



**RUSSIAN FEDERATION
MINISTRY OF TRANSPORT OF RUSSIAN FEDERATION
FEDERAL AIR TRANSPORT AGENCY**

AIRWORTHINESS DIRECTIVE

July 9, 2020

№ 2020-AHCAT, AHCAT-K-09

Applicability – ANSAT helicopters, ANSAT-K (model ANSAT-K) helicopters and their modifications

State of design – Russian Federation

Corrective actions stated in the present Airworthiness directive are mandatory. None of the operators is allowed to operate the aircraft covered by present Airworthiness directive otherwise than according to the requirements of present Directive.

In the course of periodic technical maintenance of the ANSAT helicopter RA-20002 (serial number 33075, operator - LLC «Aviaservice», total flying time - 896.5 flight hours, 2000 landings) according to the «100 hours» and «300 hours» maintenance checks of the Maintenance schedule 338.0000.00PO, crack of fitting 333.0304.011 was detected on the starboard in the area of fitting jointing with the internal flange 333.0304.000.009 of frame № 4. According to the results of investigation conducted by PJSC «Kazan Helicopters» it was determined that the causes of crack were installations stresses that occurred during the assembly of the frame № 4 in production.

Based on the Technical decision of PJSC «Kazan Helicopters» № 1/139-2020-KB3 revision 3 dated 07.07.2020 (ref. № 19245-144 dated 07.07.2020) in order to ensure airworthiness of ANSAT and ANSAT-K helicopters being in operation and in serial production before introduction of changes in the type design in order to reinforce the frame № 4 the following is

PROPOSED:

1. Operators of ANSAT, ANSAT-K helicopters and their modifications shall perform inspections of frame № 4 for defects in the form of cracks in accordance with the task card № 053.10.00a of the helicopter Maintenance manual 338.0000.00PЭ, 340.0000.00PЭ with the following intervals:

a) for helicopters with total flying time less than 300 hours – after every 25±5 flight hours;

b) for helicopters with total flying time more than 300 hours – at the end of every flying day within the frame of post-flight preparation.

2. In case of detection of cracks of frame № 4:

2.1. Stop helicopter operation.

2.2. Provide notification to Federal Air Transport Agency and to PJSC «Kazan Helicopters».

3. Airworthiness directive comes into effect since the date of issue.

4. PJSC «Kazan Helicopters» shall issue mandatory service bulletins with БА and БЭ codes.

Enclosure: Technical decision № 1/139-2020-KB3 revision 3 dated 07.07.2020, 5 sheets.

**Deputy Director General
Federal Air Transport Agency**



A.A. Novgorodov

APPROVED

Deputy managing director –

Head of design of

PJSC “Kazan Helicopters”


A.O. Garipov

«27» 07 2020

TECHNICAL DECISION No. 1/139-2020-KB3

on continuing airworthiness of ANSAT, ANSAT-K (model ANSAT-K) helicopters in connection with detection of crack of fitting 333.0304.011 of strong frame No. 4

Revision 3

Present Revision No.3 contains modifications specified in the FATA’s Minutes of meeting No. 189/03-IIP dated 03.07.2020.

In the course of periodic technical maintenance of the ANSAT helicopter RA-20002 (serial number 33075, operator - LLC “Aviaservice”, total flying time - 896.5 flight hours, 2000 landings) according to the “100 hours” and “300 hours” maintenance checks of the Maintenance schedule 338.0000.00PO, crack of fitting 333.0304.011 was detected on the starboard in the area of fitting jointing with the internal flange 333.0304.000.009 of frame No. 4. According to the results of investigation conducted by PJSC “Kazan Helicopters” it was determined that the causes of crack were installations stresses that occurred during the assembly of the frame No. 4 in production.

In order to ensure airworthiness of ANSAT and ANSAT-K helicopters being in operation and in serial production before introduction of changes in the type design in order to reinforce the frame No. 4 the following decision was made.

DECISION:

1. Starting from the date of issue of the Airworthiness Directive and until completion of works per Service bulletins Nos. A-0402-БА-Г and A-0404-БЭ-Г for ANSAT and ANSAT-K helicopters, operators shall perform inspection of frame No. 4 for defects in the form of cracks in accordance with the task card No. 053.10.00a of the helicopter Maintenance manual 338.0000.00PЭ, 340.0000.00PЭ respectively:

1.1. for helicopters with total flying time less than 300 hours – after every 25±5 flight hours;

1.2. for helicopters with total flying time more than 300 hours – at the end of every flying day within the frame of post-flight preparation.

2. In the course of inspections of frame No.4 pay special attention to the frame internal flange. An indirect sign of a crack in the fitting 333.0304.011 of the frame No. 4 is a crack on the internal stiffener of the opening along the rivet seam adjacent to the fitting (see Fig. 1).

3. In case of detection of cracks of frame No.4 on the aircraft:

3.1. Provide notification to Federal Air Transport Agency and to PJSC "Kazan Helicopters".

3.2. Stop helicopter operation until completion of works per mandatory service bulletins Nos. A-0402-БА-Г and A-0404-БЭ-Г.

4. PJSC "Kazan Helicopters" will issue service bulletins Nos. A-0402-БА-Г and A-0404-БЭ-Г before 17.07.2020.

4.1. Service bulletin No. A-0402-БА-Г "Reinforcement of frame No.4 on the ANSAT and ANSAT-K helicopters in connection with detection of crack of fitting 333.0304.011" provides for completion of the following scope of works:

- installation of the reinforcing fitting-insert in the area of joint of ceiling fitting 333.0304.011 of frame No.4 with the side-frame;

- installation of cover plates on the frame flanges in order to increase the area of re-jointing of frame flanges and web;

- installation of frame No. 4a at the distance of 172 mm from plane of frame No.4;

- installation of cover plate between frames Nos. 4 and 4a;

- modification of routing of drain system;

- modification of interior finishing mounting hardware;

- modification of arrangement of control unit of electronically dimmable cabin window (for VIP version).

4.2. Service bulletin No. A-0404-БЭ-Г "Modification of operation and maintenance documentation of ANSAT and ANSAT-K helicopters in connection with detection of crack of fitting 333.0304.011" provides for introduction of temporary revisions in the documents 338.0000.00PЭ and 338.0000.00PO of the ANSAT helicopter , as well as 340.0000.00PЭ and 340.0000.00PO of ANSAT-K helicopter relating to the:

- determination of periodicity of inspection of frame No. 4 every 100.₁₀ hours;

- description of design of frame No. 4a and cover plate between frames Nos. 4 and 4a;

- introduction of additional inspection of frames Nos. 4 and 6 in the area of bolted connection of riveted part of frames with fittings of the belly panel with the inspection interval – every 100.₁₀ hours;

- introduction of additional inspection of frame No. 3 in the area of joint with ceiling panel and belly panel with the inspection interval – every 100.₁₀ hours;

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- introduction of additional inspection of frame No. 4a in the area of joint with ceiling panel, inner skins between frames 4 and 4a, as well as area of joint of frame No. 4a with belly panel with the inspection interval – every 100-10 hours;

Upon implementation of changes in the type design temporary revisions to Maintenance manual and Maintenance schedule of ANSAT and ANSAT-K helicopters will be modified in accordance with the established procedure.

4.3. The whole fleet of ANSAT and ANSAT-K helicopter is subject to modifications per service bulletins Nos. A-0402-БА-Г and A-0404-БЭ-Г. First of all it is necessary to implement modifications on the helicopters, whose operation is suspended.

The place of works execution according to the service bulletins – PJSC “Kazan Helicopters” or operator’s premises.

Executor of works – organization certified according to the ФАП-285 (Federal Aviation Rules) and having in its Handbook the functions on execution of modifications per service bulletins, with training of the organization's specialists provided on the basis of PJSC “Kazan Helicopters”.

Parts and items required for completion of works per service bulletin No. A-0402-БА-Г will be provided by PJSC “Kazan Helicopters”.

5. Present technical decision also applies to ANSAT and ANSAT-K helicopters being at PJSC “Kazan Helicopters” in the technological cycle of final assembly, painting, acceptance testing and transfer to the Customer.

6. Operators shall follow requirements of paragraphs 1, 2, 3 of present Technical decision until completion of works per service bulletins Nos. A-0402-БА-Г and A-0404-БЭ-Г.

7. Airworthiness directive issued according to the present technical decision will be considered as completed and can be cancelled after completion of works per mandatory service bulletins Nos. A-0402-БА-Г and A-0404-БЭ-Г, and implementation of changes in the type design of ANSAT and ANSAT-K helicopters.

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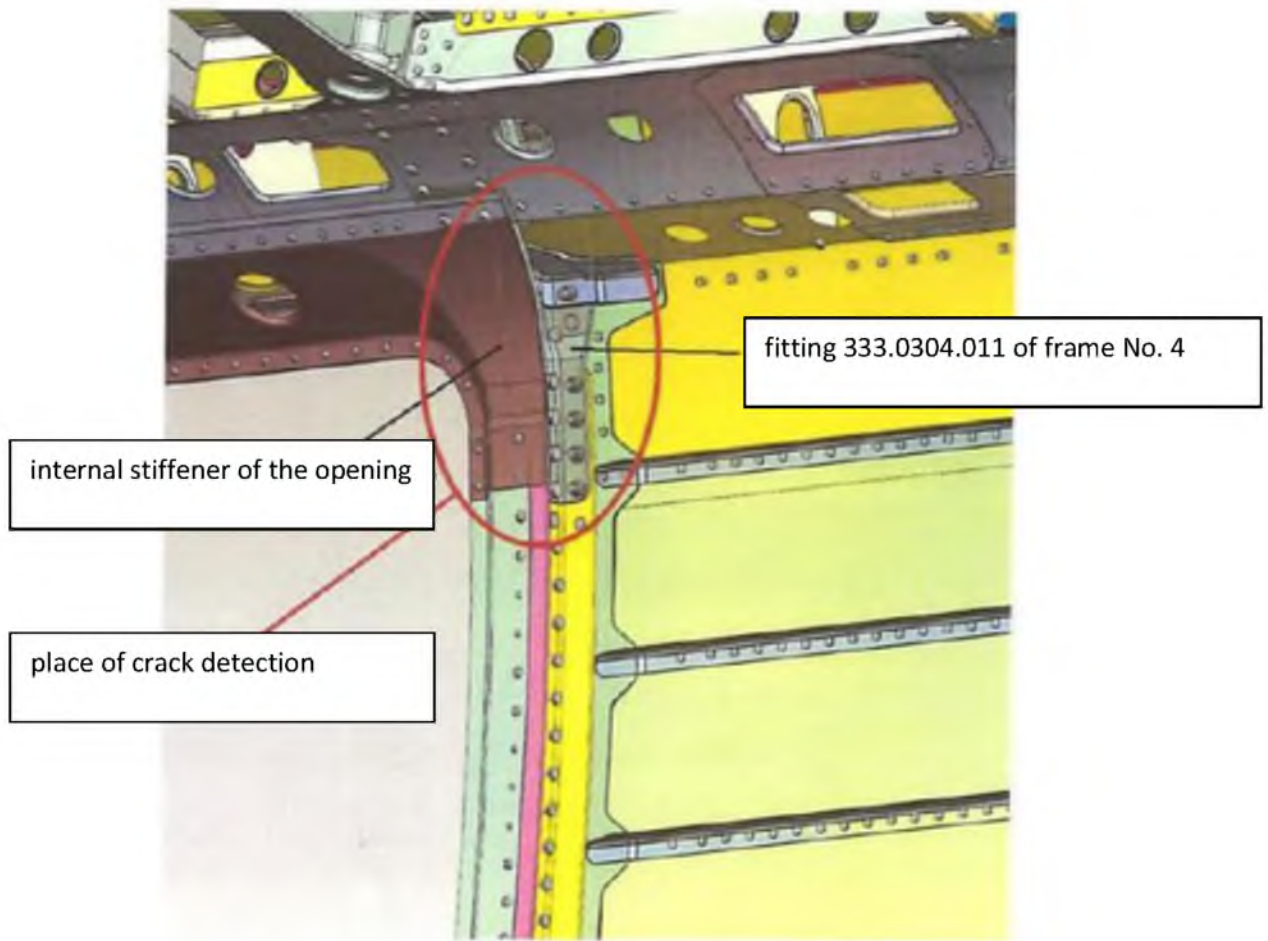


Figure 1