



ДИРЕКТОРАТ ЦИВИЛНОГ ВАЗДУХОПЛОВСТВА РЕПУБЛИКЕ СРБИЈЕ
CIVIL AVIATION DIRECTORATE OF THE REPUBLIC OF SERBIA

Ref. 3/2-01-2009/2018-04
30 MAR 2018

National Airworthiness Directive

NAD 89-11-01 R4

Date: 21.03.2018.

National Airworthiness Directives (NAD) are issued by Civil Aviation Directorate of the Republic of Serbia (CAD RS). Checks or changes ordered by them are mandatory according to article 156. of Air Transport Law („Службени гласник РС“, број 73/10, 57/11, 93/12, 45/15 и 66/15). Aircraft, engine, propeller, parachute, part or appliance which is the subject of the National Airworthiness Directive and on which its requirements are not obliged with, lose their airworthy status. Performing of this National Airworthiness Directive must be entered in Aircraft Log. Eventual complaints should be submitted to CAD RS on below address.

For information concerning subject or content of this NAD please contact:

Civil Aviation Directorate of the Republic of Serbia; Air Operations, Airworthiness and Flight Crew Licencing Division, Airworthiness Department.

ПРЕДМЕТ: Additional requirements for aircraft maintenance

APPLICABILITY: Requirements of this NAD are applicable to aircraft which:

- Have maximum take-off mass less then 5700 kg, and
- Have installed systems, parts or appliances which are subject of this NAD (ref. section 2), and
- In whose Instructions for Continuous Airworthiness manufacturer or Type Certificate Holder (TCH) has not requested tasks required by this NAD (ref. section 2), and
- Whose approved Aircraft Maintenance Programme (AMP) does not request tasks required by this NAD (ref. section 2).

Above conditions apply also to ultralight/microlight aircraft and other aircraft covered by Annex II of Regulation On Basic Rules In The Field Of The Civil Aviation And Competences Of The European Aviation Safety Agency.

If only some of the systems, parts or appliances on the aircraft fulfill all four of above conditions, this NAD applies only to those systems, parts or appliances.

Exempted from each particular requirement of this NAD are the aircraft on which subject system, part or appliance is deactivated, marked as such and recorded in aircraft documentation. If the owner/operator opts for this solution, care must be taken that this can affect airworthiness on other grounds.

SOURCE: Civil Aviation Directorate of the Republic of Serbia (CAD RS).

REQUIREMENT: For aircraft defined under „APPLICABILITY“, this NAD is issued with goal of improvement of maintenance, increase of safety and uniformity and/or definition of Maintenance Programme.

This NAD introduces, where required, additional maintenance tasks. This NAD does not remove any existing tasks from approved AMP.

All applicable tasks from R4 issue of this NAD must be introduced in Aircraft Maintenance Programme within 24 months from its effective date. Until then, time limits for tasks are given in section 2 of this NAD.

1. Terms and abbreviations as used in this NAD:

NAD: National Airworthiness Directive

Manufacturer: in this NAD, expression „Manufacturer“ has two meanings: Type Certificate Holder, if the aircraft has one, or the manufacturer itself. In any case, it denotes the entity which is the source of Instructions for Continuous Airworthiness, Service Manuals and other related procedures.

Electronic equipment required for special operations approvals: denotes the equipment required for special operations as quoted in Airplane Flight Manual or equivalent document (e.g. IFR, RVSM, BRNAV, MNPS, CATII, etc.).

Functional test: quantitative check aimed at verification if one or more functions satisfy defined criteria. Accent is on quantitative check, with use of test equipment etc.

Operational test: check aimed at verification if the equipment performs its intended function without quantitative measurements. Usually it is of „it works / it doesn't work“ type and it does not require any test equipment. In case of indications, only the reasonability of indication is checked, without exact values (e.g. disproportional reaction to change of input).

Magnetic compass compensation: verification of accuracy of indication, compensating for the errors and making of the correction card showing the residual errors that could not be compensated.

AMP: Approved Aircraft Maintenance Programme.

2. Requirements:

- Notes:
- When the new aircraft is entering RS Register, the works required in section 2 are considered as performed on the date of issuing of Certificate of Compliance (e.g. EASA Form 52 or equivalent).
 - Exempted from requirements in sections 2.1 and 2.3 are the aircraft whose AMP is based on Air Transport Association of America (ATA) MSG document, any revision.

2.1. Electronic equipment required for special operations approvals (ref. definition in section 1.)

Perform functional test, if described in service instructions issued by the manufacturer of aircraft or equipment; if not, perform the operational test.

If the approved AMP requires any of these two types of tasks, the requirement is considered as fulfilled and no changes to AMP are necessary.

If manufacturer's instructions for continuing airworthiness or approved AMP do not specify interval for repetition of this task, repeat at intervals of 24 months.

Time limit for first performance of task is 31.12.2018.

Time limit for introduction of this task into the AMP is defined in section 5.

2.2. ATC Transponder system

Check is to be done in accordance with the instructions for the functional test described in service instructions issued by the manufacturer of aircraft or equipment. If there is no such description, perform the check in accordance with FAR Part 43, Appendix F.

If manufacturer's instructions for continuing airworthiness or approved AMP do not specify interval for repetition of this task, repeat at intervals of 24 months.

Time limit for first performance of task is 31.12.2018.

Time limit for introduction of this task into the AMP is defined in section 5.

2.3. Instruments:

If manufacturer's instructions for continuing airworthiness or approved AMP do not specify interval for repetition, repeat checks 2.3.1 to 2.3.3. at intervals of 24 months.

Time limit for performance of checks 2.3.1 to 2.3.3. is 24 months since the previous performing.

Time limit for introduction of this task into the AMP is defined in section 5.

2.3.1. Pitot and Static systems

Perform leak check in accordance with the instructions described in service instructions issued by the manufacturer of aircraft or equipment. If there is no such description, perform the check in accordance with FAA Advisory Circular AC 43.13-1B (or later), chapter 12.

2.3.2. Altimeters (only pneumatic)

Do a functional check, if described in manufacturer's service instructions; if it is not, do a test in accordance with FAR Part 43, Appendix E or, for aircraft that do not have a Type Certificate, instead of FunctionalTest do an Operational Test.

2.3.3. Airspeed Indicators (only pneumatic)

Do a functional check, if described in manufacturer's service instructions.

If manufacturer's service instructions do not describe a functional check:

- for aircraft that have a Type Certificate, perform a test of airspeed indication simulating with a test set critical speeds listed in pilot's manual or marked on the airspeed indicator itself. Allowed tolerances are $\pm 9,3$ km/h (5 kt) or $\pm 5\%$, whichever larger and according to the graduation of the scale, or
- for aircraft that do not have a Type Certificate, instead of a Functional Test do an Operational Test.

2.4. Magnetic Compass

Perform a magnetic compass compensation as described in manufacturer's service instructions. If they do not describe it, perform it according to FAA Advisory Circular AC 43.13-1B (or later), Chapter 12. Install a correction card with marked date of compensation in the place where it will be visible to the pilot.

If manufacturer's instructions for continued airworthiness or approved AMP do not specify repeat interval for this task, it is to be repeated every 24 months.

Threshold for next performing of the task is 24 months from last performing.

Time limit for introducing the task into AMP is defined in section 5.

2.5. Safety Belts

Check of safety belts shall be done in accordance with manufacturer's service instructions. If they are not given by the manufacturer, perform at each 100-hour check or each yearly check. If instructions for the inspection are not given, it must encompass at least a visual check for damages and condition of buckle, damages of stitches and damages of base fabric.

Threshold for first performing of the task is 31.12.2018.

Time limit for introducing the task into AMP is defined in section 5.

2.6. Flexible hoses in engine compartment

This requirement is not applicable to hoses for which a proof can be presented that they are not subject to aging and/or wear or to hoses for which instructions for continuing airworthiness are part of engine maintenance instructions.

In accordance with manufacturer's instructions perform maintenance of flexible hoses in the engine compartment or, if there are no instructions, replace them with new at the following intervals:

- Rubber hoses are to be replaced 5 years after their installation or 12 months since the effectivity date of this NAD, whichever later;
- Teflon hoses are to be replaced 10 years after their installation or 12 months since the effectivity date of this NAD, whichever later;

Time limit for introducing the task into AMP is defined in section 5.

2.7. Flexible hoses in the fuselage

This requirement is not applicable to hoses for which a proof can be presented that they are not subject to aging and/or wear.

In accordance with manufacturer's instructions perform maintenance of flexible hoses in the fuselage or, if there are no instructions, replace them with new in the following intervals:

- Rubber hoses are to be replaced 5 years after their installation or 12 months since the effectivity date of this NAD, whichever later;
- Teflon hoses are to be replaced 10 years after their installation or 12 months since the effectivity date of this NAD, whichever later;

Time limit for introducing the task into AMP is defined in section 5.

2.8. Check of engine instruments

In accordance with manufacturer's instructions perform maintenance of tachometers and instruments for engine oil pressure and temperature and instruments for quantity of fuel and other fluids. If there are no manufacturer's instructions maintain them as follows:

- Check of tachometers and instruments for engine oil pressure and temperature is to be performed at each engine overhaul.
- Instruments for quantity of fuel and other fluids are to be checked every 12 months (for continuity of indication from full to empty and correct indication of empty reservoir). Threshold for next check is 31.12.2018. Time limit for introducing the task into AMP is defined in section 5.

3. Working procedures

Perform checks in accordance with manufacturer's instructions.

If there are no manufacturer's instructions, follow instructions in section 2. In this case, AMP must show the procedure used or reference to it.

4. Certification of performed tasks

Certifying of performed tasks is to be done according applicable continuing airworthiness regulations, including tasks done by pilot owner.

5. Aircraft Maintenance Programme

All applicable tasks from this NAD must be introduced in AMP within 12 months from the effectivity date of this revision of NAD. For aircraft that are being introduced into RS Register, tasks from this NAD must be introduced in AMP within time interval specified by RS CAD team for approval of AMP.

6. Records

Owner/operator of aircraft must preserve records of performed tasks in accordance with regulations for continuing airworthiness. It must contain clear records of performing date and performer/certifyer of the task.

7. Transitional instructions

Owners/operators must follow instructions for tasks requested in this NAD untill the aircraft's AMP is changed in accordance with it, after which approved AMP must be followed.

EFFECTIVE DATE: This National Airworthiness Directive becomes effective on 30.04.2018.

This R4 issue repeals previous (R3) issue of this NAD 89-11-01 R3, од 29.12.2016.

 **DIRECTOR**

Mirjana Čizmarov