area, the availability of health organizations (irrespective of their form of ownership);

6) familiarise aviation personnel (by lectures, discussions) with disease prevention measures specific to the area where the air training exercise takes place;

7) in conjunction with the aerial unit's high-altitude equipment maintenance team, inspect the condition of the protective equipment.

Footnote. Paragraph 107 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall be put into effect ten calendar days after the date of its first official publication).

108. When ensuring aeromedical safety of a flight (relocation) to and from the training site, the medical service of the aviation unit shall take into account the requirements regarding the aeromedical safety of aviation personnel during the preparation and conduct of flights.

109. When providing medical support for flights in the flight-tactical exercise area, the medical service of the air unit shall:

1) inspect accommodation, pre-flight rest conditions for aviation personnel, catering and water supply arrangements;

2) liaise with health-care organisations (irrespective of ownership) in the area of the exercise for the prompt resolution of issues related to the provision of qualified and specialised health care to the injured and sick;

3) clarify the epidemic situation and disease patterns in the local population, and the sanitary state of water sources;

4) examine the flight-tactical exercise plan sheet, prepares the unit's aviation medical forces and facilities for flight support;

5) arrange the deployment of a medical station, equip a place for the pre-flight health examination of aviation personnel;

6) verify the compliance with the pre-flight regime, food preparation conditions, sanitary condition of eating places and food storage in field conditions, carry out additional vitaminisation of personnel if necessary.

Footnote. Paragraph 109 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall come into force ten calendar days after the date of its first official publication).

110. At the end of TFT, the medical service of the aviation unit analyzes the aeromedical safety of TFT and specifies measures to correct identified mistakes. For accelerated rehabilitation of aviation personnel, the medical service of the aviation unit makes recommendations to the commander of the aviation unit on the rational organization of work and rest using measures of restorative medicine.

Appendix 1 to the Rules for aeromedical safety of state aviation of the Republic of Kazakhstan

Item №	Diseases (injuries)	Place of treatment	Subjective and objective data indicative of recovery	Admission to professional activity
1.	Neuropathies:			
	 occipitocervical, intercostal, of cervicobrachial plexus, of lumbosacral plexus of the catarrhal etiology, manifested as pain in typical zones, paresthesia; 	Medical post	No pain	In 3-5 calendar days after consultation with a neurologist
	2) neuralgia and neuritis after intoxication, trauma or protracted	Military hospital	No pain, restoration of function. No pathology in the spine radiograph. In case of neuralgia associated with general intoxication - good tolerance of moderate degrees of hypoxia in a pressure chamber study	By decision of the medical-flight commission (hereinafter referred to as MFC) of the hospital, MFC of an aeromedical laboratory (hereinafter referred to as AML) or a military educational institution

Approximate dates for admission of aviation personnel to professional activities after recovery from diseases and injuries

2.	Radiculoneuropathies :			
	1) mild forms of cervicobrachial and lumbosacral localization;	Medical post	No pain, motion is unconstrained	In 3-5 calendar days after consultation with a neurologist
	2) protracted and recurrent	Military hospital	No pain, motion is unconstrained	By decision of head of the department, MFC of the hospital
3.	Fatigue:			
	1) mild; 2) moderate and severe	Health center, rest for 7 - 10 calendar days Military hospital	No complaints, desire for flight work No complaints, desire for flight work	Based on the data of medical examination involving a therapist and a neurologist By decision of the MFC of the hospital or MFC of AML (military educational institution)
4.	Heightened emotional reaction to an official or everyday adversity:			
	1) mildly expressed, short-term, lasting several minutes;	Medical post	Restoration of normal health and mood, critical attitude to the past situation	In 2 - 3 calendar days after consultation with a neurologist, psychologist
	2) reaction of medium duration (several hours), prolonged unusual mental states (neurotic disorders, similar in symptoms to neurasthenia, obsessional neurosis, hysterical neurosis)	Military hospital	Restoration of normal health and mood, critical attitude to the past situation	By decision of the MFC of the hospital
		Whether	Aviation personnel without any injuries, discernible emotional and psychological reaction, provided that they are focused on flight work, and the occurrence of an inflight aviation incident did not depend on the state of health and actions in flight, are allowed to fly in 7-10 calendar days. This decision is	

5. Conditi inflight incident	on after an aviation	inpatient examination is needed shall be decided after medical examination involving a therapist and a neurologist	made by the head of the medical service of the aviation unit based on the data of medical examination involving a therapist and a neurologist. While suspended from flights, aviation personnel perform other military service duties. If necessary, they are referred to inpatient examination in a military hospital, whether it is possible to resume flight work is decided by the MFC	Based on the data of medical examination involving a therapist and a neurologist or a report of MFC of the military hospital
6. Conditi pronou acute intoxica	ion after nced single, alcohol tion	Medical post, consultation with a neurologist	No complaints, normalization of the pulse and blood pressure. Normal reaction of the cardiovascular system shown in orthostatic tests and in case of dosed physical activity	In 3 - 5 calendar days
7. Influenz infectio	za and other spiratory viral ns	Medical post, Infectious disease department of a military hospital	No objective changes in the nasal pharynx, internal organs and nervous system	In 3 - 5 calendar days
8. Acute ri nose)	hinitis (runny	Medical post	No signs of inflammation of the nasal mucosa with normal function of the nose and auditory tubes, normal blood counts	In 2 - 3 calendar days
9. Pharyn laryngi laryngo	gitis, tis and tracheitis:			
1) with of intoxica	out symptoms general tion;	Medical post	Complete restoration of vocal function, no signs of mucosal inflammation during endoscopy. Normal blood counts	In 3 - 5 calendar days
			Complete restoration of vocal function, no signs of mucosal	

	2) with symptoms of general intoxication, a pronounced vocal dysfunction	Military hospital	inflammation during endoscopy. Normal blood counts. No changes in the electrocardiogram (hereinafter - the ECG)	In 5 - 7 calendar days after consultation w i t h a n otorhinolaryngologist
10.	Acute tonsillitis (angina)	Infectious disease department of a military hospital	Disappearance of pharyngoscopic signs of inflammation, pain during palpation of regional lymph nodes . Normal body temperature during 7 calendar days.	In 5 - 7 calendar days
			Normal general blood and urine tests. No changes in the ECG (mandatory control ECG entry at the end of the treatment course)	
11.	Acute sinusitis	Military hospital	No signs of inflammation of the nasal mucosa and paranasal sinuses with normal barofunction of the ear and paranasal sinuses. Normal temperature and blood count. Good tolerance of rapid changes in barometric pressure when examined in an altitude chamber. Examination in the altitude chamber can be no earlier than 3 - 5 calendar days after the puncture	In 3 - 5 calendar days after consultation w i t h a n otorhinolaryngologist
12.	Acute bronchitis:			
	1) with a favorable course of the disease;	Medical post	Disappearance of subjective manifestations of the disease. Normalization of respiratory function, disappearance of pathological signs of the disease in the lungs and normal	In 5 - 7 calendar days

			blood counts. Normal body temperature during 2 - 3 calendar days, no change in chest x-ray	
	2) with a prolonged course of the disease	Military hospital	Disappearance of subjective manifestations of the disease. Normalization of respiratory function, disappearance of pathological signs of the disease in the lungs and normal blood counts. Normal body temperature during 2 - 3 calendar days, no change in chest x-ray	In 7 - 10 calendar days
13.	Acute otitis externa, boils in the external auditory canal	Military hospital	No pain and signs of inflammation of the skin of the auditory canal during otoscopy. Normal blood counts	In 3 - 5 calendar days after consultation w i t h a n otorhinolaryngologist
14.	Acute catarrhal otitis media, salpingootitis	Military hospital	No signs of inflammation with normal barofunction of the ear, good tolerance of rapid changes in barometric pressure when examined in an altitude chamber, normal blood counts. Examination in the altitude chamber can be no earlier than 5 - 7 calendar days after recovery	In 5 - 7 calendar days after consultation w i t h a n otorhinolaryngologist with vestibulometry
15.	Nosebleed:			
	1) spontaneous;	Medical post	No nosebleed during 3 calendar days. Scab detachment	In 3 - 5 calendar days after consultation w i t h a n otorhinolaryngologist
	2) repeated, frequent nosebleeds	Military hospital	No nosebleed during 3 calendar days. Scab detachment. Normal blood counts	By decision of head of the department, MFC of the hospital
			Normalization of the general condition,	

16.	Exacerbation of chronic diseases of the digestive system	Medical post. Military hospital	disappearance of subjective and objective signs of exacerbation of the disease with the onset of remission	In 3 - 5 calendar days
17.	Helminthic invasion	Medical post	Disappearance of subjective and objective manifestations of the digestive system	In 3 - 5 calendar days
18.	Acute intestinal infections and food poisoning	Military hospital	Normalization of the general condition, disappearance of subjective and objective signs of the disease	In 3 - 5 calendar days
19.	Reaction after preventive vaccinations, other allergic reactions	Medical post. Military hospital	Normalization of the general condition, disappearance of subjective and objective signs of the disease	In 3 - 5 calendar days
20.	Hyperthermia:			
	1) mild;	Medical post	Normalization of the general condition, indicators of blood pressure, pulse, body temperature and neuropathological status	In 1 - 2 calendar days
	2) with acute neurovascular disorders	Military hospital	Normalization of the general condition, indicators of blood pressure, pulse, body temperature and neuropathological status	By decision of MFC of the hospital
21.	Bruises:			
	1) with limited swelling of the tissues, with light sores, without severe pain (except for bruises of the head and spine);	Medical post	Disappearance of pain, tissue swelling, restoration of the functions of the bruised organ	In 2 - 5 calendar days after consultation with a traumatologist or a surgeon
	2) all bruises of the head, spine, chest, bruises with detachment of skin and subcutaneous	Military hospital	Disappearance of pain, tissue swelling, restoration of the	

	tissue, with extensive hematomas, injuries of the periosteum with its detachment		functions of the bruised organ	By decision of MFC of the hospital
22.	Damage to the ligamentous apparatus of joints:			
	1) with strained ligamentous apparatus with slight swelling of soft tissues, soreness and slight dysfunction;	Medical post	Disappearance of pain, swelling of tissues, complete restoration of joint function. The patient shall be exempt from parachute jumping and ground ejections for three months after recovery	In 3 - 5 calendar days after consultation with a traumatologist or a surgeon
	2) with significant damage to the ligamentous apparatus with suspected hemorrhage in a joint , joint dislocation	Military hospital	Disappearance of pain, swelling of tissues, complete restoration or minor temporary impairment of joint function.	By decision of MFC of the hospital
23.	Open soft-tissue injury:			
	1) small cut, bruised, chopped and avulsive wounds;	Medical post	Presence of strong, painless scars not limiting the function and not impeding the use of special equipment	In 5 - 7 calendar days after consultation with a surgeon
	2) extensive and deep soft-tissue injuries and gunshot wounds	Military hospital	Presence of painless, strong scars not limiting or temporarily limiting the function	By decision of MFC of the hospital
24.	Fractures of limbs' small bones	Medical post	Complete consolidation of bone fragments with callus formation, in the absence of soft tissue infiltrates not limiting the function and not impeding the use of special equipment	In 5 - 7 calendar days after consultation with a traumatologist or a surgeon
25.	Condition after reduction of joint dislocation	Medical post	Disappearance of pain, swelling of tissues, complete restoration of joint function	In 5 - 7 calendar days after consultation with a traumatologist or a surgeon

26.	Boils:			
	1) solitary (except for facial boils), without increased body temperature and disturbed general condition;	Medical post	Complete healing of the boil, no painful infiltrate and regional lymphadenitis. Normal blood counts	In 2 - 3 calendar days
	2) multiple or often recurrent; solitary facial boils	Military hospital	Disappearance of local and general manifestations of the disease, normal blood counts	In 3 - 5 calendar days , by decision of head of the department of the hospital
27.	Abscesses, hydradenitis, phlegmon, carbuncles	Military hospital	Strong scar without inflammatory infiltrate at the lesion not impeding the use of special equipment, normal blood counts, normal blood sugar level	In 3 - 5 calendar days
28.	Panaritium:			
	 mild forms of skin, subcutaneous and subungual panaritium 	Medical post	Healing with complete finger recovery	In 2 - 3 calendar days
	2) severe forms: tendon, bony, articular, pandactylitis	Military hospital	Healing with complete finger recovery	By decision of head of the department, MFC of the hospital
29.	Burns:			
	1) limited I - II degrees;	Medical post	Complete healing of the burn, strong scars not impairing the function and not impeding the use of special equipment	In 5 - 7 calendar days after consultation with a surgeon
	2) extensive I - II - III degrees	Military hospital	Complete healing of the burn, strong scars not impairing or temporarily impairing the function and not impeding the use of special equipment	By decision of head of the department, MFC of the hospital
30.	Frostbites:			
	 1) limited frostbites I II degrees; 	Medical post	Disappearance of swelling, redness and soreness at the lesion	In 5 - 7 calendar days after consultation with a surgeon
			Complete healing of frostbite, strong scars not impairing the function or	

	2) extensive frostbites II - III degrees	Medical post	temporarily impairing function and not impeding the use of special equipment	By decision of head of the department, MFC of the hospital
31.	Exacerbation of hemorrhoids:			
	1) with a course that is not prolonged and uncomplicated;	Medical post	Disappearance of pain, inflammation and bleeding	In 2 - 3 calendar days after consultation with a surgeon
	2) with prolonged and complicated course	Military hospital	Disappearance of pain, inflammation and bleeding. Normal blood counts	By decision of head of the department of the hospital
32.	Acute cystitis, acute urethritis, acute prostatitis	Medical post. Military hospital	Normal body temperature during 5 calendar days, normal general urine and blood tests, no discharge from the urethra after provocation, no d y s u r i c manifestations	In 2 - 3 calendar days after consultation with a urologist or surgeon
33.	Inflammatory scrotal diseases	Military hospital	Disappearance of pain and swelling, normal body temperature, normal general blood and urine tests	In 2 - 3 calendar days after consultation with a urologist or surgeon
34.	Condition after surgery related to appendicitis, hernias, varicocele and hydrocele	Medical post	Scars are painless, strong, no infiltrates not limiting the function and not impeding the use of special equipment	After consultation with a surgeon
35.	Blepharitis:			
	1) mild forms of the disease;	Medical post	No itching, disappearance of redness of the eyelids , greasy scales at the roots of the eyelashes	In 1 - 2 calendar days
	2) sever, difficult to treat	Military hospital	No itching, disappearance of redness of the eyelids , greasy scales at the roots of the eyelashes	In 5 - 7 calendar days after consultation with an ophthalmologist
36.	Sty. Purulent inflammation of the	Medical post. In case of relapse – military hospital	No painful infiltrate, the wound is closed. Presence of small painless infiltrate is not a contraindication	In 2 - 3 calendar days after consultation

	meibomian gland (internal sty))		to flight admission	with an ophthalmologist
37.	Conjunctivitis:			
	1) acute, mild, uncomplicated;	Medical post	No photophobia, a feeling of pressure and heat in the eyes, painful sensations, the disappearance of redness and swelling of the conjunctiva of the eyelids and discharge from the eyes	In 2 - 3 calendar days
	2) severe, with profuse purulent discharge, and also complicated by superficial keratitis	Military hospital	No photophobia, a feeling of pressure and heat in the eyes, painful sensations, the disappearance of redness and swelling of the conjunctiva of the eyelids and discharge from the eyes	In 5 - 7 calendar days after consultation w i t h a n ophthalmologist
38.	Foreign object in the eye cornea	Military hospital	No signs of inflammation of the conjunctiva and eye cornea	In 1 - 2 calendar days
39.	Inflammatory diseases of eyeballs	Military hospital	No signs of inflammation of the membranes of the eyeball	By decision of MFC of the hospital
40.	Tooth extraction:			
	1) uncomplicated;	Medical post	No edema, pain, bleeding, the mouth can open free, chewing is painless	In 1 - 2 calendar days
	2) complicated by bleeding, alveolitis	Medical post	No edema, pain, bleeding, the mouth can open free, chewing is painless. Normal blood and urine counts	In 2 - 3 calendar days
41.	Acute pulpitis	Medical post	No pain	In 1 - 2 calendar days
42.	Acute periodontitis	Medical post	No pain when biting and percussing a tooth. Complete obliteration of the canal with filling material	In 1 - 2 calendar days
			Complete disappearance of	

43.	Periodontal disease in the acute stage, abscess formation	Medical post. Military hospital	inflammation from periodontium, normal blood and urine counts	In 2 - 3 calendar days after consultation with a dentist
44.	Acute odontogenic osteomyelitis. Odontogenic phlegmon	Military hospital	No pain, edema, hyperemia, normal body temperature, normal blood and urine counts	In 3 - 5 calendar days after consultation with a dentist
45.	Acute diseases of the oral mucosa	Medical post. Military hospital	No elements of mucosal damage, normal body temperature, normal blood and urine counts	In 3 - 5 calendar days after consultation with a dentist
46.	Acute sialadenitis	Military hospital	No pain, edema, normalization of the gland function, normal ECG, normal blood and urine counts	In 3 - 5 calendar days after consultation with a dentist
47.	Difficult "wisdom" teething complicated by pericoronitis	Medical post. Military hospital	No pain, edema, free opening of the mouth (4 cm), normal blood and urine counts	In 2 - 3 calendar days after consultation with a dentist
			Ap to the Rules for of state a Republic	pendix 2 r aeromedical safety wiation of the of Kazakhstan

Register of medical examination results

Military unit _____

Date. Time o f examinatio n	Military rank, surname and initials	Complaints	Condition of the upper respiratory tract	Temperatur e	Pulse	Blood pressure	Identified health problems a n d violation of t h e preflight regime	Conclusion o n admission t o professiona l activities
1	2	3	4	5	6	7	8	9

Note:

1. To register the data of the preflight, between-flight, post-flight medical examination of aviation personnel, the title of the book is amended as follows: "The register of the results of

Form

the pre-flight (between-flight, post-flight) medical examination of aviation personnel". During the between-flight and post-flight medical examination, it is necessary to indicate the time elapsed from the moment of landing of the aircraft.

2. To register the data of the preflight medical examination of the crews of aircraft performing overflights, the title of the book is amended as follows: "The register of the results of the preflight medical examination of crews of aircraft performing overflights".

3. To register the data of the medical examination of persons maintaining flights, the title of the book is amended as follows: "The register of the results of medical examination of persons maintaining flights". Columns 4 - 7 are filled if examination is carried out in the volume of the preflight medical examination.

4. To register medical examination data before going on combat duty, the title of the book is amended as follows: "The register of the results of medical examination of persons going on combat duty". The reference point for the number of shifts is a regular leave (or its better part). Daily duty is not divided into day and night duties.

5. To register the data of medical examination of persons performing parachute jumps, the title of the book is amended as follows: "The register of the results of pre-jump (between-jump, post-jump) medical examination".

6. To register medical examination data during training ejections, the title of the book is amended as follows: "The register of results of medical examination of aviation personnel during training ejections". Column 2 is amended as follows: "Military rank, surname, initials. The number of ejections. The amount of overload." The number of ejections is counted on an accrual basis.

7. To register the data of medical examination of aviation personnel in the process of special studies and training, the title of the book is amended as follows: "The register of the results of medical examination of aviation personnel during special studies and training".

Appendix 3 to the Rules for aeromedical safety of state aviation of the Republic of Kazakhstan Form

Register of values of psychophysiological indicators of pilots (cadets) at the basic flight phases

Military rank	Surname, initials, birth
year	
·	Qualification Total flying time: on planes
_,	
on simulators_	
Date	, total training time
	Flight phases

Item №	Indicat or	Backgr ound	Baselin e	Takeof f	Climb	Level flying	Target interce ption	Bank turn	Descen t	Passag e of AS beacon	Passag e of Y O beacon	After the flight
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Pulse rate											
2.	Volum e of pulmon ary ventilat ion											
3.	Breathi ng rate											
4.	Residu a l attentio n											
5.	Tensio n index											
6.	Psycho physiol ogical conclus ion											
7.	Instruct o r rating											
8.	Overall rating											
9.	Recom mendat ions											
Instructor												
Ph	ysicia	n										

Appendix 4 to the Rules for aeromedical safety of state aviation of the Republic of Kazakhstan Form

Register of special studies and trainings of aviation personnel

Military unit _____

Item №	Military rank. Surname, initials. Specialty	Goal of special studies and trainings	Description of study, training	Protective equipment used (type, serial number, size)	Opinion

1

3

2

4

5

6

Annex 5 to the Rules for Medical Support of Flights of State Aviation of the Republic of Kazakhstan Document form Table 1

Aviation accidents and incidents investigated by aviation unit health service for ____ quarter (year)

Footnote. Annex 5 - as reworded by Order No. 510 of the Minister of Defence of the Republic of Kazakhstan dated 05.08.2021 (shall enter into force ten calendar days after the date of its first official publication).

No. in seq.	Causes	Number of cases
1	2	3
1.	Execution of flights, total:	
	in painful condition;	
	after a violation of the pre-flight rest and recreation regime;	
	after a pre-flight dietary disruption;	
	without protective equipment suitable for the conditions of flight;	
	without medical permit;	
	after drinking alcohol (the day before or the day of the flight);	
	with an expired medical-flight commission report;	
	with excess flying hours per flight shift	
2.	Flight management, total:	
	in a sick state;	
	after a violation of the pre-flight rest and recreation regime;	
	after a pre-flight dietary disruption;	
	without medical permit;	
	after drinking alcohol (the day before or the day of the flight);	
	with an expired medical-flight commission report	
3.	The effects of flight factors on the pilot's (crew's) body:	
	hypoxia	
	overload (piloting);	
	motion sickness;	
	barometric pressure fluctuations;	
	explosive decompression	

4.	Effects on the pilot's (crew's) body of unfavourable hygienic conditions in the cockpit of an aircraft:	
	ingress of foreign matter into the cabin air;	
	ingress of foreign matter into the oxygen;	
	unfavourable cabin temperature conditions	
5.	Incorrect use and malfunctions in safety equipment and gear	
6.	Deficiencies in medical support for flights	
7.	Illusions that have made flying difficult	
8.	Loss of spatial awareness by the pilot (crew)	
9.	Other cases	
10.	Total	

Note:

1. Data shall be presented as a fraction: the numerator shall be the total number, the denominator shall be the number of cases due to reduced capacity for work.

2. "Other cases" shall include aviation accidents and incidents that do not relate to other items in this table. These occurrences shall be briefly explained in the text.

Document form Table 2

Activities of the aviation unit medical service to prevent air accidents and incidents per _____ quarter (year)

No. in seq.	Measures	Number of cases
1	2	3
1.	Suspended from flying at the pre-flight health check, total:	
	in a state of illness;	
	who have violated the pre-flight rest and recreation regime;	
	who have violated pre-flight eating habits;	
	after consuming alcohol;	
	with signs of fatigue, overwork;	
	due to a break between leaves of absence of more than 12 months	
2.	Suspended from directing flights at pre-flight health checks, total:	

	in a state of illness;	
	who have violated the pre-flight rest and recreation regime;	
	who have violated pre-flight eating habits;	
	after consuming alcohol;	
	with signs of fatigue, overwork;	
	due to a break between leaves of absence of more than 12 months	
3.	Removed from flight support of engineering personnel on medical interrogation (examination), total:	
4.	The total number of deficiencies in flight preparation and support that adversely affected the physical or emotional/psychological condition of aviation personnel was eliminated:	
	deficiencies in catering arrangements ;	
	inadequate airfield recreational facilities;	
	excessive flight load;	
	insufficient breaks between flights;	
	mental trauma;	
	conflictual work situations;	
	conflicting family and domestic situations;	
	shortcomings in transportation of aviation personnel	
5.	Faults in the safety equipment are detected:	
	during pre-flight training;	
	during pre-flight training	
6.	Prevented the use of substandard medical oxygen	
7.	Other measures	
8.	Total	

Note:

1. Data in paragraph 1 shall be given as a fraction: the numerator shall be the total number of aircrew suspended, the denominator shall be the number of aircrew members overflown.

2. The report shall contain diagnoses of all diseases diagnosed during pre-flight inspections that have caused the suspension of aviation personnel from flying (flight management).

3. The "Other Activities" shall refer to the activities of the aviation unit medical service in preventing air accidents and incidents, those not related to other items in this table. These activities shall be briefly explained in the text.

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