

Sektion 2. Utlandstillverkad flygmateriel

TITEL: Byte av primära flyginstrument

GÄLLER: EC 135 T1 (CPDS), P1 (CPDS) och P2 (CPDS) S/N 0005 till och med 0216 utrustade med SMD45H (Smart Multifunction Display) som primära flyginstrument.

ÅTGÄRD: Utför åtgärder enligt Eurocopter Deutschland Alert Service Bulletin No. EC135-31A-002 revision 2 daterad 15 november, 2001 eller senare utgåva.

TID FÖR ÅTGÄRD: Utför åtgärder inom tider angivna i LBA AD 2001-306/3.

UNDERLAG: LBA AD 2001-306/3, Eurocopter Deutschland Alert Service Bulletin No. EC135-31A-002 revision 2 daterad 15 november, 2001 eller senare utgåva.

REFERENS: LBA AD 2001-306/3

BESLUTSDATUM: 26 oktober 2001

LFS 2001:146

Åtgärder enligt LVD utgör nödvändig förutsättning för ifrågavarande flygmateriels luftvärdighet. Referens BCL M 1.11.
Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senast gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

Postadress	Gatuadress	Telefonnummer	Faxnummer	Telegram	Telex
601 79 NORRKÖPING	Vikobplan 11	011-19 20 00	011-19 25 75	Civilair Norrköping	62450

**EC 135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 P2 (CPDS)

SP/DPIFR Operation Kit (incl. AFCS)

1. GENERAL

The information contained herein supplements the information of the basic Flight Manual; for limitations, procedures, and performance data not contained in this supplement, refer to the basic Flight Manual.

2. LIMITATIONS**2.1. KINDS OF OPERATION**

This helicopter is approved for single and dual pilot IFR operation, when the SPIFR/ DPIFR kit (L340M1809051 or L340M1811051) is installed, and for single pilot IFR operation, when the SPIFR kit (L340M1816051) is installed.

a) If SPIFR Kit(L340M1816051) is installed

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished

SPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished.

No changes for SPIFR operation.

b) If SPIFR/ DPIFR Kit (L340M1811051) is installed

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished.

For SPIFR operation under IMC the pilot has to sit on the left site, in front of SMD-68H.

DPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished. SMD 45(PFD) exchanged.

No changes for SPIFR/DPIFR operation.

c) If SPIFR/ DPIFR Kit(L340M1809051) is installed

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished.

SPIFR/ DPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished and at least 1 PFD is replaced.

For SPIFR operation under IMC: Pilot has to sit in front of changed PFD.

DPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished and both PFD are replaced.

No changes for SPIFR/DPIFR operation.

EFFECTIVITY All

2.2. OPERATIONAL LIMITATIONS

Single pilot IFR operation is permissible only with AFCS engaged and fully operational.

LBA APPROVED
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9.2-56 - 3

Changed pages of FMS 9.2-56 EC135 P2 (CPDS) Appendix 12

**EC135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 P2 (CPDS)



SP/DPIFR Operation Kit (incl. AFCS)

LIST OF EFFECTIVE PAGES

NOTE N, R, or D indicate pages which are New, Revised or Deleted respectively. Remove and dispose of superseded pages, insert the latest revision pages and complete the Record of Supplement-Revisions as necessary.

Page	Rev.No	Rem	Page	Rev.No	Rem	Page	Rev.No	Rem
9.2-56 -1	0		9.2-56 -10	0		9.2-56 -19	0	
R 9.2-56 -2	2		9.2-56 -11	0		9.2-56 -20	0	
R 9.2-56 -3	2		9.2-56 -12	0		9.2-56 -21	0	
9.2-56 -4	1		9.2-56 -13	0		9.2-56 -22	0	
9.2-56 -5	1		9.2-56 -14	0		9.2-56 -23	0	
9.2-56 -6	1		9.2-56 -15	0		9.2-56 -24	0	
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9.2-56 -8	0		9.2-56 -17	0				
9.2-56 -9	0		9.2-56 -18	0				

LOG OF REVISION**FIRST ISSUE**

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REVISION 2

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 Braunschweig

9.2-56 - 2

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 Rev. 2

Changed pages of FMS 9.2-56 EC135 P2 (CPDS) Appendix 11

2001-09-18

REVISION 02, 2001-11-15

EC135-31A-002

PAGE 23 of 24

**EC 135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 P1 (CPDS)

SP/DPIFR Operation Kit (incl. AFCS)

1. GENERAL

The information contained herein supplements the information of the basic Flight Manual; for limitations, procedures, and performance data not contained in this supplement, refer to the basic Flight Manual.

2. LIMITATIONS**2.1. KINDS OF OPERATION**

This helicopter is approved for single and dual pilot IFR operation, when the SPIFR/ DPIFR kit (L340M1809051 or L340M1811051) is installed, and for single pilot IFR operation, when the SPIFR kit (L340M1816051) is installed.

a) If SPIFR Kit(L340M1816051) is installed

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished

SPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished.

No changes for SPIFR operation.

b) If SPIFR/ DPIFR Kit (L340M1811051) is installed

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished.

For SPIFR operation under IMC the pilot has to sit on the left side, in front of SMD-68H.

DPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished. SMD 45(PFD) exchanged.

No changes for SPIFR/DPIFR operation.

c) If SPIFR/ DPIFR Kit(L340M1809051) is installed

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished.

SPIFR/ DPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished and at least 1 PFD is replaced.

For SPIFR operation under IMC: Pilot has to sit in front of changed PFD.

DPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished and both PFD are replaced.

No changes for SPIFR/DPIFR operation.

EFFECTIVITY All

2.2. OPERATIONAL LIMITATIONS

Single pilot IFR operation is permissible only with AFCS engaged and fully operational.

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9.2-56 - 3

Changed pages of FMS 9.2-56 EC135 P1 (CPDS) Appendix 10

**EC135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 P1 (CPDS)



SP/DPIFR Operation Kit (incl. AFCS)

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R 9.2-56 -3	9		9.2-56 -12	5		9.2-56 -21	5	
9.2-56 -4	8		9.2-56 -13	5		9.2-56 -22	5	
9.2-56 -5	8		9.2-56 -14	5		9.2-56 -23	5	
9.2-56 -6	8		9.2-56 -15	5		9.2-56 -24	5	
9.2-56 -7	5		9.2-56 -16	5		9.2-56 -25/ (-26blank)	5	
9.2-56 -8	5		9.2-56 -17	5				
9.2-56 -9	5		9.2-56 -18	5				

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REVISION	4	DEC 22, 2000			
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9.2-56 - 2

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2001-09-18

REVISION 02, 2001-11-15

EC135-31A-002

PAGE 21 of 24

**EC 135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 T1 (CPDS)

SP/DPIFR Operation Kit (incl. AFCS)

1. GENERAL

The information contained herein supplements the information of the basic Flight Manual; for limitations, procedures, and performance data not contained in this supplement, refer to the basic Flight Manual.

2. LIMITATIONS**2.1. KINDS OF OPERATION**

This helicopter is approved for single and dual pilot IFR operation, when the SPIFR/ DPIFR kit (L340M1809051 or L340M1811051) is installed, and for single pilot IFR operation, when the SPIFR kit (L340M1816051) is installed.

a) If SPIFR Kit(L340M1816051) is installed

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished

SPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished.

No changes for SPIFR operation.

b) If SPIFR/ DPIFR Kit (L340M1811051) is installed

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished.

For SPIFR operation under IMC the pilot has to sit on the left side, in front of SMD-68H.

DPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished. SMD 45(PFD) exchanged.

No changes for SPIFR/DPIFR operation.

c) If SPIFR/ DPIFR Kit(L340M1809051) is installed

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished.

SPIFR/ DPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished and at least 1 PFD is replaced.

For SPIFR operation under IMC: Pilot has to sit in front of changed PFD.

DPIFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished and both PFD are replaced.

No changes for SPIFR/DPIFR operation.

EFFECTIVITY All

2.2. OPERATIONAL LIMITATIONS

Single pilot IFR operation is permissible only with AFCS engaged and fully operational.

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9.2-56 - 3

Changed pages of FMS 9.2-56 EC135 T1 (CPDS) Appendix 8

EC135-31A-002

PAGE 20 of 24

2001-09-18

REVISION 02, 2001-11-15

**EC135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 T1 (CPDS)



SP/DPIFR Operation Kit (incl. AFCS)

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R 9.2-56 -3	9		9.2-56 -12	5		9.2-56 -21	5	
9.2-56 -4	8		9.2-56 -13	5		9.2-56 -22	5	
9.2-56 -5	8		9.2-56 -14	5		9.2-56 -23	5	
9.2-56 -6	8		9.2-56 -15	5		9.2-56 -24	5	
9.2-56 -7	5		9.2-56 -16	5		9.2-56 -25/ (-26blank)	5	
9.2-56 -8	5		9.2-56 -17	5				
9.2-56 -9	5		9.2-56 -18	5				

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REVISION	4	DEC 22, 2000			
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9.2-56 - 2

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2001-09-18

REVISION 02, 2001-11-15

EC135-31A-002

PAGE 19 of 24

**EC 135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 P2 (CPDS)

Dual Pilot IFR Operation Kit

1. GENERAL

The information contained herein supplements the information of the basic Flight Manual; for limitations, procedures, and performance data not contained in this supplement, refer to the basic Flight Manual and relevant supplements.

1.1. LIST OF ABBREVIATIONS

- V_{min} IFR - Minimum forward speed for IFR operation
- V_{NE} IFR - Never exceed speed for IFR operation
- V_Y IFR - Best rate-of-climb speed for IFR operation

2. LIMITATIONS**2.1. KINDS OF OPERATION**

The helicopter, equipped with "Dual pilot IFR operation kit", is certified for dual pilot IFR operation and CAT A dual pilot IFR operation when the helicopter is certified for CAT A operation.

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished.

IFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished and/or both PFD are replaced.

No changes for IFR operation.

EFFECTIVITY All

2.2. CONFIGURATION REQUIREMENTS

For Dual Pilot IFR operation the following equipment must be installed and operational:

- 40 Ah Battery
- YAW SAS
- P&R SAS (FMS 9.2-5)
- AC power system (FMS 9.2-4)
- Standby artificial horizon
- Dual controls (FMS 9.2-2)
- Dual pitot-static system
- Heated static ports
- Flight control display system - FCDS (FMS 9.2-49)
- An operative navigation and communication system that has demonstrated compliance with the pertinent airworthiness regulations and also meets the requirements of the applicable operating regulations.
- Flight instruments for Dual Pilot IFR operation according to the national regulations

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Rev. 2

9.2-44 - 3

Changed pages of FMS 9.2-44 EC135 P2 (CPDS) Appendix 6

**EC135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 P2 (CPDS)



Dual Pilot IFR Operation Kit

LIST OF EFFECTIVE PAGES

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Page	Rev.No.	Rem	Page	Rev.No.	Rem	Page	Rev.No.	Rem
9.2-44 -1	—		9.2-44 -9	0		9.2-44 -17	0	
R 9.2-44 -2	2		9.2-44 -10	0		9.2-44 -18	0	
R 9.2-44 -3	2		9.2-44 -11	0		9.2-44 -19	0	
9.2-44 -4	1		9.2-44 -12	0		9.2-44 -20	0	
9.2-44 -5	0		9.2-44 -13	0		9.2-44 -21/	0	
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9.2-44 -8	0		9.2-44 -16	0				

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9.2-44 - 2

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REVISION 02, 2001-11-15

EC135-31A-002

PAGE 17 of 24



EC 135

ALERT SERVICE BULLETIN



FLIGHT MANUAL EC 135 P1 (CPDS)

Dual Pilot IFR Operation Kit

1. GENERAL

The information contained herein supplements the information of the basic Flight Manual; for limitations, procedures, and performance data not contained in this supplement, refer to the basic Flight Manual and relevant supplements.

1.1. LIST OF ABBREVIATIONS

- V_{min} IFR - Minimum forward speed for IFR operation
- V_{NE} IFR - Never exceed speed for IFR operation
- V_Y IFR - Best rate-of-climb speed for IFR operation

2. LIMITATIONS

2.1. KINDS OF OPERATION

The helicopter, equipped with "Dual pilot IFR operation kit", is certified for dual pilot IFR operation and CAT A dual pilot IFR operation when the helicopter is certified for CAT A operation.

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished.

IFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished and/or both PFD are replaced.

No changes for IFR operation.

EFFECTIVITY All

2.2. CONFIGURATION REQUIREMENTS

For Dual Pilot IFR operation the following equipment must be installed and operational:

- 40 Ah Battery
- YAW SAS
- P&R SAS (FMS 9.2-5)
- AC power system (FMS 9.2-4)
- Standby artificial horizon
- Dual controls (FMS 9.2-2)
- Dual pitot-static system
- Heated static ports
- Flight control display system - FCDS (FMS 9.2-49) according to Dual pilot IFR operation kit L340M1806051 or Flight and navigation instruments for Dual Pilot IFR operation according to Dual pilot IFR operation kit L340M1813051.
- An operative navigation and communication system that has demonstrated compliance with the pertinent airworthiness regulations and also meets the requirements of the applicable operating regulations.
- Flight instruments for Dual Pilot IFR operation according to the national regulations

LBA APPROVED
Rev. 5

9.2-44 - 3

Changed pages of FMS 9.2-44 EC135 P1 (CPDS) Appendix 4

EC135-31A-002

PAGE 16 of 24

2001-09-18

REVISION 02, 2001-11-15

**EC135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 P1 (CPDS)



Dual Pilot IFR Operation Kit

LIST OF EFFECTIVE PAGES

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R 9.2-44 -3	5		9.2-44 -11	0		9.2-44 -19	4	
9.2-44 -4	4		9.2-44 -12	0		9.2-44 -20	0	
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9.2-44 -7	0		9.2-44 -15	0				
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EC135-31A-002

PAGE 15 of 24



EC 135

ALERT SERVICE BULLETIN



FLIGHT MANUAL EC 135 T1 (CPDS)

Dual Pilot IFR Operation Kit

1. GENERAL

The information contained herein supplements the information of the basic Flight Manual; for limitations, procedures, and performance data not contained in this supplement, refer to the basic Flight Manual and relevant supplements.

1.1. LIST OF ABBREVIATIONS

- V_{min} IFR - Minimum forward speed for IFR operation
- V_{NE} IFR - Never exceed speed for IFR operation
- V_Y IFR - Best rate-of-climb speed for IFR operation

2. LIMITATIONS

2.1. KINDS OF OPERATION

The helicopter, equipped with "Dual pilot IFR operation kit", is certified for dual pilot IFR operation and CAT A dual pilot IFR operation when the helicopter is certified for CAT A operation.

EFFECTIVITY Before ASB EC 135-31A-002 is accomplished.

IFR operation under IMC is prohibited.

EFFECTIVITY After ASB EC 135-31A-002 is accomplished and/or both PFD are replaced.

No changes for IFR operation.

EFFECTIVITY All

2.2. CONFIGURATION REQUIREMENTS

For Dual Pilot IFR operation the following equipment must be installed and operational:

- 40 Ah Battery
- YAW SAS
- P&R SAS (FMS 9.2-5)
- AC power system (FMS 9.2-4)
- Standby artificial horizon
- Dual controls (FMS 9.2-2)
- Dual pitot-static system
- Heated static ports
- Flight control display system - FCDS (FMS 9.2-49) according to Dual pilot IFR operation kit L340M1806051 or
Flight and navigation instruments for Dual Pilot IFR operation according to Dual pilot IFR operation kit L340M1813051.
- An operative navigation and communication system that has demonstrated compliance with the pertinent airworthiness regulations and also meets the requirements of the applicable operating regulations.
- Flight instruments for Dual Pilot IFR operation according to the national regulations

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9.2-44 - 3

Changed pages of FMS 9.2-44 EC135 T1 (CPDS) Appendix 2

EC135-31A-002

PAGE 14 of 24

2001-09-18

REVISION 02, 2001-11-15

**EC135****ALERT SERVICE BULLETIN**

FLIGHT MANUAL EC 135 T1 (CPDS)



Dual Pilot IFR Operation Kit

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R 9.2-44 -3	5		9.2-44 -11	0		9.2-44 -19	4	
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9.2-44 -7	0		9.2-44 -15	0				
9.2-44 -8	0		9.2-44 -16	0				

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9.2-44 - 2

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REVISION 02, 2001-11-15

EC135-31A-002

PAGE 13 of 24

ALERT SERVICE BULLETIN

1 SMD45H

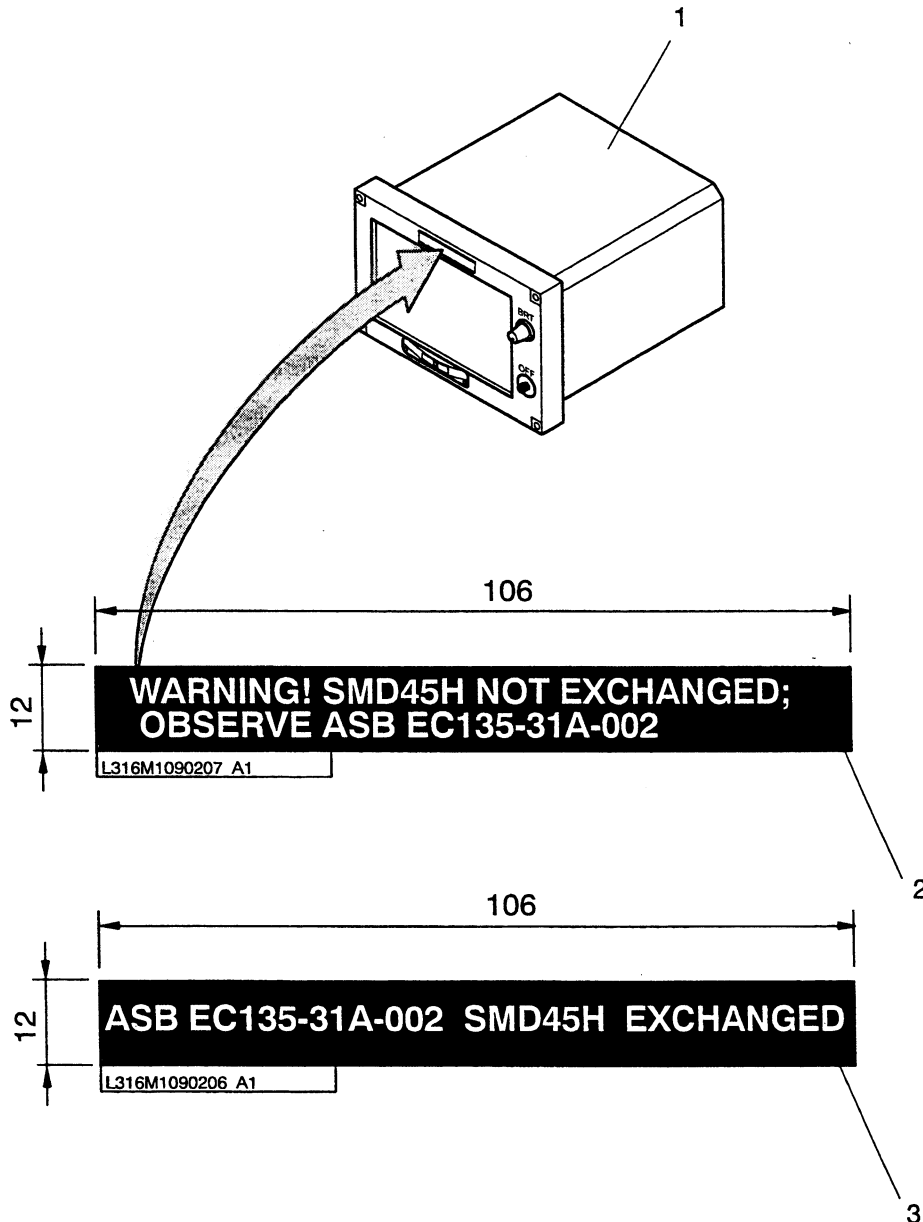
For P/N, see entry in "New P/N" column of Table in section 2.C

2 Placard

L316M1090 207

3 Placard

L316M1090 206



Affixing of placard in accordance with requirements
 Figure 1

**EC135****ALERT SERVICE BULLETIN**

Telefax completed order sheet to the Thales company and to ECD (see also section 3.D):

Contact addresses:

M. ABELIN Patrice.

Tel.: + 33 (0) 5 56 13 65 52

FAX: + 33 (0) 5 56 13 50 25

Mobile: + 33 (0) 6 08 51 49 96

e-mail: technicaline.hel@sextant.thomson-csf.com

ECD

Customer support department D/ST

FAX: +49 (0) 906 71 4111

Tel: +49 (0) 906 71 4444

Order sheet for affected SMD45H as mentioned in Alert Service Bulletin EC135-31A-002				
Helicopter serial number: S/N _____				
Installation location of affected SMD45H	SMD45H serial number and P/N	It is absolutely necessary to enter the following: Customer's address/Address to which goods are to be delivered (The exchange items of equipment will be brought to you directly by Thales staff personally)	To be determined for items of equipment being kept as spares in stores:	
As PFD on the pilot's side	S/N _____ P/N _____	_____ _____ _____ _____ Tel.: _____ Fax: _____	Corresponding P/N	Quantity of the item
As ND on the pilot's side	S/N _____ P/N _____		P/N _____	
As PFD on the copilot's side	S/N _____ P/N _____		P/N _____	
As ND on the copilot's side	S/N _____ P/N _____		P/N _____	

Table 1: Order sheet for any necessary exchange of items of SMD45H equipment

2001-09-18

REVISION 02, 2001-11-15

EC135-31A-002

PAGE 11 of 24

**EC 135****ALERT SERVICE BULLETIN**

- (b) Each time a new SMD45H is to be installed, copy the page on which Figure 1 is printed and cut out the respective placard needed i.a.w. the dimensions given.
 - (c) Using transparent adhesive tape (e.g. sellotape), stick the placard (3) onto the upper edge of the display screen frame of the newly installed SMD45H.
 - (6) After all the SMD45H (PFD and ND) have been exchanged, remove placards from all these items of equipment.
- F. Confirm accomplishment of this Alert Service Bulletin by corresponding entries in the historical records of the helicopter and of the respective SMD45H item of equipment. In the "List of parts to be entered in the helicopter" / "List of parts to be recorded", delete all the old P/N of the SMD45H and enter all the new P/N. Confirm the terminating action of this Alert Service Bulletin by an entry of the date in the historical record of the helicopter after having accomplished section 3.E.(6).

4. Appendix

Changed Pages of FLM Supplement:

- Appendix 1 – 2: Preliminary Issue FLM Supplement 9.2-44 für EC135 T1 (CPDS)
- Appendix 3 – 4: Preliminary Issue FLM Supplement 9.2-44 für EC135 P1 (CPDS)
- Appendix 5 – 6: Preliminary Issue FLM Supplement 9.2-44 für EC135 P2 (CPDS)
- Appendix 7 – 8: Preliminary Issue FLM Supplement 9.2-56 für EC135 T1 (CPDS)
- Appendix 9 – 10: Preliminary Issue FLM Supplement 9.2-56 für EC135 P1 (CPDS)
- Appendix 11 – 12: Preliminary Issue FLM Supplement 9.2-56 für EC135 P2 (CPDS).

Advance copy of second edition AMM:

- AMM, 31-61-00, 4-1,
- AMM, 31-61-00, 4-2,
- AMM, 31-61-00, 4-9,
- AMM, 31-61-00, 5-1,
- AMM, 31-61-00, 5-3,
- AMM, 31-61-00, 5-6,
- AMM, 31-61-00, 5-7

**EC135****ALERT SERVICE BULLETIN****D. Ordering of items of exchange equipment:**

- (1) If P/N determined i.a.w. section 3.C are identical to P/N's listed in section 1.A.(4), enter, into a copy of the order sheet (table 1) contained in this Alert Service Bulletin, the P/N of each respective item of equipment affected. In doing this make reference to the respective installation location, state your customer address and also the serial number of the affected helicopter, and telefax the completed order sheet to the Thales company and to ECD:

M. ABELIN Patrice.

FAX: + 33 (0) 5 56 13 50 25

ECD**Customer support department D/ST**

FAX: +49 (0) 906 71 4111

- (2) If there is not sufficient space on the order sheet due to the number of helicopters you own or due to the number of spares you are holding in stores, make as many copies as you need of the order sheet and telefax the completed sheet to the Thales company and to ECD.

NOTE

The procedures contained up to now in the AMM for installation / removal and for functional testing of the PFD and ND equipment cannot be used in this case. Pending availability of the second issue of the maintenance manual AMM EC135, the advance copy of the AMM enclosed with this Alert Service Bulletin is to be used. Any procedures not contained in the enclosure but to which reference is made in the advance copy of the AMM, are either to be taken from the present AMM which is still valid or are not necessary for the tasks described below.

E. Exchange of SMD45H installed as PFD or ND:

- (1) If applicable, remove PFD i.a.w. the enclosed advance copy of the AMM, 31-61-00, 4-1.
- (2) If applicable, remove ND i.a.w. the enclosed advance copy of the AMM, 31-61-00, 4-2.
- (3) Install new PFD(s) i.a.w. the enclosed advance copy of the AMM, 31-61-00, 4-1.
- (4) Install new ND(s) i.a.w. the enclosed advance copy of the AMM, 31-61-00, 4-2.

NOTE

Every time one or more new SMD45H(s), with a P/N listed in the column "New P/N" in the table in section 2.C, is/are installed, it is necessary to affix the appropriate placard to inform the pilot that random anomalies will no longer occur and thus that the restrictions or limitations, previously imposed in this connection have been lifted. When all SMD45H have been exchanged, there is no further need for any placard.

- (5) Affixing of a placard:

- (a) Using dry cleaning solvent (CM 202), degrease the SMD45H surface (see Figure 1) on which the placard is to be stuck.

**EC 135**

ALERT SERVICE BULLETIN

B. Changes in the flight manual:

NOTE

Due to changes in the flight manual supplements, text displacements have occurred resulting in corresponding changes in the numbering of certain pages. Thus, after the revised part-supplement issued with this Alert Service Bulletin has been inserted into the flight manual, the page numbers of the revised supplement no longer match those of the corresponding supplement valid up to now. This will be remedied when the relevant supplement revision is subsequently distributed.

- (1) Make copies of the pages of the revised flight manual supplements 9.2-44 and 9.2-56 enclosed with this Alert Service Bulletin, cut them out and insert them in front of the affected original pages in the model-related flight manual supplement. Remove those pages of the revised supplement which were inserted by way of the first issue of this Alert Service Bulletin and replace them with the pages issued with Revision 02. Do not remove the relevant original pages of the supplement revision, just invalidate the affected section 2.1 by means of an appropriate remark.

C. Identification of the affected items of equipment:

- (1) By reference to the P/Ns of the SMD45H installed in the helicopter, check whether these match with the details in section 1.A.(4) and are thus affected by this problem. The P/Ns are to be taken from the "List of parts to be entered in the helicopter" / "List of parts to be recorded" or from the respective historical record(s) of the item(s) of equipment.
 - (a) If items of equipment which are not installed as PFD are affected by this problem, exchange is required i.a.w. the applicable details in sections 1.E and 3.E.
 - (b) If an affected item of equipment is installed as a PFD on the pilot's side in a SPIFR certified helicopter, or, if both PFD in a DPIFR certified helicopter are affected, immediate exchange is required i.a.w. the applicable details of section 1.E and i.a.w. the instructions of 3.E.
If immediate exchange of the PFD is not possible, the restrictions i.a.w. section 1.E are to be observed until this PFD is exchanged or modified.
 - (c) If SMD45H equipment with P/N C19209HF09 is installed in the helicopter, contact ECD customer support, Dept. D/ST.
 - (d) If spares have been provided with P/Ns i.a.w. 1.A.(5), complete order sheet i.a.w. section 3.D.

**EC135**

ALERT SERVICE BULLETIN

B = Order of the respective version by telefax to ECD and Thales i.a.w. the data contained on the order sheet in this Alert Service Bulletin (see Table 1).

C = Part with old P/N is discarded.

Discarded parts are taken back by personnel of the Thales company.

D = If this version is installed in the helicopter, contact ECD Customer Support, Dept. D/ST.

E = Consumable material, to be ordered as required from the Interturbine company.
CM item number i.a.w. list of consumable materials in the AMM.

F = The required placards are to be prepared i.a.w. section 3.A or 3.E.

D. Material Necessary for Each Spare

The retrofit kit required for spare SMD45H equipment is identical to EC135-31A-002-2.C.

E. Reidentified Parts

Not applicable.

F. Special Tooling

Not applicable.

3. Accomplishment Instructions

A. Fitting of placards:

NOTE While the SMD45H in operation up to now are still installed, a corresponding placard has to be affixed to all affected items of equipment, in order to inform the pilot of display anomalies which might possibly occur and of the restrictions or limitations being introduced by this Alert Service Bulletin.

- (1) If SMD45H with P/Ns listed in section 1.A.(4) are installed, placard (2) is to be affixed to all affected items of equipment (see Figure 1).

Exception:

SMD45H are installed in the helicopter with P/Ns listed in "New P/N" column in section 2.C. In this case, placard (3) is to be affixed to the affected item(s) of SMD45H equipment.

- (a) Using dry cleaning solvent (CM 202), degrease the SMD45H surface (see Figure 1) on which the placard is to be stuck.
- (b) Each time a new SMD45H is to be installed, copy the page on which Figure 1 is printed and cut out the respective placard needed i.a.w. the dimensions given.
- (c) Using transparent adhesive tape (e.g. sellotape), stick the placard onto the upper edge of the display screen frame of the newly installed SMD45H.

**EC 135****ALERT SERVICE BULLETIN****C. Material Necessary for Each Helicopter**

Retrofit kit EC135-31A-002-2.C

No.	New P/N	Keyword	Old P/N	Qty	Disposition
1	C19209VG11	SMD45H	—	a.r.	A,B
	—		C19209VF11		C
	C19267VG11		—		A,B
	—		C19267VF11		C
	C19209SG10		—		A,B
	—		C19209SF10		C
	C19267SG10		—		A,B
	—		C19267SF10		C
	C19267RG10		—		A,B
	—		C19267RF10		C
	C19209NG10		—		A,B
	—		C19209NF10		C
	C19267NG10		—		A,B
	—		C19267NF10		C
	C19209VG11		—		A,B
	—		C19209HF09		C,D
	C19267GG09		—		A,B
	—		C19267GF09		C
	C19267DG10		—		A,B
	—		C19267DF10		C
2	L316M1090 206	Placard	—	—	F
3	L316M1090 207	Placard	—	—	F
4	—	Adhesive masking tape (CM 6043)	—	a.r.	E
5	—	Dry cleaning solvent (CM 202)	—	a.r.	E

Disposition:

A = New, material will be brought by personnel of the Thales company.

**EC135**

ALERT SERVICE BULLETIN

2. Material Information

A. Material – Price and Availability

Information on availability of required kit EC135-31A-002-2.C will be provided on request by the Thales company

M. ABELIN Patrice.

Tel.: + 33 (0) 5 56 13 65 52

FAX: + 33 (0) 5 56 13 50 25

Mobile: + 33 (0) 6 08 51 49 96

e-mail: technicaline.hel@sextant.thomson-csf.com

or by the ECD customer support, Dept. D/SL 1.

On arrangement with the Thales company or with ECD, the required retrofit kit EC135-31A-002-2.C, configured i.a.w. the details on the order sheet (see Table 1), will be brought by personnel of the Thales company.

B. Support Information

Following placing of the order i.a.w. the fully completed order sheet and on arrangement with the Thales company, the material kit will be made available free of charge up to 31st March 2002. For reasons of availability, it is only possible initially to exchange the PFD. At a later date, on further arrangement, if still necessary, all copilot's PFD, all ND and any equipment spares being held in stores, will be exchanged free of charge.

**EC 135****ALERT SERVICE BULLETIN****EFFECTIVITY case 3**

Alle EC135 T1 (CPDS), EC135 P1 (CPDS) and EC135 P2 (CPDS) which are operated only in VFR mode and whose SMD45H equipment has been provided with a P/N listed in section 1.A.(4).

Immediately following receipt of this Alert Service Bulletin, sections 3.A thru 3.D are to be accomplished. If section 3.E of this Alert Service Bulletin has still to be accomplished, it is recommended that this be undertaken at the next possible opportunity on availability of the equipment.

For this case there are no further limitations or restrictions. However, exchange of the affected equipment has to be undertaken by 31st March 2002 at the latest.

F. Approval

This information or the instructions refer to change no. 174 which was approved by ECD in its capacity as an engineering research and development company under the authority bestowed through JAA approval no. JAR21 "JA" LBA.JA.004.

G. Manpower

No details

H. Weight and Balance

Not applicable.

I. Electrical Load Data

Not applicable.

J. Software Accomplishment Summary

Not applicable.

K. References

AMM EC135.

L. Other Publications affected

The changes to AMM EC135 and IPC EC135 which become necessary as a result of this Alert Service Bulletin will be incorporated with one of the next revisions. The changes becoming necessary to the flight manual as a result of this Alert Service Bulletin are to be accomplished, if necessary as preliminary changes, i.a.w. the procedures described in section 3.B.

M. Interchangeability of Parts

Affected equipment spares covered in section 1.A.(5) are no longer permitted to be installed in the helicopter after receipt of this Alert Service Bulletin. Equipment listed in section 1.A.(4) which has been installed as ND up to now may remain installed in the helicopter only until 31st March 2002.

**EC135**

ALERT SERVICE BULLETIN

EFFECTIVITY case 1: Alle EC135 T1 (CPDS), EC135 P1 (CPDS) and EC135 P2 (CPDS) with a PFD SMD68H installed on the copilot's side.

Immediately following receipt of this Alert Service Bulletin, sections 3.A thru 3.D are to be accomplished. It is recommended that section 3.E of this Alert Service Bulletin be accomplished at the next possible opportunity on availability of the equipment to be installed.

For Single Pilot Instrument Flight Rules (SPIFR) operation:

If the SMD45H installed as PFD on the pilot's side has been provided with a P/N i.a.w. section 1.A.(4), SPIFR operation under IMC is permissible if the pilot flying sits on the LH side until exchange of the PFD installed up to now on the RH side is accomplished.

For Dual Pilot Instrument Flight Rules (DPIFR) operation:

As a prerequisite for DPIFR operation under IMC after 15th November 2001, the exchange of the SMD45H installed up to now on the RH side as PFD, if affected, is required by this date. If the SMD45H installed as a PFD on the RH side has been provided with a P/N i.a.w. section 1.A.(4), DPIFR operation under IMC is no longer permissible from 15th November 2001 on.

EFFECTIVITY case 2: Alle EC135 T1 (CPDS), EC135 P1 (CPDS) and EC135 P2 (CPDS) which are intended to be operated in IFR mode under IMC with the following equipment configuration:
A non-defective PFD SMD45H with a new P/N is already installed on the pilot's side, which no longer has a P/N i.a.w. section 1.A.(4), however one, two or all three SMD45H have a P/N i.a.w. section 1.A.(4) .

If section 3.E of this Alert Service Bulletin has still to be accomplished, it is recommended that this be done at the next possible opportunity on availability of the equipment.

For SPIFR operation:

SPIFR operation under IMC is permissible until the exchange of the equipment is accomplished if the pilot flying sits in front of an already exchanged PFD which has been provided with a new P/N.

The exchange of all remaining SMD45H affected is to be accomplished by 31st March 2002 at the latest.

For DPIFR operation:

The prerequisite for DPIFR operation under IMC after 15th November 2001 is the exchange, required by this date, of the SMD45H possibly still having a P/N i.a.w. section 1.A.(4) and installed up to now as a PFD.

DPIFR operation under IMC is no longer permissible from 15th November 2001 on, if the affected PFD are not exchanged by this date.

The exchange of all remaining SMD45H affected is to be accomplished by 31st March 2002 at the latest.

**EC 135**

ALERT SERVICE BULLETIN

B. Concurrent Requirements

Immediately on receipt of this Alert service Bulletin, the pilots of EC135 T1 (CPDS), EC135 P1 (CPDS) and EC135 P2 (CPDS) are to be informed of its contents and are also to be informed that attention has to be paid to the restrictions or limitations in accordance with (i.a.w.) section 1.E and, if applicable, to the changes of the flight manual supplements 9.2-44 and 9.2-56 of EC135 T1 (CPDS), EC135 P1 (CPDS) or EC135 P2 (CPDS) enclosed to this Alert Service Bulletin.

C. Reason

ECD has been informed that on some of the SMD45H (Smart Multifunction Display) a random anomaly showing a symbology inversion on the display might occur. The appendix to Alert Service Information EC135A-031 contains graphical illustrations of the image inversions which are possible and which have been encountered up to now.

This Alert Service Bulletin confirms the restrictions for IFR (Instrument Flight Rules) operation which have been valid up to now and which were introduced by Alert Service Information EC135A-031. For resumption of IFR operation, the minimum action necessary is the replacement of any affected PFD(s) which have been installed up to now. This replacement is not necessary, if the conditions contained in section 1.E have already been fulfilled.

D. Description

Preferentially exchange affected equipment installed as PFD. Exchange ND.

E. Compliance

Immediately following receipt of this Alert Service Bulletin placards are to be affixed to the SMD45H i.a.w. section 3.A.

Immediately following receipt of this Alert Service Bulletin, for equipment with P/Ns i.a.w. 1.A.(4), copies of the changes to the Flight Manual Supplements which are contained in the appendix are to be sorted into the respective model-related Flight Manual i.a.w. section 3.B.

EFFECTIVITY in general: All EC135 T1 (CPDS), EC135 P1 (CPDS) und EC135 P2 (CPDS) with two or four installed SMD45H, which are going to be operated in IFR mode under IMC, and on which the SMD45H equipment is installed as PFD and has P/N's i.a.w. section 1.A.(4).

Immediately following receipt of this Alert Service Bulletin, sections 3.A thru 3.D are to be accomplished and, taking into account the arrangements agreed with ECD or with the Thales company, also section 3.E is to be performed. If the SMD45H installed as PFD are not exchanged immediately, further IFR operation under IMC is no longer permissible until this exchange is accomplished.

Exception:

The helicopter will be operated with the equipment configurations described in the following respective effectivity stages (cases 1 thru 3).



EC135

ALERT SERVICE BULLETIN

Indicating and Recording Systems

- Flight Control– and Navigation Indication System
- Replacement of the Primary Flight Displays (PFD) and / or replacement of the Navigation Displays (ND)

1. Planning Information

A. Effectivity

Revision 02 of this Alert Service Bulletin becomes effective 15th November 2001 and supersedes the first issue and revision 01 from this date onwards.

(1) Helicopters affected: All EC 135 T1 (CPDS), all EC135 P1 (CPDS) and all EC135 P2 (CPDS): S/N 0005 up to and including S/N 0216.

(2) Deleted.

(3) Deleted.

(4) Components affected:

All SMD45H installed as primary flight displays (PFD) and all SMD45H installed as navigation displays (ND) which have the following P/Ns:

C19267DF10	or
C19267GF09	or
C19209HF09	or
C19209NF10	or
C19267NF10	or
C19267RF10	or
C19267SF10	or
C19209SF10	or
C19209VF11	or
C19267VF11	

For the point in time laid down for the exchange of items of equipment, see section 1.E.

(5) Spare parts affected:

All SMD45H with the following P/Ns:

C19267DF10	or
C19267GF09	or
C19209HF09	or
C19209NF10	or
C19267NF10	or
C19267RF10	or
C19267SF10	or
C19209SF10	or
C19209VF11	or
C19267VF11	

For information on the time-related conditions for use of equipment, refer to section 1.M.

An appeal to this notice may be raised within a period of one month following notification. Appeals must be submitted in writing or registered at the Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig.



**Airworthiness
Directive
2001-306/3**

Luftfahrt-Bundesamt
Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
Federal Republic of Germany

Eurocopter Deutschland

Effective Date: November 15, 2001

Affected:

Kind of aeronautical product:	Helicopter
Manufacturer:	Eurocopter Deutschland, München, Germany
Type:	EC 135
Models affected:	EC 135 T1 (CPDS), P1 (CPDS) and P2 (CPDS)
Serial numbers affected:	0005 up to 0216 equipped with SMD45H (Smart Multifunction Display) installed as primary flight displays (PFD) and / or navigation displays (ND) (affected S/N see Technical Information)
German Type Certificate No.:	3061

Subject:

Indicating and Recording Systems - Flight Control- and Navigation Indication System - Replacement of the Primary Flight Displays (PFD) and / or replacement of the Navigation Displays (ND)

Reason:

On some of the SMD45H a random anomaly showing a symbology inversion on the display might occur. The appendix to Alert Service Information EC135A-031 contains graphical illustrations of the image inversions which are possible and which have been encountered up to now.

In order to lift the restriction for IFR operation which was introduced by Alert Service Information EC135A-031 and which has been valid up to now, accomplishment of this AD will ensure that, from now on, IFR operation can be resumed without restriction or limitations.

Action:

Install placards to the SMD45H before the next flight.

Exchange of the Primary Flight Displays (PFD) and the Navigation Displays (ND) at latest on March 31, 2002.

The actions must be accomplished in accordance with the instructions of the Alert Service Bulletin.

Technical publication of the manufacturer:

Eurocopter Deutschland EC135 Alert Service Bulletin No. EC135-31A-002 Revision 2 dated November 15, 2001 which becomes herewith part of this AD and must be obtained from Messrs.:

Eurocopter Deutschland
P.O. Box
D-81663 München
Federal Republic of Germany
Phone: + 49 (0) 89 6000-9137
Fax: + 49 (0) 89 6000 6060

Note:

This AD supersedes the AD-No. 2001-306/2 dated November 15, 2001.

Holders of affected aircraft registered in Germany have to observe the following:

Action to be accomplished by the owner of the aircraft or an approved service station and to be checked and entered in the log book by a licensed inspector.

As a result of the a.m. deficiencies, the airworthiness of the aircraft is affected to such an extent that after the expiry of the a.m. dates the aircraft may be operated only after proper accomplishment of the prescribed actions. In the interest of aviation safety outweighing the interest of the receiver in a postponement of the prescribed actions, the immediate compliance with this AD is to be directed.

Enquiries regarding this Airworthiness Directive should be referred to Mr. Olaf Schneider, Airworthiness Directive Section at the above address,
fax-no. 0049 531/2355-720. Please note, that in case of any difficulty, reference should be made to the German issue!