



ÚŘAD PRO CIVILNÍ LETECTVÍ  
ČESKÁ REPUBLIKA  
**Sekce technická**  
letišťe Ruzyně, 160 08 Praha 6  
tel: 233320922, fax: 220562270

## PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

**Číslo: 2005-21-02**

Datum účinnosti: 1. listopadu 2005

**MD Helicopters, Inc.**  
modely 369D, 369E, 369F, 369FF,  
500N, 600N

---

Tento PZZ je vydáván pro výrobek transferovaný pod působnost EASA

Na základě rozhodnutí EASA je následující Příkaz k zachování letové způsobilosti závazný pro všechny výrobky provozované v EU na které se daný PZZ vztahuje.

Provedení PZZ, který se vztahuje podle typu a výrobního čísla na výrobek je pro provozovatele/vlastníka letadla zapsaného do leteckého rejstříku závazné. Neprovedením PZZ ve stanoveném termínu dojde ke ztrátě letové způsobilosti výrobku.

---

*Poznámky:*

- Provedení tohoto PZZ musí být zapsáno do provozní dokumentace letadla.
- Případné dotazy týkající se tohoto PZZ adresujte na ÚCL sekce technická.
- Pokud to vyžaduje povaha tohoto PZZ, musí být zapracován do příslušné části dokumentace pro obsluhu, údržbu a opravy letadla.

[Federal Register: October 17, 2005 (Volume 70, Number 199)]  
[Rules and Regulations]  
[Page 60206-60211]  
From the Federal Register Online via GPO Access [wais.access.gpo.gov]  
[DOCID:fr17oc05-3]

---

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2004-SW-13-AD; Amendment 39-14340; AD 2005-21-02]**

**RIN 2120-AA64**

### **Airworthiness Directives; MD Helicopters, Inc. Model 369D, 369E, 369F, 369FF, 500N, and 600N Helicopters**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

---

**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD) for the MD Helicopters, Inc. (MDHI) Model 369A, H, HE, HM, HS, D, and E helicopters with a certain part-numbered main rotor blade (blade) and modified with a Helicopter Technology Company, LLC (HTC), Supplemental Type Certificate (STC) No. SR09172RC, SR09074RC, or SR09184RC. That AD currently requires recording on the component history card or equivalent record (record) each torque event (TE) on each blade, inspecting both surfaces of the blade, and replacing any cracked blade with an airworthy blade. Also, that AD establishes life limits for certain part-numbered blades. This amendment revises the model applicability, adds MDHI part-numbered blades, removes any reference to the life limits of the blades, changes the requirements for inspecting the blades, and revises the STC applicability. This amendment also provides that compliance with portions of certain documents constitutes alternative methods of compliance with portions of this AD, contains editorial changes for clarification, and makes some corrections. This amendment is prompted by additional reports of cracked blades and by the comments received in response to AD 2003-24-01. The actions specified in this AD are intended to detect fatigue cracking of the blade to prevent blade failure and subsequent loss of control of the helicopter.

**DATES:** Effective November 1, 2005. Comments for inclusion in the Rules Docket must be received on or before December 16, 2005.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Regional Counsel, Southwest Region, Attention: Rules Docket No. 2004-SW-13-AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. You may also send comments electronically to the Rules Docket at the following address: 9-asw-adcomments@faa.gov.

The service information referenced in this AD may be obtained from the following addresses: MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, Arizona 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or on the Web at <http://www.mdhelicopters.com> and Helicopter Technology Company, LLC, 12902 South Broadway, Los Angeles, CA 90061, telephone 310-523-2750, fax 310-523-2745.

**FOR FURTHER INFORMATION CONTACT:** John Cecil, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712-4137, telephone (562) 627-5228, fax (562) 627-5210.

**SUPPLEMENTARY INFORMATION:** On November 17, 2003, the FAA issued AD 2003-24-01, Amendment 39-13370 (68 FR 66004, November 25, 2003), to require recording TE and inspecting certain blades with 13,720 TEs and 750 hours TIS. The AD also requires replacing any cracked blade with an airworthy blade. Also, the AD revises the Limitations and Conditions of HTC, LLC, STC Nos. SR09172RC, SR09074RC, and SR09184RC by establishing life limits for certain part-numbered blades. The AD was prompted by reports of certain blades cracking due to a higher number of TEs per hour than originally calculated. This condition, if not corrected, could result in fatigue cracking of the blade, blade failure, and subsequent loss of control of the helicopter.

Interested persons were afforded an opportunity to participate in the making of AD 2003-24-01. The FAA received several comments from 10 commenters. We have given due consideration to the comments received.

One commenter, the manufacturer (MDHI), states the scope of the AD should be expanded to add the OH-6A designation immediately after the model to read "Model 369A (OH-6A), H, etc."

The FAA disagrees that we should add the Model OH-6A. We included STC No. SR09184RC and the Model 369A (OH-6A), H, HE, HM, and HS helicopters to AD 2003-24-01 in error. We have reviewed reports, summaries about rates of use, incident reports, certification data, weight limits, and other information from the manufacturer. These models may have the affected part-numbered blades installed. However, the data shows that even with a higher than expected number of TEs, these models have approved operating limitations that assume operations at maximum gross weight and are conservative enough to compensate for the higher TEs. We have received no reports of these blades cracking in the areas affected by this AD. These blades should reach their retirement lives based on hours TIS before the number of TEs results in cracks in the affected area. Also, we have determined that we should have included STC No. SR01050LA and the Model 369F, FF, 500N, and 600N helicopters in the AD applicability. Our data shows the unsafe condition addressed by this AD correlates to a flight profile with a higher number of TEs than expected during certification (six TEs per hour). The Model 369D, E, F, FF, 500N and 600N helicopters, with a higher gross weight limit, fit that profile. Therefore, we have determined that this AD should apply only to the Model 369D, E, F, FF, 500N and 600N helicopters.

Five commenters state the new definition of a TE in AD 2003-24-01 is inconsistent with the definition given in other ADs and in a service letter. One commenter, MDHI, states the new definition is likely to cause confusion.

The FAA agrees. The definition introduced in AD 2003-24-01 is inconsistent with previously issued ADs and could unnecessarily burden and confuse the operators. Therefore, we have changed the definition to make it consistent with the definition of a TE as that term is defined in AD 98-15-26, Amendment 39-10675, Docket 98-SW-22-AD. The TE definition in AD 98-15-26 is also consistent with the definition in MDHI Service Letter SL369H-132R1, SL369D-111R1, SL369E-063R1, SL369F-056R1, SL500N-008R1, and SL600N-005R1, dated May 15, 2001.

One commenter asks that the word "reliably" be added to the AD paragraph requiring operators to determine the number of TEs. The commenter states that FAA approved service information reads, "operators who cannot reliably determine the actual number of TEs for a blade \* \* \*."

The FAA does not agree. The word "reliably" is subjective and does not assist operators in determining accumulated TEs. The requirement is that operators determine actual TEs or assume 13,720 accumulated TEs.

One commenter, MDHI, states the actions in the AD do not prevent cracks but mandate a 35-hour repetitive inspection to detect cracks before blade failure.

The FAA agrees. The AD wording is revised to read: "The actions specified in this AD are intended to detect fatigue cracking to prevent \* \* \*"

Four commenters do not agree with the blade inspection requirements. One commenter states the inspection is unnecessary. The four commenters state the use of a 10X or higher magnifying glass is unnecessary and that cracks have been found without the use of a magnifying glass. Three commenters ask if pilots can do the inspections instead of a mechanic.

The FAA disagrees and has determined the inspection is necessary because the affected blades on these model helicopters continue to crack. The manufacturer has not identified a permanent modification but has identified TE counting or replacing the blade as a corrective measure. The FAA has also determined that a 10X or higher magnifying glass is necessary to detect a chord-wise crack protruding from under the root fitting and doubler on the bottom-side of the blade to prevent blade failure because these cracks may not be detectable without a 10X magnifying glass until they are near failure. Current FAA policy does not allow pilots to do these inspections. Pilots may only perform simple visual checks authorized by the AD. Pilots may perform checks that do not require the use of tools, precision measuring equipment, training, pilot logbook endorsements, or the use of or reference to technical data not contained in the body of the AD. The inspection in the AD requires the use of a 10X or higher magnifying glass, which is not considered a simple visual check.

One commenter states that an eddy current inspection is effective in detecting cracks in the "C" channel of certain blades. The commenter states the FAA may want to consider having the manufacturer incorporate an eddy current inspection into the maintenance instructions for all blades.

The FAA does not agree that an eddy current inspection is necessary to detect a crack in the blade in the areas specified in this AD. We have determined the cracks can be detected in the specified areas by inspecting the blades using a 10X or higher magnifying glass.

Two commenters suggest the service bulletins and their amendments, created by MDHI and HTC, are adequate to address the unsafe condition. One of those commenters states that normally an AD is coordinated with the manufacturer who produces a service bulletin (SB) and the FAA backs it up with an AD stating the operators must comply. That commenter further states that the idea of an AD should be to address an issue the manufacturer is either unaware of or has not addressed.

The FAA is responsible for determining which portions, if any, of an SB to incorporate in an AD and any additional requirements necessary to correct the unsafe condition. Even though an SB may address an unsafe condition, an AD mandates compliance with the actions specified in the SB by all affected operators. While we generally seek technical information from the manufacturer, we neither solicit the manufacturer's assistance in drafting an AD nor its consent before issuing an AD. However, we do note in this AD that complying with certain portions of certain documents constitutes an approved alternative method of compliance for certain parts of this AD.

One commenter states that only a few companies consistently have cracked blades. That commenter suggests that we should look at those companies. The same commenter states an AD is not needed because the maintenance manual criteria are sufficient to detect a cracked blade.

The FAA partially concurs with the commenter. The commenter is correct in that most cracked blades do appear to occur as a result of the operations of a relatively few operators. However, the affected blades from these relatively few operators may be placed on any of the affected model helicopters regardless of their previous use. Thus, the AD must include all affected model helicopters. Although we agree that the maintenance manual criteria are sufficient to detect a cracked blade, we do not agree that the AD is not needed. The AD requires determining and recording the number of TEs accumulated on each blade and provides the required time intervals to perform the inspections. We have determined the affected blades must be inspected to determine if a crack exists at the required TEs or hours TIS.

One commenter, MDHI, states that it disagrees that specific blade station inspections are any more meaningful than the area described as "\* \* \* around the root fitting, doubler and skin \* \* \*."

The FAA, upon reconsideration, agrees and no longer refers to the six blade stations because the reference is not necessary to identify the required inspection area.

One commenter, the blade manufacturer, HTC, states the instructions in paragraph (b)(2) of AD 2003-24-01 "(parallel to the blade) from the center of the root fitting and lead lag attach bolt-holes closest to the trailing edge," are confusing. The commenter asks if the direction is perhaps "span wise" and states that the trailing edge of the blade is not relevant. The commenter also states the instructions will cause many operators to perform the inspection in the wrong areas.

The FAA included the specific measurements, reference points, and directions in paragraph (b)(2) of AD 2003-24-01 to provide the mechanic the location of the specific blade stations stated in HTC SB No. 2100-3R2. To simplify these instructions, we have decided to remove the specific locations from the AD and include a figure that depicts the blade inspection area.

Six commenters commented on the cost analysis stating the AD poses an economic burden on operators. One commenter states it will cause a hardship on the industry. Another commenter states it will not be economically feasible. Another commenter states the AD will put operators out of work and force them to switch to other aircraft types. Another commenter states the AD will cause an increase in paperwork. Another commenter asks what is the basis for the cost of the blades and the number of additional inspections. Another commenter states the economic impact should be redone using realistic blade rejections due to fatigue cracks.

While the FAA must consider the economic burdens caused by issuing an AD, the primary purpose of an AD is to correct an unsafe condition.

We did, however, reassess the cost analysis as a result of the comments. Therefore, we are assuming a total of 9000 TE inspections and blade replacements will be required for 10 percent of the fleet. Also, we have determined the paperwork costs will be negligible.

A commenter, HTC, states the AD establishes life limits for certain blades that already have published service lives, the action is FAA approved, and the life limits are contained in Maintenance Manual HTCM-001.

The FAA agrees with the commenters statements. When the life limits were originally issued, they were inadvertently omitted from the Limitations and Conditions of HTC, LLC, STC Nos. SR09172RC, SR01050LA, and SR09184RC. The STCs were amended and now include the life limits. However, the life limits can only be established in an AD because a change to a life limit appearing only in a manual or on type certificate data sheets, even if FAA-approved, does not require compliance by the pilot or operator. To be legally required, the change must be made through an AD. We are addressing the issue of establishing life limits in another AD. Therefore, the paragraph establishing life limits is excluded from this AD.

A commenter, HTC, notes the AD states that this proposal is prompted by several reports. The commenter states there are two known reports, both from the same Canadian operator, and they received only one of those two reports.

The FAA agrees there were two reports when AD 2003-24-01 was issued, and we also note that we inadvertently called the "action" required by the AD a "proposal". However, since the AD was issued, we have received additional reports. We have reviewed a total of five reports in making our decision to issue this AD.

Three commenters question the statement in AD 2003-24-01, paragraph (a)(2), about recording the total number of TEs. One commenter asks whether the AD intent is to require that the pilots land or record the 100 TEs by taking their hands off the controls. Another commenter wants to know the basis for the 100 external lifts. Another commenter states that requiring the operator to record TEs after 100 external lifts will add a burden and a penalty to the operator in having to land and record the TEs. That same commenter suggests that they be allowed to record TE at the end of daily operations.

The FAA partially agrees with the comments. The AD does not dictate the flight profile of the helicopter when recording TEs. It's up to the operator to record the TEs. The time required to record the number of TEs is a negligible burden. The basis for our initial assessment was that in any given

day there would be 100 external lift operations. We have since determined the use of 100 external lift operations is not realistic given that some operators often exceed that number before a single day of operation. Therefore, after additional analysis, we have determined that recording the TEs at the end of each day's operation or on or before accumulating an additional 200 TEs, whichever occurs first, is sufficient.

One commenter states that AD 98-15-26 requires recording unknown TEs using a formula to determine TE against TIS. In AD 2003-24-01, the operator must assume a penalty of 13,720 TEs for blades with unknown TEs. The commenter expresses concern that at some future date, the FAA will decide that these HTC blades must be retired at a similar TE as the MD blades now have. The commenter further states that this could cost operators about \$44,000,000.

The FAA has determined that because of the critical nature of the unsafe condition, the formula for TEs as required in AD 98-15-26 would not adequately address the unsafe condition. While we cannot rule out further AD action related to this unsafe condition, any such action would require justification and consideration of the financial impact of that action.

One commenter states the paragraph in the preamble of the AD that begins with the statement, "This unsafe condition is likely to exist or develop on other helicopters \* \* \*" seems to indicate that only HTC-built blades could cause the condition.

The FAA issues an AD when it believes there is an unsafe condition in a product and that an unsafe condition is likely to exist or develop in other products of the same type design. In AD 2003-24-01, the unsafe condition was identified as fatigue cracking of the part-numbered blades listed in the "applicability" section and installed as part of the three listed STCs. These helicopter models, listed in the "applicability section" with the affected blades installed, are susceptible to fatigue cracking of the blades. These blades include both MDHI and HTC blades. Therefore, this AD retains similar wording for the revised model helicopters and STCs for helicopters with blades installed, which are susceptible to fatigue cracking.

One commenter, HTC, states the comment period for an NPRM is 1 year. The commenter asks why is this AD so urgent when the FAA was so unconcerned before. The same commenter also states that they requested an NPRM more than 16 months ago.

The FAA comment period for an NPRM is usually 60 days. We issued AD 2003-24-01 as a final rule; request for comments with a typical 60-day comment period. Since the original incident, we have been evaluating the reports and data as it becomes available to determine the necessary corrective action. In addition to the reports of cracked blades that prompted the AD, we have received additional reports of cracked blades. We have determined that this critical unsafe condition and the short compliance time to correct it require an immediate AD.

Two commenters suggest the January 26, 2003, date for receipt of comments for inclusion in the rules docket may be a typographical error.

The FAA agrees the date was a typographical error and should have been January 26, 2004.

Finally, two commenters state the FAA should include and cross-reference the blades specified in the HTC and MDHI SBs so that operators understand that the new AD affects both HTC and MDHI part number (P/N) blades.

The FAA agrees. In this AD, we include both MDHI and HTC part-numbered blades and cross-reference the part numbers and the STCs to clearly show the affected helicopters, blades, and STC's.

Since issuing AD 2003-24-01, the FAA has reviewed MDHI SB369H-245R2, SB369E-095R2, SB500N-023R2, SB369D-201R2, SB369F-079R2, SB600N-031R2, dated February 4, 2004. The SB contains information about the blade TEs and determining an inspection interval. Also, the SB lists certain MDHI helicopter models and HTC and MDHI blade part numbers.

HTC superseded Mandatory Notice No. 2100-3R2, dated December 20, 2002, with Notice No. 2100-3R3, dated January 5, 2004. Notice No. 2100-3R3 contains information about blade TE inspections and determining an inspection interval. The notice references the information contained in MDHI CSP-HMI-2, Section 62-10-00, Main Rotor Blade Torque Event Inspection. Also, Notice No. 2100-3R3 "revises the model effectivity and the scope of the additional inspection with a 10X glass."

Also since issuing AD 2003-24-01, the FAA determined that STC SR09184RC approves the installation of blades, P/N 500P2100-301 and -303, only, on the MDHI 369A, H, HE, HM, and HS model helicopters. Based on our determination, this AD will not apply to these five model helicopters. Likewise, the AD will not apply to STC SR09184RC and blades, P/N 500P2100-301 and -303. However, we will establish life limits for these blades in a subsequent AD.

Also, after further review of the service information, the FAA has determined that helicopters modified under STC SR01050LA, STC SR09172RC, and STC SR09074RC may have the affected blades installed. Therefore, they are included in the applicability of this AD.

In addition, since issuing AD 2003-24-01, the FAA has received three additional reports of incidents of cracked blades in 2004 and 2005. A preliminary evaluation of the cracked blades continues to indicate that the cracking is related to a high number of TEs accumulated by the blades. None of the blades identified in incident reports that caused the FAA to publish AD 2003-24-01 or this final rule involved helicopters modified with STC SR09184RC. Therefore, exclusion of STC SR09184RC is appropriate because none of the blades used in that modification, based on a review of technical data and accident records, should be affected by this AD.

An unsafe condition is likely to exist or develop on other Model 369D, 369E, 369F, 369FF, 500N, and 600N helicopters of these same type designs modified with an HTC STC No. SR09172RC, SR09074RC, or SR01050LA. Therefore, this AD supersedes AD 2003-24-01 to require:

- On or before the next 50-hours time-in-service (TIS), unless accomplished previously, determine and record the number of TEs accumulated on each blade. A TE is the transition to a hover from forward flight or any external lift operation. Each transition to a hover from forward flight is recorded as a TE, and any external lift operation is recorded as two TEs. Forward flight is considered to be flight at any airspeed (or direction) after attaining translational lift. If you cannot determine the number of TEs, assume 13,720. Continue to record the number of TEs accumulated (actual usage) throughout the life of the blades and the hours TIS. On or before accumulating an additional 200 TEs or at the end of each day's operation, whichever occurs first, record and update the accumulated TEs total.
- For each blade that has accumulated 13,720 or more TEs and 750 or more hours TIS, before further flight, unless accomplished previously, and thereafter at intervals not to exceed 200 TEs or 35 hours TIS, whichever occurs first, perform a main rotor blade torque event inspection.
- If a crack is found, replace the blade with an airworthy blade before further flight.

The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the controllability and structural integrity of the helicopter. Some operators not affected by AD 2003-24-01 may have already exceeded the 13,720 TEs and 750 hours TIS. Therefore, based on the high usage rate of some of these model helicopters, the 35-hour TIS or 200 TE inspections may occur in a short time span, and this AD must be issued immediately.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

The FAA estimates that this AD will:

- Affect 886 helicopters of U.S. registry;
- Take about 1 work hour per helicopter for inspecting blades, assuming 9000 TE inspections for 10 percent of the fleet, at an average labor rate of \$65 per work hour;
- Cost about \$50,000 for one set of blades (on condition), assuming 10 percent of the fleet has blades that are replaced; and
- Have paperwork costs that are negligible.

Based on these figures, we estimate the total cost impact of the AD on U.S. operators is \$56,261,000, assuming 10 percent of the fleet is affected.

## **Comments Invited**

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their mailed comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 2004-SW-13-AD." The postcard will be date stamped and returned to the commenter.

## **Regulatory Findings**

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in subtitle VII, part A, subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Safety.



## **Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

### **PART 39–AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. Section 39.13 is amended by removing Amendment 39-13370 (68 FR 66004, November 25, 2003), and by adding a new airworthiness directive (AD), Amendment 39-14340, to read as follows:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at [www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2005-21-02 MD Helicopters, Inc.:** Amendment 39-14340. Docket No. 2004-SW-13-AD. Supersedes AD 2003-24-01, Amendment 39-13770, Docket No. 2003-SW-16-AD.

**Applicability:** Models 369D, 369E, 369F, 369FF, 500N, or 600N with either an MD Helicopter, Inc. (MDHI) main rotor blade (blade) installed or modified with Helicopter Technology Company, LLC (HTC), Supplemental Type Certificate (STC) No. SR09172RC, SR09074RC, or SR01050LA with an HTC blade installed as listed in the following table, certificated in any category:

Helicopter model	MDHI blade part No. (P/N)	HTC blade P/N	HTC STC Nos.
369D	369D21100 Basic, -516, -517, -523	500P2100-BSC, -BSC-1	SR09172RC
369E	369D21120-501, -503	500P2100-101, -103	SR09074RC
369F, FF	369D21102 Basic, -503, -517, -523 369D21121-501, -503	500P2300-501, -503	SR01050LA
500N	369D21102-503, -517, -523 369D21121-501, -503	500P2300-501, -503	SR01050LA
600N	369D21102-517, -523 369D21121-501, -503	500P2300-501, -503	SR01050LA

**Note 1:** The terms "BSC" and "Basic" are interchangeable when identifying blades produced by MDHI and HTC.

**Compliance:** Required as indicated.

To detect fatigue cracking of the blade to prevent blade failure and subsequent loss of control of the helicopter, accomplish the following:

- (a) On or before the next 50 hours time-in-service (TIS), unless accomplished previously:
  - (1) Determine and record the number of torque events accumulated on each blade. A torque event (TE) is the transition to a hover from forward flight or any external lift operation. Each transition to a hover from forward flight is recorded as a TE, and any external lift operation is recorded as two TEs. Forward flight is considered to be flight at any airspeed (or direction) after attaining translational lift. If you cannot determine the number of TEs, use 13,720 TEs.
  - (2) Continue to record the number of TEs accumulated (actual usage) throughout the life of the blades along with hours TIS. On or before accumulating an additional 200 TEs or at the end of each day's operations, whichever occurs first, record and update the accumulated TEs total.

(b) For each blade that has accumulated 13,720 or more TEs and 750 or more hours TIS, before further flight, unless accomplished previously, and thereafter at intervals not to exceed 200 TEs or 35 hours TIS, whichever occurs first, perform a main rotor blade torque event inspection.

**Note 2:** MD Helicopters, Inc. Maintenance Manual CSP-HMI-2, Revision 36, section 62-10-00, paragraph 8, Main Rotor Blade Torque Event Inspection, pertains to the subject of this AD.

(c) If a crack is found, replace the blade with an airworthy blade before further flight.

**Note 3:** MDHI Maintenance Manual CSP-HMI-2, Section 20-30-00 Main Rotor Blade Painting pertains to the subject of this AD. This section of the maintenance manual recommends painting the inboard 24 inches (not to be exceeded) of the blade gloss white to aid in detecting a crack; and if this is done, painting all blades alike and rebalancing them.

**Note 4:** TEs are used only to establish an additional inspection interval and not to establish an alternative retirement life.

(d) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Los Angeles Aircraft Certification Office, Transport Airplane Directorate, for information about previously approved alternative methods of compliance.

**Note 5:** Complying with the inspection procedures in the Accomplishment Instructions, paragraphs 2.B.(2). and 2.B.(3)., of MD Helicopter Inc. Service Bulletin (SB) SB369H-245R2, SB369E-095R2, SB500N-023R2, SB369D-201R2, SB369F-079R2, SB600N-031R2, dated February 4, 2004, constitutes an approved alternative method of conducting the inspection required by paragraph (b) of this AD.

**Note 6:** Complying with the Inspection Instructions procedures in paragraphs 2 and 3 of HTC Mandatory SB, Notice No. 2100-3R3, dated January 5, 2004, constitutes an approved alternative method of conducting the inspection required by paragraph (b) of this AD.

(e) This amendment becomes effective on November 1, 2005.

Issued in Fort Worth, Texas, on October 7, 2005.

David A. Downey,  
Manager, Rotorcraft Directorate, Aircraft Certification Service.  
[FR Doc. 05-20678 Filed 10-14-05; 8:45 am]  
BILLING CODE 4910-13-P