



**Interstate Aviation Committee
Aviation Register**

AIRWORTHINESS DIRECTIVE

November 23, 2012

No. 2012-53-05

Applicability - helicopters Ka-32A, Ka-32A11BC and Ka-32AO

State of Manufacturer - Russia

The corrective actions prescribed by this Airworthiness Directive, are mandatory. No persons may operate an aircraft to which this Airworthiness Directive applies, except in accordance with the requirements of this Airworthiness Directive.

The following four occurrences with Ka-32 helicopter family were registered within the period from July thru September 2012 due to failures of TV3-117VMA, TV3-117VMA series 02 engines:

1. Non-fatal accident with the helicopter Ka-32AO No. RA-31579, belonging to JSC NPK "PANKH", happened on 26.07.2012 in populated place Esto-Sadok, Krasnopolyansky district, Sochi town, the Krasnodar Territory, Russia.

2. Fatal accident with the helicopter Ka-32T No. RA-31596, belonging to JSC "Nefteygansk", took place on 09.08.2012 within the area of populated place Fetkhie, Turkey.

3. Non-fatal accident of the helicopter Ka-32A11BC No. CS-HMO, belonging to «EMA» Company, Portugal, occurred on 03.09.2012 within the area of populated place Memoria, Leiria town, Portugal.

4. Serious incident with the helicopter Ka-32AO No. RA-31064, belonging to JSC NPK "PANKH", occurred on 12.09.2012 within the area of Limasol town, Cyprus.

For the avoidance of failures of TV3-117VMA, TB3-117VMA series 02 engines installed on Ka-32A, Ka-32A11BC and Ka-32AO helicopters, prior to undertaking of design actions by JSC "Kamov" and JSC "Klimov"

THE IAC AR PROPOSES:

1. Operators of Ka-32A, Ka-32A11BC and Ka-32AO helicopters, performing external load operations, within the next scheduled 25 hours form of helicopter maintenance procedures, should perform the following:

- unscheduled maintenance inspection of engine air gas channel according to task card No.608, Engine Maintenance Manual, Sections 072.00.00, 078.00.5700, book 1;

- unscheduled maintenance check for lack of short circuit between thermocouple channels and engine mass according to task card No. 607, Engine Maintenance Manual, Sections 072.00.00, 078.00.5700, book 1;
- unscheduled maintenance check for total resistance of thermocouples at terminals of temperature control according to task card No.402, p. 8.5, Engine Maintenance Manual , Sections 072.00.00, 078.00.5700, book 1;
- engine run-up operation along with performance checking in accordance with Rotorcraft Flight Manual and task card requirements No.505 of Engine Maintenance Manual, sections 072.00.00, 078.00.5800-04, book 3 with inserting of appropriate records into engine log book.

Engines having discrepancies with existing documentation based on results of inspections and checks should be withdrawn from service. Information on engines withdrawal from service should be forwarded to JSC “Kamov” and JSC “Klimov”.

2. Operators of Ka-32A, Ka-32A11BC and Ka-32AO helicopters, performing external load operations, when calculating engine running time in cycles, should multiply achieved running time value by 1.2 factor.

On reaching engine running time of 750 hrs the following engine components should be replaced:

- fuel manifold injectors and nozzles;
- compressor turbine with nozzle guide vanes CAII.

Note. Replacement of components listed above should be conducted with involvement of engine Developer’s (Manufacturer’s) specialists.

3. JSC “Klimov” should develop a Temporary Revision of Engine Maintenance Manual taking into account provisions of item 2 of this Airworthiness Directive with simultaneous recording of engine/engine major components service life in Section 005 of Engine Maintenance Manual according to Engine Type Certificate Data Sheet No.34-Д.

Due date: till 01.01.2013

4. JSC “Klimov” should incorporate into TV3-117VMA, TB3-117VMA series 02 engines Overhaul Manual (No. 078.000000PKP, Section 072.00.00-2) and into Technical Conditions for overhaul (78.CTY-024) a temporary limitation regarding prohibition of installation of components mentioned in item 2 of this Airworthiness Directive into repaired engines from the other engines which have in-service running time.

Due date: till 31.01.2013

5. Operators of the Ka-32A, Ka-32A11BC and Ka-32AO helicopters should operate them taking into account Temporary Revisions to Rotorcraft Flight Manual (enclosed) and a Temporary Revision to Engine Maintenance Manual (ref to item 3 of this Airworthiness Directive).

6. JSC "Kamov" jointly with JSC "Klimov" should conduct preliminary evaluation of scope of work needed for installation of running time counters CHK-78 on the Ka-32A, Ka-32A11BC and Ka-32AO helicopters to provide recording of engine running time.
7. JSC "Kamov" jointly with JSC "Klimov" should provide Operators of Ka-32A, Ka-32A11BC and Ka-32AO helicopters powered by TV3-117VMA, TB3-117BMA series 02 engines with updated design documentation indicated in Type Certificate No.36-32A Data Sheet, for Ka-32A, Ka-32A11BC helicopters and Restricted Type Certificate No.CTOK190-Ka-32AO Data Sheet for Ka-32AO helicopters appropriately as well as in Engine Type Certificate Data Sheet No.34-Д.

Appendix: 1. Technical Decision on continued airworthiness of the Ka-32A, Ka-32AO и Ka-32A11BC helicopters No. 2012-01 on 3 pages.

2. Temporary Revisions No.1 dated 23.11.2012 to Rotorcraft Flight Manual for helicopters: Ka-32A on 4 pages, Ka-32AO on 4 pages, Ka-32A11BC on 6 pages.

IAC AR General Director

A.Donchenko