Emergency situation.
Tasks and fundamentals of the organization of the unified state system of emergency prevention and response (RSChS)

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Development of the unified state system of emergency prevention and response

1990 - creation of The Russian rescue corps (on the rights of State Committee)

1991 - the state Committee for emergency situations under the President of the Russian Federation was formed on the basis of the rescue corps

1992 - the Russian system of prevention and action in emergency situations (RSChS)

1994 - the Federal law “On protection of the population and territories from natural and man-made emergencies” was adopted, the RSChS was reformed into a unified state system of emergency prevention and response
General characteristics of emergency situations

An emergency situation is a situation in a certain territory that has developed as a result of a disaster, accident, natural or other disaster that may cause loss of life, damage to human health or the natural environment.
Emergency warning is a set of measures carried out in advance and aimed at preventing or reducing the risk of an emergency as much as possible.
Emergency response is a complex of emergency rescue and other urgent work to protect the population and territories, carried out in the event of an emergency.
Classification of emergency situations by type of source

- **Emergency situations of natural character**, the reasons for which are dangerous geographical, geological, meteorological, hydrological, cosmic phenomena, and natural fires.

- **Man-made emergencies**, which include chemically dangerous, radiation-dangerous, hydrodynamic, transport accidents and catastrophes, as well as explosions, fires.

- **Biological and social emergencies**, manifested in epidemics, epizootics, epiphytoties and the emergence of new types of diseases.

- **Emergency of a military nature** arising from the use of different weapons (nuclear, bacteriological, chemical weapons, etc.).
Classification of emergencies of the World health organization

- **weather** – storms (hurricanes, tornadoes, cyclones, snowstorms), cold, extraordinary heat, drought, etc.;
- **topological** – floods, snowfalls, snow drifts, mudflows, landslides;
- **telluric and tectonic** – earthquakes, volcanic eruptions;
- **accidents** – collapse of structures (dams, tunnels, buildings, mines), fires, shipwrecks, train crashes, large explosions, etc.
A disaster is a sudden, fleeting event that has caused loss of life, damage to human health, destruction or destruction of objects and other material assets on a significant scale, as well as serious damage to the environment.
Types of emergencies

An accident is a dangerous technogenic event that creates a threat to the life and health of people on an object or a certain territory (water area), leading to the destruction of buildings, structures, equipment, vehicles and disrupting the production or transport process, as well as causing damage to human health and (or) the environment.
Types of emergencies

A **natural disaster** is a dangerous natural phenomenon or processes of geophysical, geological, hydrological, atmospheric, biospheric or other origin of such a scale that causes catastrophic situations characterized by sudden disruption of the life of the population, destruction and destruction of material values, defeat or death of people.
Classification of disasters: natural disasters

- **Meteorological** - hurricanes, storms, cyclones, tornadoes, droughts
- **Tectonic and telluric** - earthquakes, tsunami, volcanic eruptions
- **Topological** - floods, mudslides, landslides
- **Space** - meteorites, magnetic storms, radiation
Classification of disasters: technogenic disasters

- **Transport** (air, rail, road, water)
- **Industrial** (fires, failure of mines, dams, tunnels, buildings)
- **Ecological or environmental** (poisoning of water in water supply systems, etc.)
Classification of disasters: conflictual disasters

- Military clash
- Terrorism
- National and religious conflicts
- Economic crisis
- Social explosion
- Criminal offence
Damaging factors of emergencies

- **Dynamic (mechanical) factors** – the result of the direct action of waves of overpressure (shock waves) in explosions, throwing a person high-speed air pressure and impacts on external objects, the action of structures of buildings and structures (rubble), stones, fragments, glass, leading to various injuries.

- **Thermal factors** – the result of high temperatures (heat radiation, fires, high ambient temperature) accompanied by the emergence of thermal burns, General overheating of the body; at low temperatures - General hypothermia and frostbite.
Radiation factors – the impact of ionizing radiation on the body in accidents at radiation-hazardous facilities or the use of nuclear weapons. As a result of this exposure, radiation sickness and radiation burns of the skin can develop.

Chemical factors – the impact of chemically hazardous substances, toxic substances, in emergency situations causing environmental pollution and leading to the defeat of man and wildlife.
Damaging factors of emergencies

- **Biological factors** – toxins, bacteria and other biological (bacteriological) agents, the release and spread of which are possible in accidents at biologically dangerous objects, in terrorist attacks, and in military conditions – when used by the enemy, leading to mass infectious diseases or mass poisoning.

- **Mental impact** on people in extreme conditions can be manifested in a decrease in their performance, mental disorders, and in some cases lead to mental illness.
In order to prevent emergencies, ensure the safety of the population and reduce damage to the national economy, and to eliminate the consequences a Unified state system of prevention and elimination of emergency situations (RSChS) has been created in the country.
Main tasks of prevention and liquidation of emergency situations

• Development and implementation of legal and economic norms related to ensuring the protection of the population and territories from emergencies.
• Ensuring readiness for actions of forces and means intended for the prevention and elimination of emergencies.
• Organization and implementation of a set of measures to localize and eliminate emergencies.
• Creation of reserves of financial and material resources for emergency response.
• Preparing the population to act in an emergency.
• Implementation of state expertise, supervision and control in the field of protection of the population and territories from emergencies.
• International cooperation in the field of public protection and protection from emergencies and humanitarian actions.
Organizational structure of the RSChS

The system unites RSChS management bodies, forces and means of Federal Executive authorities of the subjects of the Russian Federation, local self-government bodies, organizations having the authority to address issues of protection of the population and territories from emergency situations.
Organizational structure of the RSChS

The unified system consists of functional and territorial subsystems operating at the:

- Federal level
- Interregional level
- Regional level
- Municipal level
- object levels
Organizational structure of the RSChS

Functional subsystems of the RSChS are created by Federal Executive authorities in ministries, departments (including law enforcement agencies) and organizations of Federal subordination to organize work to protect the population and territories from emergencies in the irfield of activity.
Territorial subsystems of RSChS are created by Executive authorities in the subjects of the Russian Federation for the prevention and elimination of emergencies within their territories and consist of district, city, district, object and other links of RSChS.
At each level of the unified system, the following are created:

- Coordination bodies
- Permanent management bodies
- Everyday management bodies
- Forces and means
- Reserves of financial and material resources
- Communication, notification and information support systems
Organizational structure of the RSChS

The coordinating bodies of the unified system are commissions for the prevention and elimination of emergency situations and ensuring fire safety at the appropriate level of the state structure.
Organizational structure of the RSChS

The permanent management bodies of the unified system are:

- **at the Federal level** - the Ministry of civil defense, emergencies and disaster management (EMERCOM) and the corresponding divisions of other Federal Executive bodies

- **at other levels** – territorial bodies of the Ministry of emergency situations and specially authorized bodies
Organizational structure of the RSChS

Everyday management bodies:

- Crisis management centers
- Information centre
- Dispatcher services at different levels and organizations.
Organizational structure of the RSChS

Forces and means of the unified system

Specially trained forces and resources of Federal Executive authorities, Executive authorities of the subjects of the Russian Federation, local self-government bodies, organizations and public associations in tended and allocated for the prevention and elimination of emergency situations.

The composition of forces and means is determined by the government of the Russian Federation.
Forces and means of the unified system

At each level of the unified system, there are *forces and means of constant readiness* designed for rapid response to emergencies and work to eliminate them. The basis of the permanent readiness forces are emergency rescue services and formations equipped with special equipment. Specially trained forces and means of the armed Forces of the Russian Federation and other troops are involved in emergency response in accordance with the procedure determined by the President of the Russian Federation.
For emergency response and elimination of effects of disasters, following resources are created and used:

- Reserves of the state material reserve
- Reserves of the Federal bodies of Executive power
- Reserves of subjects of the Russian Federation
- Reserves of local authorities
- Reserves of organizations
Communication, notification and information support systems

- The control of RSChS is done with the use of the system communication and notification.
- Information support is provided using an automated information management system.
Modes of operation of the RSChS

Depending on the situation in a particular territory, the scale of the predicted or committed emergency, the conditions of its spread, the following modes of operation of the RSChS can be introduced:

- **Mode of daily activities**
- **High-readiness mode**
- **Emergency mode**
Mode of daily activities – the mode in normal production, radiation, chemical, biological (bacteriological), seismic and hydrometeorological conditions, in the absence of epidemics, epizootics, epiphytoties, fires and other emergencies.

At the same time, planned daily activities are carried out in organizations, institutions and formations of the RSChS.
High-readiness mode

High-readiness mode is used when there is a threat of an emergency: in case of deterioration of industrial, radiation, chemical, biological, seismic and others conditions; when receiving information about the possibility of an emergency.

Main activities:

• organization of the work of management bodies for the prevention and elimination of emergencies
• strengthening the duty dispatcher service
• the increased surveillance and control over the environment
• taking measures to protect the population and the natural environment
• putting the forces and means of the RSChS in a state of readiness
Emergency mode is used in the event of an emergency and for the entire period of liquidation of the consequences of an emergency.

Main activities:

– organization of public protection
– advance of forces and means of the RSChS to the affected area
– organization of emergency response
– defining the boundaries of the emergency zone
– continuous monitoring of the state of the environment and socially significant objects in the area of emergencies.
The priority task

The priority task of the Unified state emergency prevention and response system is to eliminate the medical and sanitary consequences of emergencies.
Core questions for self-control

1. Emergencies: definition and main types
2. Classification of disasters and characteristics of damaging factors of emergency situations
3. The main tasks of the Unified state system of prevention and liquidation of emergency situations (RSChS)
4. The organizational structure, forces and means of the RSChS, territorial and functional subsystems
5. Mode of daily activities
6. High-readiness mode
7. Emergency mode.
Thank you