

GEN 3.6 SEARCH AND RESCUE**1. RESPONSIBLE SERVICE**

The operating authority that coordinates activities of the services during SAR operations (works), in accordance with the ICAO Standards and Recommended Practices of Annex 12 is the Search and Rescue Coordination Center (SRCC). The Search and Rescue Coordination Center coordinates the search and rescue of crews and passengers of aircraft that are suffering or have suffered distress on the territory of the Republic of Kazakhstan.

The address of the Search and Rescue Coordination Center (SRCC) of the Republic of Kazakhstan is as follows:

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Limited liability company "Signal Reception Control Point-Kazakhstan" is the designated authority for receiving emergency information of the satellite system COSPAS-SARSAT.

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2. AREA OF RESPONSIBILITY

Search and rescue services in the Republic of Kazakhstan are organized in accordance with the Standards and Recommended Practices of Annex 12, ICAO.

Search and rescue services in the Republic of Kazakhstan are responsible for conducting and coordination of actions during the SAR operation (Work) within the boundaries of the whole territory of the Republic of Kazakhstan.

3. TYPES OF SERVICE

Locations of search and rescue facilities and means operating in the territory of the Republic of Kazakhstan are listed in the table 1.

Table 1: The places of a dislocation of search and rescue forces and means

Name	Location	Means	Remarks
1	2	3	4
Aktau	435136N 0510527E	Ec-145	Daylight time
Aktobe	501446N 0571220E	Ec-145	Daylight time
Almaty	432120N 0770238E	Mi-17	Daylight time
Astana	510121N 0712758E	Mi-17	Daylight time
Atyrau	470719N 0514912E	Mi-17	Daylight time
Balkhash	465339N 0750016E	Bo-105	Daylight time
Beineu	451956N 0550737E	Bo-105	Daylight time
Karaganda	494018N 0732007E	Ec-145	Daylight time
Kazaly	454728N 0620638E	Bo-105	Daylight time
Kokshetau	531949N 0693544E	Bo-105	Daylight time
Kostanay	531226N 0633256E	Bo-105	Daylight time
Kyzylorda	444223N 0653527E	Mi-17	Daylight time
Muyunkum	441618N 0725651E	Bo-105	Daylight time
Pavlodar	521143N 0770424E	Ec-145	Daylight time

Table 1: The places of a dislocation of search and rescue forces and means

Name	Location	Means	Remarks
1	2	3	4
Petropavlovsk	544632N 0691110E	Bo-105	Daylight time
Shalkar	475406N 0593708E	Bo-105	Daylight time
Semey	502106N 0801402E	Bo-105	Daylight time
Shymkent	422154N 0692832E	Ec-145	Daylight time
Taldykorgan	450721N 0782634E	Ec-145	Daylight time
Taraz	425116N 0711808E	Ec-145	Daylight time
Torgay	493758N 0632815E	Bo-105	Daylight time
Turkistan	431840N 0683301E	Bo-105	Daylight time
Uralsk	510907N 0513238E	Bo-105	Daylight time
Usharal	461127N 0804952E	Bo-105	Daylight time
Ust-Kamenogorsk	500212N 0822937E	Ec-145	Daylight time
Zaisan	472915N 0845316E	Bo-105	Daylight time
Zhezkazgan	474233N 0674418E	Bo-105	Daylight time

In addition, if necessary, various units of other ministries and departments of the State may be used to conduct search and rescue operations. Communication facilities and medical aids are provided

Search and rescue operations are carried out with various means and facilities, e.g.: special medium- and short-range search aircraft, heavy and medium helicopters, search and rescue groups, marine and river rescue vessels, motorboat and boats.

Aircraft can land on a ground and have droppable equipment with medicines, food and emergency equipment on board.

Aircraft and marine vessels are equipped to communicate on 121.5 MHz, 123.1 MHz, 500 kHz and 8364 kHz. Ground rescue teams are equipped to communicate on 121.5 MHz, 123.1MHz, 500 kHz and 8364 kHz.

4. SEARCH AND RESCUE AGREEMENTS

No agreements are concluded at the moment, except with Russia and CIS countries.

5. CONDITIONS OF AVAILABILITY

When conducting SAR operation (Work) on the territory of the Republic of Kazakhstan the search and rescue of aircraft passengers and crews suffering or have suffered a distress is carried out independently of the aircraft nationality.

6. PROCEDURES AND SIGNALS USED

6.1 Procedures and signals used by aircraft

The rules and signals contained in Chapter 5 of Annex 12, ICAO should be used when conducting SAR operation (Work) on the territory of the Republic of Kazakhstan.

6.2 Communications

The frequency 121.500 MHz is monitored continuously during their hours of service at all area control centres.

Rescue aircraft use the call sign "RESCUE" and additional identification signals (ALFA, BRAVO, CHARLIE, etc.) during rescue operations.

Transmission and receiving of distress messages within Kazakhstan search and rescue area are carried out in accordance with Annex 10 ICAO, Volume 2, Chapter 5, paragraph 5.3.

In the case of emergency in flight, the crew shall transmit a distress call.

A distress call shall be transmitted on the last frequency used for ATS communication and on 121.500 MHz.

The distress signal can also be duplicated on other frequencies intended for flight support.

When the aircraft is over the sea, the distress call, in addition, may be transmitted on 500 kHz by tonal telegraph and on 2182 kHz by telephone.

Only the pilot-in-command or a person authorised by him is allowed to transmit the distress call.

Distress signal should be repeated at short intervals until confirmation is received.

The distress call is transmitted as follows:

- a. RADIOTELEPHONE
 - "MAYDAY" - 3 times
 - The call sign of the aircraft in distress - 3 times
- b. RADIOTELEGRAPH
 - "SOS" - 3 times
 - The word "DE" - 1 time
 - The call sign of the aircraft in distress - 3 times

If the circumstances permit, the distress call shall be directly followed by the distress message:

- a. RADIOTELEPHONE
 - "MAYDAY" - 3 times
 - The call sign of the aircraft in distress - 2 times
 - Latitude - 2 times
 - Longitude - 2 times
 - Time (UTC) - 2 times
 - Type of damage and required help - 1 time
 - Decision of pilot-in-command and other information which may help search and rescue - 1 time
 - The word "OVER" - 1 time
- b. RADIOTELEGRAPH
 - "SOS" - 3 times
 - The call sign of the aircraft in distress - 2 times
 - Latitude - 2 times
 - Longitude - 2 times
 - Time (UTC) - 2 times
 - Type of damage and required assistance - 1 time
 - Decision of pilot-in-command and other information which will assist in search and rescue - 1 time
 - The letter "K" - 1 time

It is necessary to switch to receiving during 1-2 minutes after each transmission of distress message. When the confirmation of reception of the distress message is received, the pilot-in-command acts in accordance with the situation and the instructions given.

If as a result of taken appropriate actions to prevent the distress situation, the crew is sure that there is no risk in further flight to the aerodrome, it is necessary to cancel the distress message immediately on the ATC frequency used at the time.

1. The call sign of the aircraft in distress - 2 times
2. The call sign of radio station in use at the time - 2 times
3. The words "DISTRESS TRAFFIC ENDED" - 2 times
4. The word "OVER" - 1 time

In the case of emergency landing out of aerodrome, the pilot-in-command or other crew members shall report to the nearest aerodrome or the local authorities, using any communication facilities: time and location of the emergency landing, condition of the crew, passengers and aircraft, as well as the assistance required.

If radio communication is impossible, all pyrotechnic means at the survivors' disposal should be used to attract the attention of the rescue aircraft. In addition, all other means at the crew and passengers' disposal should be used for indicating their position.

The following procedures are recommended for using emergency radio stations on 121.5 MHz:

1. Immediately after landing (ditching) and during 10-12 minutes at the beginning of each hour of the first twenty-four hours one should transmit a thrice-repeated distress message, and after each transmission turn to receiving for 3 minutes;
2. Upon visual observing or hearing the noise of an overflying aircraft one should transmit the distress message and try to establish two-way communication with it;
3. If radio communication is not established, the transmission of the distress message should be alternated with the homing signals during 1.5-2 minutes;
4. When two-way communication is established, the further order of operation with the radio station is effected according to instructions from the crew of the rescue aircraft.

The switching on of the emergency radio station for continuous emission is recommended on the request of rescue aircraft only and when survivors are unable to control the radio station.

In order to avoid harmful interference, simultaneous operation of two or more emergency radio stations is not permitted.

6.3 Search and rescue signals

For transmission of signals by survivors from the ground, it is necessary to use the international ground-air visual signal code prescribed in Annex 12 to the Convention on International Civil Aviation.

In order to avoid mistakes in the interpretation of visual signals, the survivors should display them as exactly as possible, securing maximum colour contrast with regard to the general background.

When the ground signals have been understood, the rescue aircraft indicates it by rocking the wings.

If no radio communication between the rescue aircraft and the survivors has been established, the rescue aircraft drops a message bag with a note containing the necessary information.