



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

**Transport Airplane Directorate  
Los Angeles Aircraft  
Certification Office**

3960 Paramount Boulevard  
Lakewood, California 90712-4137

RECD NOV 10 2008

November 3, 2008

MD Helicopters Inc. (MDHI)  
ATTN.: Mr. Roger Carlin, Manager, Certification Department  
4555 East McDowell Road  
Mesa, AZ 85215-9734

In reply, refer to: 120L-08-32

Subject: Model MD900 Helicopter: Alternative Means of Compliance (AMOC) to  
FAA Emergency Airworthiness Directive (AD) concerning Vertical  
Stabilizer Control System (VSCS)

Reference: MDHI Letter 08-ME-138B, dated October 31, 2008

Dear Mr. Carlin:

The Federal Aviation Administration (FAA) received your letter MDHI Letter 08-ME-138B, dated October 31, 2008, requesting an alternative method of compliance (AMOC) to Airworthiness Directive (AD) 2008-22-53, for all model MD900 helicopters, certificated in any category with Vertical Stabilizer Control System (VSCS) and adapter tube, part number 500N7218-1, installed. AD 2008-22-53 requires limiting maximum airspeed to 100 KIAS or Vne (whichever is less), VFR flight only, turning both VSCS switches on, turning the AP/SAS MSTR switch to off position and pulling the three circuit breakers associated with the autopilot before further flight as specified in MDHI Service Bulletin (SB) SB900-110, dated October 17, 2008. The intent of pulling the three circuit breakers and turning off the AP/SAS switch is to prevent the pilot from using the autopilot, not the SAS.

You are requesting approval of an alternative procedure to disable the use of the autopilot while allowing the use of the Stability Augmentation System (SAS). This is to be accomplished by replacing the requirements of paragraph (b) in AD 2008-22-53 with the procedure identified in MDHI Letter 08-ME-138B, dated October 31, 2008.

In accordance with the provisions of paragraph (f) of AD 2008-22-53, your proposal provides an acceptable alternative means of compliance for the requirements of paragraph (b) of AD 2008-22-53 by preventing use of the autopilot while allowing the use of the SAS. We have reviewed your request, we approve use of the procedure in MDHI Letter 08-ME-138B, dated October 31, 2008 and enclosure (1) to disable the use of the autopilot while allowing the use of the SAS as an AMOC to the requirements of paragraph (b) of

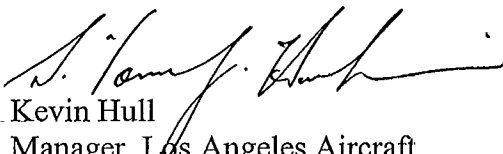
AD 2008-22-53. All provisions of AD 2008-22-53 that are not specifically referenced in the preceding approval remain fully applicable and must be complied with.

In accordance with FAA Order 8110.103 dated September 28, 2007, the following conditions apply:

- FAA approval of a global AMOC applies only to U.S.-registered aircraft. Approval of this type of AMOC for a foreign-registered aircraft is the responsibility of the appropriate civil aviation authority of the state of registry.
- This approval is applicable only to MDHI Model MD900 helicopters.
- This approval is transferable with helicopter(s) to other operators.
- Before using this AMOC, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.
- This approval is subject to the following condition: If in the future the LAACO determines that this AMOC does not provide an acceptable level of safety, the LAACO may revoke or revise the terms of the AMOC following notice to the requester and a seven-day opportunity for the requester to comment on the revocation or proposed revision.

Please contact Eric Schrieber, LAACO Aerospace Engineer, at 562-627-5348 if you have further questions.

Sincerely,

  
Kevin Hull  
Manager, Los Angeles Aircraft  
Certification Office, ANM-100L

cc: ANM-100L (Lam)  
cc: ASW-110 (Vuong)



Date: ~~24 October 2008~~ **31 October 2008**

Reference: 08-ME-138B

Project: AMOC

FAA Aviation Safety  
Aircraft Certification Services  
Transport Airplane Directorate  
3960 Paramount Blvd STE 100  
Lakewood, California 90712-4137

Attention: Eric Schrieber ANM-120L via Albert Lam, ANM-100L  
Aviation Safety Engineer Rotorcraft Program Manager

Reference: FAA Emergency Airworthiness Directive (E-AD) No. 2008-22-53,  
Issue Date: October 23, 2008

Subject: **MODEL MD900 HELICOPTER: ALTERATIVE MEANS OF  
COMPLIANCE (AMOC) TO FAA EMERGENCY  
AIRWORTHINESS DIRECTIVE (AD) CONCERNING VERTICAL  
STABILIZER CONTROL SYSTEM (VSCS), request for**

Enclosure: **Cover, Safety – Mode Select Panel and Installation Instructions**

**This revision "B" letter supersedes and replaces MDHI letter 08-ME-138 and 08-ME-138A.**

MD Helicopters, Inc. (MDHI) has received a request from the Hannover Police in Germany to change the reference E-AD to allow the use of the MD900 Stability Augmentation System (SAS) which is part of IFR STC (SR00436WI-D) Automatic Flight Control System but separate from the three axis Autopilot. The SAS improves the handling qualities of the helicopter and aids in night operations by making the helicopter more stable in pitch, roll and yaw. MDHI has reviewed the request and believes the request has merit for the entire MD900 fleet and does not compromise the safety intent of the reference E-AD.

The reference E-AD disables the Autopilot by pulling three circuit breakers. This action also disables the SAS function. MDHI believes that a placard prohibiting the use of the autopilot **and installation of a cover over the auto pilot mode select button** is sufficient to keep the **will keep the** pilot from using the autopilot and thus the pilot will fly the helicopter "hands on" and be aided by the SAS.



**Request:**

MDHI would like an FAA "blanket" (all S/N MD900s) AMOC letter changing the E-AD as follows:

Change section (b) as follows ....

(b) If **auto pilot** installed, ~~de-energize the autopilot (AP/SAS) as follows:~~

~~(1) Determine if the AP/SAA trim actuators are centered. If the AP/SAA trim actuators are not centered, center them.~~

~~(2) After the AP/SAS trim actuators are centered:~~

~~(i) Turn the AP/SAS Master switch to the OFF position.~~

~~(ii) Pull the following AP circuit breakers located on the A601 Essential Bus Circuit Breaker Panel, mounted in the cockpit console, and install a plastic cable tie on each circuit breaker to prevent accidental energizing of the circuit:~~

~~(A) AP/SAS CMPTR (CB28)~~

~~(B) AP/SAS DISC (CB29), and~~

~~(C) AP/SAS ACCEL (CB30).~~

~~(3) Install a placard next to the AP Mode Select panel that contains the AP/SAS MSTR switch A/P and SAS Mode selector buttons stating "AP/SAS DEACTIVATED USE OF AUTOPILOT PROHIBITED" and~~

~~(2) Install a stiff and clear plastic cover with a cut out for the SAS mode button over the Mode Select panel. See enclosed drawing and installation instructions.~~

MDHI will publish the AMOC on our web site so that our customers can use it when showing compliance with the E-AD.

If there are any questions on the above, please let us know.

Sincerely,

Roger H. Carlin  
Manager, Certification Department  
(480) 346-6231

DATE OF DISTRIBUTION: ~~24 October 2008~~ **31 October 2008**  
DOCUMENTS DISTRIBUTED: 08-MDHI-138B

**DISTRIBUTION**

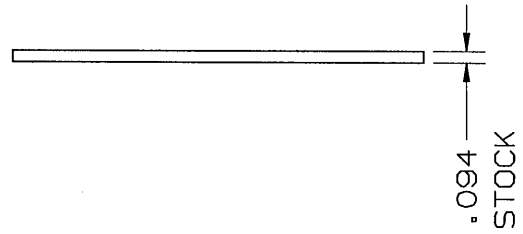
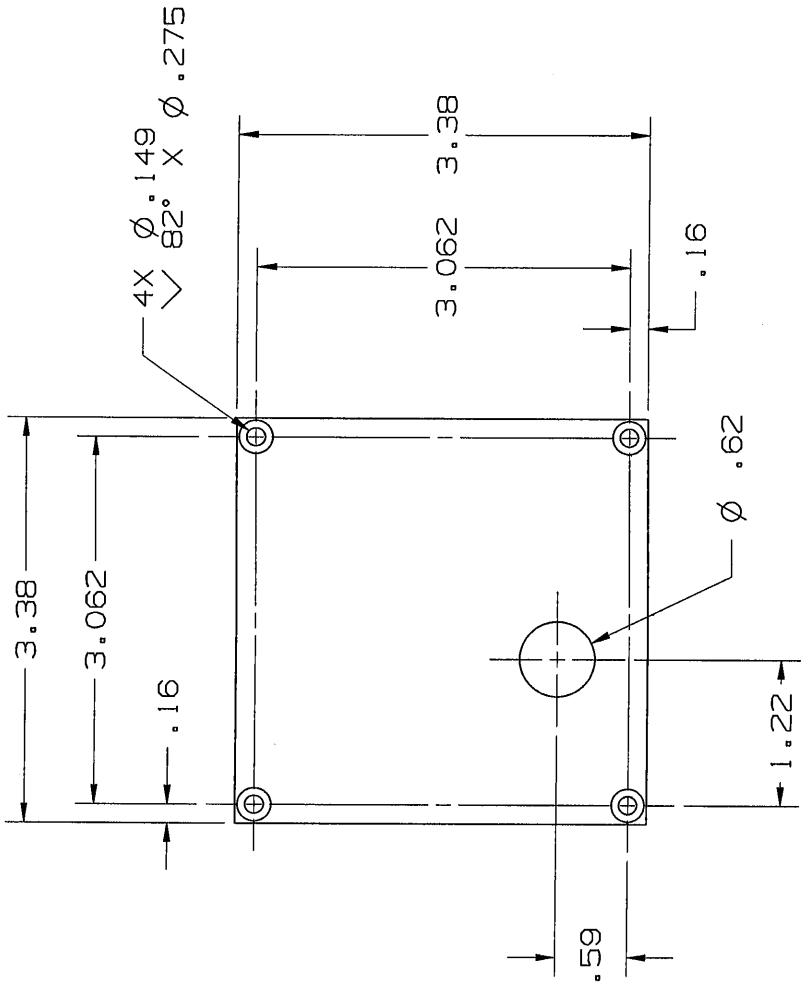
**VIA E -MAIL**

C. Schopfer  
R. Meissbach  
G. Potochnik  
F. Tucker  
B. Reid  
L. Ottem  
M. Duchrow  
R. Caldwell  
J. Hobby  
G. Acker  
M. O'Neil  
C. Napolitano

**PAPER COPY**

Certification Assistant:

"OPEN" pending receipt of AMOC



4555 E. McDowell Rd.  
Mesa AZ 85215-9734

COVER, SAFETY -  
MODE SELECT PANEL

- 4) REMOVE SHARP EDGES AND BURRS
  - 3) DIMENSIONAL TOLERANCE: .XX = ±.03, .XXX = ±.010
  - 2) MATERIAL: LEXAN, PLEXIGLASS OR EQUIVALENT  
SIZE: 3.38 X 3.38 X .094 THK STOCK
  - 1) INTERPRET DRAWING PER ANSI-Y14.5M 1982
- NOTES: UNLESS OTHERWISE SPECIFIED

## Mode select panel safety cover, installation instructions

1. Cut lexan sheet to dimensions shown.
2. Drill four .149 diameter panel safety cover mounting holes at location shown.
3. Drill .62 diameter SAS selection button access hole at location shown.
4. Deburr all holes and remove any sharp edges from part.
5. Remove four 6-32 screws that attach mode select panel.
6. Position panel safety cover over mode select panel. Orient so that button access hole is over SAS button.
7. Reinstall four screws using a .25 long 6-32 stand-off under each corner to space safety cover away from Mode Select Panel.  
**CAUTION Do not install safety cover without standoffs.**
8. Torque screws.

KMS 540 Mode Select Panel (See Figure 7-8)

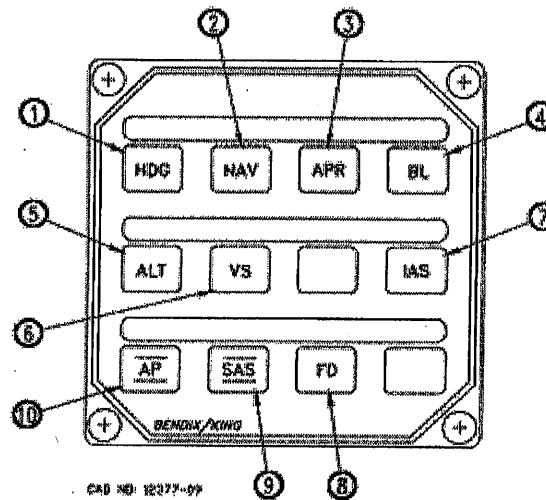
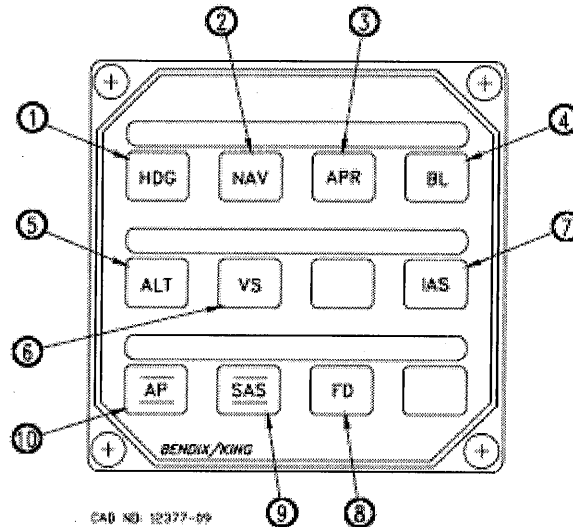


Figure 7-8. KMS 540 Mode Select Panel

## Mode select panel safety cover, installation instructions

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3. Drill .62 diameter SAS selection button access hole at location shown.
4. Deburr all holes and remove any sharp edges from part.
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7. Reinstall four screws using a .25 long 6-32 stand-off under each corner to space safety cover away from Mode Select Panel.  
**CAUTION Do not install safety cover without standoffs.**
8. Torque screws.

KMS 540 Mode Select Panel (See Figure 7-8)



CAD NO: 12377-09

Figure 7-8. KMS 540 Mode Select Panel