



A330

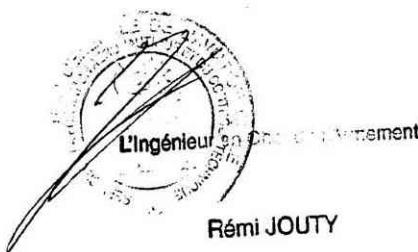
MODEL : 330 - 243

FLIGHT MANUAL

ALL FLIGHTS MUST BE DONE IN ACCORDANCE
WITH THE LIMITATIONS INCLUDED IN THIS MANUAL

APPROVED BY D.G.A.C.

08 JAN. 1999



Airbus Industrie
FLIGHT DIVISION
31707 Blagnac Cedex
FRANCE

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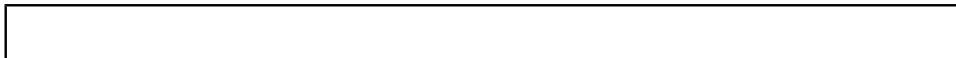


A330
AIRPLANE FLIGHT MANUAL

TRANSMITTAL LETTER

Issue date: 10 APR 13

This is the AIRPLANE FLIGHT MANUAL at issue date 10 APR 13 for the A330-243 and replacing last issue dated 13 MAR 13





A330
AIRPLANE FLIGHT MANUAL

TRANSMITTAL LETTER

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A330
AIRPLANE FLIGHT MANUAL

FILING INSTRUCTIONS

Please incorporate this revision as follow:

Localization Subsection Title	Remove	Insert Rev. Date
PLP-LESS LIST OF EFFECTIVE SECTIONS/SUBSECTIONS	ALL	10 APR 13
PLP-LEDU LIST OF EFFECTIVE DOCUMENTARY UNITS	ALL	10 APR 13
PLP-LOM LIST OF MODIFICATIONS	ALL	10 APR 13
EMER-PLP-TOC TABLE OF CONTENTS	ALL	10 APR 13



A330
AIRPLANE FLIGHT MANUAL

FILING INSTRUCTIONS

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PRELIMINARY PAGES

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A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES

TABLE OF CONTENTS

PLP PRELIMINARY PAGES

TABLE OF CONTENTS

LIST OF EFFECTIVE SECTIONS/SUBSECTIONS

LIST OF EFFECTIVE DOCUMENTARY UNITS

LIST OF EFFECTIVE TEMPORARY REVISIONS

AIRCRAFT ALLOCATION TABLE

LIST OF MODIFICATIONS

APPRO APPROVAL DATA

GEN GENERAL

LIM LIMITATIONS

EMER EMERGENCY PROCEDURES

ABN ABNORMAL PROCEDURES

NORM NORMAL PROCEDURES

PERF PERFORMANCE

APP APPENDICES AND SUPPLEMENTS

MCDL MASTER CONFIGURATION DEVIATION LIST

SPERF SUPPLEMENTARY PERFORMANCE



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES

TABLE OF CONTENTS

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A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE SECTIONS/SUBSECTIONS

M ⁽¹⁾	Localization	Subsection Title	Rev. Date
	APPRO-ENV	APPROVAL REFERENCE	19 JAN 13
	APPRO-TR	TEMPORARY REVISIONS	13 MAR 13
	GEN-INTR	INTRODUCTION	19 JAN 13
	GEN-DESC	AFM DESCRIPTION	19 JAN 13
	GEN-DEF	WORDING DEFINITIONS	19 JAN 13
	GEN-ABB	ABBREVIATIONS	19 JAN 13
	GEN-UNIT	UNITS	19 JAN 13
	GEN-VIEW	3-VIEW DRAWING	19 JAN 13
	LIM-GEN	GENERAL	19 JAN 13
	LIM-WGHT	WEIGHTS AND LOADING	19 JAN 13
	LIM-SPD	AIRSPEEDS	19 JAN 13
	LIM-OPS	OPERATIONAL PARAMETERS	19 JAN 13
	LIM-09	TOWING AND TAXIING	19 JAN 13
	LIM-21	AIR COND / PRESS / VENT	19 JAN 13
	LIM-22-FMS	Flight Management System	19 JAN 13
	LIM-22-FGS	Flight Guidance System	19 JAN 13
	LIM-23	COMMUNICATIONS	19 JAN 13
	LIM-25	EQUIPMENT FURNISHING	19 JAN 13
	LIM-28	FUEL	19 JAN 13
	LIM-29	HYDRAULIC	19 JAN 13
	LIM-32	LANDING GEAR	19 JAN 13
	LIM-34	NAVIGATION	10 APR 13
	LIM-46	INFORMATION SYSTEMS	19 JAN 13
	LIM-49	AUXILIARY POWER UNIT	19 JAN 13
	LIM-70	POWER PLANT	19 JAN 13
	EMER-GEN	GENERAL	19 JAN 13
	EMER-21	AIR COND / PRESS / VENT	19 JAN 13
	EMER-24	ELECTRICAL POWER	19 JAN 13
	EMER-26	FIRE / SMOKE	10 APR 13
	EMER-27	FLIGHT CONTROLS	19 JAN 13
	EMER-28	FUEL	19 JAN 13
	EMER-29	HYDRAULIC	19 JAN 13
	EMER-32	LANDING GEAR	19 JAN 13
	EMER-34	NAVIGATION	19 JAN 13
	EMER-70	POWER PLANT	19 JAN 13
	EMER-90	MISCELLANEOUS	19 JAN 13
	ABN-GEN	GENERAL	19 JAN 13
	ABN-OEI-TO	TAKEOFF	19 JAN 13
	ABN-OEI-LDG	APPROACH AND LANDING	19 JAN 13
	ABN-21	AIR COND / PRESS / VENT	19 JAN 13

Continued on the following page

Continued from the previous page

M ⁽¹⁾	Localization	Subsection Title	Rev. Date
	ABN-22-AUTOFLT	FM 1+2 FAULT	19 JAN 13
	ABN-22-CATII	FAILURES OR WARNINGS DURING A CAT II APPROACH WITH OR WITHOUT AUTOMATIC LANDING	19 JAN 13
	ABN-22-CATIIIDH	FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH	19 JAN 13
	ABN-22-CATIIInoDH	FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH	19 JAN 13
	ABN-24	ELECTRICAL POWER	19 JAN 13
	ABN-27	FLIGHT CONTROLS	19 JAN 13
	ABN-28	FUEL	19 JAN 13
	ABN-29	HYDRAULIC	19 JAN 13
	ABN-30	ICE AND RAIN PROTECTION	19 JAN 13
	ABN-31	INDICATING / RECORDING SYSTEM	19 JAN 13
	ABN-32	LANDING GEAR	19 JAN 13
	ABN-34	NAVIGATION	13 MAR 13
	ABN-36	PNEUMATIC	19 JAN 13
	ABN-52	DOORS	19 JAN 13
	ABN-70	POWER PLANT	19 JAN 13
	ABN-90	MISCELLANEOUS	19 JAN 13
	NORM-GEN	GENERAL	19 JAN 13
	NORM-PFLT	PREFLIGHT CHECKS	19 JAN 13
	NORM-TO	TAKEOFF	19 JAN 13
	NORM-FLT	FLIGHT	19 JAN 13
	NORM-LDG	APPROACH AND LANDING	19 JAN 13
	NORM-22-CONF	Demonstrated System Configuration	19 JAN 13
	NORM-22-NPA	Non Precision Approach	13 MAR 13
	NORM-22-PA	Precision Approach	19 JAN 13
	NORM-23	COMMUNICATIONS	19 JAN 13
	NORM-28	FUEL	19 JAN 13
	NORM-30	ICE AND RAIN PROTECTION	19 JAN 13
	NORM-34	NAVIGATION	19 JAN 13
	NORM-49	AUXILIARY POWER UNIT	19 JAN 13
	PERF-GEN	GENERAL	19 JAN 13
	PERF-CAL-TO	TAKEOFF	19 JAN 13
	PERF-CAL-CRU	CRUISE (Clean Configuration)	19 JAN 13
	PERF-CAL-LDG	LANDING	19 JAN 13
	PERF-TO	TAKEOFF PERFORMANCE	19 JAN 13
	PERF-FLT	IN-FLIGHT PERFORMANCE	19 JAN 13
	PERF-LDG	LANDING PERFORMANCE	19 JAN 13
	PERF-OCTO	PERFORMANCE DATABASE	19 JAN 13

Continued on the following page

Continued from the previous page

M ⁽¹⁾	Localization	Subsection Title	Rev. Date
	PERF-ENG	ENGINE MANAGEMENT	19 JAN 13
	APP-NOI	EXTERNAL NOISE	19 JAN 13
	APP-INOP	DISPATCH WITH INOPERATIVE ITEMS	19 JAN 13
	APP-ETOPS	EXTENDED OPERATIONS (ETOPS)	19 JAN 13
	APP-DTO-GEN	GENERAL	19 JAN 13
	APP-DTO-LIM	LIMITATIONS	19 JAN 13
	APP-DTO-NORM	NORMAL PROCEDURES	19 JAN 13
	APP-DTO-PERF	PERFORMANCE	19 JAN 13
	APP-DTO-APP	APPENDICES AND SUPPLEMENTS	19 JAN 13
	APP-LGDN	FLIGHT WITH LANDING GEAR DOWN	19 JAN 13
	APP-TLWD	TAILWIND OPERATIONS	19 JAN 13
	APP-N1-GEN	GENERAL	19 JAN 13
	APP-N1-LIM	LIMITATIONS	19 JAN 13
	APP-N1-NORM	NORMAL PROCEDURES	19 JAN 13
	APP-N1-PERF	PERFORMANCE	19 JAN 13
	APP-N1-APP	APPENDICES AND SUPPLEMENTS	19 JAN 13
	APP-TAWS	TAWS - GPWS	19 JAN 13
	MCDL-GEN-INTR	INTRODUCTION	19 JAN 13
	MCDL-GEN-LIM	LIMITATIONS	19 JAN 13
	MCDL-GEN-PERF	PERFORMANCE	19 JAN 13
	MCDL-21-01	Ram Air Inlet Flap	19 JAN 13
	MCDL-21-02	Ram Air Outlet Flap	19 JAN 13
	MCDL-23-01	Static Discharger	19 JAN 13
	MCDL-27-02	Slat Track Closing Plate	19 JAN 13
	MCDL-27-03	Rubber Seal under Slats	19 JAN 13
	MCDL-27-04	Aileron Rubber Seal	19 JAN 13
	MCDL-27-05	Aileron Servo Actuator Fairing	19 JAN 13
	MCDL-27-06	Slat End Blade Seal	19 JAN 13
	MCDL-27-07	Flap Blade Seal and Triangular Cushion Seal	19 JAN 13
	MCDL-27-08	Slat End Filling	19 JAN 13
	MCDL-27-10	Inner Aileron Seal (Upper and Lower)	19 JAN 13
	MCDL-27-11	Inner Aileron Large Seal	19 JAN 13
	MCDL-28-01	Refuel/Defuel Coupling Cap	19 JAN 13
	MCDL-28-02	Refuel/Defuel Control Panel Access Door on Belly Fairing	19 JAN 13
	MCDL-28-04	Fuel Pump Fairing	19 JAN 13
	MCDL-29-01	Ground Green Hydraulic Connection Access Door	19 JAN 13
	MCDL-29-02	Ground Blue Hydraulic Connection Access Door	19 JAN 13
	MCDL-29-03	Ground Yellow Hydraulic Connection Access Door	19 JAN 13
	MCDL-30-01	Icing Indicator	19 JAN 13

Continued on the following page

Continued from the previous page

M ⁽¹⁾	Localization	Subsection Title	Rev. Date
MCDL-32-01	Center Landing Gear Door Ground Opening Access Door	19 JAN 13	
MCDL-32-02	Main Landing Gear Door Seal	19 JAN 13	
MCDL-32-03	Main Landing Gear Leg Door and Hinged Door Rubber Seal	19 JAN 13	
MCDL-32-04	Nose Fitting Towing	19 JAN 13	
MCDL-32-05	Nose Landing Gear Wheel Hubcap	19 JAN 13	
MCDL-32-06	Main Landing Gear Wheel Hubcap	19 JAN 13	
MCDL-33-01	Wing/Landing Light Glazing	19 JAN 13	
MCDL-33-02	Taxi/Takeoff Light	19 JAN 13	
MCDL-33-03	Runway Turnoff Light	19 JAN 13	
MCDL-33-04	Logo Light Lens	19 JAN 13	
MCDL-33-05	Rear Navigation/Strobe Lights Glazing	19 JAN 13	
MCDL-33-06	Upper Anti-Collision (Beacon) Light Cover	19 JAN 13	
MCDL-33-07	Lower Anti-Collision (Beacon) Light Cover	19 JAN 13	
MCDL-51-01	Radome Conducting Strip	19 JAN 13	
MCDL-51-02	Passenger Door Scuff Plate	19 JAN 13	
MCDL-51-03	Bulk Door Scuff Plate	19 JAN 13	
MCDL-51-04	Passenger Door Gutter	19 JAN 13	
MCDL-52-02	Forward Cargo Loading Operation Control Panel Door	19 JAN 13	
MCDL-52-03	Aft Cargo Door Control Panel Access Door	19 JAN 13	
MCDL-52-04	Aft Cargo Loading Operation Control Panel Door	19 JAN 13	
MCDL-52-05	Forward Jacking Point Receptacle Door	19 JAN 13	
MCDL-52-06	Potable Water Drain Connection Service Door	19 JAN 13	
MCDL-52-07	Potable Water Service Door	19 JAN 13	
MCDL-52-08	Vacuum Toilet Service Door	19 JAN 13	
MCDL-52-09	Fuel Center Tank Water Drain Access Door	19 JAN 13	
MCDL-52-10	Cargo Door Indicator Flag	19 JAN 13	
MCDL-52-11	Potable Water Forward Drain Panel Access Door	19 JAN 13	
MCDL-52-12	Forward Cargo Door Access Cover Panel	19 JAN 13	
MCDL-52-13	Aft Cargo Door Access Cover Panel	19 JAN 13	
MCDL-52-14	Passenger Door and Emergency Exits Upper Cover Plate	19 JAN 13	
MCDL-53-01	"Dog House" Closing Panel	19 JAN 13	
MCDL-53-02	Belly Fairing Sliding Panel	19 JAN 13	
MCDL-53-03	Flap Valve Assy	19 JAN 13	
MCDL-53-04	Belly Fairing Seal	19 JAN 13	
MCDL-54-03	Spring Plate	19 JAN 13	
MCDL-54-04	Pylon Access Panel	19 JAN 13	
MCDL-57-01	Underwing Plug for Jacking Point	19 JAN 13	
MCDL-57-02	Winglet	19 JAN 13	
MCDL-57-04	Flap Track Fairing	19 JAN 13	

Continued on the following page

Continued from the previous page

M⁽¹⁾	Localization	Subsection Title	Rev. Date
	MCDL-57-05	Access Panel to Slat Actuator Overtorque Indicator Flag	19 JAN 13
	MCDL-57-07	Flap Track Fairing Cover	19 JAN 13
	MCDL-57-08	Flap to Movable Flap Track Fairing Seal	19 JAN 13
	MCDL-57-09	Cover on Flap Track Fixed Fairing	19 JAN 13
	MCDL-71-05	Fan Cowl Door Hoist Point Plug	19 JAN 13
	MCDL-71-06	Fan Cowl Door Hold Open Rod	19 JAN 13
	MCDL-71-07	Nacelle Hoist Point Plug Nose Cowl	19 JAN 13
	MCDL-78-08	Thrust Reverser Hoist Point Plug	19 JAN 13
	MCDL-78-09	Thrust Reverser Cinching Device	19 JAN 13
	MCDL-78-10	Thrust Reverser "C" Duct Actuation System	19 JAN 13
	MCDL-78-11	Thrust Reverser Front and Rear Hold Open Rod	19 JAN 13
	MCDL-78-12	Thrust Reverser Hinge Access Cover	19 JAN 13
	MCDL-78-13	Thrust Reverser Bavette Fairing	19 JAN 13
	MCDL-78-14	Thrust Reverser Door Actuator Pit Fairing	19 JAN 13
	MCDL-78-15	Thrust Reverser Pivot Door Access Panel	19 JAN 13
	MCDL-78-16	Thrust Reverser Rectangular Movable Panel	19 JAN 13
	MCDL-78-17	Thrust Reverser Triangular Movable Panel	19 JAN 13
	MCDL-78-18	Common Nozzle Assembly Hoist Point Plug	19 JAN 13
	MCDL-78-19	Common Nozzle Assembly Pylon Fairing Trailing Edge	19 JAN 13
	MCDL-78-20	Latch Number 4 Access Panel	19 JAN 13
	SPERF-CONT-GEN	GENERAL	19 JAN 13
	SPERF-CONT-LIM	LIMITATIONS	19 JAN 13
	SPERF-CONT-PERF	PERFORMANCE	19 JAN 13

(1) Evolution code : *N*=New, *R*=Revised, *E*=Effectivity, *M*=Moved



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE SECTIONS/SUBSECTIONS

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A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	APPRO-HEAD		Heading Approbation A330-243	00005052.0008001	30 NOV 09
	Criteria: 330-243				
	Applicable to: MSN 1394, 1416				
	APPRO-ENV		Approval Reference A330-243	00005877.0005001	28 FEB 11
	Criteria: 330-243				
	Applicable to: MSN 1394, 1416				
	APPRO-TR	x	Erroneous Radio Altimeter Height Indication	00009845.0001001	02 JUN 10
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	APPRO-TR	x	Unreliable Airspeed	00009855.0001001	02 JUN 10
	Criteria: (A330 and 53368)				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	APPRO-TR	x	Autoland Limitation for A330-200 operations	00010055.0003001	31 OCT 11
	Criteria: ((330-223 or 330-223F or 330-243 or 330-243F) and 57547)				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	APPRO-TR	x	SATCOM Voice system	00010330.0001001	09 DEC 11
	Criteria: (A330 and 200593)				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	APPRO-TR	x	A330 - AMC 20-27 Compliance	00012048.0001001	31 MAY 12
	Criteria: (A330 and (44308 or 44339 or 46572 or 46893))				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	APPRO-TR	x	Non Precision Approach - Approach using NAV mode	00014087.0004001	26 JAN 12
	Criteria: (A330 and ((44308 or 44339 or 46572 or 46893) and (200286 and 200309)))				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	APPRO-TR	x	FANS - ATC Datalink Applications	00012672.0005001	11 NOV 11
	Criteria: (A330 and (200859 and 200860 and 52426))				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	APPRO-TR	x	Approved AFM Format	00012741.0001001	16 DEC 11
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	APPRO-TR	x	Traffic & Terrain Integrated Surveillance System (T3CAS)	00012809.0001001	03 MAR 11
	Criteria: (A330 and 58449) Applicable to: MSN 1394, 1416 <i>Impacted DU: NONE</i>				
	APPRO-TR	x	A330-200/-200F - FWC T4 - ATA 28	00012961.0001001	27 JAN 11
	Criteria: ((330-200 or 330-200F) and 200590) Applicable to: MSN 1394, 1416 <i>Impacted DU: NONE</i>				
	APPRO-TR	x	A330 - FWC T4 - ATA 30	00012964.0001001	27 JAN 11
	Criteria: (A330 and 200590) Applicable to: MSN 1394, 1416 <i>Impacted DU: NONE</i>				
	APPRO-TR	x	NAVIGATION - RNP AR 0.3 for A330	00013819.0001001	20 APR 11
	Criteria: (A330 and 200624) Applicable to: MSN 1394, 1416 <i>Impacted DU: NONE</i>				
	APPRO-TR	x	Landing Distance Determination in case of In-Flight Failure	00013982.0001001	18 JUL 12
	Criteria: A330 Applicable to: MSN 1394, 1416 <i>Impacted DU: NONE</i>				
	APPRO-TR	x	A330 - AP/FD TCAS	00014190.0001001	24 JAN 12
	Criteria: ((330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and 57425) Applicable to: MSN 1394, 1416 <i>Impacted DU: NONE</i>				
	APPRO-TR	x	REMOVAL OF SMOKE/FUMES	00014405.0001001	13 SEP 12
	Criteria: (330-200 or 330-300) Applicable to: MSN 1394, 1416 <i>Impacted DU: NONE</i>				
	APPRO-TR	x	SMOKE/FUMES/AVNCS SMOKE	00014412.0002001	13 SEP 12
	Criteria: ((330-200 or 330-300) and 56729) Applicable to: MSN 1394, 1416 <i>Impacted DU: NONE</i>				
	APPRO-TR	x	NAV - RA 1+2 FAULT	00014682.0002001	18 FEB 13
	Criteria: (A330 and (58449 and 58751)) Applicable to: MSN 1394, 1416 <i>Impacted DU: NONE</i>				
	GEN-INTR		Introduction	00005876.0001001	26 NOV 09
	Criteria: A330				

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	GEN-DESC	x	Approved AFM Format	00012742.0001001	16 DEC 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
<i>Impacted DU: NONE</i>					
	GEN-DESC		Customized AFM	00005878.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-DESC		Organization of the Manual	00005879.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-DESC		Documentary Unit (DU)	00005880.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-DESC		Identification Strip	00005881.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-DESC		AFM Revision	00008475.0001001	02 JUL 10
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-DESC		Temporary Revision (TR)	00005882.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-DEF		Warning Definition	00005883.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-DEF		Caution Definition	00005884.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-DEF		Note Definition	00005885.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-DEF		LAND ASAP Definition	00005211.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-ABB		Abbreviations	00009715.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
	GEN-UNIT		Correspondence between Units	00005886.0001001	26 NOV 09
Criteria: A330					

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	GEN-VIEW		3-View Drawing	00005209.0003001	26 NOV 09
Criteria: (330-200 and 48979)					
Applicable to: MSN 1394, 1416					
	LIM-GEN		Introduction	00005442.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	LIM-GEN		Kind of Operations	00005446.0001001	26 NOV 09
Criteria: (330-200 or 330-300)					
Applicable to: MSN 1394, 1416					
	LIM-GEN		Minimum Flight Crew	00005447.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	LIM-GEN		Maximum Operating Altitude	00005448.0002001	26 NOV 09
Criteria: (A330 and 52536)					
Applicable to: MSN 1394, 1416					
	LIM-GEN		Maneuver Limit Load Factors	00005449.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	LIM-GEN		Icing Conditions Definition	00005140.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	LIM-WGHT		Weight Limitations	00005162.0053001	28 FEB 11
Criteria: (330-200 and (201437 or 58860))					
Applicable to: MSN 1394, 1416					
	LIM-WGHT		Center of Gravity Envelope	00005141.0131001	28 FEB 11
Criteria: (330-243 and (201437 or 58860))					
Applicable to: MSN 1394, 1416					
	LIM-WGHT		Performance Limitations	00005683.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	LIM-WGHT		Loading	00005684.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	LIM-SPD		VMO/MMO	00006064.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	LIM-SPD		VA	00008345.0001001	16 APR 10
Criteria: (330-200 or 330-200F)					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	LIM-SPD		VFE	00005224.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	LIM-SPD		VLO/MLO and VLE/MLE	00005241.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	LIM-OPS		Environmental Envelope	00005456.0003001	28 FEB 11
	Criteria: ((330-301 or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343 or 330-200 or 330-200F) and 52536)				
	Applicable to: MSN 1394, 1416				
	LIM-OPS		Crosswind	00005967.0001001	16 APR 10
	Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)				
	Applicable to: MSN 1394, 1416				
	LIM-OPS		Tailwind	00005458.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	LIM-OPS		Runway Slope	00005460.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	LIM-09		Maneuvers on Ground	00005491.0002001	16 APR 10
	Criteria: ((330-302 or 330-303 or 330-323 or 330-342 or 330-343 or 330-200 or 330-200F) and (43029 and 47701))				
	Applicable to: MSN 1394, 1416				
	LIM-09		Towbarless Operations	00005493.0001001	28 FEB 11
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	LIM-21		Cabin Pressurization	00005486.0002001	16 APR 10
	Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-342 or 330-343 or 330-200 or 330-200F) and 48980)				
	Applicable to: MSN 1394, 1416				
	LIM-22-FMS		General	00008415.0002001	26 NOV 09
	Criteria: (A330 and (44308 or 44339 or 46572 or 46893))				
	Applicable to: MSN 1394, 1416				
	LIM-22-FMS	x	Airworthiness Standard Compliance	00014063.0001001	31 MAY 12
	Criteria: (A330 and (44308 or 44339 or 46572 or 46893))				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	LIM-22-FMS		Airworthiness Standard Compliance	00008416.0006001	26 NOV 09
	Criteria: ((A330 and ((48765 or 48766) and (44308 or 44339 or 46572 or 46893))) or ((330-200 or 330-300) and ((47457 or 47462 or 51138 or 51139) and (44308 or 44339 or 46572 or 46893))))				
	Applicable to: MSN 1394, 1416				

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	LIM-22-FMS	x	Navigation Performance	00010111.0005001	20 APR 11
			Criteria: (A330 and 200624)		
			Applicable to: MSN 1394, 1416		
			<i>Impacted DU: 00008417 Navigation Performance</i>		
	LIM-22-FMS		Navigation Performance	00008417.0010001	28 FEB 11
			Criteria: ((330-200 or 330-300) and 200624)		
			Applicable to: MSN 1394, 1416		
			<i>Impacted by TDU: 00010111 Navigation Performance</i>		
	LIM-22-FMS	x	Use of NAV Mode	00014119.0001001	31 MAY 12
			Criteria: (A330 and (44308 or 44339 or 46572 or 46893))		
			Applicable to: MSN 1394, 1416		
			<i>Impacted DU: 00008428 Use of NAV Mode</i>		
	LIM-22-FMS		Use of NAV Mode	00008428.0002001	26 NOV 09
			Criteria: (A330 and (44308 or 44339 or 46572 or 46893))		
			Applicable to: MSN 1394, 1416		
			<i>Impacted by TDU: 00014119 Use of NAV Mode</i>		
	LIM-22-FMS	x	Approaches	00014101.0002001	31 MAY 12
			Criteria: (A330 and (44308 or 44339 or 46572 or 46893))		
			Applicable to: MSN 1394, 1416		
			<i>Impacted DU: 00008429 Approaches</i>		
	LIM-22-FMS		Approaches	00008429.0002001	26 NOV 09
			Criteria: (A330 and (44308 or 44339 or 46572 or 46893))		
			Applicable to: MSN 1394, 1416		
			<i>Impacted by TDU: 00014101 Approaches</i>		
	LIM-22-FGS		Airworthiness Standard Compliance	00008719.0001001	26 NOV 09
			Criteria: A330		
			Applicable to: MSN 1394, 1416		
	LIM-22-FGS	x	Autoland	00010054.0003001	31 OCT 11
			Criteria: ((330-223 or 330-223F or 330-243 or 330-243F) and 57547)		
			Applicable to: MSN 1394, 1416		
			<i>Impacted DU: 00008419 Autoland</i>		
	LIM-22-FGS		Autoland	00008419.0001001	28 FEB 11
			Criteria: A330		
			Applicable to: MSN 1394, 1416		
			<i>Impacted by TDU: 00010054 Autoland</i>		
	LIM-22-FGS		Minimum Height for Use of the Autopilot	00008423.0001001	26 NOV 09
			Criteria: A330		
			Applicable to: MSN 1394, 1416		
	LIM-22-FGS		CAT II / CAT III Operations	00008425.0001001	26 NOV 09
			Criteria: A330		
			Applicable to: MSN 1394, 1416		

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	LIM-23	x	SATCOM Voice system	00010328.0001001	09 DEC 11
			Criteria: (A330 and 200593)		
			Applicable to: MSN 1394, 1416		
			<i>Impacted DU: NONE</i>		
	LIM-25		In-Seat Power Supply System (ISPSS)	00005518.0001001	26 NOV 09
			Criteria: ((330-200 or 330-300) and (46772 or 46972 or 46975 or 46996 or 48106 or 49035 or 49638 or 49654))		
			Applicable to: MSN 1394, 1416		
	LIM-28		Fuel and Additive Specifications	00005472.0003001	28 FEB 11
			Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)		
			Applicable to: MSN 1394, 1416		
	LIM-28		Usable Fuel	00005474.0001001	16 APR 10
			Criteria: (330-200 or 330-200F)		
			Applicable to: MSN 1394, 1416		
	LIM-28		Fuel Imbalance	00005478.0001001	26 NOV 09
			Criteria: (330-200 or 330-300)		
			Applicable to: MSN 1394, 1416		
	LIM-28		Fuel Temperature Limits	00005480.0003001	28 FEB 11
			Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)		
			Applicable to: MSN 1394, 1416		
	LIM-29		Hydraulic Fluid	00005489.0001001	26 NOV 09
			Criteria: A330		
			Applicable to: MSN 1394, 1416		
	LIM-32		Tire Speed	00010874.0001001	02 JUL 10
			Criteria: A330		
			Applicable to: MSN 1394, 1416		
	LIM-34		Inertial Reference System (IRS)	00005500.0002001	26 NOV 09
			Criteria: (A330 and (51096 or 51144 or 55346))		
			Applicable to: MSN 1394, 1416		
	LIM-34		Reduced Vertical Separation Minimum (RVSM)	00005496.0001001	26 NOV 09
			Criteria: (A330 and 43537)		
			Applicable to: MSN 1394, 1416		
	LIM-34		Mode S - EHS Enhanced Surveillance	00005504.0002001	26 NOV 09
			Criteria: (A330 and ((54227 and 55661) or (202995 and 54227)))		
			Applicable to: MSN 1394, 1416		
	LIM-34		Mode S - ADS-B Out Enhanced Surveillance	00005503.0001001	26 NOV 09
			Criteria: (A330 and 55661)		
			Applicable to: MSN 1394, 1416		

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	LIM-46		Airlines Operational Control Applications	00005507.0001001	26 NOV 09
Criteria: (A330 and 46742) Applicable to: MSN 1394, 1416					
	LIM-46	x	FANS - ATC Datalink Application System	00012674.0005001	11 NOV 11
Criteria: (A330 and (200859 and 200860 and 52426)) Applicable to: MSN 1394, 1416 <i>Impacted DU: 00005509 FANS - ATC Datalink Application System</i>					
	LIM-46		FANS - ATC Datalink Application System	00005509.0003001	26 NOV 09
Criteria: (A330 and (50125 and 52426)) Applicable to: MSN 1394, 1416 <i>Impacted by TDU: 00012674 FANS - ATC Datalink Application System</i>					
	LIM-46		Aircraft Information Network System (AINS)	00005520.0002001	26 NOV 09
Criteria: ((330-200 or 330-300) and (55206 or 56350)) Applicable to: MSN 1394, 1416					
	LIM-49		Auxiliary Power Unit (APU)	00005485.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	LIM-70		Main Engines	00005464.0009001	16 APR 10
Criteria: (330-243 or 330-243F or 330-343) Applicable to: MSN 1394, 1416					
	LIM-70		Engine Parameters	00005465.0003001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	LIM-70		Crosswind	00005461.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	LIM-70		Reverse Thrust	00005466.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	LIM-70		Oil	00005467.0003001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	LIM-70		Reduced Thrust Takeoff	00005468.0007001	16 APR 10
Criteria: ((330-243 or 330-243F or 330-343) and 55212) Applicable to: MSN 1394, 1416					
	LIM-70		Operations in Icing Conditions	00005469.0001001	26 NOV 09
Criteria: A330					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	EMER-GEN		Introduction	00005704.0001001	02 JUL 10
Criteria: A330					
Applicable to: MSN 1394, 1416					
	EMER-GEN	x	Landing Distance Determination in case of In-flight Failure	00014413.0001001	18 JUL 12
Criteria: A330					
Applicable to: MSN 1394, 1416					
Impacted DU: NONE					
	EMER-GEN		FIRE/SMOKE	00005705.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	EMER-21		CAB PR - EXCESS CAB ALT	00005759.0003001	28 FEB 11
Criteria: ((330-200 or 330-300) and 56729)					
Applicable to: MSN 1394, 1416					
	EMER-21		CAB PR - EXCESS RESIDUAL PR	00008430.0001001	26 NOV 09
Criteria: ((330-200 or 330-300) and (51790 or 54786))					
Applicable to: MSN 1394, 1416					
	EMER-24		ELEC - EMER CONFIG	00005218.0002001	26 NOV 09
Criteria: (A330 and 47930)					
Applicable to: MSN 1394, 1416					
	EMER-26		ENG FIRE (In Flight)	00005711.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	EMER-26		ENG FIRE (On Ground)	00005712.0004001	26 NOV 09
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200) and (56729 and (51802 or 51805 or 51806)))					
Applicable to: MSN 1394, 1416					
	EMER-26		APU FIRE	00005713.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	EMER-26		SMOKE - FWD, AFT or BULK CARGO SMOKE	00005715.0004001	26 NOV 09
Criteria: ((330-200 or 330-300) and (56551 or 56729))					
Applicable to: MSN 1394, 1416					
	EMER-26		SMOKE - AVNCS VENT SMOKE	00005716.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	EMER-26		SMOKE - LAVATORY SMOKE	00008422.0001001	26 NOV 09
Criteria: ((330-200 or 330-300) and (55191 or 55982))					

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
EMER-26			SMOKE - LWR STOWAGE SMOKE	00008424.0001001	26 NOV 09
Criteria: ((330-200 or 330-300) and (55191 or 55982))					
Applicable to: MSN 1394, 1416					
EMER-26	x		SMOKE/FUMES/AVNCS SMOKE	00014410.0002001	13 SEP 12
Criteria: ((330-200 or 330-300) and 56729)					
Applicable to: MSN 1394, 1416					
<i>Impacted DU: 00005216 SMOKE/FUMES/AVNCS SMOKE</i>					
EMER-26			SMOKE/FUMES/AVNCS SMOKE	00005216.0002001	28 FEB 11
Criteria: ((330-200 or 330-300) and 56729)					
Applicable to: MSN 1394, 1416					
<i>Impacted by TDU: 00014410 SMOKE/FUMES/AVNCS SMOKE</i>					
EMER-26	x		REMOVAL OF SMOKE/FUMES	00014403.0001001	13 SEP 12
Criteria: (330-200 or 330-300)					
Applicable to: MSN 1394, 1416					
<i>Impacted DU: 00005219 SMOKE/FUMES REMOVAL</i>					
EMER-26			SMOKE/FUMES REMOVAL	00005219.0001001	28 FEB 11
Criteria: (330-200 or 330-300)					
Applicable to: MSN 1394, 1416					
<i>Impacted by TDU: 00014403 REMOVAL OF SMOKE/FUMES</i>					
EMER-27			F/CTL - FLAP LVR NOT ZERO	00005757.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
EMER-27			F/CTL - L+R ELEV FAULT	00005758.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
EMER-28			FUEL - EXCESS AFT CG	00005756.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
EMER-29			HYD - G+B SYS LO PR	00005726.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
EMER-29			HYD - B+Y SYS LO PR	00005727.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
EMER-29			HYD - G+Y SYS LO PR	00005728.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
EMER-32			L/G - GEAR NOT DOWNLOCKED	00005725.0001001	26 NOV 09
Criteria: A330					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
			Applicable to: MSN 1394, 1416		
	EMER-32		LOSS OF BRAKING	00009839.0001001	26 NOV 09
	Criteria: A330				
			Applicable to: MSN 1394, 1416		
	EMER-34		NAV - ADR 1+2+3 FAULT	00005163.0004001	02 JUL 10
	Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((53368 and 56729) and (51802 or 51805 or 51806)))				
			Applicable to: MSN 1394, 1416		
	EMER-70		ENG - ALL ENG FLAME OUT	00005706.0001001	26 NOV 09
	Criteria: (330-200 or 330-300)				
			Applicable to: MSN 1394, 1416		
	EMER-70		ENG - N1 (N2) (N3) OVERLIMIT	00005707.0003001	16 APR 10
	Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)				
			Applicable to: MSN 1394, 1416		
	EMER-70		ENG - TURBINE OVHT	00005708.0001001	16 APR 10
	Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)				
			Applicable to: MSN 1394, 1416		
	EMER-70		ENG - OIL LO PR	00005710.0001001	16 APR 10
	Criteria: (330-243F or 330-200 or 330-300)				
			Applicable to: MSN 1394, 1416		
	EMER-90		EMER DESCENT	00005222.0001001	28 FEB 11
	Criteria: (330-200 or 330-300)				
			Applicable to: MSN 1394, 1416		
	EMER-90		DITCHING	00005215.0004001	26 NOV 09
	Criteria: (330-200 and 51802)				
			Applicable to: MSN 1394, 1416		
	EMER-90		FORCED LANDING	00005213.0004001	26 NOV 09
	Criteria: (330-200 and 51802)				
			Applicable to: MSN 1394, 1416		
	EMER-90		EMERGENCY EVACUATION	00005796.0002001	26 NOV 09
	Criteria: (((330-301 or 330-302 or 330-303 or 330-323 or 330-343) and (51805 or 51806)) or (330-200 and 51802))				
			Applicable to: MSN 1394, 1416		
	EMER-90		STALL RECOVERY	00013149.0001001	28 FEB 11
	Criteria: A330				
			Applicable to: MSN 1394, 1416		
	ABN-GEN		Introduction	00008347.0001001	02 JUL 10
	Criteria: A330				
			Applicable to: MSN 1394, 1416		

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	ABN-GEN	x	Landing Distance Determination in case of In-Flight Failure	00014414.0001001	18 JUL 12
Criteria: A330 Applicable to: MSN 1394, 1416 Impacted DU: NONE					
	ABN-OEI-TO		Engine Failure before V1 (Rejected Takeoff)	00005371.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-OEI-TO		Engine Failure between V1 and V2	00005121.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-OEI-TO		Engine Failure during Initial Climb Out	00005372.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-OEI-LDG		Approach and Landing	00005374.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-OEI-LDG		Missed Approach (from Intermediate Approach Configuration)	00005375.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-OEI-LDG		Balked Landing	00005377.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-21		AIR - PACK 1 + 2 FAULT	00005691.0001001	28 FEB 11
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-21		VENT - OVBD VALVE FAULT	00005692.0001001	28 FEB 11
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-21		VENT - BLOWING FAULT	00005693.0002001	26 NOV 09
Criteria: (A330 and 56729) Applicable to: MSN 1394, 1416					
	ABN-21		CAB PR - SYS 1 + 2 FAULT	00005137.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-21		CAB PR - SAFETY VALVE OPEN	00005694.0003001	26 NOV 09
Criteria: (A330 and 56729) Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	ABN-22-AUTOFLT		AUTO FLT - FM 1+2 FAULT	00005414.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Multiple Failures or Warnings (CATII)	00008350.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Altitude Loss with Autopilot Malfunction (CAT II)	00009853.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Failure Leading to Slats/Flaps less than CONF 3 (CAT II)	00008352.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Antiskid System and/or Nosewheel Steering Failure (CAT II)	00008353.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Alpha Floor Activation (CAT II)	00008354.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		One Engine Failure (CAT II)	00008355.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Red "RA" on two PFDs (CAT II)	00008356.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Amber "CHECK ATT" on two PFDs (CAT II)	00008357.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Red "ATT" on one PFD (CAT II)	00008358.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Diagonal Line or "INVALID DATA" on one PFD and ND (CAT II)	00008359.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Amber "CHECK HDG" on two NDs and two PFDs (CAT II)	00008360.0001001	26 NOV 09
Criteria: A330					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Red "HDG" on one ND and one PFD (CAT II)	00008361.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Red "SPD" on one PFD (CAT II)	00008362.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		"AP OFF" Warnings (CAT II)	00008363.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Loss of "CAT II" (CAT II)	00008351.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		LOC or G/S Excessive Deviation on PFD (CAT II)	00008364.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		"AUTOLAND" Light (CAT II)	00008365.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		A/THR Fault (CAT II)	00008366.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		No "LAND" at 350 ft (CAT II)	00008367.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		Incorrect Selected Course at 350 ft > 5 deg (CAT II)	00008368.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATII		No "FLARE" at 30 ft (CAT II)	00008369.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIDH		Multiple Failures or Warnings (CAT III DH)	00008370.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	ABN-22-CATIIIDH		Failure Leading SLATS/FLAPS less than CONF 3 (CAT III DH)	00008371.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Nosewheel Steering Failure (CAT III DH)	00008373.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Antiskid Failure (CAT III DH)	00008372.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Alpha Floor Activation (CAT III DH)	00008374.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		One Engine Failure (CAT III DH)	00008375.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Autocallout RA Failure (CAT III DH)	00008376.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Red "RA" Flag (Radio Altimeter) on two PFDs (CAT III DH)	00008377.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Amber "CHECK ATT" Flag on two PFDs (CAT III DH)	00008378.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Red "ATT" Flag on one PFD (CAT III DH)	00008379.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Amber "CHECK HDG" on two NDs and on two PFDs (CAT III DH)	00008380.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Red "HDG" Flag on one ND and one PFD (CAT III DH)	00008383.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIDH		Red "SPD" Flag on one PFD (CAT III DH)	00008384.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	ABN-22-CATIIIDH		"AP OFF" Warnings (CAT III DH)	00008385.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIDH		Capability Decrease (except if due to A/THR loss) (CAT III DH).	00008386.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIDH		Total loss of A/THR ("CAT III" decreases to "CAT II") (CAT III DH)	00008387.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIDH		LOC or G/S Excessive Deviation on PFD (CAT III DH)	00008388.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIDH		"AUTOLAND" Light (CAT III DH)	00008389.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIDH		No "LAND" at 350 ft (CAT III DH)	00008390.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIDH		Incorrect Selected Course at 350 ft > 5 deg (CAT III DH)	00008391.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIDH		No "FLARE" at 30ft (CAT III DH)	00008392.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIInoDH		Multiple Failures or Warnings (CAT III no DH)	00008395.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIInoDH		Failure Leading SLATS/FLAPS less than CONF 3 (CAT III no DH)	00008393.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIInoDH		Nosewheel Steering Failure (CAT III no DH)	00008396.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	ABN-22-CATIIIonoDH		Antiskid Failure (CAT III no DH)	00008397.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		Alpha Floor Activation (CAT III no DH)	00008398.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		One Engine Failure (CAT III no DH)	00008399.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		Autocallout RA Failure (CAT III no DH)	00008400.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		Red "RA" (Radio Altimeter) Flag on two PFDs (CAT III no DH)	00008401.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		Amber "CHECK ATT" on two PFDs (CAT III no DH)	00008402.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		Red "ATT" on one PFD (CAT III no DH)	00008403.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		Amber "CHECK HDG" on two NDs and two PFDs (CAT III no DH)	00008404.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		Red "HDG" on one ND and one PFD (CAT III no DH)	00008405.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		Red "SPD" on one PFD (CAT III no DH)	00008406.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		"AP OFF" Warnings (CAT III no DH)	00008407.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-22-CATIIIonoDH		Capability Decrease (except if due to A/THR loss) (CAT III no DH)	00008408.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	ABN-22-CATIIIonoDH		Total Loss of A/THR ("CAT III" decrease to "CAT II") (CAT III no DH)	00008409.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIonoDH		LOC or G/S Excessive Deviation on PFD (CAT III no DH)	00008410.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIonoDH		"AUTOLAND" Light (CAT III no DH)	00008411.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIonoDH		NO "LAND" at 350 ft (CAT III no DH)	00008412.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIonoDH		Incorrect Selected Course at 350 ft >5 deg (CAT III no DH)	00008413.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	ABN-22-CATIIIonoDH		No "FLARE" at 30 ft (CAT III no DH)	00008414.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	ABN-24		ELEC - AC BUS 1 FAULT	00005681.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	ABN-24		ELEC - AC BUS 2 FAULT	00005682.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	ABN-24		ELEC - AC ESS BUS FAULT	00005685.0002001	26 NOV 09
	Criteria: (A330 and ((47524 or 50616) and (51790 or 54786))) Applicable to: MSN 1394, 1416				
	ABN-24		ELEC - DC BUS 2 FAULT	00005686.0002001	26 NOV 09
	Criteria: (A330 and 49632) Applicable to: MSN 1394, 1416				
	ABN-24		ELEC - DC BUS 1+2 FAULT	00005687.0002001	16 APR 10
	Criteria: (330-200 or 330-200F) Applicable to: MSN 1394, 1416				
	ABN-24		ELEC - DC ESS BUS FAULT	00005688.0002001	26 NOV 09
	Criteria: (A330 and 49632) Applicable to: MSN 1394, 1416				

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	ABN-24		ELEC - DC ESS BUS SHED	00005689.0002001	26 NOV 09
Criteria: 330-200					
Applicable to: MSN 1394, 1416					
	ABN-27		F/CTL - FLAPS FAULT	00005412.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-27		F/CTL - FLAPS LOCKED	00005122.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-27		F/CTL - SLATS FAULT	00005417.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-27		F/CTL - SLATS LOCKED	00005124.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-27		Approach Speed Increment and Landing Distance Multiplication Factor	00005123.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-27		Performance Limitation for Landing in Clean Configuration	00005418.0004001	02 JUL 10
Criteria: (330-200 or 330-200F)					
Applicable to: MSN 1394, 1416					
	ABN-27		F/CTL - SPD BRK DISAGREE	00005421.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-27		F/CTL RUDDER TRIM RUNAWAY	00005422.0003001	16 APR 10
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((49193 or 54786) and (51802 or 51805 or 51806)))					
Applicable to: MSN 1394, 1416					
	ABN-27		F/CTL RUDDER JAM	00005423.0002001	16 APR 10
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and (51802 or 51805 or 51806))					
Applicable to: MSN 1394, 1416					
	ABN-27		F/CTL - RUD NORM CTL FAULT	00008583.0002001	16 APR 10
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((51790 or 54786) and (51802 or 51805 or 51806)))					
Applicable to: MSN 1394, 1416					
	ABN-27		F/CTL - RUDDER FAULT	00008594.0002001	16 APR 10
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and (56729 and (51802 or 51805 or 51806)))					

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL RUD PEDAL FAULT	00008595.0001001	16 APR 10
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((49193 or 51790 or 54786) and (51802 or 51805 or 51806)))					
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL - SPLR FAULT	00005127.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL - GND SPLR FAULT	00005424.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL - L(R) ELEV FAULT	00005425.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL - ELEV REDUND LOST	00005426.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL - FCDC 1+2 FAULT	00005428.0002001	16 APR 10
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((49193 or 54786) and (51802 or 51805 or 51806)))					
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL - PRIM FAULT	00005430.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL - STAB CTL FAULT	00005221.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL - ALTN LAW (PROT LOST)	00005125.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-27			F/CTL - DIRECT LAW (PROT LOST)	00005126.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-28			FUEL - CELL NOT FULL	00010060.0001001	02 JUL 10
Criteria: (A330 and (200004 and 58751))					
Applicable to: MSN 1394, 1416					
ABN-28			FUEL - FUEL LO TEMP	00005388.0002001	26 NOV 09
Criteria: (A330 and (55191 or 55982))					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	ABN-28		FUEL - APU AFT PUMP FAULT	00005390.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-28		FUEL - ABNORM MAN FWD XFR	00005391.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-28		FUEL - WING X FEED FAULT	00005392.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-28		FUEL - L (R) WING PUMPS LO PR	00005393.0003001	02 JUL 10
	Criteria: (A330 and 58751)				
	Applicable to: MSN 1394, 1416				
	ABN-28		FUEL IMBALANCE	00005132.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-28		FUEL GRAVITY FEEDING	00005133.0002001	16 APR 10
	Criteria: (330-243 or 330-243F)				
	Applicable to: MSN 1394, 1416				
	ABN-28		FUEL - ENG FEEDLINE BURST	00009200.0001001	26 NOV 09
	Criteria: (A330 and 56729)				
	Applicable to: MSN 1394, 1416				
	ABN-28	x	FUEL - L (R) WING TK LO LVL	00011168.0004001	27 JAN 11
	Criteria: ((330-200 or 330-200F) and 200590)				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: 00005394 FUEL - L (R) WING TK LO LVL</i>				
	ABN-28		FUEL - L (R) WING TK LO LVL	00005394.0004001	16 APR 10
	Criteria: ((330-200 or 330-200F) and 56729)				
	Applicable to: MSN 1394, 1416				
	<i>Impacted by TDU: 00011168 FUEL - L (R) WING TK LO LVL</i>				
	ABN-28		FUEL - L+R WING TK LO LVL	00005395.0004001	16 APR 10
	Criteria: ((330-200 or 330-200F) and 56729)				
	Applicable to: MSN 1394, 1416				
	ABN-28		FUEL - FCMC 1+2 FAULT	00005396.0002001	16 APR 10
	Criteria: (330-200 or 330-200F)				
	Applicable to: MSN 1394, 1416				
	ABN-28		FUEL - OUTR TO INR FAULT	00005397.0002001	16 APR 10
	Criteria: (330-200 or 330-200F)				
	Applicable to: MSN 1394, 1416				
	ABN-28		FUEL - T TANK XFR FAULT	00005398.0002001	16 APR 10
	Criteria: (330-200 or 330-200F)				

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
ABN-28		FUEL - CTR TO INNER FAULT		00008677.0001001	16 APR 10
Criteria: (330-200 or 330-200F)					
Applicable to: MSN 1394, 1416					
ABN-28		FUEL - L+R CTR PUMPS LO PR		00008682.0001001	16 APR 10
Criteria: (330-200 or 330-200F)					
Applicable to: MSN 1394, 1416					
ABN-28		TRIM TANK FUEL UNUSABLE		00005135.0002001	16 APR 10
Criteria: (330-200 or 330-200F)					
Applicable to: MSN 1394, 1416					
ABN-28		FUEL LEAK		00005134.0002001	26 NOV 09
Criteria: 330-200					
Applicable to: MSN 1394, 1416					
ABN-28		FUEL LOSS REDUCTION PROCEDURE		00005136.0002001	16 APR 10
Criteria: (330-200 or 330-200F)					
Applicable to: MSN 1394, 1416					
ABN-29		HYD - G SYS LEAK		00005690.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-29		HYD - RSVR LO AIR PR		00005729.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-29		HYD - RSVR OVHT		00005730.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-29		HYD - RSVR LO LVL		00005731.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-29		HYD - G SYS LO PR		00005130.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-29		HYD - B SYS LO PR		00005118.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-29		HYD - Y SYS LO PR		00005119.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-30		AJCE - L INR (R INR) (L OUTR) (R OUTR) WING LO PR		00005406.0001001	26 NOV 09
Criteria: A330					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	ABN-30		A.ICE - WING VLVE NOT OPEN	00005407.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-30		A.ICE - ENG VALVE CLOSED	00005408.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-30		A.ICE - WAI SYS FAULT or OFF	00005120.0002001	02 JUL 10
Criteria: (A330 and 58751)					
Applicable to: MSN 1394, 1416					
	ABN-30	x	A.ICE - L (R) (L INR) (R INR) (L OUTR) (R OUTR) WING OPEN	00012968.0001001	27 JAN 11
Criteria: (A330 and 200590)					
Applicable to: MSN 1394, 1416					
<i>Impacted DU: 00005409 A.ICE - L INR (R INR) (L OUTR) (R OUTR) WING OPEN</i>					
	ABN-30		A.ICE - L INR (R INR) (L OUTR) (R OUTR) WING OPEN	00005409.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
<i>Impacted by TDU: 00012968 A.ICE - L (R) (L INR) (R INR) (L OUTR) (R OUTR) WING OPEN</i>					
	ABN-30		A.ICE - CAPT (F/O) (STBY) PITOT (AOA) (L STAT) (R STAT) HEAT FAULT	00005410.0003001	26 NOV 09
Criteria: (A330 and (51790 or 54786))					
Applicable to: MSN 1394, 1416					
	ABN-30		A.ICE - CAPT (F/O) (STBY) PROBES HEAT FAULT	00005411.0003001	26 NOV 09
Criteria: (A330 and (51790 or 54786))					
Applicable to: MSN 1394, 1416					
	ABN-30		DOUBLE AOA (STAT) (PITOT) HEAT FAULT	00005413.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-30		A.ICE - CAPT + F/O (CAPT + STBY) (F/O + STBY) PITOT HEAT FAULT	00008717.0002001	26 NOV 09
Criteria: (A330 and (51790 or 54786))					
Applicable to: MSN 1394, 1416					
	ABN-30		A.ICE - ALL PITOT HEAT FAULT	00008718.0002001	26 NOV 09
Criteria: (A330 and (51790 or 54786))					
Applicable to: MSN 1394, 1416					
	ABN-31		DISPLAY UNIT FAILURE	00005415.0002001	26 NOV 09
Criteria: (A330 and (47524 or 50616))					

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
ABN-31			FWS - SDAC 1+2 FAULT	00005416.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			L/G GRAVITY EXTENSION	00005129.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			BRAKES - ANTI SKID FAULT or A/SKID N/W OFF	00005131.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			BRAKES - BRAKES HOT	00005376.0002001	26 NOV 09
Criteria: (A330 and 49632)					
Applicable to: MSN 1394, 1416					
ABN-32			AUTOBRAKE	00005378.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			BRAKES - RELEASED	00005379.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			L/G - LGCIU FAULT	00005380.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			L/G - LGCIU 1 + 2 FAULT	00005381.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			L/G - DOORS NOT CLOSED	00005382.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			BRAKES - RESIDUAL BRAKING	00008647.0001001	26 NOV 09
Criteria: (A330 and (51790 or 54786))					
Applicable to: MSN 1394, 1416					
ABN-32			L/G - GEAR NOT UPLOCKED	00005384.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			L/G - RETRACTION FAULT	00005385.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-32			L/G - GEAR UPLOCK FAULT	00005386.0001001	26 NOV 09
Criteria: A330					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	Applicable to: MSN 1394, 1416				
	ABN-32		L/G - L(R) LENGTHENING FAULT	00005387.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-34	x	Erroneous RA Height Indication	00009834.0001001	02 JUN 10
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	ABN-34	x	NAV - RA 1+2 FAULT	00014685.0001001	18 FEB 13
	Criteria: (A330 and (58449 and 58751))				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: NONE</i>				
	ABN-34		NAV - IR 1 (2) (3) FAULT	00005400.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-34		NAV - IR 1+2 (2+3) (1+3) FAULT	00005401.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	ABN-34		NAV - IR DISAGREE	00008668.0001001	26 NOV 09
	Criteria: (A330 and (49193 or 55982))				
	Applicable to: MSN 1394, 1416				
	ABN-34		NAV - ADR 1 (2) (3) FAULT	00005402.0002001	26 NOV 09
	Criteria: (A330 and (51790 or 54786))				
	Applicable to: MSN 1394, 1416				
	ABN-34		NAV - ADR 1+2 FAULT	00005403.0002001	26 NOV 09
	Criteria: (A330 and (51790 or 54786))				
	Applicable to: MSN 1394, 1416				
	ABN-34		NAV - ADR 1+3 (2+3) FAULT	00005404.0002001	26 NOV 09
	Criteria: (A330 and (51790 or 54786))				
	Applicable to: MSN 1394, 1416				
	ABN-34		NAV - ADR DISAGREE	00008712.0001001	26 NOV 09
	Criteria: (A330 and (49193 or 54786))				
	Applicable to: MSN 1394, 1416				
	ABN-34	x	UNRELIABLE AIRSPEED INDICATION	00009856.0001001	02 JUN 10
	Criteria: (A330 and 53368)				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: 00005138 UNRELIABLE AIRSPEED INDICATION</i>				
	ABN-34		UNRELIABLE AIRSPEED INDICATION	00005138.0002001	02 JUL 10
	Criteria: (A330 and 53368)				
	Applicable to: MSN 1394, 1416				

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
<i>Impacted by TDU: 00009856 UNRELIABLE AIRSPEED INDICATION</i>					
ABN-36		AIR - ENG BLEED FAULT		00005117.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-36		AIR - X BLEED FAULT		00005695.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-36		AIR - BLEED LO TEMP		00005696.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-36		AIR - L (R) WING LEAK		00005697.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-36		AIR - ENG BLEED LEAK		00005698.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-36		AIR - APU BLEED LEAK		00005699.0001001	26 NOV 09
Criteria: (A330 and (51790 or 54786))					
Applicable to: MSN 1394, 1416					
ABN-52		DOOR - FWD CABIN		00010453.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-52		DOOR - AVIONIC or BULK CARGO		00010449.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
ABN-52		DOOR - CABIN (MID or AFT)		00010884.0001001	28 FEB 11
Criteria: (330-200 or 330-300)					
Applicable to: MSN 1394, 1416					
ABN-52		DOOR - EMER EXIT		00013081.0001001	28 FEB 11
Criteria: (330-200 or 330-300)					
Applicable to: MSN 1394, 1416					
ABN-52		DOOR - CARGO (AFT or FWD)		00013082.0001001	28 FEB 11
Criteria: (330-200 or 330-300)					
Applicable to: MSN 1394, 1416					
ABN-70		ENG - FAIL		00005265.0006001	26 NOV 09
Criteria: (((330-243 or 330-341 or 330-342 or 330-343) and 49632) or ((330-243 or 330-243F or 330-341 or 330-342 or 330-343) and 56729))					
Applicable to: MSN 1394, 1416					
ABN-70		ENG - SHUTDOWN		00005267.0002001	26 NOV 09
Criteria: (A330 and 56729)					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - REV UNLOCKED	00005368.0002001	26 NOV 09
Criteria: (A330 and 49632)					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - REV PRESSURIZED	00005359.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - FADEC FAULT	00005360.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - FADEC OVHT	00005361.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - EPR MODE FAULT	00008553.0001001	16 APR 10
Criteria: (330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - OIL HI TEMP	00005362.0002001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - EGT OVERLIMIT	00005363.0001001	16 APR 10
Criteria: (330-201 or 330-202 or 330-203 or 330-243 or 330-243F or 330-301 or 330-302 or 330-303 or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - THR LEVER FAULT	00005364.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - THR LEVER DISAGREE	00005365.0002001	26 NOV 09
Criteria: (A330 and 49632)					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - RELIGHT IN FLIGHT	00005116.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - XWIND PROT FAULT	00008560.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	ABN-70		ENG - START VALVE FAULT (NOT CLOSED)	00005369.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	ABN-70		ENG - START VALVE FAULT (NOT OPEN)	00005370.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-70		ENG - THRUST LIMITED	00013096.0001001	28 FEB 11
Criteria: ((330-243 or 330-341 or 330-342 or 330-343) and 58751) Applicable to: MSN 1394, 1416					
	ABN-90		TAIL STRIKE	00009202.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-90		OVERWEIGHT LANDING	00005383.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-90		REJECTED TAKEOFF WITH ALL ENGINES OPERATIVE	00005389.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	ABN-90		BOMB ON BOARD	00005596.0002001	28 FEB 11
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200) and (51802 or 51805 or 51806)) Applicable to: MSN 1394, 1416					
	NORM-GEN		Introduction	00005798.0001001	28 FEB 11
Criteria: A330 Applicable to: MSN 1394, 1416					
	NORM-PFLT		Batteries	00005799.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	NORM-PFLT		ECAM Alerts	00005800.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	NORM-PFLT		Cockpit Door	00005801.0001001	26 NOV 09
Criteria: (330-200 or 330-300) Applicable to: MSN 1394, 1416					
	NORM-TO		Takeoff Procedure	00005804.0004001	16 APR 10
Criteria: ((330-243 or 330-243F or 330-341 or 330-342 or 330-343) and 46874) Applicable to: MSN 1394, 1416					
	NORM-FLT		Buffet Onset	00005806.0001001	02 JUL 10
Criteria: A330 Applicable to: MSN 1394, 1416					
	NORM-FLT		Severe Turbulence	00005809.0002001	02 JUL 10
Criteria: (330-200 or 330-200F)					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	NORM-LDG		Normal Landing	00005810.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-LDG		Balked Landing (All Engines Operating)	00005811.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-LDG		Reverse Thrust	00005812.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-LDG		Autobrake	00005813.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-22-CONF		AP/FD, Speed Modes, Autothrust	00008431.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-22-CONF	x	Climb, Cruise, Descent	00014191.0001001	24 JAN 12
Criteria: (330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and 57425)					
Applicable to: MSN 1394, 1416					
<i>Impacted DU: 00008433 Climb, Cruise, Descent</i>					
	NORM-22-CONF		Climb, Cruise, Descent	00008433.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
<i>Impacted by TDU: 00014191 Climb, Cruise, Descent</i>					
	NORM-22-CONF		Non Precision Approach	00008434.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-22-CONF		CAT I ILS Approach	00008435.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-22-CONF		CAT II ILS Approach	00008436.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-22-CONF		CAT II/III ILS Approach and Automatic Landing	00008437.0001001	26 NOV 09
Criteria: A330					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	NORM-22-CONF		Go-Around	00008438.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-22-CONF		Altitude Loss After Automatic Go-Around Initiation	00005821.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-22-CONF		Maximum Encountered Wind During Flight Tests (CAT II or Cat III)	00008272.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-22-NPA	x	General	00014079.0001001	31 MAY 12
Criteria: (A330 and (44308 or 44339 or 46572 or 46893))					
Applicable to: MSN 1394, 1416					
<i>Impacted DU: 00008439 General</i>					
	NORM-22-NPA		General	00008439.0005001	26 NOV 09
Criteria: (A330 and ((46572 and 51144 and 51411) or (46893 and 52797) or (50073 and 51144 and 51411) or (46572 and 52797) or (50073 and 52797)))					
Applicable to: MSN 1394, 1416					
<i>Impacted by TDU: 00014079 General</i>					
	NORM-22-NPA	x	Instrument Approach Using NAV Mode	00011480.0007001	26 JAN 12
Criteria: (A330 and ((44308 or 44339 or 46572 or 46893) and (200286 and 200309)))					
Applicable to: MSN 1394, 1416					
<i>Impacted DU: 00008445 Instrument Approach Using NAV Mode</i>					
	NORM-22-NPA		Instrument Approach Using NAV Mode	00008445.0007001	28 FEB 11
Criteria: ((330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and ((44308 or 44339 or 46572 or 46893) and 200309))					
Applicable to: MSN 1394, 1416					
<i>Impacted by TDU: 00011480 Instrument Approach Using NAV Mode</i>					
	NORM-22-PA		CAT II and CAT III Approach and/or Automatic Landing	00008441.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
	NORM-22-PA		Required Equipment for CAT II and CAT III Approach and Landing	00008444.0002001	16 APR 10
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and (51802 or 51805 or 51806))					
Applicable to: MSN 1394, 1416					
	NORM-23		Communications	00005817.0001001	26 NOV 09
Criteria: A330					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	NORM-28		Fuel System	00008270.0002001	16 APR 10
Criteria: (330-201 or 330-202 or 330-203 or 330-243 or 330-243F)					
	Applicable to: MSN 1394, 1416				
	NORM-30		Operations in Icing Conditions	00005814.0001001	26 NOV 09
Criteria: A330					
	Applicable to: MSN 1394, 1416				
	NORM-30		Ground Ice Shedding Procedure	00008271.0001001	28 FEB 11
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
	Applicable to: MSN 1394, 1416				
	NORM-30		Rain Repellent (If Activated)	00005816.0001001	26 NOV 09
Criteria: A330					
	Applicable to: MSN 1394, 1416				
	NORM-34		Ground Proximity Warning System (GPWS)	00005818.0001001	26 NOV 09
Criteria: A330					
	Applicable to: MSN 1394, 1416				
	NORM-34		Inertial Reference System (IRS)	00005819.0001001	26 NOV 09
Criteria: A330					
	Applicable to: MSN 1394, 1416				
	NORM-34		Integrated Standby Instrument System (ISIS)	00005820.0001001	26 NOV 09
Criteria: (A330 and 47244)					
	Applicable to: MSN 1394, 1416				
	NORM-34		Windshear Warning and Guidance System	00005824.0001001	26 NOV 09
Criteria: A330					
	Applicable to: MSN 1394, 1416				
	NORM-34	x	Traffic Alert and Collision Avoidance System (TCAS)	00012808.0003001	24 JAN 12
Criteria: ((330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and 57425)					
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: 00008285 Traffic Alert and Collision Avoidance System (TCAS)</i>				
	NORM-34		Traffic Alert and Collision Avoidance System (TCAS)	00008285.0003001	26 NOV 09
Criteria: (A330 and (46728 or 46824 or 46986 or 47392 or 47572))					
	Applicable to: MSN 1394, 1416				
	<i>Impacted by TDU: 00012808 Traffic Alert and Collision Avoidance System (TCAS)</i>				

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	NORM-34		Reduced Vertical Separation Minimum (RVSM)	00005825.0001001	26 NOV 09
Criteria: (A330 and 43537) Applicable to: MSN 1394, 1416					
	NORM-49		Auxiliary Power Unit (APU)	00005815.0002001	26 NOV 09
Criteria: (A330 and 52536) Applicable to: MSN 1394, 1416					
	PERF-GEN		Introduction	00005827.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	PERF-GEN		Aircraft Configuration	00005829.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	PERF-GEN		Maximum Demonstrated Crosswind at Takeoff and Landing	00005830.0004001	16 APR 10
Criteria: ((330-243 or 330-243F) and 51802) Applicable to: MSN 1394, 1416					
	PERF-CAL-TO		Speed Corrections in Ground Effect	00005832.0002001	16 APR 10
Criteria: (330-200 or 330-200F) Applicable to: MSN 1394, 1416					
	PERF-CAL-TO		Speed Corrections out of Ground Effect	00008442.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	PERF-CAL-TO		Altitude Corrections	00008443.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	PERF-CAL-CRU		Speed and Mach Corrections	00005836.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	PERF-CAL-CRU		Altitude Corrections	00005837.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	PERF-CAL-LDG		Speed Corrections	00005839.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	PERF-CAL-LDG		Altitude Corrections	00005840.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	PERF-TO		Speeds Definitions	00005845.0001001	26 NOV 09
Criteria: A330					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	PERF-TO		Distances Definitions	00005846.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	PERF-TO		Takeoff Performance	00005847.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	PERF-TO		Takeoff Flight Path	00005848.0001001	02 JUL 10
Criteria: A330					
Applicable to: MSN 1394, 1416					
	PERF-FLT		In-Flight Performance	00008394.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	PERF-LDG		Approach Climb and Landing Climb	00005164.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	PERF-LDG		Approach and Landing Speeds Definition	00005852.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	PERF-LDG		Landing Distance Definitions	00005853.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	PERF-LDG		Landing Performance	00005854.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	PERF-LDG		Autoland Landing Distance Increment	00009381.0001001	02 JUL 10
Criteria: (330-243 or 330-243F)					
Applicable to: MSN 1394, 1416					
	PERF-OCTO		Performance Database	00005244.0034001	26 NOV 09
Criteria: (330-243 and 51802)					
Applicable to: MSN 1394, 1416					
	PERF-ENG		Engine Management Takeoff Thrust	00005841.0007001	16 APR 10
Criteria: ((330-243 or 330-243F or 330-343) and 55212)					
Applicable to: MSN 1394, 1416					
	PERF-ENG		Engine Management Maximum Continuous Thrust	00005842.0005001	16 APR 10
Criteria: (330-243 or 330-243F or 330-343)					
Applicable to: MSN 1394, 1416					

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	PERF-ENG		Engine Management Go-Around Thrust	00005843.0005001	16 APR 10
	Criteria: (330-243 or 330-243F or 330-343)				
	Applicable to: MSN 1394, 1416				
	APP-NOI		General	00005206.0002001	16 APR 10
	Criteria: (330-223 or 330-243 or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343 or 330-200F)				
	Applicable to: MSN 1394, 1416				
	APP-NOI		External Noise	00008555.0012001	26 NOV 09
	Criteria: (330-243 or 330-342 or 330-343)				
	Applicable to: MSN 1394, 1416				
	APP-INOP		General	00005139.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	APP-INOP		Performance	00005537.0001001	02 JUL 10
	Criteria: ((330-201 or 330-202 or 330-203 or 330-223 or 330-223F or 330-301 or 330-302 or 330-303 or 330-321 or 330-322 or 330-323) or ((330-243 or 330-243F or 330-341 or 330-342 or 330-343) and 46878))				
	Applicable to: MSN 1394, 1416				
	APP-ETOPS		General	00005538.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	APP-ETOPS		Limitations	00005539.0002001	26 NOV 09
	Criteria: (A330 and (40314 or 40487 or 45435))				
	Applicable to: MSN 1394, 1416				
	APP-ETOPS		Procedures	00005541.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	APP-ETOPS		Performance	00005542.0001001	28 FEB 11
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	APP-ETOPS		Appendices and Supplements	00005540.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	APP-DTO-GEN		General	00005543.0001001	26 NOV 09
	Criteria: (A330 and (43037 or 44629 or 45055))				
	Applicable to: MSN 1394, 1416				
	APP-DTO-LIM		Limitations	00005544.0002001	02 JUL 10
	Criteria: ((330-223 or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and (43037 or 44629))				
	Applicable to: MSN 1394, 1416				
	APP-DTO-NORM		Normal Procedures	00005545.0001001	26 NOV 09
	Criteria: (A330 and (43037 or 44629 or 45055))				

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
			Applicable to: MSN 1394, 1416		
	APP-DTO-PERF	General		00005546.0001001	26 NOV 09
		Criteria: (A330 and (43037 or 44629 or 45055))			
		Applicable to: MSN 1394, 1416			
	APP-DTO-PERF	Takeoff Performance		00005547.0001001	26 NOV 09
		Criteria: (A330 and (43037 or 44629 or 45055))			
		Applicable to: MSN 1394, 1416			
	APP-DTO-PERF	Engine Management D04		00005550.0006001	02 JUL 10
		Criteria: (330-243 or 330-243F or 330-343)			
		Applicable to: MSN 1394, 1416			
	APP-DTO-PERF	Engine Management D08		00005551.0006001	02 JUL 10
		Criteria: (330-243 or 330-243F or 330-343)			
		Applicable to: MSN 1394, 1416			
	APP-DTO-PERF	Engine Management D12		00005552.0006001	02 JUL 10
		Criteria: (330-243 or 330-243F or 330-343)			
		Applicable to: MSN 1394, 1416			
	APP-DTO-PERF	Engine Management D16		00005553.0006001	02 JUL 10
		Criteria: (330-243 or 330-243F or 330-343)			
		Applicable to: MSN 1394, 1416			
	APP-DTO-PERF	Engine Management D20		00005554.0006001	02 JUL 10
		Criteria: (330-243 or 330-243F or 330-343)			
		Applicable to: MSN 1394, 1416			
	APP-DTO-PERF	Engine Management D24		00005555.0006001	02 JUL 10
		Criteria: (330-243 or 330-243F or 330-343)			
		Applicable to: MSN 1394, 1416			
	APP-DTO-APP	Appendices and Supplements		00005548.0001001	02 JUL 10
		Criteria: ((330-223 or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and (43037 or 44629))			
		Applicable to: MSN 1394, 1416			
	APP-LGDN	General		00005556.0001001	26 NOV 09
		Criteria: A330			
		Applicable to: MSN 1394, 1416			
	APP-LGDN	Limitations		00005557.0001001	26 NOV 09
		Criteria: A330			
		Applicable to: MSN 1394, 1416			
	APP-LGDN	Normal Procedures		00005558.0001001	26 NOV 09
		Criteria: A330			
		Applicable to: MSN 1394, 1416			
	APP-LGDN	Performance		00005559.0001001	26 NOV 09
		Criteria: A330			

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	APP-LGDN		Appendices and Supplements	00005560.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	APP-TLWD		General	00005561.0001001	26 NOV 09
Criteria: (A330 and (41757 or 44313 or 46281 or 46285 or 46468 or 47407 or 49794 or 52342 or 55240 or 55241))					
Applicable to: MSN 1394, 1416					
	APP-TLWD		Limitations	00005562.0005001	02 JUL 10
Criteria: ((330-201 or 330-202 or 330-203 or 330-243 or 330-243F or 330-301 or 330-302 or 330-303 or 330-341 or 330-342 or 330-343) and 55240)					
Applicable to: MSN 1394, 1416					
	APP-N1-GEN		General	00005564.0001001	16 APR 10
Criteria: ((330-223 or 330-223F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342) or ((330-243 or 330-243F or 330-343) and 46874))					
Applicable to: MSN 1394, 1416					
	APP-N1-LIM		Limitations	00005565.0001001	16 APR 10
Criteria: ((330-223 or 330-223F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342) or ((330-243 or 330-243F or 330-343) and 46874))					
Applicable to: MSN 1394, 1416					
	APP-N1-NORM		Takeoff Procedure	00005566.0003001	16 APR 10
Criteria: ((330-243 or 330-243F or 330-341 or 330-342 or 330-343) and 46874)					
Applicable to: MSN 1394, 1416					
	APP-N1-PERF		Performance	00005567.0001001	16 APR 10
Criteria: ((330-223 or 330-223F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342) or ((330-243 or 330-243F or 330-343) and 46874))					
Applicable to: MSN 1394, 1416					
	APP-N1-PERF		Engine Management Takeoff Thrust	00005568.0003001	16 APR 10
Criteria: (330-243 or 330-243F or 330-343)					
Applicable to: MSN 1394, 1416					
	APP-N1-PERF		Engine Management Maximum Continuous Thrust	00005569.0003001	16 APR 10
Criteria: (330-243 or 330-243F or 330-343)					
Applicable to: MSN 1394, 1416					
	APP-N1-PERF		Engine Management Go-Around Thrust	00005570.0003001	16 APR 10
Criteria: (330-243 or 330-243F or 330-343)					
Applicable to: MSN 1394, 1416					
	APP-N1-APP		Appendices and Supplements	00005571.0001001	16 APR 10
Criteria: ((330-223 or 330-223F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342) or ((330-243 or 330-243F or 330-343) and 46874))					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	APP-TAWS	x	General	00012813.0001001	03 MAR 11
	Criteria: (A330 and 58449)				
	Applicable to: MSN 1394, 1416				
	<i>Impacted DU: 00005590 General</i>				
	APP-TAWS		General	00005590.0002001	26 NOV 09
	Criteria: (A330 and 52992)				
	Applicable to: MSN 1394, 1416				
	<i>Impacted by TDU: 00012813 General</i>				
	APP-TAWS		Limitations	00005591.0002001	26 NOV 09
	Criteria: (A330 and 52992)				
	Applicable to: MSN 1394, 1416				
	APP-TAWS		Normal Procedures	00005592.0004001	26 NOV 09
	Criteria: (A330 and (52992 and 54274))				
	Applicable to: MSN 1394, 1416				
	MCDL-GEN-INTR		Introduction	00008851.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-GEN-LIM		Limitations	00008852.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-GEN-PERF		Performance Determination Method	00008853.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-GEN-PERF		Performance Penalties Published in the Airplane Flight Manual MCDL Chapter	00008854.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-GEN-PERF		Performance Penalties Calculated with AFM_OCTO Software	00008855.0001001	28 FEB 11
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-21-01		Ram Air Inlet Flap	00009315.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-21-01		Illustration Ram Air Inlet Flap	00009316.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-21-02		Ram Air Outlet Flap	00009317.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-21-02		Illustration Ram Air Outlet Flap	00009318.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-23-01		Static Discharger	00008858.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-23-01		Illustration Static Discharger	00008859.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-02		Slat Track Closing Plate	00008862.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-02		Illustration Slat Track Closing Plate	00008863.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-03		Rubber Seal under Slats	00008864.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-03		Illustration Rubber Seal under Slats	00008865.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-04		Aileron Rubber Seal	00008866.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-04		Illustration Aileron Rubber Seal	00008867.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-05		Aileron Servo Actuator Fairing	00008868.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-05		Illustration Aileron Servo Actuator Fairing	00008869.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-06		Slat End Blade Seal	00008870.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-27-06		Illustration Slat End Blade Seal	00008871.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-27-07		Flap Blade Seal and Triangular Cushion Seal	00008873.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-27-07		Illustration Flap Blade Seal and Triangular Cushion Seal	00008875.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-27-08		Slat End Filling	00008877.0001001	02 JUL 10
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-27-08		Illustration Slat End Filling	00008878.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-27-10		Inner Aileron Seal (Upper and Lower)	00008880.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-27-10		Illustration Inner Aileron Seal (Upper and Lower)	00008881.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-27-11		Inner Aileron Large Seal	00008882.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-27-11		Illustration Inner Aileron Large Seal	00008883.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-28-01		Refuel/Defuel Coupling Cap	00009002.0001001	28 FEB 11
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-28-01		Illustration Refuel/Defuel Coupling Cap	00009003.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-28-02		Refuel/Defuel Control Panel Access Door on Belly Fairing	00009004.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-28-02		Illustration Refuel/Defuel Control Panel Access Door on Belly Fairing	00009005.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					

Continued on the following page

EASA APPROVED
Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-28-04		Fuel Pump Fairing	00009011.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-28-04		Illustration Fuel Pump Fairing	00009012.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-29-01		Ground Green Hydraulic Connection Access Door	00009022.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-29-01		Illustration Ground Green Hydraulic Connection Access Door	00009023.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-29-02		Ground Blue Hydraulic Connection Access Door	00009024.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-29-02		Illustration Ground Blue Hydraulic Connection Access Door	00009025.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-29-03		Ground Yellow Hydraulic Connection Access Door	00009026.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-29-03		Illustration Ground Yellow Hydraulic Connection Access Door	00009027.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-30-01		Icing Indicator	00009028.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-30-01		Illustration Icing Indicator	00009029.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-32-01		Center Landing Gear Door Ground Opening Access Door	00010871.0001001	02 JUL 10
Criteria: A330					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-32-01		Illustration Center Landing Gear Door Ground Opening Access Door	00010872.0001001	02 JUL 10
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-02		Main Landing Gear Door Seal	00009441.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-02		Illustration Main Landing Gear Door Seal	00009442.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-03		Main Landing Gear Leg Door and Hinged Door Rubber Seal	00009030.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-03		Illustration Main Landing Gear Leg Door and Hinged Door Rubber Seal	00009031.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-04		Nose Fitting Towing	00009032.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-04		Illustration Nose Fitting Towing	00009033.0001001	26 NOV 09
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-05		Nose Landing Gear Wheel Hubcap	00010862.0001001	28 FEB 11
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-05		Illustration Nose Landing Gear Wheel Hubcap	00010863.0001001	02 JUL 10
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-06		Main Landing Gear Wheel Hubcap	00010879.0001001	28 FEB 11
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-32-06		Illustration Main Landing Gear Wheel Hubcap	00010880.0001001	02 JUL 10
	Criteria: A330 Applicable to: MSN 1394, 1416				
	MCDL-33-01		Wing/Landing Light Glazing	00009035.0001001	28 FEB 11
	Criteria: A330 Applicable to: MSN 1394, 1416				

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-33-01		Illustration Wing/Landing Light Glazing	00009036.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-02		Taxi/Takeoff Light	00009037.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-02		Illustration Taxi/Takeoff Light	00009038.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-03		Runway Turnoff Light	00009039.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-03		Illustration Runway Turnoff Light	00009040.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-04		Logo Light Lens	00009041.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-04		Illustration Logo Light Lens	00009042.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-05		Rear Navigation/Strobe Lights Glazing	00009043.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-05		Illustration Rear Navigation/Strobe Lights Glazing	00009044.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-06		Upper Anti-Collision (Beacon) Light Cover	00009046.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-06		Illustration Upper Anti-Collision (Beacon) Light Cover	00009047.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-33-07		Lower Anti-Collision (Beacon) Light Cover	00009048.0001001	28 FEB 11
Criteria: A330					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-33-07		Illustration Lower Anti-Collision (Beacon) Light Cover	00009049.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-51-01		Radome Conducting Strip	00009050.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-51-01		Illustration Radome Conducting Strip	00009051.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-51-02		Passenger Door Scuff Plate	00009052.0001001	26 NOV 09
	Criteria: (330-200 or 330-300)				
	Applicable to: MSN 1394, 1416				
	MCDL-51-02		Illustration Passenger Door Scuff Plate	00009053.0001001	26 NOV 09
	Criteria: (330-200 or 330-300)				
	Applicable to: MSN 1394, 1416				
	MCDL-51-03		Bulk Door Scuff Plate	00009054.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-51-03		Illustration Bulk Door Scuff Plate	00009055.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-51-04		Passenger Door Gutter	00009056.0001001	26 NOV 09
	Criteria: (330-200 or 330-300)				
	Applicable to: MSN 1394, 1416				
	MCDL-51-04		Illustration Passenger Door Gutter	00009057.0001001	26 NOV 09
	Criteria: (330-200 or 330-300)				
	Applicable to: MSN 1394, 1416				
	MCDL-52-02		Forward Cargo Loading Operation Control Panel Door	00009059.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-02		Illustration Forward Cargo Loading Operation Control Panel Door	00009060.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-03		Aft Cargo Door Control Panel Access Door	00009061.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-52-03		Illustration Aft Cargo Door Control Panel Access Door	00009062.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-52-04		Aft Cargo Loading Operation Control Panel Door	00009063.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-52-04		Illustration Aft Cargo Loading Operation Control Panel Door	00009064.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-52-05		Forward Jacking Point Receptable Door	00009065.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-52-05		Illustration Forward Jacking Point Receptable Door	00009066.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-52-06		Potable Water Drain Connection Service Door	00009067.0001001	26 NOV 09
Criteria: (330-200 or 330-300) Applicable to: MSN 1394, 1416					
	MCDL-52-06		Illustration Potable Water Drain Connection Service Door	00009068.0001001	26 NOV 09
Criteria: (330-200 or 330-300) Applicable to: MSN 1394, 1416					
	MCDL-52-07		Potable Water Service Door	00009069.0001001	26 NOV 09
Criteria: (330-200 or 330-300) Applicable to: MSN 1394, 1416					
	MCDL-52-07		Illustration Potable Water Service Door	00009070.0001001	26 NOV 09
Criteria: (330-200 or 330-300) Applicable to: MSN 1394, 1416					
	MCDL-52-08		Vacuum Toilet Service Door	00009071.0001001	26 NOV 09
Criteria: (330-200 or 330-300) Applicable to: MSN 1394, 1416					
	MCDL-52-08		Illustration Vacuum Toilet Service Door	00009072.0001001	26 NOV 09
Criteria: (330-200 or 330-300) Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-52-09		Fuel Center Tank Water Drain Access Door	00009073.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-09		Illustration Fuel Center Tank Water Drain Access Door	00009074.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-10		Cargo Door Indicator Flag	00009075.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-10		Illustration Cargo Door Indicator Flag	00009076.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-11		Potable Water Forward Drain Panel Access Door	00009077.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-11		Illustration Potable Water Forward Drain Panel Access Door	00009078.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-12		Forward Cargo Door Access Cover Panel	00009079.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-12		Illustration Forward Cargo Door Access Cover Panel	00009080.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-13		Aft Cargo Door Access Cover Panel	00009081.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-13		Illustration Aft Cargo Door Access Cover Panel	00009082.0001001	26 NOV 09
	Criteria: A330				
	Applicable to: MSN 1394, 1416				
	MCDL-52-14		Passenger Door and Emergency Exits Upper Cover Plate	00009083.0001001	28 FEB 11
	Criteria: (330-200 or 330-300)				
	Applicable to: MSN 1394, 1416				

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-52-14		Illustration Passenger Door and Emergency Exits Upper Cover Plate	00009084.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-53-01		"Dog House" Closing Panel	00009091.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-53-01		Illustration "Dog House" Closing Panel	00009092.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-53-02		Belly Fairing Sliding Panel	00009094.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-53-02		Illustration Belly Fairing Sliding Panel	00009095.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-53-03		Flap Valve Assy	00009097.0001001	28 FEB 11
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-53-03		Illustration Flap Valve Assy	00009098.0002001	02 JUL 10
Criteria: (A330 and 45969) Applicable to: MSN 1394, 1416					
	MCDL-53-04		Belly Fairing Seal	00009099.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-53-04		Illustration Belly Fairing Seal	00009100.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-54-03		Spring Plate	00009111.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-54-03		Illustration Spring Plate	00009112.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-54-04		Pylon Access Panel	00009113.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					
	MCDL-54-04		Illustration Pylon Access Panel	00009114.0001001	26 NOV 09
Criteria: A330 Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-57-01		Underwing Plug for Jacking Point	00009115.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-01		Illustration Underwing Plug for Jacking Point	00009116.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-02		Winglet	00009117.0002001	16 APR 10
Criteria: (330-201 or 330-202 or 330-203 or 330-223 or 330-243 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200F)					
Applicable to: MSN 1394, 1416					
	MCDL-57-02		Illustration Winglet	00009118.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-04		Flap Track Fairing	00009119.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-04		Illustration Flap Track Fairing	00009120.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-05		Access Panel to Slat Actuator Overtorque Indicator Flag	00009121.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-05		Illustration Access Panel to Slat Actuator Overtorque Indicator Flag	00009122.0001001	02 JUL 10
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-07		Flap Track Fairing Cover	00009123.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-07		Illustration Flap Track Fairing Cover	00009124.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-08		Flap to Movable Flap Track Fairing Seal	00009125.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-08		Illustration Flap to Movable Flap Track Fairing Seal	00009126.0001001	26 NOV 09
Criteria: A330					
Applicable to: MSN 1394, 1416					

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-57-09		Cover on Flap Track Fixed Fairing	00010877.0001001	02 JUL 10
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-57-09		Illustration Cover on Flap Track Fixed Fairing	00010878.0001001	02 JUL 10
Criteria: A330					
Applicable to: MSN 1394, 1416					
	MCDL-71-05		Fan Cowl Door Hoist Point Plug	00009309.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-71-05		Illustration Fan Cowl Door Hoist Point Plug	00009310.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-71-06		Fan Cowl Door Hold Open Rod	00009311.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-71-06		Illustration Fan Cowl Door Hold Open Rod	00009312.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-71-07		Nacelle Hoist Point Plug Nose Cowl	00009313.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-71-07		Illustration Nacelle Hoist Point Plug Noise Cowl	00009314.0001001	28 FEB 11
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-08		Thrust Reverser Hoist Point Plug	00009403.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-08		Illustration Thrust Reverser Hoist Point Plug	00009404.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-09		Thrust Reverser Cinching Device	00009405.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-78-09		Illustration Thrust Reverser Cinching Device	00009406.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-10		Thrust Reverser "C" Duct Actuation System	00009407.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-10		Illustration Thrust Reverser "C" Duct Actuation System	00009408.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-11		Thrust Reverser Front and Rear Hold Open Rod	00009409.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-11		Illustration Thrust Reverser Front and Rear Hold Open Rod	00009410.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-12		Thrust Reverser Hinge Access Cover	00009411.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-12		Illustration Thrust Reverser Hinge Access Cover	00009412.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-13		Thrust Reverser Bavette Fairing	00009413.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-13		Illustration Thrust Reverser Bavette Fairing	00009414.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-14		Thrust Reverser Door Actuator Pit Fairing	00009415.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416					
	MCDL-78-14		Illustration Thrust Reverser Door Actuator Pit Fairing	00009416.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
Applicable to: MSN 1394, 1416					
	MCDL-78-15		Thrust Reverser Pivot Door Access Panel	00009417.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-15		Illustration Thrust Reverser Pivot Door Access Panel	00009418.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-16		Thrust Reverser Rectangular Movable Panel	00009419.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-16		Illustration Thrust Reverser Rectangular Movable Panel	00009420.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-17		Thrust Reverser Triangular Movable Panel	00009421.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-17		Illustration Thrust Reverser Triangular Movable Panel	00009422.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-18		Common Nozzle Assembly Hoist Point Plug	00009423.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-18		Illustration Common Nozzle Assembly Hoist Point Plug	00009424.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-19		Common Nozzle Assembly Pylon Fairing Trailing Edge	00009425.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					
	MCDL-78-19		Illustration Common Nozzle Assembly Pylon Fairing Trailing Edge	00009426.0001001	16 APR 10
Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)					
Applicable to: MSN 1394, 1416					

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

EASA APPROVED

Continued from the previous page

M ⁽¹⁾	Localization	T ⁽²⁾	DU Title	DU identification	DU date
	MCDL-78-20		Latch Number 4 Access Panel Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416	00009427.0001001	16 APR 10
	MCDL-78-20		Illustration Latch Number 4 Access Panel Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343) Applicable to: MSN 1394, 1416	00009428.0001001	16 APR 10
	SPERF-CONT-GEN		General Criteria: A330 Applicable to: MSN 1394, 1416	00005593.0001001	26 NOV 09
	SPERF-CONT-LIM		Limitations Criteria: A330 Applicable to: MSN 1394, 1416	00005594.0001001	26 NOV 09
	SPERF-CONT-PERF		Aircraft Configuration Criteria: A330 Applicable to: MSN 1394, 1416	00005850.0001001	26 NOV 09
	SPERF-CONT-PERF		Takeoff and Landing Performance Criteria: A330 Applicable to: MSN 1394, 1416	00005595.0001001	26 NOV 09

(1) *Evolution code : N=New, R=Revised, E=Effectivity*

(2) *Temporary information*



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE DOCUMENTARY UNITS

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A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF EFFECTIVE TEMPORARY REVISIONS

EASA APPROVED

M ⁽¹⁾	TR identification	TR approval date	TR Title	Deleted by
	TR37 issue 1.0	02 JUN 10	Erroneous Radio Altimeter Height Indication	
	Criteria: A330			
	Applicable to: MSN 1394, 1416			
	TR39 issue 1.0	02 JUN 10	Unreliable Airspeed	
	Criteria: (A330 and 53368)			
	Applicable to: MSN 1394, 1416			
	TR72 issue 2.0	09 DEC 11	SATCOM Voice system	
	Criteria: (A330 and 200593)			
	Applicable to: MSN 1394, 1416			
	TR95 issue 2.0	31 MAY 12	A330 - AMC 20-27 Compliance	
	Criteria: (A330 and (44308 or 44339 or 46572 or 46893))			
	Applicable to: MSN 1394, 1416			
	TR129 issue 1.0	16 DEC 11	Approved AFM Format	
	Criteria: A330			
	Applicable to: MSN 1394, 1416			
	TR132 issue 1.0	03 MAR 11	Traffic & Terrain Integrated Surveillance System (T3CAS)	
	Criteria: (A330 and 58449)			
	Applicable to: MSN 1394, 1416			
	TR141 issue 1.0	24 JAN 12	A330 - AP/FD TCAS	
	Criteria: ((330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and 57425)			
	Applicable to: MSN 1394, 1416			
	TR145 issue 1.0	27 JAN 11	A330-200/-200F - FWC T4 - ATA 28	
	Criteria: ((330-200 or 330-200F) and 200590)			
	Applicable to: MSN 1394, 1416			
	TR147 issue 1.0	27 JAN 11	A330 - FWC T4 - ATA 30	
	Criteria: (A330 and 200590)			
	Applicable to: MSN 1394, 1416			
	TR156 issue 1.0	31 OCT 11	Autoland Limitation for A330-200 operations	
	Criteria: ((330-223 or 330-223F or 330-243 or 330-243F) and 57547)			
	Applicable to: MSN 1394, 1416			
	TR158 issue 1.0	20 APR 11	NAVIGATION - RNP AR 0.3 for A330	
	Criteria: (A330 and 200624)			
	Applicable to: MSN 1394, 1416			
	TR183 issue 1.0	18 JUL 12	Landing Distance Determination in case of In-Flight Failure	
	Criteria: A330			
	Applicable to: MSN 1394, 1416			

Continued on the following page

EASA APPROVED*Continued from the previous page*

M ⁽¹⁾	TR identification	TR approval date	TR Title	Deleted by
	TR196 issue 1.0	26 JAN 12	Non Precision Approach - Approach using NAV mode	
Criteria: (A330 and ((44308 or 44339 or 46572 or 46893) and (200286 and 200309)))				
Applicable to: MSN 1394, 1416				
	TR197 issue 1.0	11 NOV 11	FANS - ATC Datalink Applications	
Criteria: (A330 and (200859 and 200860 and 52426))				
Applicable to: MSN 1394, 1416				
	TR238 issue 1.0	13 SEP 12	REMOVAL OF SMOKE/FUMES	
Criteria: (330-200 or 330-300)				
Applicable to: MSN 1394, 1416				
	TR242 issue 1.0	13 SEP 12	SMOKE/FUMES/AVNCS SMOKE	
Criteria: ((330-200 or 330-300) and 56729)				
Applicable to: MSN 1394, 1416				
	TR300 issue 1.0	18 FEB 13	NAV - RA 1+2 FAULT	
Criteria: (A330 and (58449 and 58751))				
Applicable to: MSN 1394, 1416				

(1) Evolution code : N=New, R=Revised, E=Effectivity

This table gives, for each delivered aircraft, the cross reference between:

- The Manufacturing Serial Number (MSN).
- The Fleet Serial Number (FSN) of the aircraft as known by AIRBUS S.A.S.
- The registration number of the aircraft as known by AIRBUS S.A.S.
- The aircraft model.

M⁽¹⁾	MSN	FSN	Registration Number	Model
	1394		DQ-FJT	330-243
	1416		DQ-FJU	330-243

(1) Evolution code : N=New, R=Revised



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
AIRCRAFT ALLOCATION TABLE

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A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES

LIST OF MODIFICATIONS

M ⁽¹⁾	MODIFICATION	Linked SB	Incorp. Date	Title
	40314		19 JAN 13	FIRE PROTECTION-EXTEND DURATION OF CARGO COMPARTMENT FIRE SUPPRESSION
Applicable to: MSN 1394, 1416				
	40487		19 JAN 13	FIRE PROTECTION-INSTALL H.T.L. EXTINGUISHER IN FWD AND AFT CARGO COMPARTMENT
Applicable to: MSN 1394, 1416				
	43029		19 JAN 13	LANDING GEAR - MAIN GEAR - FIT STRENGTHENED MAIN LANDING GEAR FOR GROWTH A/C
Applicable to: MSN 1394, 1416				
	43037		19 JAN 13	ENGINE FUEL AND CONTROL - GENERAL - PROVIDE DERATED TAKE OFF FACILITY FOR R.R. ENGINES
Applicable to: MSN 1394, 1416				
	43537		19 JAN 13	NAVIGATION - ADIRS - FIT REDUCED VERTICAL SEPARATION MINIMUM (RVSM)
Applicable to: MSN 1394, 1416				
	45435		19 JAN 13	FIRE PROTECTION-LOWER DECK C.C.FIRE EXTINGUISHER-ADAPT EXTENDED DURATION FIRE SUPPRESSION SYSTEM FOR ST7 A/C
Applicable to: MSN 1394, 1416				
	45969		19 JAN 13	FUSELAGE - GENERAL - INTRODUCE MINOR IMPROVEMENTS IN A/S PART (FROM MSN 300)
Applicable to: MSN 1394, 1416				
	46728		19 JAN 13	NAVIGATION-TCAS-INSTALL ALLIED SIGNAL CHANGE 7 P/N 066-50000-2220
Applicable to: MSN 1394, 1416				
	46742		19 JAN 13	INFORMATION SYSTEMS - AIR TRAFFIC AND INFORMATION MANAGEMENT SYSTEM - ACTIVATE ATSU
Applicable to: MSN 1394, 1416				
	46874		19 JAN 13	ENGINE AND FUEL CONTROL-FADEC- ACTIVATE FUNCTION MODIFIED ENGINE ACCELERATION SCHEDULE FOR TAKE-OFF (MEASTO)
Applicable to: MSN 1394, 1416				
	46878		19 JAN 13	POWER PLANT - COWLING - A330 RR - INTRODUCE NACELLE ANTI-ICE TRI OUTLET CONFIGURATION ON FCD
Applicable to: MSN 1394, 1416				
	46893		19 JAN 13	NAVIGATION - MMR - INSTALL COLLINS MULTI-MODE RECEIVERS P/N 822-1152-121
Applicable to: MSN 1394, 1416				

Continued on the following page

Continued from the previous page

M ⁽¹⁾	MODIFICATION	Linked SB	Incorp. Date	Title
	47244		19 JAN 13	NAVIGATION-STANDBY NAVIGATION SYSTEMS- INSTALL SEXTANT AVIONICS INTEGRATED STANDBY INSTRUMENT SYSTEM (ISIS)
Applicable to: MSN 1394, 1416				
	47392		19 JAN 13	NAVIGATION-TCAS-INSTALL TCAS II HONEYWELL 2000 (CHANGE 7) P/N 7517900-10003
Applicable to: MSN 1394, 1416				
	47462		19 JAN 13	AUTO FLIGHT - FMGEC - INSTALL FMGEC P1-CD7 FOR RR OR PW ENGINES
Applicable to: MSN 1394, 1416				
	47524		19 JAN 13	INDICATING/RECORDING SYSTEMS-ELECTRONIC INSTRUMENT SYSTEM - INSTALL NEW DISPLAY SYSTEM (EIS2) EQTS (DMC/DU/DISKETTES)
Applicable to: MSN 1394, 1416				
	47701		19 JAN 13	LANDING GEAR - NOSE GEAR DOORS - CHANGE MARKINGS FOR MAXIMUM TOWING/PUSHBACK TURNING ANGLE
Applicable to: MSN 1394, 1416				
	47930		19 JAN 13	FUEL - FCMS - INSTALL FCMC STAGE 9.0
Applicable to: MSN 1394, 1416				
	48765		19 JAN 13	AUTO FLIGHT - FMGES - INSTALL FMGEC SEXTANT FOR PW/RR ENGINES
Applicable to: MSN 1394, 1416				
	48979		19 JAN 13	STABILIZERS - GENERAL - INTRODUCE A340-500/-600 VERTICAL STABILIZER/ RUDDER ON A330-200
Applicable to: MSN 1394, 1416				
	48980		19 JAN 13	FUSELAGE - GENERAL - REAR FUSELAGE INTRODUCE CFRP PRESSURE BULKHEAD FRAME
Applicable to: MSN 1394, 1416				
	49193		19 JAN 13	INDICATING/RECORDING SYSTEMS - FWC - INSTALL NEW STANDARD K7
Applicable to: MSN 1394, 1416				
	49632		19 JAN 13	INDICATING/RECORDING SYSTEMS - FWC - REPLACE THE EXISTING STANDARD FWC BY A NEW STD K6 FOR A330 - FAR 121-344
Applicable to: MSN 1394, 1416				
	49638		19 JAN 13	E/F-PASSENGER SEATS-INTRODUCE IN SEAT POWER SUPPLY SYSTEM 110V AC FROM VENDOR GENERAL DYNAMICS PRIMEX
Applicable to: MSN 1394, 1416				

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES

LIST OF MODIFICATIONS

Continued from the previous page

M ⁽¹⁾	MODIFICATION	Linked SB	Incorp. Date	Title
	50125		19 JAN 13	INFORMATION SYSTEMS - AIR TRAFFIC AND INFO. MANAGEMENT SYSTEM - DEFINE AND INSTALL ATC 623 APPLICATIONS SOFTWARE
Applicable to: MSN 1394, 1416				
	50616		19 JAN 13	INDICATING/RECORDING SYSTEMS - EIS - INTALL NEW EIS2 STANDARD L4 ON A330/A340 ENHANCED
Applicable to: MSN 1394, 1416				
	51144		19 JAN 13	NAVIGATION - ADIRS- INSTALL 4MCU ADIRS HONEYWELL (AE21)
Applicable to: MSN 1394, 1416				
	51411		19 JAN 13	NAVIGATION - ADIRS - ACTIVATE IMPROVEMENT FUNCTION ON ADIRU
Applicable to: MSN 1394, 1416				
	51790		19 JAN 13	INDICATING/RECORDING SYSTEMS - FLIGHT WARNING COMPUTER - INSTALL NEW FWC STANDARD K8 ON A330
Applicable to: MSN 1394, 1416				
	51802		19 JAN 13	GENERAL-DESIGN WEIGHTS-CERTIFY A330-200 WV050 MTOW 230T, MLW 180T, MZFW 168T WITH REVISED A/C DESIGN SERVICE GOAL
Applicable to: MSN 1394, 1416				
	52426		19 JAN 13	INFORMATION SYSTEMS - GENERAL - CERTIFY FANS A+ CONFIGURATIONS (OVERALL MODIFICATION)
Applicable to: MSN 1394, 1416				
	52536		19 JAN 13	GENERAL-TECHNICAL INFO ,WEIGHT AND GC - INCREASE MAXIMUM OPERATING ALTITUDE FROM 41100 TO 41450 FEET
Applicable to: MSN 1394, 1416				
	52797		19 JAN 13	NAVIGATION-ADIRS : INSTALL NEW HONEYWELL ADIRU STANDARD - AE22
Applicable to: MSN 1394, 1416				
	52992		19 JAN 13	NAVIGATION - TRAFFIC TERRAIN COLLISION AVOIDANCE SYSTEM - INSTALL T2CAS COMPUTER
Applicable to: MSN 1394, 1416				
	53368		19 JAN 13	NAVIGATION-ADIRS-INTRODUCE AIR DATA MONITORING FUNCTION
Applicable to: MSN 1394, 1416				
	54227		19 JAN 13	NAVIGATION - ATC - CERTIFY EHS FUNCTION
Applicable to: MSN 1394, 1416				

Continued on the following page

Continued from the previous page

M ⁽¹⁾	MODIFICATION	Linked SB	Incorp. Date	Title
	54274		19 JAN 13	NAVIGATION - T2CAS - ACTIVATE AUTOMATIC DEACTIVATION OF T2CAS-TAWS
Applicable to: MSN 1394, 1416				
	55191		19 JAN 13	INDICATING/RECORDING SYSTEMS - FLIGHT WARNING COMPUTER - INSTALL FWC STANDARD K9-486 ON A330
Applicable to: MSN 1394, 1416				
	55212		19 JAN 13	CERTIFICATION DOCUMENTS - GENERAL - CERTIFY THE FLEX TEMPERATURE EXTENTION FOR A330
Applicable to: MSN 1394, 1416				
	55240		19 JAN 13	GENERAL-TECHNICAL INFORMATION-CERTIFY A/C FOR TAKE-OFF OPERATION AT 15 KNOTS FOR CFMI/GE/RR ENGINES TAILWIND
Applicable to: MSN 1394, 1416				
N	55346		10 APR 13	NAVIGATION-AIR DATA INERTIAL REFERENCE SYSTEM (ADIRS) - INSTALL HONEYWELL ADIRS -AE23
Applicable to: MSN 1394, 1416				
	55661		19 JAN 13	NAVIGATION - ATC/MODE S (SELECT) CERTIFY ADS-B OUT CAPABILITY THROUGH EXTENDED SUITTER 1090 MHZ
Applicable to: MSN 1394, 1416				
	55982		19 JAN 13	INDICATING/RECORDING SYSTEMS - FLIGHT WARNING COMPUTER (FWC) - INSTALL FWC STANDARD T1-0
Applicable to: MSN 1394, 1416				
	56350		19 JAN 13	INFORMATION SYSTEMS - AIRCRAFT INFORMATION NETWORK SYSTEM - ACTIVATE SIU V5 STANDARD
Applicable to: MSN 1394, 1416				
	56729		19 JAN 13	INDICATING / RECORDING SYSTEMS - FLIGHT WARNING COMPUTER (FWC) - INSTALL FWC STANDARD T2-0.
Applicable to: MSN 1394, 1416				
	57425		19 JAN 13	AUTO FLIGHT - AUTO PILOT/FLIGHT DIRECTOR (AP/FD) - ACTIVATE AP/FD TCAS MODE ON FMGEC
Applicable to: MSN 1394, 1416				
	57547		19 JAN 13	AUTO FLIGHT - FMGEC - INSTALL FMGEC T4HJ1 WITH GENEPI HARDWARE AND FMS THALES RELEASE 1A ON A330 WITH PW/RR
Applicable to: MSN 1394, 1416				

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES

LIST OF MODIFICATIONS

Continued from the previous page

M ⁽¹⁾	MODIFICATION	Linked SB	Incorp. Date	Title
	58449		19 JAN 13	NAVIGATION - T3CAS - INSTALL T3CAS COMPUTER WITH TRANSPONDER FUNCTION INACTIVE
Applicable to: MSN 1394, 1416				
	58751		19 JAN 13	INDICATING/RECORDING SYSTEMS - FWC - INSTALL FWC STANDARD T3-0 ON LR A/C
Applicable to: MSN 1394, 1416				
	58860		19 JAN 13	GENERAL - DESIGN WEIGHTS - CERTIFY MTOW 238T, MLW 182T, MZFW 168T (WV 058) FOR A330-200
Applicable to: MSN 1394, 1416				
	200004		19 JAN 13	FUEL-FUEL CONTROL AND MONITORING SYSTEM (FCMS)-UPDATE FCMC SOFTWARE TO STAGE 12
Applicable to: MSN 1394, 1416				
	200286		19 JAN 13	AUTO FLIGHT- FMGC - INSTALL FMGEC T3HJ0 WITH GENEPI HARDWARE AND THALES FMS RELEASE 1A ON A330 WITH PW/RR ENGINES
Applicable to: MSN 1394, 1416				
	200309		19 JAN 13	AUTO FLIGHT - FLIGHT MANAGEMENT (FM) ACTIVATE BARO RADIO SETTING FUNCTION WITH OPC OPTION
Applicable to: MSN 1394, 1416				
	200590		19 JAN 13	INDICATING/RECORDING SYSTEMS - FWC - INTRODUCE NEW FWC STANDARD T4 ON LR A/C
Applicable to: MSN 1394, 1416				
	200593		19 JAN 13	COMMUNICATIONS - SATELLITE COMMUNICATION - CERTIFY: USE OF SATCOM COCKPIT VOICE FOR ATC
Applicable to: MSN 1394, 1416				
	200624		19 JAN 13	NAVIGATION - GENERAL - FLIGHT MANUAL EXTENSION TO RNP AR 0.3 CAPABILITY - A330 CONFIGURATION
Applicable to: MSN 1394, 1416				
	200859		19 JAN 13	INFORMATION SYSTEMS - ATIMS - INSTALL NEW ATC ARINC 623 FOR DATALINK RECORDING FUNCTION
Applicable to: MSN 1394, 1416				
	200860		19 JAN 13	INFORMATION SYSTEMS - ATIMS - INSTALL NEW ATC FANS A+ APPLICATIONS FOR FANS A+ AND DATALINK RECORDING FUNCTIONS
Applicable to: MSN 1394, 1416				

(1) Evolution code : N=New, R=Revised, E=Effectivity



A330
AIRPLANE FLIGHT MANUAL

PRELIMINARY PAGES
LIST OF MODIFICATIONS

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APPROVAL DATA

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A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
PRELIMINARY PAGES
TABLE OF CONTENTS

APPRO-ENV APPROVAL REFERENCE

Approval Reference A330-243.....	A
----------------------------------	---

APPRO-TR TEMPORARY REVISIONS

Erroneous Radio Altimeter Height Indication.....	A
Unreliable Airspeed.....	B
Autoland Limitation for A330-200 operations.....	C
SATCOM Voice system.....	D
A330 - AMC 20-27 Compliance.....	E
Non Precision Approach - Approach using NAV mode.....	F
FANS - ATC Datalink Applications.....	G
Approved AFM Format.....	H
Traffic & Terrain Integrated Surveillance System (T3CAS).....	I
A330-200/-200F - FWC T4 - ATA 28.....	J
A330 - FWC T4 - ATA 30.....	K
NAVIGATION - RNP AR 0.3 for A330.....	L
Landing Distance Determination in case of In-Flight Failure.....	M
A330 - AP/FD TCAS.....	N
REMOVAL OF SMOKE/FUMES.....	O
SMOKE/FUMES/AVNCS SMOKE.....	P
NAV - RA 1+2 FAULT.....	Q



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
PRELIMINARY PAGES
TABLE OF CONTENTS

Intentionally left blank



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
APPROVAL REFERENCE

APPROVAL REFERENCE A330-243

Ident.: APPRO-ENV-00005877.0005001 / 28 FEB 11

EASA APPROVED

Criteria: 330-243

AIRPLANE FLIGHT MANUAL	MODEL	REVISION
ENVELOPE	330-243	15

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 28 FEB 11

Approval reference: 10033972

The LEDU (Refer to LEDU) and LETR (Refer to LETR) identify all the Documentary Units (DU) defining the Airplane Flight Manual for specific Airbus 330-243 aircraft definitions at the latest EASA approved envelope revision given in the above table.



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
APPROVAL REFERENCE

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A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR37 Issue 1.0
ERRONEOUS RADIO ALTIMETER HEIGHT INDICATION

Ident.: **TDU / APPRO-TR-00009845.0001001 / 02 JUN 10**

EASA APPROVED

Criteria: A330

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 02 JUN 10

Approval reference: 10030210

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This Temporary Revision gives the operational procedure in the case of an erroneous Radio Altimeter (RA) height indication.

Applicable to: All A330 aircraft.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00009845.0001001/02 JUN 10

ABN-34-00009834.0001001/02 JUN 10



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR39 Issue 1.0
UNRELIABLE AIRSPEED

Ident.: **TDU / APPRO-TR-00009855.0001001 / 02 JUN 10**

EASA APPROVED

Criteria: (A330 and 53368)

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 02 JUN 10

Approval reference: 10030213

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This Temporary Revision gives the updated unreliable airspeed procedure to aircraft fitted with air data monitoring function.

Applicable to: A330 aircraft fitted with Air Data Monitoring function (mod 53368).

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00009855.0001001/02 JUN 10

ABN-34-00009856.0001001/02 JUN 10



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR156 Issue 1.0
AUTOLAND LIMITATION FOR A330-200 OPERATIONS

Ident.: **TDU / APPRO-TR-00010055.0003001 / 31 OCT 11**

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-243 or 330-243F) and 57547)

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 31 OCT 11

Approval reference: 10037081

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR is issued to remove the minimum weight limitation to perform an autoland for A330-200 and to remove the CG limitation to perform an autoland for A330-200F.

Applicable to: A330-200 equipped with Pratt&Whitney or Rolls-Royce engines and with the FMGEC T4HJ1 mod 57547.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00010055.0003001/31 OCT 11

LIM-22-FGS-00010054.0003001/31 OCT 11



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

Ident.: **TDU / APPRO-TR-00010330.0001001 / 09 DEC 11**

EASA APPROVED

Criteria: (A330 and 200593)

Impacted DU: NONE

TR72 Issue 2.0
SATCOM VOICE SYSTEM

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 09 DEC 11

Approval reference: 10037595

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This Temporary Revision (TR) provides the limitations concerning the SATCOM Voice system.

Applicable to: A330 aircraft fitted with MOD 200593.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00010330.0001001/09 DEC 11

LIM-23-00010328.0001001/09 DEC 11



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR95 Issue 2.0

A330 - AMC 20-27 COMPLIANCE

Ident.: **TDU / APPRO-TR-00012048.0001001 / 31 MAY 12**

EASA APPROVED

Criteria: (A330 and (44308 or 44339 or 46572 or 46893))

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 31 MAY 12

Approval reference: 10039882

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR provides the compliance statement to the AMC 20-27, associated limitations and procedures.
The issue 2 of this TR extends the applicability of the AMC 20-27 to the Honeywell FMS2.

Applicable to: A330 aircraft fitted with Honeywell FMS2 or Thales FMS2 and with GPS.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00012048.0001001/31 MAY 12

LIM-22-FMS-00014101.0002001/31 MAY 12

LIM-22-FMS-00014063.0001001/31 MAY 12

NORM-22-NPA-00014079.0001001/31 MAY 12

LIM-22-FMS-00014119.0001001/31 MAY 12



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR196 Issue 1.0
NON PRECISION APPROACH - APPROACH USING NAV MODE

Ident.: **TDU / APPRO-TR-00014087.0004001 / 26 JAN 12**

EASA APPROVED

Criteria: (A330 and ((44308 or 44339 or 46572 or 46893) and (200286 and 200309)))

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 26 JAN 12

Approval reference: 10038195

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR provides the procedure to start an RNAV(GNSS) approach with one FMS and one GPS.

Applicable to: A330 aircraft fitted with GPS and the baro-setting modification on FMS R1A.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00014087.0004001/26 JAN 12

NORM-22-NPA-00011480.0007001/26 JAN 12



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR197 Issue 1.0

FANS - ATC DATALINK APPLICATIONS

Ident.: **TDU / APPRO-TR-00012672.0005001 / 11 NOV 11**

EASA APPROVED

Criteria: (A330 and (200859 and 200860 and 52426))

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 11 NOV 11

Approval reference: 10037238

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR provides the compliance to the ED-100A/DO-258A, to the AMC 20-09 /ED-85A, to the AMC 20-10 / ED-89A and to the ED-106A.

Applicable to: A330 aircraft with FANS A+ and ARINC 623.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00012672.0005001/11 NOV 11

LIM-46-00012674.0005001/11 NOV 11



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR129 Issue 1.0
APPROVED AFM FORMAT

Ident.: **TDU / APPRO-TR-00012741.0001001 / 16 DEC 11**

EASA APPROVED

Criteria: A330

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 16 DEC 11

Approval reference: 10037689 Rev. 1

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR provides the list of approved AFM formats.

Applicable to: A330 aircraft.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00012741.0001001/16 DEC 11

GEN-DESC-00012742.0001001/16 DEC 11



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR132 Issue 1.0
TRAFFIC & TERRAIN INTEGRATED SURVEILLANCE SYSTEM (T3CAS)

Ident.: **TDU / APPRO-TR-00012809.0001001 / 03 MAR 11**

EASA APPROVED

Criteria: (A330 and 58449)

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 03 MAR 11

Approval reference: 10034066

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR provides the updated normal procedure for aircraft fitted with Traffic & Terrain Integrated Surveillance System (T3CAS).

Applicable to: A330 aircraft with T3CAS (mod 58449).

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00012809.0001001/03 MAR 11

APP-TAWS-00012813.0001001/03 MAR 11



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR145 Issue 1.0

A330-200/-200F - FWC T4 - ATA 28

Ident.: **TDU / APPRO-TR-00012961.0001001 / 27 JAN 11**

EASA APPROVED

Criteria: ((330-200 or 330-200F) and 200590)

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 27 JAN 11

Approval reference: 10033562

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR provides the ATA 28 procedure updated with FWC T4 applicable to A330-200/-200F aircraft.

Applicable to: A330-200/-200F aircraft with MOD 200590.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00012961.0001001/27 JAN 11

ABN-28-00011168.0004001/27 JAN 11



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR147 Issue 1.0
A330 - FWC T4 - ATA 30

Ident.: **TDU / APPRO-TR-00012964.0001001 / 27 JAN 11**

EASA APPROVED

Criteria: (A330 and 200590)

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 27 JAN 11

Approval reference: 10033562

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR provides the ATA 30 procedure updated with FWC T4 applicable to A330 aircraft.

Applicable to: A330 aircraft with MOD 200590.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00012964.0001001/27 JAN 11

ABN-30-00012968.0001001/27 JAN 11



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR158 Issue 1.0
NAVIGATION - RNP AR 0.3 FOR A330

Ident.: **TDU / APPRO-TR-00013819.0001001 / 20 APR 11**

EASA APPROVED

Criteria: (A330 and 200624)

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 20 APR 11

Approval reference: 10034692

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR provides the updated reference to the Airbus Airworthiness Compliance Document (ACD) to be referred to for RNP 0.3 NM operations with AR (Authorization Required) or SAAAR (Special Aircrew and Aircraft Authorization Required).

Applicable to: A330 aircraft with Mod 200624.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00013819.0001001/20 APR 11

LIM-22-FMS-00010111.0005001/20 APR 11



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR183 Issue 1.0
LANDING DISTANCE DETERMINATION IN CASE OF IN-FLIGHT FAILURE

Ident.: **TDU / APPRO-TR-00013982.0001001 / 18 JUL 12**

EASA APPROVED

Criteria: A330

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY:

Approval date: 18 JUL 12

Approval reference: 10040669

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR provides the rules to apply in Abnormal and Emergency Procedures for Landing Distance Determination in case of In-Flight Failure.

Applicable to: All A330 aircraft.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00013982.0001001/18 JUL 12

ABN-GEN-00014414.0001001/18 JUL 12

EMER-GEN-00014413.0001001/18 JUL 12



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR141 Issue 1.0
A330 - AP/FD TCAS

Ident.: **TDU / APPRO-TR-00014190.0001001 / 24 JAN 12**

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and 57425)

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 24 JAN 12

Approval reference: 10038150

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR amends the normal procedures for aircraft fitted with AP/FD TCAS.

Applicable to: A330 aircraft fitted with Pratt & Whitney engines or Rolls Royce engines and with mod 57425.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00014190.0001001/24 JAN 12

NORM-34-00012808.0003001/24 JAN 12

NORM-22-CONF-00014191.0001001/24 JAN 12



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR238 Issue 1.0
REMOVAL OF SMOKE/FUMES

Ident.: **TDU / APPRO-TR-00014405.0001001 / 13 SEP 12**

EASA APPROVED

Criteria: (330-200 or 330-300)

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 13 SEP 12

Approval reference: 10041408

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This Temporary Revision is issued to modify the title of the SMOKE REMOVAL procedure. In order to prevent possible confusion between SMOKE /FUMES REMOVAL and SMOKE /FUMES/AVNCS SMOKE procedures, the smoke removal procedure is now called "REMOVAL OF SMOKE /FUMES".

Applicable to: A330-200 & A330-300 aircraft.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00014405.0001001/13 SEP 12

EMER-26-00014403.0001001/13 SEP 12



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR242 Issue 1.0

SMOKE/FUMES/AVNCS SMOKE

Ident.: **TDU / APPRO-TR-00014412.0002001 / 13 SEP 12**

EASA APPROVED

Criteria: ((330-200 or 330-300) and 56729)

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 13 SEP 12

Approval reference: 10041408

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: This TR is issued to cover NTSB recommendations: the doning of oxygen masks is now recommended as the first step of the SMOKE/FUMES /AVNCS SMOKE procedure.

Applicable to: A330-200 & A330-300 aircraft equipped with modification 56729 (FWC T2).

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00014412.0002001/13 SEP 12

EMER-26-00014410.0002001/13 SEP 12



A330
AIRPLANE FLIGHT MANUAL

APPROVAL DATA
TEMPORARY REVISIONS

TR300 Issue 1.0
NAV - RA 1+2 FAULT

Ident.: **TDU / APPRO-TR-00014682.0002001 / 18 FEB 13**

EASA APPROVED

Criteria: (A330 and (58449 and 58751))

Impacted DU: NONE

APPROVAL REFERENCE

APPROVED BY: EASA

Approval date: 18 FEB 13

Approval reference: 10043675

Do not remove this Temporary Revision until instructed to do so.

Reason for issue: Update of the NAV RA 1+2 FAULT to be in line with T3CAS and FWC T3 improvements.

Applicable to: A330 aircraft with MOD 58449 and 58751.

This Temporary Revision is made up of the following Temporary Documentary Units:

APPRO-TR-00014682.0002001/18 FEB 13

ABN-34-00014685.0001001/18 FEB 13



A330
AIRPLANE FLIGHT MANUAL

**APPROVAL DATA
TEMPORARY REVISIONS**

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GENERAL

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A330
AIRPLANE FLIGHT MANUAL

**GENERAL
PRELIMINARY PAGES**
TABLE OF CONTENTS

GEN-INTR INTRODUCTION

Introduction.....	A
-------------------	---

GEN-DESC AFM DESCRIPTION

Approved AFM Format.....	A
Customized AFM.....	B
Organization of the Manual.....	C
Documentary Unit (DU).....	D
Identification Strip.....	E
AFM Revision.....	F
Temporary Revision (TR).....	G

GEN-DEF WORDING DEFINITIONS

Warning Definition.....	A
Caution Definition.....	B
Note Definition.....	C
LAND ASAP Definition.....	D

GEN-ABB ABBREVIATIONS

Abbreviations.....	A
--------------------	---

GEN-UNIT UNITS

Correspondence between Units.....	A
-----------------------------------	---

GEN-VIEW 3-VIEW DRAWING

3-View Drawing.....	A
---------------------	---



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
PRELIMINARY PAGES**
TABLE OF CONTENTS

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A330
AIRPLANE FLIGHT MANUAL

GENERAL INTRODUCTION

INTRODUCTION

Ident.: **GEN-INTR-00005876.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

This Airplane Flight Manual (AFM) is a reference document published in English. It is not established as an operational document to be used directly by the crew in flight.

Flight crew documents available in flight must include an Operational Manual, with appropriate contents and language as required by the National Regulations.

Note: Any Flight Crew Operating Manual (FCOM) reference within the AFM must be considered as advisory information, the FCOM being a non approved document.

This AFM is specific to a given certified aircraft model, which is specified in the Heading Approbation Documentary Unit (*Refer to APPRO-HEAD Heading Approbation*) and Approval Reference Documentary Unit (*Refer to APPRO-ENV Approval Reference*) of this AFM.

It was approved by the Direction Générale de l'Aviation Civile (DGAC) prior to 28 September 2003 and is since approved by the European Aviation Safety Agency (EASA). When applicable, it is approved by the EASA on behalf and according to the requirements of the importing Authority, e.g. the US Federal Aviation Administration (FAA) for US registered aircraft.



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
INTRODUCTION**

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A330
AIRPLANE FLIGHT MANUAL

**GENERAL
AFM DESCRIPTION**

APPROVED AFM FORMAT

Ident.: **TDU / GEN-DESC-00012742.0001001 / 16 DEC 11**

EASA APPROVED

Criteria: A330

Impacted DU: NONE

Impacted by TR129 Issue 1.0

The AFM is approved in both PDF and Ops Library Browser (OLB) formats.

Note: OLB version 5.1 or higher must be used to consult the AFM in OLB format.

CUSTOMIZED AFM

Ident.: **GEN-DESC-00005878.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

The customized airline AFM:

- Is extracted from a non customized aircraft model envelope AFM
- Is an approved document related to an operator's/owner's fleet
- Takes into account the specific configuration of each aircraft of the concerned fleet.

Airbus will provide a manual which reflects the aircraft configuration at delivery, and the necessary revisions to reflect configuration changes due to Airbus approved modifications.

The operator/owner must inform Airbus without delay of the effective changes to the aircraft delivery configuration made through Airbus Service Bulletin (SB). This allows Airbus to provide AFM revisions/updates to the operator/owner.

Airbus will not provide revisions, and will not take responsibility for any effect on the AFM:

- Due to modifications installed by third parties without an Airbus SB, and/or
- Due to modifications installed through an Airbus SB, if Airbus is not informed of the SB embodiment.

ORGANIZATION OF THE MANUAL

Ident.: **GEN-DESC-00005879.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

The AFM is divided into 11 chapters:

- Approval data
- General
- Limitations
- Emergency procedures
- Abnormal procedures
- Normal procedures
- Performance (dry and wet runway)
- Appendices and supplements



A330
AIRPLANE FLIGHT MANUAL

GENERAL AFM DESCRIPTION

- Master Configuration Deviation List (MCDL)
- Supplementary performance (contaminated runway)
- Regulatory differences (when applicable).

DOCUMENTARY UNIT (DU)

Ident.: **GEN-DESC-00005880.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

The AFM is made of Documentary Units (DU). The DU is the smallest part of information with a technical content.

The DUs are listed on a separate "List of Effective Documentary Unit" (LEDU).

IDENTIFICATION STRIP

Ident.: **GEN-DESC-00005881.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

Below the title of the DU, an identification strip is provided with each DU and consists of:

- Ident.: Each DU is identified by its own unique identification number
- The approval date of the DU
- The approval marking

Note: For non approved DU, this field is replaced by the label: FOR INFORMATION ONLY.

- Criteria: This field provides the type of aircraft and associated configuration for which the DU is applicable
- Specific: When necessary, this field provides the code of the specific regulation applicable to the DU
- Impacted by TDU: When applicable, this field provides the identification number and the title of the Temporary Documentary Unit (TDU) impacting the DU
- Belonging to: When applicable, this field provides the number of the TR to which the TDU belongs
- Impacted DU: When applicable, this field provides the identification number and the title of the DU impacted by the TDU.

AFM REVISION

Ident.: **GEN-DESC-00008475.0001001 / 02 JUL 10**

EASA APPROVED

Criteria: A330

For each revision, a new LEDU is issued. The LEDU shows the revision number, the issue date of the revision, the operator/owner code and the aircraft model. In addition, the individual effectiveness per MSN is stated for each mentioned DU.

The LEDU consists of:

- The "M" field that may provide the following Evolution Code:
 - The "R" letter indicates a revised DU: The content of the DU is updated by the revision. A vertical line in the margin of the DU locates the modified part
 - The "N" letter indicates a new DU introduced by the revision
 - The "E" letter indicates an aircraft validity change for the DU: The list of MSNs for which the DU is effective has been changed compared to the previous LEDU, by addition or deletion of one or several MSN.
- The "T" field (Temporary Information) that contains a cross if the associated DU is a TDU
- Other fields that contain the list of MSNs to which the DU applies and the information defined in the Identification Strip (*Refer to GEN-DESC Identification Strip*).

The holder of the AFM must check that the manual is in accordance with the LEDU of the latest approved revision.

AFM general revisions enable update of the technical content of DUs through the approval of the updated aircraft model envelope AFM. Each AFM general revision is identified by a new revision number, a new approval date and an issue date.

Intermediary revisions of the operator/owner AFM are carried out based on the latest approved general revision of the aircraft model envelope AFM. Each intermediary revision has the same revision number and the same approval date as the latest approved general revision, but a new issue date. An intermediary revision may be issued following a fleet modification or the embodiment of an approved Airbus SB.

TEMPORARY REVISION (TR)

Ident.: **GEN-DESC-00005882.0001001 / 26 NOV 09**
Criteria: A330

EASA APPROVED

A Temporary Revision (TR) is related to amendments to be quickly approved and introduced in the AFM. A TR is made of Temporary Documentary Units (TDU).

The TRs are indicated with a dedicated layout and are listed on a separate "List of Effective Temporary Revisions" (LETR).

A TR has always precedence on a normal AFM content (TDU has always precedence on a normal impacted DU content) until deleted by another TR, a normal revision or a retrofit of SB.

Note: When applicable, the identification strip of a TDU provides the identification number and the title of the impacted DU.



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
AFM DESCRIPTION**

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A330
AIRPLANE FLIGHT MANUAL

GENERAL WORDING DEFINITIONS

WARNING DEFINITION

Ident.: **GEN-DEF-00005883.0001001** / 26 NOV 09
Criteria: A330

EASA APPROVED

The following is the official definition of a WARNING, taken directly from the CS-25 (Chapter AMC 25.1581, paragraph 3-e) and applicable to Airbus flight operational documentation:

WARNING	An operating procedure, technique, etc... which may result in personal injury or loss of life if not carefully followed.
----------------	--

CAUTION DEFINITION

Ident.: **GEN-DEF-00005884.0001001** / 26 NOV 09
Criteria: A330

EASA APPROVED

The following is the official definition of a CAUTION, taken directly from the CS-25 (Chapter AMC 25.1581, paragraph 3-e) and applicable to Airbus flight operational documentation:

CAUTION	An operating procedure, technique, etc... which may result in damage to equipment if not carefully followed.
----------------	--

NOTE DEFINITION

Ident.: **GEN-DEF-00005885.0001001** / 26 NOV 09
Criteria: A330

EASA APPROVED

The following is the official definition of a NOTE, taken directly from the CS-25 (Chapter AMC 25.1581, paragraph 3-e) and applicable to Airbus flight operational documentation:

Note: *An operating procedure, technique, etc... considered essential to emphasize. Information contained in notes may also be safety related.*

LAND ASAP DEFINITION

Ident.: **GEN-DEF-00005211.0001001** / 26 NOV 09
Criteria: A330

EASA APPROVED

LAND ASAP (red on ECAM)

Land as soon as possible at the nearest suitable airport at which a safe approach and landing can be made.

LAND ASAP (amber on ECAM)

Advise the flight crew to consider landing at the nearest suitable airport.



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
WORDING DEFINITIONS**

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A330
AIRPLANE FLIGHT MANUAL

**GENERAL
ABBREVIATIONS**

ABBREVIATIONS

Ident.: GEN-ABB-00009715.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

A

Abbreviation	Term
A/THR	Autothrust
AC	Advisory Circular
	Alternative Current
ACARS	ARINC Communication Addressing and Reporting System
ACD	Airworthiness Compliance Document
ACJ	Advisory Circular-Joint
ADIRU	Air Data Inertial Reference Unit
ADR	Air Data Reference
ADS-B	Automatic Dependant Surveillance - Broadcast
ADS-C	Automatic Dependant Surveillance - Contract
AFM	Airplane Flight Manual
AGL	Above Ground Level
AIME	Autonomous Integrity Monitoring Extrapolation
AINS	Aircraft Information Network System
ALT	Altitude
AMC	Acceptable Means of Compliance
AMJ	Advisory Material-Joint
AMM	Aircraft Maintenance Manual
ANSU	Aircraft Network Server Unit
AOA	Angle of Attack
AOC	Airlines Operational Control
AP	Autopilot
APU	Auxiliary Power Unit
AR	Authorization Required
ARINC	Aeronautical Radio INC
ASD	Accelerate Stop Distance
ASDA	Accelerate Stop Distance Available
ASI	Airspeed Indicator
ATA	Air Transport Association
ATC	Air Traffic Control
ATSU	Air Traffic Service Unit
AWO	All Weather Operations

B

Abbreviation	Term
BC	Back Course
BSCU	Braking and Steering Control Unit

C

Abbreviation	Term
CAA	Civil Aviation Authority
CDL	Configuration Deviation List
CDLS	Cockpit Door Locking System
CFR	Code of Federal Regulations
CG	Center of Gravity
CIS	Commonwealth of Independent States
CLB	Climb
CMP	Configuration, Maintenance and Procedures
CPDLC	Controller Pilot Datalink Communication
CS	Certification Specifications
CSM/G	Constant Speed Motor Generator
CWY	Clearway

D

Abbreviation	Term
D-ATIS	Digital Automatic Terminal Information Service
DA	Decision Altitude
DC	Direct Current
DCL	Departure Clearance
DGAC	Direction Générale de l'Aviation Civile
DH	Decision Height
DMC	Display Management Computer
DME	Distance Measuring Equipment
DNA	Dirección Nacional de Aeronavegabilidad
DNAR	Dirección Nacional de Aeronavegabilidad Regulations
DO	Document Order (RTCA)
DU	Display Unit
	Documentary Unit

E

Abbreviation	Term
EASA	European Aviation Safety Agency
ECAM	Electronic Centralized Aircraft Monitoring
ED	EUROCAE Document

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
ABBREVIATIONS**

Continued from the previous page

Abbreviation	Term
EDTO	Extended Diversion Time Operations
EFIS	Electronic Flight Instrument System
EGPWS	Enhanced Ground Proximity Warning System
EGT	Exhaust Gas Temperature
EHS	Enhanced Surveillance
ELT	Emergency Locator Transmitter
ENG	Engine
EPR	Engine Pressure Ratio
ETOPS	Extended Range Operations for Two Engine Aeroplanes (EASA) Extended Operations (FAA)
EWD	Engine Warning Display

F

Abbreviation	Term
F-PLN	Flight Plan
FAA	Federal Aviation Administration
FADEC	Full Authority Digital Engine Control
FAF	Final Approach Fix
FANS	Future Air Navigation System
FAR	Federal Aviation Regulations
FCMC	Fuel Control and Monitoring Computer
FCOM	Flight Crew Operating Manual
FCU	Flight Control Unit
FD	Flight Director
FM	Flight Management
FMA	Flight Mode Annunciator
FMGC	Flight Management and Guidance Computer
FMGEC	Flight Management and Guidance Envelope Computer
FMGS	Flight Management and Guidance System
FMS	Flight Management System
FOB	Fuel on Board
FPA	Flight Path Angle
FQI	Fuel Quantity Indication
FU	Fuel Used

G

Abbreviation	Term
GEN	Generator
GLS	GNSS (Global Navigation Satellite System) Landing System
GPS	Global Positioning System
GPWS	Ground Proximity Warning System

H

Abbreviation	Term
HF	High Frequency
HKCAD	Hong Kong Civil Aviation Department
HUD	Head Up Display

I

Abbreviation	Term
IAS	Indicated Airspeed
ICAO	International Civil Aviation Organization
IDG	Integrated Drive Generator
IFR	Instrument Flight Rules
IL	Information Leaflet
ILS	Instrument Landing System
IR	Inertial Reference
IRS	Inertial Reference System
ISA	International Standard Atmosphere
ISIS	Integrated Standby Instrument System
ISPSS	In-Seat Power Supply System

J

Abbreviation	Term
JAA	Joint Aviation Authorities
JAR	Joint Aviation Regulations

L

Abbreviation	Term
LDA	Localizer Directional Aid
LEDU	List of Effective Documentary Units
LETR	List of Effective Temporary Revisions
LGCIU	Landing Gear Control and Indicator Unit
LNAV	Lateral Navigation
LOC	Localizer
LRBL	Least Risk Bomb Location

M

Abbreviation	Term
MAC	Mean Aerodynamic Chord
MAP	Missed Approach Point
MAPSC	Maximum Approved Passenger Seating Capacity
MASPS	Minimum Aviation System Performance Standards

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
ABBREVIATIONS**

Continued from the previous page

Abbreviation	Term
MCDL	Master Configuration Deviation List
MCDU	Multipurpose Control and Display Unit
MCPSC	Maximum Certificated Passenger Seating Capacity
MCT	Maximum Continuous Thrust
MDA	Minimum Descent Altitude
MDCC	Main Deck Cargo Compartment
MDH	Minimum Descent Height
MEA	Minimum En route Altitude
MLE	Maximum Landing Gear Extended Mach
MLO	Maximum Landing Gear Operating Mach
MLS	Microwave Landing System
MLW	Maximum Landing Weight
MMEL	Master Minimum Equipment List
MMO	Maximum Operating Mach
MOPS	Minimum Operational Performance Standards
MSA	Minimum Safe Altitude
MSN	Manufacturer Serial Number
MTOW	Maximum Takeoff Weight
MZFW	Maximum Zero Fuel Weight

N

Abbreviation	Term
N1	Low Pressure Rotor Speed
N2	Intermediate Pressure Rotor Speed (Rolls Royce engines) High Pressure Rotor Speed (General Electric or Pratt and Whitney engines)
N3	High Pressure Rotor Speed (Rolls Royce engines)
ND	Navigation Display
NDB	Non-Directional Beacon
NSA	Norme Sud Aviation

O

Abbreviation	Term
OAT	Outside Air Temperature
OCL	Oceanic Clearance
OIT	Onboard Information Terminal
OMTS	On-Board Mobile Telephony System
OVHT	Overheat
OW	Operational Weight

P

Abbreviation	Term
PC	Personal Computer
PED	Portable Electronic Devices
PF	Pilot Flying
PFD	Primary Flight Display
PNF	Pilot Non Flying
POS	Position
PRIM	Flight Control Primary Computer
PVI	Paravisual Indicator

Q

Abbreviation	Term
QFE	Field Elevation Atmosphere Pressure
QFU	Runway Heading
QNH	Sea Level Atmosphere Pressure

R

Abbreviation	Term
RA	Radio Altitude
	Resolution Advisory
RAAC	Regulaciones Argentinas de Aviación Civil
RAIM	Receiver Autonomous Integrity Monitoring
RAT	Ram Air Turbine
RBS	Radio Beacon System
RLD	Required Landing Distance
RMP	Radio Management Panel
RNAV	Area Navigation
RNP	Required Navigation Performance
RPM	Revolution Per Minute
RVR	Runway Visual Range
RVSM	Reduced Vertical Separation Minima

S

Abbreviation	Term
SAAAR	Special Aircrew and Aircraft Authorization Required
SAT	Static Air Temperature
SATCOM	Satellite Communication
SB	Service Bulletin
SD	System Display
SDF	Simplified Directional Facility

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
ABBREVIATIONS**

Continued from the previous page

Abbreviation	Term
SEC	Flight Control Secondary Computer
SIL	Service Information Letter
SRS	Speed Reference System
STBY	Standby
SWY	Stopway

T

Abbreviation	Term
T.COR	Temperature Corrected
TA	Traffic Advisory
TAS	True Airspeed
TAT	Total Air Temperature
TAWS	Terrain Awareness and Warning System
TCAS	Traffic Alert and Collision Avoidance System
TDU	Temporary Documentary Unit
TGL	Temporary Guidance Leaflet
TO	Takeoff
TOD	Takeoff Distance
TODA	Takeoff Distance Available
TOGA	Takeoff Go-Around
TOR	Takeoff Run
TORA	Takeoff Run Available
TR	Temporary Revision

U

Abbreviation	Term
USSR	Union of Soviet Socialist Republics

V

Abbreviation	Term
V/DEV	Vertical Deviation
V1	Takeoff Decision Speed
V2	Takeoff Safety Speed
VA	Maximum Design Maneuvering Speed
VALPHAMAX	Speed at Alpha-Max
VAPP	Final Approach Speed
VC	Design Cruise Speed
VFE	Maximum Flaps Extended Speed
VFR	Visual Flight Rules
VHF	Very High Frequency

Continued on the following page

Continued from the previous page

Abbreviation	Term
VLE	Maximum Landing Gear Extended Speed
VLO	Maximum Landing Gear Operating Speed
VLOF	Liftoff Speed
VLS	Lowest Selectable Speed
VMC	Visual Meteorological Conditions
VMCL	Minimum Control Speed during Approach and Landing
VMIN 1G	Minimum Operating Speed under 1g Load Factor
VMIN	Minimum Operating Speed
VMO	Maximum Operating Speed
VNAV	Vertical Navigation
VOR	VHF Omnidirectional Range
VR	Rotation Speed
VREF	Landing Reference Speed
VS1G	Stall Speed under 1g Load Factor
VSW	Stall Warning Speed

W

Abbreviation	Term
WBM	Weight and Balance Manual
WGS	World Geodetic System
WV	Weight Variant

Z

Abbreviation	Term
ZFCG	Zero Fuel Center of Gravity
ZFW	Zero Fuel Weight



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
UNITS**

CORRESPONDENCE BETWEEN UNITS

Ident.: GEN-UNIT-00005886.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

METRIC TO US

	METRIC	US
LENGTH	1 mm	0.0394 in
	1 m	3.281 ft
	1 m	1.094 yd
	1 km	0.540 nm
SPEED	1 m/s	3.281 ft/s
	1 km/h	0.540 kt
WEIGHT	1 g	0.0353 oz
	1 kg	2.204623 lb
	1 t	2 204.623 lb
FORCE	1 N	0.2248 lb
	1 daN	2.248 lb
PRESSURE	1 bar	14.505 PSI
	1 mbar	0.0145 PSI
VOLUME	1 l	0.2642 US Gal
	1 m ³	264.2 US Gal
MOMENTUM	1 daN.m	88.50 lb.in
TEMPERATURE	$t (°F) = t (°C) \times 1.8 + 32$	

US TO METRIC

	US	METRIC
LENGTH	1 in	25.4 mm
	1 ft	0.3048 m
	1 yd	0.914 m
	1 nm	1.852 km
SPEED	1 ft/s	0.3048 m/s
	1 kt	1.852 km/h
WEIGHT	1 oz	28.35 g
	1 lb	0.45359 kg
	1 lb	0.0004536 t
FORCE	1 lb	4.448 N
	1 lb	0.4448 daN
PRESSURE	1 PSI	0.0689 bar
	1 PSI	68.947 mbar
VOLUME	1 US Gal	3.785 l
	1 US Gal	0.003785 m ³

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
UNITS**

Continued from the previous page

	US	METRIC
MOMENTUM	1 lb.in	0.0113 daN.m
TEMPERATURE		$t \text{ } (\text{ }^{\circ}\text{C}) = \frac{5}{9} \{ t \text{ } (\text{ }^{\circ}\text{F}) - 32 \}$

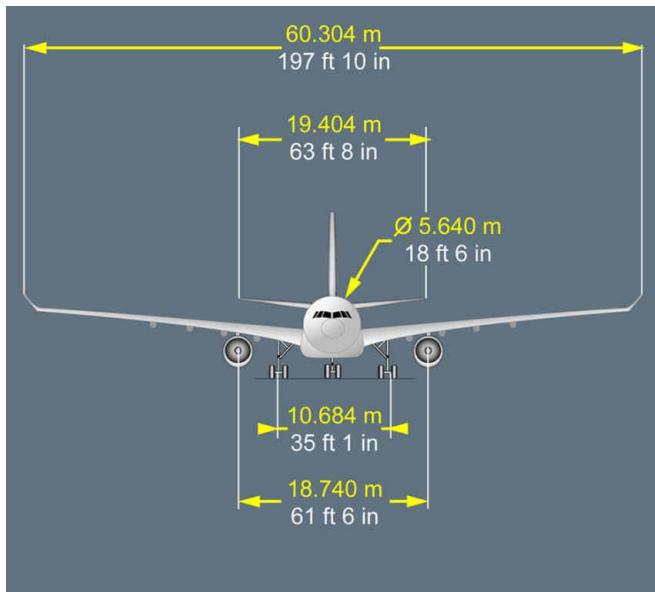
3-VIEW DRAWING

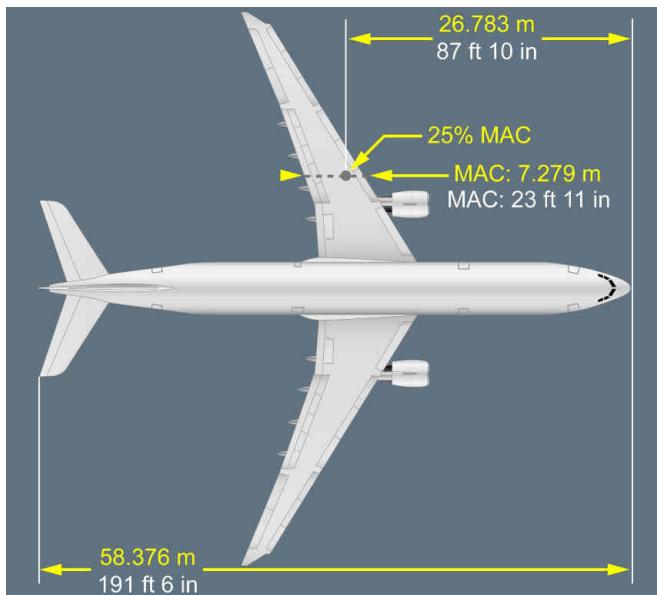
Ident.: GEN-VIEW-00005209.0003001 / 26 NOV 09

Criteria: (330-200 and 48979)

EASA APPROVED

Front View



Top ViewSide View

WING		
Reference Area	363.1 m ²	3 908 ft ² 54 in ²
Root Chord	10.553 m	34 ft 7 in
MAC (LA)	7.279 m	23 ft 11 in
Aspect Ratio		9.26



A330
AIRPLANE FLIGHT MANUAL

GENERAL
3-VIEW DRAWING

HORIZONTAL TAIL		
Reference Area	71.45 m ²	769 ft ² 12 in ²
MAC (LH)	3.932 m	12 ft 11 in
Aspect Ratio		5.27
Distance from 25 % LA to 25 % LH	26.854 m	88 ft 1 in

VERTICAL TAIL		
Reference Area	51.4 m ²	553 ft ² 38 in ²
MAC (LV)	6.268 m	20 ft 7 in
Aspect Ratio		1.507
Distance from 25 % LA to 25 % LV	25.524 m	83 ft 9 in



A330
AIRPLANE FLIGHT MANUAL

**GENERAL
3-VIEW DRAWING**

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LIMITATIONS

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A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
PRELIMINARY PAGES
TABLE OF CONTENTS

LIM-GEN GENERAL

Introduction.....	A
Kind of Operations.....	B
Minimum Flight Crew.....	C
Maximum Operating Altitude.....	D
Maneuver Limit Load Factors.....	E
Icing Conditions Definition.....	F

LIM-WGHT WEIGHTS AND LOADING

Weight Limitations.....	A
Center of Gravity Envelope.....	B
Performance Limitations.....	C
Loading.....	D

LIM-SPD AIRSPEEDS

VMO/MMO.....	A
VA.....	B
VFE.....	C
VLO/MLO and VLE/MLE.....	D

LIM-OPS OPERATIONAL PARAMETERS

Environmental Envelope.....	A
Crosswind.....	B
Tailwind.....	C
Runway Slope.....	D

LIM-09 TOWING AND TAXIING

Maneuvers on Ground.....	A
Towbarless Operations.....	B

LIM-21 AIR COND / PRESS / VENT

Cabin Pressurization.....	A
---------------------------	---

Continued on the following page

*Continued from the previous page***LIM-22 AUTO FLIGHT SYSTEM****LIM-22-FMS Flight Management System**

General.....	A
Airworthiness Standard Compliance.....	B
Airworthiness Standard Compliance.....	C
Navigation Performance.....	D
Navigation Performance.....	E
Use of NAV Mode.....	F
Use of NAV Mode.....	G
Approaches.....	H
Approaches.....	I

LIM-22-FGS Flight Guidance System

Airworthiness Standard Compliance.....	A
Autoland.....	B
Autoland.....	C
Minimum Height for Use of the Autopilot.....	D
CAT II / CAT III Operations.....	E

LIM-23 COMMUNICATIONS

SATCOM Voice system.....	A
--------------------------	---

LIM-25 EQUIPMENT FURNISHING

In-Seat Power Supply System (ISPSS).....	A
--	---

LIM-28 FUEL

Fuel and Additive Specifications.....	A
Usable Fuel.....	B
Fuel Imbalance.....	C
Fuel Temperature Limits.....	D

LIM-29 HYDRAULIC

Hydraulic Fluid.....	A
----------------------	---

LIM-32 LANDING GEAR

Tire Speed.....	A
-----------------	---

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
PRELIMINARY PAGES
TABLE OF CONTENTS

Continued from the previous page

LIM-34 NAVIGATION

Inertial Reference System (IRS).....	A
Reduced Vertical Separation Minimum (RVSM).....	B
Mode S - EHS Enhanced Surveillance.....	C
Mode S - ADS-B Out Enhanced Surveillance.....	D

LIM-46 INFORMATION SYSTEMS

Airlines Operational Control Applications.....	A
FANS - ATC Datalink Application System.....	B
FANS - ATC Datalink Application System.....	C
Aircraft Information Network System (AINS).....	D

LIM-49 AUXILIARY POWER UNIT

Auxiliary Power Unit (APU).....	A
---------------------------------	---

LIM-70 POWER PLANT

Main Engines.....	A
Engine Parameters.....	B
Crosswind.....	C
Reverse Thrust.....	D
Oil.....	E
Reduced Thrust Takeoff.....	F
Operations in Icing Conditions.....	G



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
PRELIMINARY PAGES
TABLE OF CONTENTS

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A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS

GENERAL

INTRODUCTION

Ident.: **LIM-GEN-00005442.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

This aircraft must be operated in compliance with the limitations given in this chapter. When operating in accordance with an approved appendix or supplement to this AFM, these limitations apply, unless amended by such appendix or supplement.

KIND OF OPERATIONS

Ident.: **LIM-GEN-00005446.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: (330-200 or 330-300)

The aircraft is certified in the public transport category (passengers and freight) for day and night operations, in the following conditions, when the appropriate equipment and instruments required by the airworthiness and operating regulations are approved, installed and in an operable condition:

- VFR and IFR
- Extended overwater flight
- Flight in icing conditions.

MINIMUM FLIGHT CREW

Ident.: **LIM-GEN-00005447.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

Minimum flight crew: 2 pilots.

MAXIMUM OPERATING ALTITUDE

Ident.: **LIM-GEN-00005448.0002001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and 52536)

Slats and flaps retracted: 41 450 ft.

This is the maximum altitude at which it is possible to maintain cabin pressure altitude below 8 000 ft.

Slats and/or flaps extended: 20 000 ft.

MANEUVER LIMIT LOAD FACTORS

Ident.: **LIM-GEN-00005449.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

Slats and flaps retracted: -1 to +2.5 g.

Slats extended, flaps retracted: -1 to +2.5 g.

Slats and flaps extended: 0 to +2.0 g.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS

GENERAL

ICING CONDITIONS DEFINITION

Ident.: LIM-GEN-00005140.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Icing conditions exist when OAT on the ground and for takeoff, or TAT in flight is 10 °C or below and visible moisture in any form is present (such as clouds, fog with visibility of one mile or less, rain, snow, sleet or ice crystals).

Icing conditions also exist when the OAT on the ground and for takeoff is 10 °C or below when operating on ramps, taxiways, or runways where surface snow, ice, standing water or slush may be ingested by the engines or freeze on engines, nacelles or engine sensor probes.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
WEIGHTS AND LOADING

WEIGHT LIMITATIONS

Ident.: **LIM-WGHT-00005162.0053001 / 28 FEB 11**

EASA APPROVED

Criteria: (330-200 and (201437 or 58860))

Weight Variant : WV 58		
Maximum Taxi Weight	238 900 kg	526 684 lb
Maximum Takeoff Weight (MTOW)	238 000 kg	524 700 lb
Maximum Landing Weight (MLW)	182 000 kg	401 241 lb
Maximum Zero Fuel Weight (MZFW)	168 000 kg	370 376 lb
Minimum Weight	116 000 kg	255 737 lb

- Note:*
1. Refer to *LIM-WGHT Center of Gravity Envelope*.
 2. The maximum weight limits also depend on the center of gravity and may be lower than the values given in the above table.

CENTER OF GRAVITY ENVELOPE

Ident.: **LIM-WGHT-00005141.0131001 / 28 FEB 11**

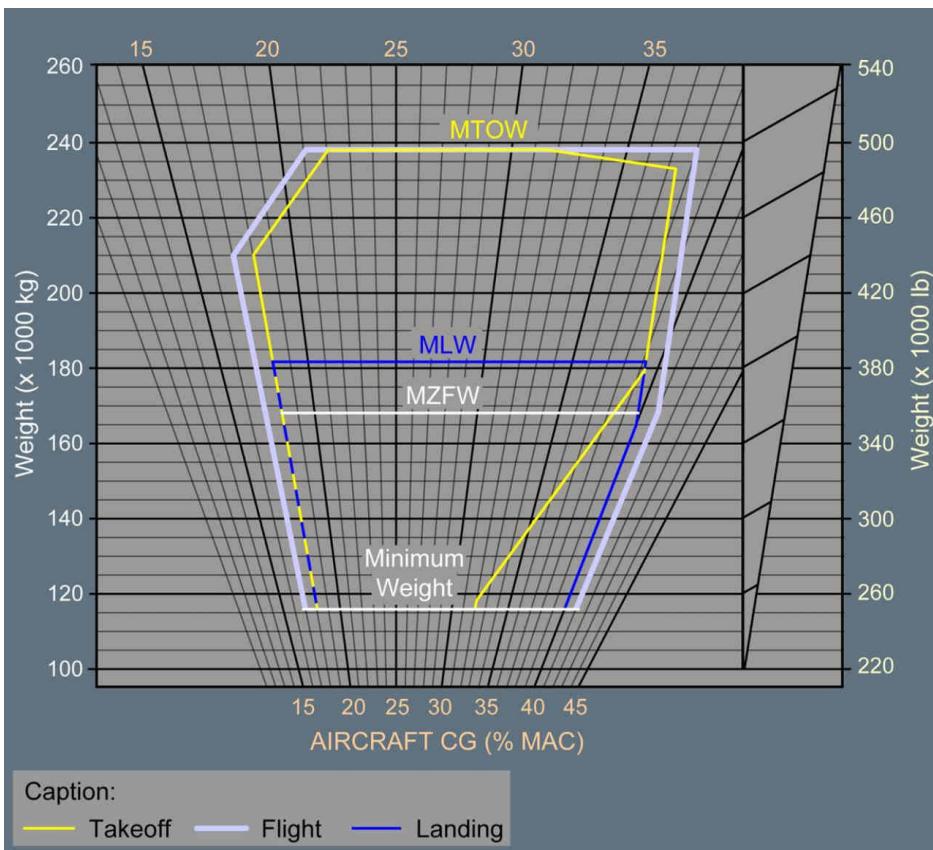
EASA APPROVED

Criteria: (330-243 and (201437 or 58860))

For Mean Aerodynamic Chord (MAC) and datum, see 3-View Drawing. Refer to *GEN-VIEW 3-View Drawing*.

Takeoff and landing CG limits are given for landing gear down configuration.

Flight CG limits are given for landing gear up configuration.

CG Envelope WV 58**PERFORMANCE LIMITATIONS**

Ident.: LIM-WGHT-00005683.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum Takeoff Weight (MTOW) and Maximum Landing Weight (MLW) may be reduced by performance requirements of PERFORMANCE and/or SUPPLEMENTARY PERFORMANCE chapters of this AFM related to:

- Climb performance (first and second segment, final takeoff, en route, approach and landing)
- Available runway length (takeoff and landing)
- Obstacle clearance (takeoff and en route)



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
WEIGHTS AND LOADING

- Brake energy limit (observe brake temperature warning (300 °C))
- Tire speed.

LOADING

Ident.: **LIM-WGHT-00005684.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

The aircraft must be loaded in accordance with the loading instructions given in the Weight and Balance Manual (WBM) chapter 1-10.

The maximum FCMC rearward CG target has been established assuming a possible margin for loading operational procedure inaccuracies of 2 % MAC at Zero Fuel Weight (ZFW) in the value of Zero Fuel Center of Gravity (ZFCG) inserted in the MCDU before flight. This value is defined with landing gear down.



A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
WEIGHTS AND LOADING**

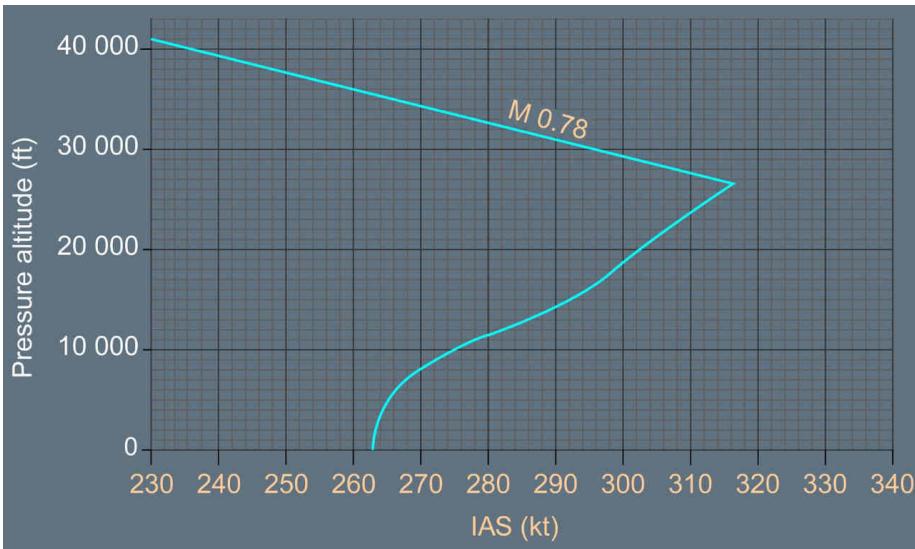
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VMO/MMOIdent.: **LIM-SPD-00006064.0001001 / 26 NOV 09**
Criteria: A330**EASA APPROVED****MAXIMUM OPERATING LIMIT SPEED (VMO/MMO)**

VMO = 330 kt IAS

MMO = M 0.86

This limit must not be intentionally exceeded in any flight regime.

VAIdent.: **LIM-SPD-00008345.0001001 / 16 APR 10**
Criteria: (330-200 or 330-200F)**EASA APPROVED****MAXIMUM DESIGN MANEUVERING SPEED (VA)***Note: This limitation only applies in alternate or direct flight control laws.***VA**

If alternate or direct law is active:

- Full ailerons and rudder application should be confined to speeds below VA
- Maneuvers involving angle of attack near stall should be confined to speeds below VA.

CAUTION

Rapid and large alternating control inputs, especially in combination with large changes in pitch, roll, or yaw (e.g. large sideslip angles) may result in structural failures at any speed, even below VA.

VFE

Ident.: LIM-SPD-00005224.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

MAXIMUM SLATS/FLAPS EXTENDED SPEEDS OR OPERATING SPEEDS (VFE)

Flight Phase	Flaps Lever Position	VFE
Intermediate approach	1	240 kt IAS
Takeoff 1+F	1	215 kt IAS
Approach and takeoff	2	196 kt IAS
Approach, takeoff and landing	3	186 kt IAS
Landing	FULL	180 kt IAS

VLO/MLO AND VLE/MLE

Ident.: LIM-SPD-00005241.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

MAXIMUM SPEED WITH LANDING GEAR OPERATING (EXTENSION AND RETRACTION, VLO/MLO)

VLO/MLO = 250 kt IAS / M 0.55

MAXIMUM SPEED WITH LANDING GEAR LOCKED DOWN (VLE/MLE)

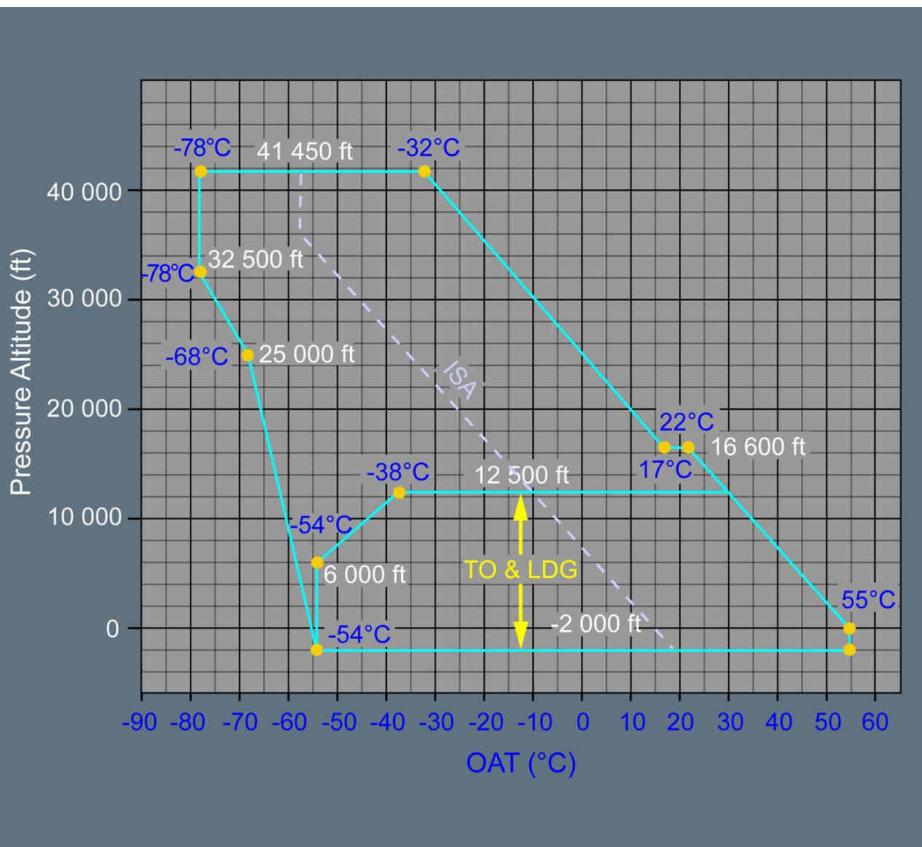
VLE/MLE = 250 kt IAS / M 0.55

MAXIMUM SPEED FOR GRAVITY EXTENSION OF THE LANDING GEAR (VLO/VLE)

VLO/VLE = 200 kt IAS

ENVIRONMENTAL ENVELOPEIdent.: **LIM-OPS-00005456.0003001 / 28 FEB 11****EASA APPROVED**

Criteria: ((330-301 or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343 or 330-200 or 330-200F) and 52536)

Environmental Envelope

Minimum TAT: -53 °C.

CROSSWINDIdent.: **LIM-OPS-00005967.0001001 / 16 APR 10****EASA APPROVED**

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

Engines operations are limited in high crosswind.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
OPERATIONAL PARAMETERS

Refer to LIM-70 Crosswind.

TAILWIND

Ident.: **LIM-OPS-00005458.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum tailwind for takeoff and landing: 10 kt.

RUNWAY SLOPE

Ident.: **LIM-OPS-00005460.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum mean runway slope: $\pm 2\%$.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
TOWING AND TAXIING

MANEUVERS ON GROUND

Ident.: **LIM-09-00005491.0002001 / 16 APR 10**

EASA APPROVED

Criteria: ((330-302 or 330-303 or 330-323 or 330-342 or 330-343 or 330-200 or 330-200F) and (43029 and 47701))

During towing: $\pm 65^\circ$ of nosewheel travel must not be exceeded.

Note: Mechanical stop is designed at $\pm 95^\circ$ of nosewheel travel.

TOWBARLESS OPERATIONS

Ident.: **LIM-09-00005493.0001001 / 28 FEB 11**

EASA APPROVED

Criteria: A330

Towbarless operations on nose landing gear (towing and pushback) are approved:

- For aircraft fitted with an active oversteer warning system or
- Provided the towbarless towing operations are performed in compliance with appropriate operational requirements, using towbarless towing vehicles that are qualified and operated to preclude damage to the aircraft nosewheel steering system, or which provide a reliable and unmistakable warning when damage to the steering system may have occurred.

Towbarless towing vehicles that are specifically accepted for the Airbus A330 aircraft are listed in Airbus Service Information Letter SIL 09-002.



A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
TOWING AND TAXIING**

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A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AIR COND / PRESS / VENT

CABIN PRESSURIZATION

Ident.: **LIM-21-00005486.0002001 / 16 APR 10**

EASA APPROVED

Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-342 or 330-343 or 330-200 or 330-200F) and 48980)

Safety relief valve setting: 8.85 PSI (610 hPa).

Maximum negative differential pressure: -0.73 PSI (-50 hPa).

Note: The ram air inlet must only be opened when the cabin differential pressure is less than +1 PSI (69 hPa)



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AIR COND / PRESS / VENT

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A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUTO FLIGHT SYSTEM

FLIGHT MANAGEMENT SYSTEM

GENERAL

Ident.: **LIM-22-FMS-00008415.0002001 / 26 NOV 09**
Criteria: (A330 and (44308 or 44339 or 46572 or 46893))

EASA APPROVED

The FMGS lateral and vertical navigation has been certified for after takeoff, en route and terminal area operations and for instrument approach procedures (except ILS, LOC, LOC-BC, LDA, SDF, MLS and GLS) and missed approach procedures.

Approval of the FMGS is based on the assumption that the navigation database has been validated for intended use. The airworthiness approval does not account for database accuracy or compatibility.

Obstacle clearance and adherence to airspace constraints remains a flight crew responsibility.

Fuel, time predictions/performance information is provided for advisory purpose only.

For instrument procedures not coded in the WGS-84 coordinate system, the GPS must be deselected, unless the shift between the local coordinate system and the WGS-84 is found acceptable for the intended operation.

Note: 1. *The assessment of this shift can be done:*

- In flight, monitoring the navaid raw data in non RNAV procedures*
- On ground, performing a GPS survey of the procedure waypoints.*

2. *RNAV (GPS) and RNP RNAV approach procedures require WGS-84 coordinates and GPS PRIMARY.*

AIRWORTHINESS STANDARD COMPLIANCE

Ident.: **TDU / LIM-22-FMS-00014063.0001001 / 31 MAY 12**

EASA APPROVED

Criteria: (A330 and (44308 or 44339 or 46572 or 46893))

Impacted DU: NONE

Impacted by TR95 Issue 2.0

The FMGES complies with the airworthiness part of the AMC 20-27 for RNP APPROACH (RNP APCH) Operations with or without APV BARO-VNAV Operations.

Note: 1. *RNP APCH without APV BARO-VNAV operation corresponds to RNAV(GNSS) approach with LNAV Minimum.*
2. *RNP APCH with APV BARO-VNAV operation corresponds to RNAV(GNSS) approach with LNAV/VNAV Minimum.*



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUTO FLIGHT SYSTEM

FLIGHT MANAGEMENT SYSTEM

AIRWORTHINESS STANDARD COMPLIANCE

Ident.: **LIM-22-FMS-00008416.0006001 / 26 NOV 09**

EASA APPROVED

Criteria: ((A330 and ((48765 or 48766) and (44308 or 44339 or 46572 or 46893))) or ((330-200 or 330-300) and ((47457 or 47462 or 51138 or 51139) and (44308 or 44339 or 46572 or 46893))))

The FMGS has been demonstrated to comply with applicable airworthiness requirements, including FAA AC 20-130A, for a navigation system integrating multiple navigation sensors, when operating with IRS, updated by radio or GPS.

The FMGS also complies with the airworthiness part of:

- EASA AMC 20-4 (JAA TGL 2 REV 1) for Basic RNAV
- JAA TGL 10 for Precision RNAV (compliance with paragraph 8.2 has not been demonstrated)
- FAA Advisory Circular 90-100A for terminal and en route RNAV operations
- FAA Advisory Circular 20-129 for baro VNAV
- FAA Order 8400.33 for RNP 4 in oceanic and remote area.
- FAA Order 8400.12A for RNP 10 in oceanic and remote area.

RNP 10 oceanic/remote area operations are approved:

- with GPS PRIMARY
- without GPS PRIMARY (GPS deselected or inoperative), provided time limitations in IRS only navigation, acceptable to the operational authorities, are established.

Note: *Compliance with the applicable airworthiness requirements does not constitute an operational approval.*

Such authorization must be obtained by the operator from the appropriate authorities.

NAVIGATION PERFORMANCE

Ident.: **TDU / LIM-22-FMS-00010111.0005001 / 20 APR 11**

EASA APPROVED

Criteria: (A330 and 200624)

Impacted DU: 00008417 Navigation Performance

Impacted by TR158 Issue 1.0

● With GPS PRIMARY:

The FMGS is certified in accordance with the performance requirements of MASPS ED-75/DO-236 for RNP operations.

The RNP accuracy with GPS PRIMARY has been demonstrated to be:

	With AP ON in NAV	With AP OFF and FD ON in NAV	With AP OFF and FD OFF
En route	1 nm	1 nm	1.1 nm
In terminal area	0.5 nm	0.51 nm	0.51 nm
In approach	0.3 nm	0.3 nm	Not authorized



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUTO FLIGHT SYSTEM

FLIGHT MANAGEMENT SYSTEM

● For RNP AR (SAAAR or equivalent):

The aircraft is capable of conducting RNP AR/SAAAR operations to a minimum RNP accuracy value of 0.3 when operated in accordance with the recommendations provided in the Airbus Airworthiness Compliance Document (ACD) reference G34D09030292 issue 3 or higher, Flight Crew Operating Manual (FCOM) and bulletins.

RNP AR 0.3 has been demonstrated with AP ON in normal and non normal conditions, based on the operational assumptions of the ACD for the following modes:

- Departure in NAV mode
- Initial approach in NAV or APP NAV modes
- Final approach in FINAL APP mode
- Missed approach in NAV mode.

Note: *For navigation performance and recommendations regarding RNP AR 0.3 operations with AP OFF / FD ON, see ACD.*

The aircraft is compliant with the aircraft qualification requirements of FAA AC 90-101 appendix 2.

● Without GPS PRIMARY:

The FMGS is certified in accordance with the accuracy requirements and assumptions of MASPS ED-75/DO-236 for RNP operations provided the appropriate RNP value is checked or entered on the MCDU and HIGH accuracy is displayed.

Without GPS PRIMARY (GPS deselected or inoperative) the navigation accuracy is a function of ground radio navaid infrastructure or elapsed time since last radio update.

NAVIGATION PERFORMANCE

Ident.: LIM-22-FMS-00008417.0010001 / 28 FEB 11

EASA APPROVED

Criteria: ((330-200 or 330-300) and 200624)

Impacted by TDU: 00010111 Navigation Performance

● With GPS PRIMARY:

The FMGS is certified in accordance with the performance requirements of MASPS ED-75/DO-236 for RNP operations.

The RNP accuracy with GPS PRIMARY has been demonstrated to be:

	With AP ON in NAV	With AP OFF and FD ON in NAV	With AP OFF and FD OFF
En route	1 nm	1 nm	1.1 nm
In terminal area	0.5 nm	0.51 nm	0.51 nm
In approach	0.3 nm	0.3 nm	Not authorized

● For RNP AR (SAAAR or equivalent):

The aircraft is capable of conducting RNP AR/SAAAR operations to a minimum RNP accuracy value of 0.3 when operated in accordance with the recommendations provided in the Airbus Airworthiness Compliance Document (ACD) reference G34D09030292 issue 2 or higher, Flight Crew Operating Manual (FCOM) and bulletins.

RNP AR 0.3 has been demonstrated with AP ON in normal and non normal conditions, based on the operational assumptions of the ACD for the following modes:

- Departure in NAV mode
- Initial approach in NAV or APP NAV modes
- Final approach in FINAL APP mode
- Missed approach in NAV mode.

Note: For navigation performance and recommendations regarding RNP AR 0.3 operations with AP OFF / FD ON, see ACD.

The aircraft is compliant with the aircraft qualification requirements of FAA AC 90-101 appendix 2.

● Without GPS PRIMARY:

The FMGS is certified in accordance with the accuracy requirements and assumptions of MASPS ED-75/DO-236 for RNP operations provided the appropriate RNP value is checked or entered on the MCDU and HIGH accuracy is displayed.

Without GPS PRIMARY (GPS deselected or inoperative) the navigation accuracy is a function of ground radio navaid infrastructure or elapsed time since last radio update.

USE OF NAV MODEIdent.: **TDU / LIM-22-FMS-00014119.0001001 / 31 MAY 12****EASA APPROVED**

Criteria: (A330 and (44308 or 44339 or 46572 or 46893))

Impacted DU: 00008428 Use of NAV Mode

Impacted by TR95 Issue 2.0

NAV mode may be used:

- After takeoff provided:
 - GPS PRIMARY is available, or
 - FMGES takeoff updating has been checked.
- In terminal area provided:
 - GPS PRIMARY is available, or
 - HIGH accuracy is displayed and the appropriate RNP is checked or entered on the MCDU, or
 - FMS navigation is cross-checked with Navaid raw data.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUTO FLIGHT SYSTEM

FLIGHT MANAGEMENT SYSTEM

NAV, or NAV and APP NAV and FINAL APP mode may be used for VOR, VOR/DME, NDB, NDB/DME or RNAV(GNSS) approach but not for ILS, LOC, LOC-BC, LDA, SDF, or MLS final approach.

USE OF NAV MODE

Ident.: **LIM-22-FMS-00008428.0002001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and (44308 or 44339 or 46572 or 46893))

Impacted by TDU: 00014119 Use of NAV Mode

NAV mode may be used:

- After takeoff provided FMGS runway updating has been checked.
- In terminal area provided:
 - GPS PRIMARY is available, or
 - HIGH accuracy is displayed and the appropriate RNP is checked or entered on the MCDU, or
 - navaid raw data is monitored.

NAV, or NAV and APP NAV and FINAL APP mode may be used for VOR, VOR/DME, NDB, NDB/DME or RNAV (including GPS) approach but not for ILS, LOC, LOC-BC, LDA, SDF, or MLS final approach.

APPROACHES

Ident.: **TDU / LIM-22-FMS-00014101.0002001 / 31 MAY 12**

EASA APPROVED

Criteria: (A330 and (44308 or 44339 or 46572 or 46893))

Impacted DU: 00008429 Approaches

Impacted by TR95 Issue 2.0

VOR, VOR/DME, NDB or NDB/DME approach procedures may be performed, in NAV, or NAV and APP NAV and FINAL APP mode, provided AP or FD is used and:

- GPS PRIMARY is available. In this case: the reference navaid may be unserviceable, or the airborne radio equipment may be inoperative, or not installed, provided an operational approval is obtained.
- GPS PRIMARY is not available. In this case: the reference navaid and the corresponding airborne equipment are serviceable, tuned and monitored during the approach.

RNAV(GNSS) approaches may be performed, in NAV, or NAV and APP NAV and FINAL APP mode, provided GPS PRIMARY is available and with AP or FD engaged.

RNAV(GNSS) approaches with LNAV/VNAV Minimum must be performed in FINAL APP mode.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUTO FLIGHT SYSTEM

FLIGHT MANAGEMENT SYSTEM

APPROACHES

Ident.: **LIM-22-FMS-00008429.0002001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and (44308 or 44339 or 46572 or 46893))

Impacted by TDU: 00014101 Approaches

The FINAL APP mode guidance capability with GPS PRIMARY has been demonstrated down to MDH/DH (barometric) 250 ft.

VOR, VOR/DME, NDB or NDB/DME approach procedures may be performed, in NAV, or NAV and APP NAV and FINAL APP mode, provided AP or FD is used and:

- GPS PRIMARY is available. In this case, the reference navaid may be unserviceable, or the airborne radio equipment may be inoperative, or not installed, provided an operational approval is obtained.
- GPS PRIMARY is not available. In this case, the reference navaid and the corresponding airborne equipment are serviceable, tuned and monitored during the approach, or the radio navaid coverage supports the RNP value specified for the approach procedure and an operational approval is obtained.

GPS approach may be performed provided GPS PRIMARY is available.

RNAV approach without GPS PRIMARY may be performed only if the radio navaid coverage supports the RNP value and HIGH accuracy is displayed on the MCDU with the specified RNP, and an operational approval is obtained.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUTO FLIGHT SYSTEM
FLIGHT GUIDANCE SYSTEM

AIRWORTHINESS STANDARD COMPLIANCE

Ident.: **LIM-22-FGS-00008719.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

The Flight Management and Guidance System (FMGS) with the associated equipment has been found to meet the airworthiness requirement and performance criteria of:

- JAR 25
- ACJ 25.1329 for automatic flight system
- JAR AWO Subpart 1 - Automatic landing
- JAR AWO Subpart 2 - Category 2 Operations
- JAR AWO Subpart 3 - Category 3 Operations

Note: *Compliance with the standards noted above does not constitute an approval to conduct category II or III operations. Such authorization must be obtained by the operator from the appropriate authorities.*

AUTOLAND

Ident.: **TDU / LIM-22-FGS-00010054.0003001 / 31 OCT 11**

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-243 or 330-243F) and 57547)

Impacted DU: 00008419 Autoland

Impacted by TR156 Issue 1.0

Autoland has been demonstrated:

- with CAT II and CAT III ILS beam, with ILS slope angle inside a range from -2.5 ° to -3.25 °.
- for airport altitude up to 9 200 ft.

Performance of ROLL OUT mode has been demonstrated on dry and wet runways.

One autopilot at least must be engaged in APPR mode and CAT 2 or CAT 3 SINGLE or CAT 3 DUAL capability must be displayed on FMA.

AUTOLAND

Ident.: **LIM-22-FGS-00008419.0001001 / 28 FEB 11**

EASA APPROVED

Criteria: A330

Impacted by TDU: 00010054 Autoland

Autoland has been demonstrated:

- With CAT II and CAT III ILS beam, with ILS slope angle inside a range from -2.5 ° to -3.25 °
- For airport elevation up to 9 200 ft.

Performance of ROLL OUT mode has been demonstrated on dry and wet runways.

Minimum aircraft weight: 123 t (271 166 lb).

One autopilot at least must be engaged in APPR mode and CAT 2 or CAT 3 SINGLE or CAT 3 DUAL capability must be displayed on FMA.

MINIMUM HEIGHT FOR USE OF THE AUTOPILOT

Ident.: LIM-22-FGS-00008423.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- At takeoff : 100 ft AGL and at least 5 s after lift-off.
- In non precision straight-in approach : MDA/MDH (or DA for LNAV/VNAV approach).
- In circling approach : MDA/MDH -100 ft.
- In ILS approach if CAT 2 or CAT 3 capability is not displayed on FMA : 160 ft AGL.
- In ILS approach when CAT 2 or CAT 3 capability is displayed on FMA : *Refer to LIM-22-FGS CAT II / CAT III Operations*
- After a manual go-around : 100 ft AGL.
- In all other flight phases : 500 ft AGL.
- The use of AP and FD in OPEN DES and DES mode is not permitted if FCU altitude set below MDA/MDH or 500 ft AGL whichever is higher.

CAT II / CAT III OPERATIONS

Ident.: LIM-22-FGS-00008425.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CATEGORY II AUTOMATIC APPROACH WITHOUT AUTOMATIC LANDING

Minimum decision height: 100 ft.

One autopilot at least must be engaged in APPR mode and CAT 2 or CAT 3 SINGLE or CAT 3 DUAL capability must be displayed on FMA.

Minimum height for AP disconnection: 80 ft.

CATEGORY II AUTOMATIC APPROACH WITH AUTOMATIC LANDING

Minimum decision height: 100 ft.

One autopilot at least must be engaged in APPR mode and CAT 2 or CAT 3 SINGLE, or CAT 3 DUAL capability must be displayed on FMA.

CATEGORY III FAIL PASSIVE (SINGLE) AUTOMATIC APPROACH AND AUTOMATIC LANDING

Minimum decision height: 50 ft.

One autopilot at least must be engaged in APPR mode and CAT 3 SINGLE or CAT 3 DUAL capability must be displayed on FMA.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUTO FLIGHT SYSTEM
FLIGHT GUIDANCE SYSTEM

CATEGORY III FAIL OPERATIONAL (DUAL) AUTOMATIC APPROACH AND AUTOMATIC LANDING

Alert height: 200 ft.

● **CAT III with DH:**

The 2 autopilots must be engaged in APPR mode and CAT 3 DUAL capability must be displayed on FMA.

● **CAT III without DH:**

The 2 autopilots must be engaged in APPR mode and CAT 3 DUAL capability must be displayed on FMA.

Minimum Runway Visual Range (RVR): 75 m.

MAXIMUM WIND CONDITIONS FOR CAT II OR CAT III AUTOMATIC APPROACH OR AUTOMATIC LANDING AND AUTOMATIC ROLL OUT

Headwind : 35 kt.

Tailwind : 10 kt.

Crosswind : 20 kt.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUTO FLIGHT SYSTEM
FLIGHT GUIDANCE SYSTEM

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A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
COMMUNICATIONS**

SATCOM VOICE SYSTEM

Ident.: TDU / LIM-23-00010328.0001001 / 09 DEC 11

EASA APPROVED

Criteria: (A330 and 200593)

Impacted DU: NONE

Impacted by TR72 Issue 2.0

The SATCOM Voice system has been demonstrated to comply with airworthiness requirements contained in FAA AC 20-150 for the use as a supplement to HF and VHF communications systems for Air Traffic Services Communications (ATSC).

***Note:** Compliance with the applicable airworthiness requirement does not constitute an operational approval. Such authorization must be obtained by the operator from the appropriate authorities.*



A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
COMMUNICATIONS**

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A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
EQUIPMENT FURNISHING**

IN-SEAT POWER SUPPLY SYSTEM (ISPSS)

Ident.: **LIM-25-00005518.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: ((330-200 or 330-300) and (46772 or 46972 or 46975 or 46996 or 48106 or 49035 or 49638 or 49654))

The In-Seat Power Supply System (ISPSS) for Portable Electronic Devices (PED carried by the passengers) must be turned off during takeoff and landing. The airworthiness approval of the ISPSS for PED does not constitute an operational approval to connect a PED to the system. Such authorization must be obtained by the operator from the appropriate authorities.



A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
EQUIPMENT FURNISHING**

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A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS

FUEL

FUEL AND ADDITIVE SPECIFICATIONS

Ident.: **LIM-28-00005472.0003001 / 28 FEB 11**

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

See Rolls Royce Operating Instruction Appendix latest issue.

The fuel system has been certified with:

- JET A, JET A1, JP5, JP8, N° 3 JET, RT and TS-1
- JET B and JP4 provided the trim tank is empty and isolated throughout the flight.

USABLE FUEL

Ident.: **LIM-28-00005474.0001001 / 16 APR 10**

EASA APPROVED

Criteria: (330-200 or 330-200F)

Fuel loading varies with specific fuel gravity without any fuel weight limitation.

Tanks	Fuel Quantity	
2 Inner Tanks	84 000 l	22 192 US Gal
2 Outer Tanks	7 300 l	1 928 US Gal
1 Center Tank	41 560 l	10 980 US Gal
1 Trim Tank	6 230 l	1 646 US Gal
TOTAL	139 090 l	36 746 US Gal

Tanks	Fuel Specific Gravity	
	0.80 kg/l	6.676 lb/US Gal
	Fuel Weight	
2 Inner Tanks	67 200 kg	148 154 lb
2 Outer Tanks	5 840 kg	12 871 lb
1 Center Tank	33 248 kg	73 302 lb
1 Trim Tank	4 984 kg	10 989 lb
TOTAL	111 272 kg	245 316 lb

Note: When the quantity indications reach "zero" the remaining fuel cannot safely be used.

FUEL IMBALANCE

Ident.: **LIM-28-00005478.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: (330-200 or 330-300)

The following tables give the maximum allowed wing fuel imbalance at takeoff, in flight and at landing, in either inner or outer tanks.

INNER TANKS (OUTER BALANCED)

Tank Fuel Quantity (Heavier Tank)	Maximum Asymmetry
Full	2 900 kg (6 400 lb)
17 000 kg (37 480 lb)	4 800 kg (10 580 lb)
7 500 kg (16 530 lb)	7 500 kg (16 530 lb)

With linear variation between these values (No limitation below 7 500 kg/16 530 lb)

OUTER TANKS (INNER BALANCED)

Tank Fuel Quantity (Heavier Tank)	Maximum Asymmetry
Full	1 480 kg (3 260 lb)
2 400 kg (5 290 lb)	1 580 kg (3 480 lb)
1 730 kg (3 810 lb)	1 730 kg (3 810 lb)

With linear variation between these values (No limitation below 1 730 kg/3 810 lb)

FUEL TEMPERATURE LIMITS

Ident.: LIM-28-00005480.0003001 / 28 FEB 11

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

MINIMUM

Fuel temperature must not be less than the highest of:

- Fuel freezing point in any tank or
- -44 °C in inner tanks when operating below 30 000 ft or
- -54 °C in inner tanks when operating at or above 30 000 ft.

MAXIMUM

JET A, JET A1, JP5, JP8, N° 3 JET, RT and TS-1: +55 °C.

JP4 and JET B: +49 °C.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS

HYDRAULIC

HYDRAULIC FLUID

Ident.: **LIM-29-00005489.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

FLUID SPECIFICATIONS

Refer to NSA 307-110.



A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
HYDRAULIC**

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A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
LANDING GEAR

TIRE SPEED

Ident.: **LIM-32-00010874.0001001** / 02 JUL 10

EASA APPROVED

Criteria: A330

Maximum tire speed: 204 kt (ground speed).



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
LANDING GEAR

Intentionally left blank



A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
NAVIGATION**

INERTIAL REFERENCE SYSTEM (IRS)

Ident.: **LIM-34-00005500.0002001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and (51096 or 51144 or 55346))

The IRS has been demonstrated to comply with the position accuracy criteria of AC 25-4 and FAR 121 Appendix G for flight time up to 24 h (i.e. in excess of the aircraft range).

Ground alignment of the IRS is possible up to 82 ° of latitude.

In the NAV mode the IR will not provide valid magnetic heading:

- North of 82 ° North
- North of 73 ° North between 90 ° and 120 ° West (magnetic polar region)
- South of 60 ° South.

When flying at latitudes beyond these limits, TRUE reference must be selected.

REDUCED VERTICAL SEPARATION MINIMUM (RVSM)

Ident.: **LIM-34-00005496.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and 43537)

Aircraft have been certified capable to participate in RVSM operations according to JAA TGL 6 and FAA 91-RVSM requirements.

Note: *Compliance with the standards noted above does not constitute an operational approval. Such authorization must be obtained by the operator from the appropriate authorities.*

MODE S - EHS ENHANCED SURVEILLANCE

Ident.: **LIM-34-00005504.0002001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and ((54227 and 55661) or (202995 and 54227)))

The transponder mode S Enhanced Surveillance (EHS) has been demonstrated to comply with airworthiness requirements contained in ICAO Doc 7030/4 for enhanced surveillance in designated European airspace.

MODE S - ADS-B OUT ENHANCED SURVEILLANCE

Ident.: **LIM-34-00005503.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and 55661)

The transponder mode S extended squitter, Automatic Dependent Surveillance-Broadcast (ADS-B) Out function, has been demonstrated to comply with airworthiness requirements for ADS-B Out in Non-Radar Areas contained in AMC 20-24. This approval is based on standards, descriptions, operational procedures and limitations contained in "ADS-B Out Capability Declaration" document certification reference 00F340P5144/C0S at the latest issue.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS

NAVIGATION

- Note:
1. *Direct ATC controller-pilot VHF voice communications must be available to conduct ADS-B Out operations in Non-Radar Areas.*
 2. *Compliance with the above does not constitute an operational approval. Such authorization must be obtained by the operator from the appropriate authorities.*



A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
INFORMATION SYSTEMS**

AIRLINES OPERATIONAL CONTROL APPLICATIONS

Ident.: **LIM-46-00005507.0001001** / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 46742)

The Air Traffic Service Unit (ATSU) equipment has been approved for the provision of Airlines Operational Control (AOC) applications.

The definition of the AOC application and obtaining its subsequent approval, is the responsibility of the operator.

FANS - ATC DATALINK APPLICATION SYSTEM

Ident.: **TDU / LIM-46-00012674.0005001** / 11 NOV 11

EASA APPROVED

Criteria: (A330 and (200859 and 200860 and 52426))

Impacted DDU: 00005509 FANS - ATC Datalink Application System

Impacted by TR197 Issue 1.0

The ATC datalink communications system and its applications comply with airworthiness requirements contained in ED-100A/DO-258A and in FAA AC 20-140 for:

- Controller Pilot Datalink Communication (CPDLC)
- Automatic Dependent Surveillance-Contract (ADS-C) or CPDLC position reporting in a non ADS-C environment.

The ARINC 623 applications comply with airworthiness requirements contained in ED-85A, in ED-89A and in ED-106A:

- Departure Clearance (DCL) complying with ED-85A, requested by AMC 20-09
- Oceanic Clearance (OCL) complying with ED-106A
- D-ATIS complying with ED-89A, requested by AMC 20-10.

This approval is based on assumptions and requirements contained in FANS A+ Airworthiness Approval Summary document reference 00F460P0211/C02 for:

- The Air Traffic Control (ATC) environment and procedures
- The end to end system interoperability, safety and performance.

Note:

1. *Voice communication must be available as a backup to datalink communication.*
2. *The datalink function is not available when there is no VHF/HF/SATCOM coverage.
HF datalink is used as a supplementary mode of operation.*
3. *Compliance with the above does not constitute an operational approval. Such authorization must be obtained by the operator from the appropriate authorities.*

FANS - ATC DATALINK APPLICATION SYSTEM

Ident.: LIM-46-00005509.0003001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (50125 and 52426))

Impacted by TDU: 00012674 FANS - ATC Datalink Application System

The datalink communication system and applications have been demonstrated to comply with airworthiness requirements contained in FAA AC 20-140 for:

- Controller Pilot Datalink Communication (CPDLC)
- Automatic Dependent Surveillance-Contract (ADS-C) or CPDLC position reporting in a non ADS-C environment.

The ARINC 623 applications have been demonstrated to comply with airworthiness requirements contained in ED 85, 89, 106 for:

- Departure Clearance (DCL) complying with ED 85
- Oceanic Clearance (OCL) complying with ED 106
- D-ATIS complying with ED 89.

This approval is based on assumptions and requirements contained in FANS A+ Airworthiness Approval Summary document reference 00F460P0211/C02 for:

- The Air Traffic Control (ATC) environment and procedures
- The end to end system interoperability, safety and performance.

- Note:
1. Voice communication must be available as a backup to datalink communication.
 2. The datalink function is not available when there is no VHF/HF/SATCOM coverage. HF datalink is used as a supplementary mode of operation.
 3. Compliance with the above does not constitute an operational approval. Such authorization must be obtained by the operator from the appropriate authorities.

AIRCRAFT INFORMATION NETWORK SYSTEM (AINS)

Ident.: LIM-46-00005520.0002001 / 26 NOV 09

EASA APPROVED

Criteria: ((330-200 or 330-300) and (55206 or 56350))

The Aircraft Information Network System (AINS) installation has been approved only as a host platform (i.e. without any applications installed on ANSU).

Authorization to install applications into AINS must be obtained by the operator from the appropriate local authorities.

- Note: This airworthiness approval is based on the assumption that all applications will be developed and justified in accordance with TGL 36/AC 120-76A (at the latest issue) and the recommendations provided in the Airbus document "AINS Guidelines" Ref 00F460P5111/C01 at the latest issue.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUXILIARY POWER UNIT

AUXILIARY POWER UNIT (APU)

Ident.: **LIM-49-00005485.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

One Garrett GTCP 331-350 C.

APU PARAMETERS

Maximum EGT: 650 °C (Maximum for start: 1 250 °C).

Maximum rotor speed: 107 %.

OIL SPECIFICATIONS

See GARRETT maintenance manual.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
AUXILIARY POWER UNIT

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A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
POWER PLANT

MAIN ENGINES

Ident.: **LIM-70-00005464.0009001 / 16 APR 10**

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

Two Rolls Royce Trent 772B.

ENGINE PARAMETERS

Ident.: **LIM-70-00005465.0003001 / 16 APR 10**

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

Operating Condition	Time Limit	ENG Indicated EGT Limit	Maximum Rotor Speed		
			N1	N2	N3
Starting	None	700 °C	----	----	----
		850 °C (1)			
Maximum Continuous	None	850 °C	----	----	----
Takeoff and Go-around	Normal	5 min	920 °C (2)	99.0 %	103.3 %
	One ENG Out	10 min			100.0 %

(1) For astart only.

(2) 920 °C or greater than 900 °C for more than 20 s.

Note: Power management tables in EPR, given in PERFORMANCE chapter of the AFM, limit RPM as a function of ambient conditions and air bleed.

CROSSWIND

Ident.: **LIM-70-00005461.0001001 / 16 APR 10**

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

Engine maximum crosswind for takeoff: 32 kt (gust included).

REVERSE THRUST

Ident.: **LIM-70-00005466.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

In flight, intentional selection of reverse thrust is prohibited.

On ground, backing the aircraft with use of reverse thrust is not permitted.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS

POWER PLANT

OIL

Ident.: LIM-70-00005467.0003001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

SPECIFICATION

Rolls Royce Operating Instruction Appendix latest issue.

MINIMUM PRESSURE

25 PSI.

MAXIMUM TEMPERATURE

190 °C.

REDUCED THRUST TAKEOFF

Ident.: LIM-70-00005468.0007001 / 16 APR 10

EASA APPROVED

Criteria: ((330-243 or 330-243F or 330-343) and 55212)

Takeoff at reduced thrust is allowed only if the aircraft meets all performance requirements at the takeoff weight, with the operating engines at the thrust available for the flex temperature.

Takeoff at reduced thrust is allowed with any inoperative item affecting the performance only if the associated performance shortfall has been applied to meet the above requirements.

Note: *Allowed inoperative items may be identified through DISPATCH WITH INOPERATIVE ITEMS chapter of the AFM (Refer to APP-INOP General) or through MMEL.*

Takeoff at reduced thrust is not allowed on contaminated runways.

The flex temperature must not be:

- Higher than ISA + 60
- Lower than the flat rating temperature or actual OAT.

Takeoff at reduced thrust is not allowed unless the operator establishes a means to verify the availability of takeoff thrust, to ensure that engine deterioration does not exceed authorized limits.

OPERATIONS IN ICING CONDITIONS

Ident.: LIM-70-00005469.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

The engine anti-ice must be ON during all ground and flight operations when icing conditions exist or are anticipated, except during climb and cruise when the temperature is below -40 °C SAT.

The engine anti-ice must be ON prior to and during descent in icing conditions, including temperatures below -40 °C SAT.



A330
AIRPLANE FLIGHT MANUAL

LIMITATIONS
POWER PLANT

- Note:*** *Do not rely on airframe visual icing cues to turn engine anti-ice on. Use the temperature and visual moisture criteria specified in the icing conditions definition (Refer to LIM-GEN Icing Conditions Definition).*
- Delaying the use of engine anti-ice until buildup is visible from the cockpit may result in severe engine damage and/or flameout.*



A330
AIRPLANE FLIGHT MANUAL

**LIMITATIONS
POWER PLANT**

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EMERGENCY PROCEDURES

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A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

PRELIMINARY PAGES

TABLE OF CONTENTS

EMER-GEN GENERAL

Introduction.....	A
Landing Distance Determination in case of In-flight Failure.....	B
FIRE/SMOKE.....	C

EMER-21 AIR COND / PRESS / VENT

CAB PR - EXCESS CAB ALT.....	A
CAB PR - EXCESS RESIDUAL PR.....	B

EMER-24 ELECTRICAL POWER

ELEC - EMER CONFIG.....	A
-------------------------	---

EMER-26 FIRE / SMOKE

ENG FIRE (In Flight).....	A
ENG FIRE (On Ground).....	B
APU FIRE.....	C
SMOKE - FWD, AFT or BULK CARGO SMOKE.....	D
SMOKE - AVNCS VENT SMOKE.....	E
SMOKE - LAVATORY SMOKE.....	F
SMOKE - LWR STOWAGE SMOKE.....	G
SMOKE/FUMES/AVNCS SMOKE.....	H
SMOKE/FUMES/AVNCS SMOKE.....	I
REMOVAL OF SMOKE/FUMES.....	J
SMOKE/FUMES REMOVAL.....	K

EMER-27 FLIGHT CONTROLS

F/CTL - FLAP LVR NOT ZERO.....	A
F/CTL - L+R ELEV FAULT.....	B

EMER-28 FUEL

FUEL - EXCESS AFT CG.....	A
---------------------------	---

EMER-29 HYDRAULIC

HYD - G+B SYS LO PR.....	A
HYD - B+Y SYS LO PR.....	B
HYD - G+Y SYS LO PR.....	C

EMER-32 LANDING GEAR

L/G - GEAR NOT DOWNLOCKED.....	A
LOSS OF BRAKING.....	B

Continued on the following page

*Continued from the previous page***EMER-34 NAVIGATION**

NAV - ADR 1+2+3 FAULT.....	A
----------------------------	---

EMER-70 POWER PLANT

ENG - ALL ENG FLAME OUT.....	A
ENG - N1 (N2) (N3) OVERLIMIT.....	B
ENG - TURBINE OVHT.....	C
ENG - OIL LO PR.....	D

EMER-90 MISCELLANEOUS

EMER DESCENT.....	A
DITCHING.....	B
FORCED LANDING.....	C
EMERGENCY EVACUATION.....	D
STALL RECOVERY.....	E



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

GENERAL

INTRODUCTION

Ident.: **EMER-GEN-00005704.0001001** / 02 JUL 10

EASA APPROVED

Criteria: A330

The procedures contained in this chapter have been established and are recommended by the aircraft manufacturer for application in the event of a serious failure.

The following important remarks apply :

1. It is assumed that, in general, all failures are indicated by the operation of specific system warning and/or by direct observation.
2. The actions recommended may result in the loss of certain systems not associated with the failure.
3. For a definition of LAND ASAP, *Refer to GEN-DEF LAND ASAP Definition.*

When actions depend on a condition, a black dot (•) or a black square (■) identifies this condition. The black square is used when there is a choice between one or more conditions and only one is applicable.

These procedures are approved by the Airworthiness Authorities as acceptable procedures for operation of the aircraft. This approval does not prevent the operator from developing equivalent procedures, provided these procedures are approved by appropriate operational authorities.

In case of discrepancy between procedures displayed on the ECAM and procedures stated in this AFM, the AFM procedures always have precedence.

In case of failure which induces a landing distance increase, multiply the actual landing distance in CONF FULL by the given landing distance factor.

Unless otherwise specified in the procedures, the minimum speed to be used for approach and landing is the VLS corresponding to the configuration requested by the procedure.

Note: *VLS, when mentioned in a procedure, is the one corresponding to the configuration requested by the procedure (e.g. if the procedure requests to use FLAPS 2, take VLS of CONF 2).*

LANDING DISTANCE DETERMINATION IN CASE OF IN-FLIGHT FAILURE

Ident.: **TDU / EMER-GEN-00014413.0001001** / 18 JUL 12

EASA APPROVED

Criteria: A330

Impacted DU: NONE

Impacted by TR183 Issue 1.0

RUNWAY CONDITION DETERMINATION

Landing distance determination must not only be based on Estimated Surface Friction (Mu) or Pilot Reports of Braking Action (PiRep) or similar qualitative information.

The flight crew shall obtain the runway condition or/and the depth and type of runway contaminant to make the basic assessment of actual condition.

Landing distance determination must not consider a better Braking Action than the one related to the runway condition.

Runway Condition	Max Reported Braking Action
Dry	6 - DRY
Wet	5 - GOOD
Compacted Snow	4 - GOOD to MEDIUM
More than 3 mm of Dry or Wet Snow	3 - MEDIUM
More than 3 mm of Standing Water or Slush	2 - MEDIUM to POOR
Ice	1 - POOR

LANDING DISTANCE DETERMINATION

The landing distance to be applied in case of failure is the Operational Landing Distance (OLD). The OLD can be determined by selecting the failure case in the IN-FLIGHT FAILURE field of the AFM_OCTO interface, using the database given in the PERFORMANCE chapter of this manual (Refer to *PERF-OCTO Performance Database*), combined with the LLRB01.fail file using the AFM_OCTO approved FM module at revision 28 or higher.

Note: Currently published landing distance factors are no longer applicable. In case of failure which induces a landing distance increase, the applicable landing distance is the OLD.

FIRE/SMOKE

Ident.: **EMER-GEN-00005705.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

Whenever fire is encountered on the aircraft, landing at the nearest suitable airport is recommended. After conducting any fire suppression/smoke evacuation procedure, even though smoke has dissipated, if it has not or cannot be visibly verified that the fire has been put out, immediately land at the nearest suitable airport.

The flight crew should always go to 100 % oxygen whenever a hand held fire extinguisher is to be discharged in the cockpit or when required because of smoke accumulation.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

AIR COND / PRESS / VENT

CAB PR - EXCESS CAB ALT

Ident.: **EMER-21-00005759.0003001** / 28 FEB 11

EASA APPROVED

Criteria: ((330-200 or 330-300) and 56729)

- **If above FL 100:**

Use crew oxygen masks.

Initiate a descent.

Maximum flight level is the higher one of: FL 100 or MEA.

- **If above FL 160:**

Apply emergency descent procedure. *Refer to EMER-90 EMER DESCENT.*

- **If cabin altitude above 14 000 ft:**

Manually confirm passengers oxygen masks on.

CAB PR - EXCESS RESIDUAL PR

Ident.: **EMER-21-00008430.0001001** / 26 NOV 09

EASA APPROVED

Criteria: ((330-200 or 330-300) and (51790 or 54786))

Turn off both packs.

Alert cabin crew.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

AIR COND / PRESS / VENT

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A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

ELECTRICAL POWER

ELEC - EMER CONFIG

Ident.: EMER-24-00005218.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 47930)

LAND ASAP

Manually confirm emergency electrical power on if EMER GEN not automatically coupled.
Turn off then on all generators one after the other.

- **If no generator reset successful:**

Set BUS TIE to OFF.

Attempt a further all generators reset (one after the other).

- **If still unsuccessful:**

- Note:
1. The cockpit door locking system (CDLS) is inoperative.
 2. For communications, only VHF 1 and ATC 1 are available.
 3. If EMER GEN is supplied by RAT, ATC 1 is not available.
 4. Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST)

Set ventilation extract to OVRD.

Do not use speed brakes.

Note: If fuel imbalance, turn off fuel L PUMP 2.

- **Just before slats extension:**

Set LAND RECOVERY to ON.

Note: Engines are fed by gravity.

- **For approach and landing:**

Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION.

Use FLAPS 3.

Note: Slats and flaps extend slowly.

Use manual pitch trim.

Landing distance : multiply by 1.25

Note:

1. Half spoilers are inoperative.
2. Nosewheel steering is inoperative.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

ELECTRICAL POWER

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A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

FIRE / SMOKE

ENG FIRE (IN FLIGHT)

Ident.: EMER-26-00005711.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

LAND ASAP

Shut down affected engine.

Push relevant FIRE pushbutton.

Turn off affected side engine bleed (if not automatically done).

Turn off APU bleed (if left side affected only).

Close crossbleed valve.

Discharge AGENT 1 after 10 s.

Notify ATC.

● If fire not extinguished after 30 s :

Discharge AGENT 2.

Note: Wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

FIRE / SMOKE

ENG FIRE (ON GROUND)

Ident.: EMER-26-00005712.0004001 / 26 NOV 09

EASA APPROVED

Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200) and (56729 and (51802 or 51805 or 51806)))

Set all thrust levers to idle.

- **When aircraft stopped :**

Set parking brake to ON.

Notify ATC.

Alert cabin crew.

Shut down affected engine.

Push relevant FIRE pushbutton.

Discharge all fire agents of the affected engine.

- **If MAN CAB PR has been used:**

Check cabin differential pressure at zero before opening the doors.

Shut down other engine.

Push other engine FIRE pushbutton.

- **If evacuation required :**

Initiate evacuation.

Shut down APU.

Turn off all batteries.

- **If evacuation not required :**

Notify cabin crew and passengers to remain seated.

APU FIRE

Ident.: EMER-26-00005713.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

LAND ASAP

Press APU FIRE pushbutton.

Discharge agent after 10 s.

Shut down APU.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

FIRE / SMOKE

SMOKE - FWD, AFT OR BULK CARGO SMOKE

Ident.: **EMER-26-00005715.0004001** / 26 NOV 09
Criteria: ((330-200 or 330-300) and (56551 or 56729))

EASA APPROVED

LAND ASAP

Turn off affected cargo compartment isolation valves (as installed).

- **If affected cargo door(s) closed:**

Discharge affected cargo compartment agent.

Turn off cabin fans.

- **If aft or bulk cargo affected :**

Evacuate crew rests and close crew rests doors (as installed).

- **On ground:**

Disembark passengers before opening the cargo doors.

SMOKE - AVNCS VENT SMOKE

Ident.: **EMER-26-00005716.0001001** / 26 NOV 09
Criteria: A330

EASA APPROVED

Refer to EMER-26 SMOKE/FUMES/AVNCS SMOKE.

SMOKE - LAVATORY SMOKE

Ident.: **EMER-26-00008422.0001001** / 26 NOV 09
Criteria: ((330-200 or 330-300) and (55191 or 55982))

EASA APPROVED

Establish communication between cockpit and cabin.

SMOKE - LWR STOWAGE SMOKE

Ident.: **EMER-26-00008424.0001001** / 26 NOV 09
Criteria: ((330-200 or 330-300) and (55191 or 55982))

EASA APPROVED

Establish communication between cockpit and cabin.

SMOKE/FUMES/AVNCS SMOKEIdent.: **TDU / EMER-26-00014410.0002001 / 13 SEP 12****EASA APPROVED**

Criteria: ((330-200 or 330-300) and 56729)

Impacted DU: 00005216 SMOKE/FUMES/AVNCS SMOKE

Impacted by TR242 Issue 1.0

LAND ASAP

Use crew oxygen masks, if required.

Set ventilation extract to OVRD.

Turn off cabin fans and galleys.

Turn on cabin signs.

Establish communication between cockpit and cabin.

Try to identify and isolate faulty equipment.

● If smoke source not immediately isolated:

Initiate a diversion.

Initiate a descent to the higher one of: FL 100 or MEA.

● At any time of the procedure, if smoke/fumes becomes the greatest threat:

Consider applying the removal of smoke/fumes procedure and setting Electrical Emergency Configuration. *Refer to EMER-26 REMOVAL OF SMOKE/FUMES.*

Note: To set Electrical Emergency Configuration, set EMER ELEC PWR to MAN ON then, when EMER GEN is available, turn off GEN 1, GEN 2, and APU GEN.

Apply the Electrical Emergency Configuration procedure without performing generator reset. *Refer to EMER-24 ELEC - EMER CONFIG.*

3 min or 2 000 ft before landing, set ATT HDG switching to F/O ON 3 and restore normal electrical supply for landing: turn on all generators.

When aircraft is stopped, turn off all generators.

● At any time of the procedure, if situation becomes unmanageable:

Consider landing immediately.

● If air conditioning smoke suspected:

Turn off APU bleed.

Set ventilation extract to AUTO.

Turn off all cargo compartment isolation valves (as installed).

Turn off pack 1.

● If smoke continues:

Turn on pack 1.

Continued on the following page

Continued from the previous page SMOKE/FUMES/AVNCS SMOKE

Turn off pack 2.

● **If smoke still continues.**

Turn on pack 2

Set ventilation extract to OVRD.

Consider applying the removal of smoke/fumes procedure. *Refer to EMER-26 REMOVAL OF SMOKE/FUMES.*

● **If cabin equipment smoke suspected:**

Turn off PAX SYS (if installed).

● **If smoke continues:**

Turn on emergency exit lights.

Turn off COMMERCIAL.

Check smoke dissipation and try to identify and isolate faulty equipment.

● **If smoke still continues or when faulty equipment confirmed isolated:**

Turn on COMMERCIAL and PAX SYS (as installed).

Consider applying the removal of smoke/fumes procedure. *Refer to EMER-26 REMOVAL OF SMOKE/FUMES.*

● **If smoke source cannot be determined and still continues or avionics/electrical smoke suspected:**

Isolate AC BUS channels side by side and check smoke dissipation.

● **If smoke continues:**

Recover normal AC BUS configuration.

Consider applying the removal of smoke/fumes procedure and setting Electrical Emergency Configuration. *Refer to EMER-26 REMOVAL OF SMOKE/FUMES.*

Note: *To set Electrical Emergency Configuration, set EMER ELEC PWR to MAN ON then, when EMER GEN is available, turn off GEN 1, GEN 2, and APU GEN.*

Apply the Electrical Emergency Configuration procedure without performing generator reset. Refer to EMER-24 ELEC - EMER CONFIG.

3 min or 2 000 ft before landing, set ATT HDG switching to F/O ON 3 and restore normal electrical supply for landing: turn on all generators.

When aircraft is stopped, turn off all generators.

SMOKE/FUMES/AVNCS SMOKEIdent.: **EMER-26-00005216.0002001 / 28 FEB 11****EASA APPROVED**

Criteria: ((330-200 or 330-300) and 56729)

Impacted by TDU: 00014410 SMOKE/FUMES/AVNCS SMOKE

LAND ASAP

- Set ventilation extract to OVRD.
- Turn off cabin fans and galleys.
- Turn on cabin signs.
- Establish communication between cockpit and cabin.
- Use crew oxygen masks, if required.
- Try to identify and isolate faulty equipment.

● If smoke source not immediately isolated:

- Initiate a diversion.
- Initiate a descent to the higher one of: FL 100 or MEA.

● At any time of the procedure, if smoke/fumes becomes the greatest threat:

Consider applying the smoke/fumes removal procedure and setting Electrical Emergency Configuration. Refer to **EMER-26 SMOKE/FUMES REMOVAL**.

Note: To set Electrical Emergency Configuration, set **EMER ELEC PWR** to **MAN ON** then, when **EMER GEN** is available, turn off **GEN 1**, **GEN 2**, and **APU GEN**.
Apply the Electrical Emergency Configuration procedure without performing generator reset. Refer to **EMER-24 ELEC - EMER CONFIG**.
3 min or 2 000 ft before landing, set **ATT HDG** switching to **F/O ON 3** and restore normal electrical supply for landing: turn on all generators.
When aircraft is stopped, turn off all generators.

● At any time of the procedure, if situation becomes unmanageable:

Consider landing immediately.

● If air conditioning smoke suspected:

- Turn off APU bleed.
 - Set ventilation extract to AUTO.
 - Turn off all cargo compartment isolation valves (as installed).
 - Turn off pack 1.
- If smoke continues:**
- Turn on pack 1.
 - Turn off pack 2.

Continued on the following page

Continued from the previous page SMOKE/FUMES/AVNCS SMOKE

● If smoke still continues.

Turn on pack 2

Set ventilation extract to OVRD.

Consider applying the smoke/fumes removal procedure. *Refer to EMER-26 SMOKE/FUMES REMOVAL.*

● If cabin equipment smoke suspected:

Turn off PAX SYS (if installed).

● If smoke continues:

Turn on emergency exit lights.

Turn off COMMERCIAL.

Check smoke dissipation and try to identify and isolate faulty equipment.

● If smoke still continues or when faulty equipment confirmed isolated:

Turn on COMMERCIAL and PAX SYS (as installed).

Consider applying the smoke/fumes removal procedure. *Refer to EMER-26 SMOKE/FUMES REMOVAL.*

● If smoke source cannot be determined and still continues or avionics/electrical smoke suspected:

Isolate AC BUS channels side by side and check smoke dissipation.

● If smoke continues:

Recover normal AC BUS configuration.

Consider applying the smoke/fumes removal procedure and setting Electrical Emergency Configuration. *Refer to EMER-26 SMOKE/FUMES REMOVAL.*

Note: *To set Electrical Emergency Configuration, set EMER ELEC PWR to MAN ON then, when EMER GEN is available, turn off GEN 1, GEN 2, and APU GEN.*

Apply the Electrical Emergency Configuration procedure without performing generator reset. Refer to EMER-24 ELEC - EMER CONFIG.

3 min or 2 000 ft before landing, set ATT HDG switching to F/O ON 3 and restore normal electrical supply for landing: turn on all generators.

When aircraft is stopped, turn off all generators.

REMOVAL OF SMOKE/FUMESIdent.: **TDU / EMER-26-00014403.0001001 / 13 SEP 12****EASA APPROVED**

Criteria: (330-200 or 330-300)

Impacted DU: 00005219 SMOKE/FUMES REMOVAL

Impacted by TR238 Issue 1.0

Turn on emergency exit lights.

Set pack flow to HI.

Set landing elevation to the higher one of: 10 000 ft or MEA.

Descend to the higher one of: FL 100 or MEA.

Notify ATC.

While descending, continue applying the appropriate steps of the smoke/fumes/avnics smoke procedure. *Refer to EMER-26 SMOKE/FUMES/AVNCS SMOKE.*

● When at FL 100 or MEA:

Turn off both packs.

Use manual pressurization mode.

Maintain the cabin vertical speed switch in the UP position.

● When cabin differential pressure is below 1 PSI:

Turn on RAM AIR.

● If smoke persists and PNF cockpit window opening required:

Respect maximum speed 230 kt.

Open cockpit door.

Put headsets on.

Open PNF cockpit window.

● When window open:

Turn on non affected pack(s).

Continue applying the appropriate steps of the smoke/fumes/avnics smoke procedure. *Refer to EMER-26 SMOKE/FUMES/AVNCS SMOKE.*

CAUTION Due to the increased noise level, pay particular attention to visual warnings.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

FIRE / SMOKE

SMOKE/FUMES REMOVAL

Ident.: **EMER-26-00005219.0001001** / 28 FEB 11

EASA APPROVED

Criteria: (330-200 or 330-300)

Impacted by TDU: 00014403 REMOVAL OF SMOKE/FUMES

Turn on emergency exit lights.

Set pack flow to HI.

Set landing elevation to the higher one of: 10 000 ft or MEA.

Descend to the higher one of: FL 100 or MEA.

Notify ATC.

While descending, continue applying the appropriate steps of the smoke/fumes/avnics smoke procedure. *Refer to EMER-26 SMOKE/FUMES/AVNCS SMOKE.*

● When at FL 100 or MEA:

Turn off both packs.

Use manual pressurization mode.

Maintain the cabin vertical speed switch in the UP position.

● When cabin differential pressure is below 1 PSI:

Turn on RAM AIR.

● If smoke persists and PNF cockpit window opening required:

Respect maximum speed 230 kt.

Open cockpit door.

Put headsets on.

Open PNF cockpit window.

● When window open:

Turn on non affected pack(s).

Continue applying the appropriate steps of the smoke/fumes/avnics smoke procedure. *Refer to EMER-26 SMOKE/FUMES/AVNCS SMOKE.*

CAUTION

Due to the increased noise level, pay particular attention to visual warnings.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

FIRE / SMOKE

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A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

FLIGHT CONTROLS

F/CTL - FLAP LVR NOT ZERO

Ident.: EMER-27-00005757.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Set flaps lever to 0.

F/CTL - L+R ELEV FAULT

Ident.: EMER-27-00005758.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- Note:
1. Pitch mechanical back up.
 2. Roll is in direct law.

Do not use speed brakes.

Maximum speed: 305 kt /M 0.80

Use manual pitch trim.

Maneuver with care.

● **If CG above 32 %:**

Manually perform a forward fuel transfer from the trim tank.

Note: *If trim tank pump is not available, do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.*

Turn off GPWS flap mode.

Use FLAPS 2 for landing.

Approach speed = VLS + 10 kt

Landing distance: multiply by 1.45



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

FLIGHT CONTROLS

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A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

FUEL

FUEL - EXCESS AFT CG

Ident.: EMER-28-00005756.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Manually perform a forward fuel transfer from the trim tank.

- If trim tank pump failed :
Keep aircraft pitch attitude below 3 °.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

FUEL

Intentionally left blank



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

HYDRAULIC

HYD - G+B SYS LO PR

Ident.: EMER-29-00005726.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

LAND ASAP

Note: *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).*

Consider manual RAT use.

Minimum RAT speed: 140 kt if dual (Green + Blue) hydraulic systems LO LVL.

Turn off associated hydraulic pumps (electrical and engine).

Do not use speed brakes.

Maneuver with care.

● For approach and landing:

Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*

● If hydraulic not recovered:

■ If slats position below 2:

Turn off GPWS flap mode.

Use FLAPS 2 for landing.

Note: *Flaps extend slowly.*

■ If slats position below 1:

Approach speed = VREF + 30 kt

Landing distance: multiply by 2.5

■ If slats position at or above 1:

Approach speed = VREF + 25 kt

Landing distance: multiply by 2.4

■ If slats position at or above 2:

Use FLAPS 3 for landing.

Note: *Flaps extend slowly.*

Approach speed = VREF + 15 kt

Landing distance: multiply by 2.35

Note: 1. Slats are inoperative.

2. Antiskid is inoperative. *Refer to ABN-32 BRAKES - ANTI SKID FAULT or A/SKID N/Ws OFF.*

3. Brakes are on BLUE ACCU. Only 7 full brakes applications are available.

Continued on the following page

Continued from the previous page HYD - G+B SYS LO PR

4. *Most spoilers and one elevator are inoperative.*

HYD - B+Y SYS LO PR

Ident.: EMER-29-00005727.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

LAND ASAP

Note: *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST) .*

Turn off associated hydraulic pumps (electrical and engine).

Maneuver with care.

- **If trim locked above 8 ° UP:**

Maximum speed : 180 kt.

- **For approach and landing:**

Turn off GPWS flap mode.

Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*

Use FLAPS 2 for landing.

Note: *Slats and flaps extend slowly.*

Approach speed = VREF + 20 kt.

Landing distance : multiply by 1.5

Note: *1. Most spoilers are inoperative.*

2. Stabilizer control is inoperative. Refer to ABN-27 F/CTL - STAB CTL FAULT.

HYD - G+Y SYS LO PR

Ident.: EMER-29-00005728.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

LAND ASAP

Note: Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).

Consider manual RAT use.

Minimum RAT speed: 140 kt if dual (Green + Yellow) hydraulic systems LO LVL.

Turn off associated hydraulic pumps (electrical and engine).

Use rudder for turn coordination.

Do not use speed brakes.

Maneuver with care.

● For approach and landing:

Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION.

● If hydraulic not recovered:**■ If flaps position below 3:**

Turn off GPWS flap mode.

Use FLAPS 2 for landing.

Note: Slats extend slowly.

■ If flaps position below 1 + F:

Approach speed = VREF + 30 kt

Landing distance: multiply by 1.75

■ If flaps position at or above 1 +F and below 2:

Approach speed = VREF + 20 kt

Landing distance: multiply by 1.65

■ If flaps position at or above 2:

Approach speed = VREF + 20 kt

Landing distance: multiply by 1.6

■ If flaps position at 3:

Use FLAPS 3 for landing.

Note: Slats extend slowly.

Approach speed = VREF + 15 kt

Continued on the following page

Continued from the previous page HYD - G+Y SYS LO PR

Landing distance: multiply by 1.65

■ **If flaps position above 3:**

Use FLAPS FULL for landing.

Note: *Slats extend slowly.*

Approach speed = VREF + 10 kt

Landing distance: multiply by 1.65

Note: 1. *Flaps are inoperative.*

2. *Most spoilers and one elevator are inoperative.*



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

LANDING GEAR

L/G - GEAR NOT DOWNLOCKED

Ident.: EMER-32-00005725.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Recycle landing gear.

● **If unsuccessful :**

Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*

● **If warning persists after 40 s :**

Reset the landing gear gravity extension switch.

Pull up landing gear lever.

Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*

LOSS OF BRAKING

Ident.: EMER-32-00009839.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● **If autobrake selected:**

Take over brake control with brake pedals.

● **If no braking available:**

Apply maximum reverse thrust.

Release brake pedals.

Turn off antiskid.

Press brake pedals.

Apply maximum brake pressure 1 000 PSI.

● **If still no braking:**

Use short and successive applications of the parking brake.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

LANDING GEAR

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A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

NAVIGATION

NAV - ADR 1+2+3 FAULT

EASA APPROVED

Ident.: **EMER-34-00005163.0004001 / 02 JUL 10**

Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((53368 and 56729) and (51802 or 51805 or 51806)))

Note: *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).*

Disconnect autopilot.

Turn off flight directors.

Disconnect autothrust.

● **If two probe heating computers unavailable:**

Turn on probe and window heat.

Turn off all ADRs.

Fly the green area of the speed scale.

Note: *1. Standby instruments may be unreliable.*

2. The altitude displayed on the PFD is a GPS altitude.

3. Automatic cabin pressurization system is inoperative. Refer to ABN-21 CAB PR - SYS 1 + 2 FAULT.

● **If two probe heating computers unavailable or AOA probe heating inoperative:**

Avoid icing conditions.

Note: *Rudder travel limiter is inoperative.*

Use rudder with care.

Do not use speedbrakes.

● **When FLAPS 2:**

Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*

Approach speed: fly the bug

Landing distance: multiply by 1.35



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

NAVIGATION

Intentionally left blank



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

POWER PLANT

ENG - ALL ENG FLAME OUT

Ident.: EMER-70-00005706.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (330-200 or 330-300)

LAND ASAP

- Note: 1. Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).
2. Wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.

Manually confirm RAT on.

Set ENG START selector to IGN START.

Set all thrust levers to idle.

Determine landing strategy.

Manually confirm emergency electrical power on if EMER GEN not automatically coupled.

Note: For communications, only VHF 1 is available.

Notify ATC.

■ If there is fuel remaining on board:

Attempt engines relight with optimum relight speed 300 kt /M 0.82.

Refer to ABN-70 ENG RELIGHT IN FLIGHT.

● If no engine relight after 30 s:

Set both engine master levers to OFF during 30 s then ON.

● If engine relight unsuccessful:

Use crew oxygen masks above FL 100.

Start APU when below FL 250.

Then, when below FL 200, turn off wing anti-ice and re-attempt engines relight (one at a time) using APU bleed.

● If engine relight still unsuccessful:

Optimum speed: green dot.

Prepare cabin and cockpit.

Turn on cabin signs.

Turn off COMMERCIAL.

Use rudder with care.

Turn on RAM AIR when below FL 150.

■ If no fuel on board:

Optimum speed : 230 kt then green dot.

Continued on the following page

Continued from the previous page ENG - ALL ENG FLAME OUT

Use crew oxygen masks above FL 100.

Prepare cabin and cockpit.

Turn on cabin signs.

Turn off COMMERCIAL.

Use rudder with care.

Turn on RAM AIR when below FL 150.

● **For approach and landing:**

Minimum RAT speed : 140 kt.

Use FLAPS 1 for landing.

For slats extension: Set LAND RECOVERY to ON.

Note: 1. Slats extend slowly.

2. At slats extension, electrical power is supplied by batteries only.

Approach speed : 170 kt.

● **If forced landing anticipated:**

Apply forced landing procedure. Refer to EMER-90 FORCED LANDING.

● **If ditching anticipated:**

Apply ditching procedure. Refer to EMER-90 DITCHING.

Note: 1. Antiskid is inoperative. Refer to ABN-32 BRAKES - ANTI SKID FAULT or A/SKID N/Ws OFF.
2. Most spoilers are inoperative.

ENG - N1 (N2) (N3) OVERLIMIT

Ident.: EMER-70-00005707.0003001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

● **If N1 (N2) (N3) rotor speed is above red line:**

Move affected engine thrust lever to reduce N1 (N2) (N3) below limit.

● **If overlimit persists after thrust lever back to idle position:**

Shut down affected engine.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

POWER PLANT

ENG - TURBINE OVHT

Ident.: **EMER-70-00005708.0001001 / 16 APR 10**

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

Set affected engine thrust lever to idle.

● If warning persists :

Shut down affected engine.

ENG - OIL LO PR

Ident.: **EMER-70-00005710.0001001 / 16 APR 10**

EASA APPROVED

Criteria: (330-243F or 330-200 or 330-300)

Shut down affected engine.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

POWER PLANT

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A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

MISCELLANEOUS

EMER DESCENT

Ident.: **EMER-90-00005222.0001001** / 28 FEB 11

EASA APPROVED

Criteria: (330-200 or 330-300)

Use crew oxygen masks.

Turn on cabin signs.

Set all thrust levers to idle (if autothrust not engaged).

Extend full speed brakes.

Descend at maximum appropriate speed to the higher one of: FL 100 or MEA.

CAUTION

If structural damage suspected, reduce speed as appropriate and maneuver with care.

Set ENG START selector to IGN START.

Notify ATC.

Maximum flight level is the higher one of: FL 100 or MEA.

● If cabin altitude above 14 000 ft:

Manually confirm passengers oxygen masks on.

DITCHING

Ident.: EMER-90-00005215.0004001 / 26 NOV 09

EASA APPROVED

Criteria: (330-200 and 51802)

- Notify ATC and cabin crew of the nature of emergency or use transponder (if available) as required.
Prepare cockpit and cabin.
Start fuel jettison (if installed).
Turn off TAWS-GPWS.
Turn on cabin signs.
Turn on emergency exit lights.
Turn off COMMERCIAL.
Set landing elevation to sea level.

● For approach:

- Keep landing gear up.
Use maximum available slats/flaps.

Note: *In case of all engine failure, use FLAPS 1.*

- Stop fuel jettison (if installed).

● At 2 000 ft AGL:

- Check CAB PR MODE SEL is in AUTO position.
Turn off all bleeds (engines and APU).
Notify cabin crew for ditching.
Set ditching to ON.

Note: *Touchdown should be made at 11 ° pitch attitude with minimum aircraft vertical speed.*

● At 500 ft AGL:

- Order brace for impact.

● At touchdown:

- Set both engine master levers to OFF.
Shut down APU.

● After ditching:

- Notify ATC with VHF 1.
Push all FIRE pushbuttons (engines and APU).
Discharge all fire agents (engines and APU).
Initiate evacuation.

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

MISCELLANEOUS

Continued from the previous page DITCHING

Turn off all batteries.

Check emergency locator transmitter is emitting (if installed).

FORCED LANDING

Ident.: EMER-90-00005213.0004001 / 26 NOV 09

EASA APPROVED

Criteria: (330-200 and 51802)

Notify ATC and cabin crew of the nature of emergency or use transponder (if available) as required.
Prepare cockpit and cabin.
Start fuel jettison (if installed).
Turn off TAWS - GPWS.
Turn on cabin signs.
Turn on emergency exit lights.
Turn off COMMERCIAL.
Manually set the landing elevation.

● For approach :

Turn on RAM AIR.
Extend landing gear.

Note: *In case of all engine failure, set LAND RECOVERY to ON and extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION.*

Use maximum available slats/flaps.

Note: *In case of all engine failure, use FLAPS 1.*

Arm ground spoilers.
Stop fuel jettison (if installed).
Apply maximum brake pressure 1 000 PSI.

● At 2 000 ft AGL :

Notify cabin crew for landing.

● At 500 ft AGL :

Order brace for impact.

● At touchdown :

Set both engine master levers to OFF.
Shut down APU.

● After landing :

● When aircraft stopped :
Set parking brake to ON.
Notify ATC with VHF 1.

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

MISCELLANEOUS

Continued from the previous page FORCED LANDING

Push all FIRE pushbuttons (engines and APU).

Discharge all fire agents (engines and APU).

■ If evacuation required :

Initiate evacuation.

Turn off all batteries.

■ If evacuation not required :

Notify cabin crew and passengers to remain seated.

Check emergency locator transmitter is emitting (if installed).

EMERGENCY EVACUATION

Ident.: **EMER-90-00005796.0002001 / 26 NOV 09**

EASA APPROVED

Criteria: (((330-301 or 330-302 or 330-303 or 330-323 or 330-343) and (51805 or 51806)) or (330-200 and 51802))

● When aircraft stopped:

Set parking brake to ON.

Notify ATC with VHF 1.

Alert cabin crew.

● If MAN CAB PR has been used:

Check cabin differential pressure at zero before opening the doors.

Set both engine master levers to OFF.

Push all FIRE pushbuttons (engines and APU).

Discharge all fire agents (engines and APU) as required.

■ If evacuation required:

Initiate evacuation.

Turn off all batteries.

■ If evacuation not required:

Notify cabin crew and passengers to remain seated.



A330
AIRPLANE FLIGHT MANUAL

EMERGENCY PROCEDURES

MISCELLANEOUS

STALL RECOVERY

Ident.: EMER-90-00013149.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

Apply nose down pitch control.
Use lateral control to level wings.

● **When out of stall:**

- Smoothly increase thrust as needed.
- Check that speed brakes are retracted.
- Smoothly recover the flight path.

● **If in clean configuration and below 20 000 ft:**

- Select FLAPS 1.

ABNORMAL PROCEDURES

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

PRELIMINARY PAGES

TABLE OF CONTENTS

ABN-GEN GENERAL

Introduction.....	A
Landing Distance Determination in case of In-Flight Failure.....	B

ABN-OEI ONE ENGINE INOPERATIVE PROCEDURES

ABN-OEI-TO TAKEOFF

Engine Failure before V1 (Rejected Takeoff).....	A
Engine Failure between V1 and V2.....	B
Engine Failure during Initial Climb Out.....	C

ABN-OEI-LDG APPROACH AND LANDING

Approach and Landing.....	A
Missed Approach (from Intermediate Approach Configuration).....	B
Balked Landing.....	C

ABN-21 AIR COND / PRESS / VENT

AIR - PACK 1 + 2 FAULT.....	A
VENT - OVBD VALVE FAULT.....	B
VENT - BLOWING FAULT.....	C
CAB PR - SYS 1 + 2 FAULT.....	D
CAB PR - SAFETY VALVE OPEN.....	E

ABN-22 AUTO FLIGHT SYSTEM

ABN-22-AUTOFLT FM 1+2 FAULT

AUTO FLT - FM 1+2 FAULT.....	A
------------------------------	---

ABN-22-CATII FAILURES OR WARNINGS DURING A CAT II APPROACH WITH OR WITHOUT AUTOMATIC LANDING

Multiple Failures or Warnings (CATII).....	A
Altitude Loss with Autopilot Malfunction (CAT II).....	B
Failure Leading to Slats/Flaps less than CONF 3 (CAT II).....	C
Antiskid System and/or Nosewheel Steering Failure (CAT II).....	D
Alpha Floor Activation (CAT II).....	E
One Engine Failure (CAT II).....	F
Red "RA" on two PFDs (CAT II).....	G
Amber "CHECK ATT" on two PFDs (CAT II).....	H
Red "ATT" on one PFD (CAT II).....	I
Diagonal Line or "INVALID DATA" on one PFD and ND (CAT II).....	J
Amber "CHECK HDG" on two NDs and two PFDs (CAT II).....	K
Red "HDG" on one ND and one PFD (CAT II).....	L
Red "SPD" on one PFD (CAT II).....	M

Continued on the following page

Continued from the previous page

"AP OFF" Warnings (CAT II).....	N
Loss of "CAT II" (CAT II).....	O
LOC or G/S Excessive Deviation on PFD (CAT II).....	P
"AUTOLAND" Light (CAT II).....	Q
A/THR Fault (CAT II).....	R
No "LAND" at 350 ft (CAT II).....	S
Incorrect Selected Course at 350 ft > 5 deg (CAT II).....	T
No "FLARE" at 30 ft (CAT II).....	U

ABN-22-CATIIIDH FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

Multiple Failures or Warnings (CAT III DH).....	A
Failure Leading SLATS/FLAPS less than CONF 3 (CAT III DH).....	B
Nosewheel Steering Failure (CAT III DH).....	C
Antiskid Failure (CAT III DH).....	D
Alpha Floor Activation (CAT III DH).....	E
One Engine Failure (CAT III DH).....	F
Autocallout RA Failure (CAT III DH).....	G
Red "RA" Flag (Radio Altimeter) on two PFDs (CAT III DH).....	H
Amber "CHECK ATT" Flag on two PFDs (CAT III DH).....	I
Red "ATT" Flag on one PFD (CAT III DH).....	J
Amber "CHECK HDG" on two NDs and on two PFDs (CAT III DH).....	K
Red "HDG" Flag on one ND and one PFD (CAT III DH).....	L
Red "SPD" Flag on one PFD (CAT III DH).....	M
"AP OFF" Warnings (CAT III DH).....	N
Capability Decrease (except if due to A/THR loss) (CAT III DH).....	O
Total loss of A/THR ("CAT III" decreases to "CAT II") (CAT III DH).....	P
LOC or G/S Excessive Deviation on PFD (CAT III DH).....	Q
"AUTOLAND" Light (CAT III DH).....	R
No "LAND" at 350 ft (CAT III DH).....	S
Incorrect Selected Course at 350 ft > 5 deg (CAT III DH).....	T
No "FLARE" at 30ft (CAT III DH).....	U

ABN-22-CATIII_{no}DH FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

Multiple Failures or Warnings (CAT III no DH).....	A
Failure Leading SLATS/FLAPS less than CONF 3 (CAT III no DH).....	B
Nosewheel Steering Failure (CAT III no DH).....	C
Antiskid Failure (CAT III no DH).....	D
Alpha Floor Activation (CAT III no DH).....	E
One Engine Failure (CAT III no DH).....	F
Autocallout RA Failure (CAT III no DH).....	G
Red "RA" (Radio Altimeter) Flag on two PFDs (CAT III no DH).....	H

Continued on the following page



Continued from the previous page

Amber "CHECK ATT" on two PFDs (CAT III no DH).....	I
Red "ATT" on one PFD (CAT III no DH).....	J
Amber "CHECK HDG" on two NDs and two PFDs (CAT III no DH).....	K
Red "HDG" on one ND and one PFD (CAT III no DH).....	L
Red "SPD" on one PFD (CAT III no DH).....	M
"AP OFF" Warnings (CAT III no DH).....	N
Capability Decrease (except if due to A/THR loss) (CAT III no DH).....	O
Total Loss of A/THR ("CAT III" decrease to "CAT II") (CAT III no DH).....	P
LOC or G/S Excessive Deviation on PFD (CAT III no DH).....	Q
"AUTOLAND" Light (CAT III no DH).....	R
NO "LAND" at 350 ft (CAT III no DH).....	S
Incorrect Selected Course at 350 ft >5 deg (CAT III no DH).....	T
No "FLARE" at 30 ft (CAT III no DH).....	U

ABN-24 ELECTRICAL POWER

ELEC - AC BUS 1 FAULT.....	A
ELEC - AC BUS 2 FAULT.....	B
ELEC - AC ESS BUS FAULT.....	C
ELEC - DC BUS 2 FAULT.....	D
ELEC - DC BUS 1+2 FAULT.....	E
ELEC - DC ESS BUS FAULT.....	F
ELEC - DC ESS BUS SHED.....	G

ABN-27 FLIGHT CONTROLS

F/CTL - FLAPS FAULT.....	A
F/CTL - FLAPS LOCKED.....	B
F/CTL - SLATS FAULT.....	C
F/CTL - SLATS LOCKED.....	D
Approach Speed Increment and Landing Distance Multiplication Factor.....	E
Performance Limitation for Landing in Clean Configuration.....	F
F/CTL - SPD BRK DISAGREE.....	G
F/CTL RUDDER TRIM RUNAWAY.....	H
F/CTL RUDDER JAM.....	I
F/CTL - RUD NORM CTL FAULT.....	J
F/CTL - RUDDER FAULT.....	K
F/CTL RUD PEDAL FAULT.....	L
F/CTL - SPLR FAULT.....	M
F/CTL - GND SPLR FAULT.....	N
F/CTL - L(R) ELEV FAULT.....	O

Continued on the following page

Continued from the previous page

F/CTL - ELEV REDUND LOST.....	P
F/CTL - FCDC 1+2 FAULT.....	Q
F/CTL - PRIM FAULT.....	R
F/CTL - STAB CTL FAULT.....	S
F/CTL - ALTN LAW (PROT LOST)	T
F/CTL - DIRECT LAW (PROT LOST).....	U

ABN-28 FUEL

FUEL - CELL NOT FULL.....	A
FUEL - FUEL LO TEMP.....	B
FUEL - APU AFT PUMP FAULT.....	C
FUEL - ABNORM MAN FWD XFR.....	D
FUEL - WING X FEED FAULT.....	E
FUEL - L (R) WING PUMPS LO PR.....	F
FUEL IMBALANCE.....	G
FUEL GRAVITY FEEDING.....	H
FUEL - ENG FEEDLINE BURST.....	I
FUEL - L (R) WING TK LO LVL.....	J
FUEL - L (R) WING TK LO LVL.....	K
FUEL - L+R WING TK LO LVL.....	L
FUEL - FCMC 1+2 FAULT.....	M
FUEL - OUTR TO INR FAULT.....	N
FUEL - T TANK XFR FAULT.....	O
FUEL - CTR TO INNER FAULT.....	P
FUEL - L+R CTR PUMPS LO PR.....	Q
TRIM TANK FUEL UNUSABLE.....	R
FUEL LEAK.....	S
FUEL LOSS REDUCTION PROCEDURE.....	T

ABN-29 HYDRAULIC

HYD - G SYS LEAK.....	A
HYD - RSVR LO AIR PR.....	B
HYD - RSVR OVHT.....	C
HYD - RSVR LO LVL.....	D
HYD - G SYS LO PR.....	E
HYD - B SYS LO PR.....	F
HYD - Y SYS LO PR.....	G

Continued on the following page

*Continued from the previous page***ABN-30 ICE AND RAIN PROTECTION**

A.ICE - L INR (R INR) (L OUTR) (R OUTR) WING LO PR.....	A
A.ICE - WING VLVE NOT OPEN.....	B
A.ICE - ENG VALVE CLOSED.....	C
A.ICE - WAI SYS FAULT or OFF.....	D
A.ICE - L (R) (L INR) (R INR) (L OUTR) (R OUTR) WING OPEN.....	E
A.ICE - L INR (R INR) (L OUTR) (R OUTR) WING OPEN.....	F
A.ICE - CAPT (F/O) (STBY) PITOT (AOA) (L STAT) (R STAT) HEAT FAULT.....	G
A.ICE - CAPT (F/O) (STBY) PROBES HEAT FAULT.....	H
DOUBLE AOA (STAT) (PITOT) HEAT FAULT.....	I
A.ICE - CAPT + F/O (CAPT + STBY) (F/O + STBY) PITOT HEAT FAULT.....	J
A.ICE - ALL PITOT HEAT FAULT.....	K

ABN-31 INDICATING / RECORDING SYSTEM

DISPLAY UNIT FAILURE.....	A
FWS - SDAC 1+2 FAULT.....	B

ABN-32 LANDING GEAR

L/G GRAVITY EXTENSION.....	A
BRAKES - ANTI SKID FAULT or A/SKID NWS OFF.....	B
BRAKES - BRAKES HOT.....	C
AUTOBRAKE.....	D
BRAKES - RELEASED.....	E
L/G - LGCIU FAULT.....	F
L/G - LGCIU 1 + 2 FAULT.....	G
L/G - DOORS NOT CLOSED.....	H
BRAKES - RESIDUAL BRAKING.....	I
L/G - GEAR NOT UPLOCKED.....	J
L/G - RETRACTION FAULT.....	K
L/G - GEAR UPLOCK FAULT.....	L
L/G - L(R) LENGTHENING FAULT.....	M

ABN-34 NAVIGATION

Erroneous RA Height Indication.....	A
NAV - RA 1+2 FAULT.....	B
NAV - IR 1 (2) (3) FAULT.....	C
NAV - IR 1+2 (2+3) (1+3) FAULT.....	D
NAV - IR DISAGREE.....	E

Continued on the following page

Continued from the previous page

NAV - ADR 1 (2) (3) FAULT.....	F
NAV - ADR 1+2 FAULT.....	G
NAV - ADR 1+3 (2+3) FAULT.....	H
NAV - ADR DISAGREE.....	I
UNRELIABLE AIRSPEED INDICATION.....	J
UNRELIABLE AIRSPEED INDICATION.....	K

ABN-36 PNEUMATIC

AIR - ENG BLEED FAULT.....	A
AIR - X BLEED FAULT.....	B
AIR - BLEED LO TEMP.....	C
AIR - L (R) WING LEAK.....	D
AIR - ENG BLEED LEAK.....	E
AIR - APU BLEED LEAK.....	F

ABN-52 DOORS

DOOR - FWD CABIN.....	A
DOOR - AVIONIC or BULK CARGO.....	B
DOOR - CABIN (MID or AFT).....	C
DOOR - EMER EXIT.....	D
DOOR - CARGO (AFT or FWD).....	E

ABN-70 POWER PLANT

ENG - FAIL.....	A
ENG - SHUTDOWN.....	B
ENG - REV UNLOCKED.....	C
ENG - REV PRESSURIZED.....	D
ENG - FADEC FAULT.....	E
ENG - FADEC OVHT.....	F
ENG - EPR MODE FAULT.....	G
ENG - OIL HI TEMP.....	H
ENG - EGT OVERLIMIT.....	I
ENG - THR LEVER FAULT.....	J
ENG - THR LEVER DISAGREE.....	K
ENG RELIGHT IN FLIGHT.....	L
ENG - XWIND PROT FAULT.....	M
ENG - START VALVE FAULT (NOT CLOSED).....	N
ENG - START VALVE FAULT (NOT OPEN).....	O
ENG - THRUST LIMITED.....	P

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

PRELIMINARY PAGES

TABLE OF CONTENTS

Continued from the previous page

ABN-90 MISCELLANEOUS

TAIL STRIKE.....	A
OVERWEIGHT LANDING.....	B
REJECTED TAKEOFF WITH ALL ENGINES OPERATIVE.....	C
BOMB ON BOARD.....	D



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

PRELIMINARY PAGES

TABLE OF CONTENTS

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

GENERAL

INTRODUCTION

Ident.: ABN-GEN-00008347.0001001 / 02 JUL 10

EASA APPROVED

Criteria: A330

The procedures contained in this chapter have been established and are recommended by the aircraft manufacturer.

The following important remarks apply:

1. These procedures give information related to system and operational requirements and cover the actions to be followed in the case of failures that are not considered as emergency cases (these cases are covered in EMERGENCY PROCEDURES chapter).
2. Only particular operations that are considered useful to highlight are presented. The procedures that are considered to be "basic airmanship" are therefore not covered.
3. For a definition of LAND ASAP, *Refer to GEN-DEF LAND ASAP Definition.*

When actions depend on a condition, a black dot (•) or a black square (■) identifies this condition. The black square is used when there is a choice between one or more conditions and only one is applicable.

These procedures are approved by the Airworthiness Authorities as acceptable procedures for operation of the aircraft. This approval does not prevent the operator from developing equivalent procedures provided these procedures are approved by appropriate operational authorities.

In case of discrepancy between procedures displayed on the ECAM and procedures stated in this AFM, the AFM procedures always have precedence.

In case of failure which induces a landing distance increase, multiply the actual landing distance in CONF FULL by the given landing distance factor.

Unless otherwise specified in the procedures, the minimum speed to be used for approach and landing is the VLS corresponding to the configuration requested by the procedure.

Note: *VLS, when mentioned in a procedure, is the one corresponding to the configuration requested by the procedure (e.g. if the procedure requests to use FLAPS 2, take VLS of CONF 2).*

LANDING DISTANCE DETERMINATION IN CASE OF IN-FLIGHT FAILURE

Ident.: TDU / ABN-GEN-00014414.0001001 / 18 JUL 12

EASA APPROVED

Criteria: A330

Impacted DU: NONE

Impacted by TR183 Issue 1.0

RUNWAY CONDITION DETERMINATION

Landing distance determination must not only be based on Estimated Surface Friction (Mu) or Pilot Reports of Braking Action (PiRep) or similar qualitative information.

The flight crew shall obtain the runway condition or/and the depth and type of runway contaminant to make the basic assessment of actual condition.

Landing distance determination must not consider a better Braking Action than the one related to the runway condition.

Runway Condition	Max Reported Braking Action
Dry	6 - DRY
Wet	5 - GOOD
Compacted Snow	4 - GOOD to MEDIUM
More than 3 mm of Dry or Wet Snow	3 - MEDIUM
More than 3 mm of Standing Water or Slush	2 - MEDIUM to POOR
Ice	1 - POOR

LANDING DISTANCE DETERMINATION

The landing distance to be applied in case of failure is the Operational Landing Distance (OLD). The OLD can be determined by selecting the failure case in the IN-FLIGHT FAILURE field of the AFM_OCTO interface, using the database given in the PERFORMANCE chapter of this manual (*Refer to **PERF-OCTO Performance Database***), combined with the LLRB01.fail file using the AFM_OCTO approved FM module at revision 28 or higher.

***Note:** Currently published landing distance factors are no longer applicable. In case of failure which induces a landing distance increase, the applicable landing distance is the OLD.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
ONE ENGINE INOPERATIVE PROCEDURES

TAKEOFF

ENGINE FAILURE BEFORE V1 (REJECTED TAKEOFF)

Ident.: ABN-OEI-TO-00005371.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Immediately reduce all thrust levers to idle.

Monitor autobrake operation.

Take over brake control with brake pedals if necessary.

- Note:
- 1. If autobrake is not used, maximum brakes must be applied simultaneously with reduction of thrust levers.*
 - 2. If the takeoff is rejected above 100 kt, it is recommended that maximum reverse thrust is selected.*
 - 3. It is mandatory to use the maximum reverse thrust when the performance takes benefit of the reverse thrust effect.*

ENGINE FAILURE BETWEEN V1 AND V2

Ident.: ABN-OEI-TO-00005121.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● If the engine failure occurs before VR:

Use rudder conventionally to maintain runway centerline.

● At VR:

Rotate the aircraft with a positive sidestick input to achieve a normal and continuous rotation rate to a pitch attitude of 12.5 °.

● Once airborne and with a positive rate of climb:

Retract landing gear.

Maintain airspeed not below V2.

SRS guidance can be followed when FD pitch order has stabilized.

Use rudder to prevent yaw. Shortly after lift off, the β target will appear. Adjust rudder position to zero the β target. Control heading conventionally with bank, keeping the β target zeroed with the rudder.

● At acceleration height:

Level off.

● If aircraft in configuration 2 or 3:

Accelerate up to F speed and select configuration 1.

Accelerate up to S speed and select configuration 0.

At slats zero, β target will disappear: center the sideslip indication conventionally.

Accelerate up to green dot speed and start climbing at this speed.

Reduce thrust to maximum continuous (if already in the FLX/MCT detent, move thrust lever to CL and back to MCT).

Note: *In the case of takeoff performed with reduced thrust, even if the one engine out takeoff performance is always met with reduced thrust, selection of full takeoff thrust may be done after engine failure.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
ONE ENGINE INOPERATIVE PROCEDURES

TAKEOFF

ENGINE FAILURE DURING INITIAL CLIMB OUT

Ident.: ABN-OEI-TO-00005372.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Proceed as for takeoff with engine failure between V1 and V2 (*Refer to ABN-OEI-TO Engine Failure between V1 and V2*). However, if the failure occurs above V2 it is recommended to maintain the speed reached after recovery, or SRS commanded attitude. In any case, the speed must not be below V2.



A330
AIRPLANE FLIGHT MANUAL

**ABNORMAL PROCEDURES
ONE ENGINE INOPERATIVE PROCEDURES**

TAKEOFF

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
ONE ENGINE INOPERATIVE PROCEDURES
APPROACH AND LANDING

APPROACH AND LANDING

Ident.: ABN-OEI-LDG-00005374.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Set ENG START selector to IGN START.

Use FLAPS 3 for landing.

Minimum final approach and landing speed : 1.23 VS1G of the landing configuration.

- Note:**
1. Check ECAM F/CTL page to confirm good directional trim.
 2. Automatic approach has been demonstrated with one engine inoperative in CONF 3.

MISSSED APPROACH (FROM INTERMEDIATE APPROACH CONFIGURATION)

Ident.: ABN-OEI-LDG-00005375.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Set GO AROUND thrust.

Rotate the aircraft to achieve a positive rate of climb.

Establish the required pitch attitude as directed by SRS pitch command bar.

Maintain intermediate approach speed.

Use rudder to prevent yaw. Adjust rudder position to zero the β target. Control heading conventionally with bank, keeping β target zeroed with the rudder.

● At acceleration height:

Level off.

● If aircraft in configuration 2 or 3:

Accelerate up to F speed and select configuration 1.

Accelerate up to S speed and select configuration 0.

At slats zero, β target will disappear: center the sideslip indication conventionally.

Accelerate up to green dot speed and start climbing at this speed.

Reduce thrust to maximum continuous.

BALKED LANDING

Ident.: ABN-OEI-LDG-00005377.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Set GO AROUND thrust.

Rotate the aircraft to achieve a positive rate of climb.

Establish the required pitch attitude as directed by SRS pitch command bar.

Retract flaps one step.

Maintain final approach and landing speed.

● When positive rate of climb established:

Retract landing gear.

If necessary maintain a speed above the required speed to comply with approach climb gradient. *Refer to PERF-LDG Approach Climb and Landing Climb*

Use rudder to prevent yaw. Adjust rudder position to zero the β target. Control heading conventionally with bank, keeping β target zeroed with the rudder.

● At acceleration height:

Level off.

● If aircraft in configuration 2 or 3:

Accelerate up to F speed and select configuration 1.

Accelerate up to S speed and select configuration 0.

At slats zero, β target will disappear: center the sideslip indication conventionally.

Accelerate up to green dot speed and start climbing at this speed.

Reduce thrust to maximum continuous.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AIR COND / PRESS / VENT

AIR - PACK 1 + 2 FAULT

Ident.: ABN-21-00005691.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

Turn off both packs.

Descend to the higher one of: FL 100 or MEA.

Note: If only one pack was overheated, recover the affected pack once overheat has disappeared.

- When at FL 100 or MEA and cabin differential pressure below 1 PSI:

Turn on RAM AIR.

VENT - OVBD VALVE FAULT

Ident.: ABN-21-00005692.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

Set ventilation extract to OVRD.

- If overboard valve still full open:

Maximum flight level is the higher one of: FL 100 or MEA.

Use manual pressurization mode.

Maintain the cabin vertical speed switch in the UP position.

VENT - BLOWING FAULT

Ident.: ABN-21-00005693.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 56729)

Set pack flow to HI.

Turn on cabin fans if no smoke alert requires to turn off cabin fans.

Decrease cockpit and cabin temperature.

- If warning persists after 5 min:

Maximum flight time: 5 h.

CAB PR - SYS 1 + 2 FAULT

Ident.: ABN-21-00005137.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Use manual pressurization mode.

Monitor cabin altitude and cabin differential pressure are within limits.

During final approach, maintain the cabin vertical speed switch in the UP position.

Check cabin differential pressure at zero before opening doors.

CAB PR - SAFETY VALVE OPEN

Ident.: ABN-21-00005694.0003001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 56729)

■ If cabin differential pressure below 0 PSI:

Expect high cabin rate.

Reduce vertical speed.

■ If cabin differential pressure above 8.7 PSI:

Use manual pressurization mode.

Monitor cabin altitude and cabin differential pressure are within limits.

● If unsuccessful:

Reduce aircraft altitude.

During final approach, maintain the cabin vertical speed switch in the UP position.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FM 1+2 FAULT

AUTO FLT - FM 1+2 FAULT

Ident.: ABN-22-AUTOFLT-00005414.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- Set FM SOURCE to NORM.
- Use RMP for navaid tuning.
- Manually set the landing elevation.
- Use MCDU back up navigation.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FM 1+2 FAULT

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

MULTIPLE FAILURES OR WARNINGS (CATII)

Ident.: ABN-22-CATII-00008350.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

In the case of multiple failures or warnings, the most limiting applies.

ALTITUDE LOSS WITH AUTOPILOT MALFUNCTION (CAT II)

Ident.: ABN-22-CATII-00009853.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

DEMONSTRATED ALTITUDE LOSS BELOW GLIDE SLOPE WITH AUTOPILOT MALFUNCTION:

In approach one AP engaged in APPR mode, with take over 1 s after failure recognition, the path is negligible.

FAILURE LEADING TO SLATS/FLAPS LESS THAN CONF 3 (CAT II)

Ident.: ABN-22-CATII-00008352.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● If alert appears above 200 ft:

Revert to CAT I minima and disconnect the autopilot not later than 500 ft.

ANTISKID SYSTEM AND/OR NOSEWHEEL STEERING FAILURE (CAT II)

Ident.: ABN-22-CATII-00008353.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Disconnect the autopilot at touchdown or when the failure occurs during landing roll.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

ALPHA FLOOR ACTIVATION (CAT II)

Ident.: ABN-22-CATII-00008354.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If activation occurs above 1 000 ft:**

Check speed.

Disengage autothrust mode (TOGA LK) and reengage autothrust.

■ **If activation occurs below 1 000 ft:**

Go around if visual references are not sufficient.

Note: Alpha floor protection is inhibited below 100 ft at landing.

ONE ENGINE FAILURE (CAT II)

Ident.: ABN-22-CATII-00008355.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Note: Automatic approach, landing and rollout have been demonstrated in CONF 3 with one engine inoperative before initiating the approach.

■ **If failure occurs above 1 000 ft:**

Select CONF 3.

■ **If failure occurs between 1 000 ft and DH:**

Go around if unsufficient visual references.

■ **If failure occurs below DH:**

Land if external visual references are sufficient.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

RED "RA" ON TWO PFDS (CAT II)

Ident.: ABN-22-CATII-00008356.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- **If warning appears above 1 000 ft:**
Revert to basic modes minima (CAT I).
- **If warning appears between 1 000 ft and DH:**
Go around if insufficient visual references.
- **If warning appears below DH:**
Land if external visual references are sufficient.

Note: AP/FD is not available in APPR mode.

AMBER "CHECK ATT" ON TWO PFDS (CAT II)

Ident.: ABN-22-CATII-00008357.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

Note: Below 1 000 ft, perform a manual go-around using STBY horizon.

- **If alert appears above 1 000 ft:**
Check aircraft attitude with standby horizon.
Use switching to recover valid data.
- **If alert disappears:**
A CAT II is still possible.
- **If alert persists:**
Revert to CAT I minima.
- **If alert appears between 1 000 ft and DH:**
Go around if visual references are not sufficient using standby horizon.
- **If alert appears below DH:**
Land if external visual references are sufficient.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

RED "ATT" ON ONE PFD (CAT II)

Ident.: ABN-22-CATII-00008358.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

■ **If warning appears above 1 000 ft:**

Use switching to recover valid data.

■ **If warning disappears:**

A CAT II approach is still possible.

■ **If warning persists:**

Revert to CAT I minima.

■ **If warning appears between 1 000 ft and DH:**

Go around if insufficient visual references.

■ **If warning appears below DH:**

Land if external visual references are sufficient.

DIAGONAL LINE OR "INVALID DATA" ON ONE PFD AND ND (CAT II)

Ident.: ABN-22-CATII-00008359.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

■ **If alert appears above 1 000 ft:**

Use switching to recover valid data.

■ **If alert disappears:**

A CAT II approach is still possible.

■ **If alert persists:**

Revert to CAT I minima.

■ **If alert appears between 1 000 ft and DH:**

Go around if insufficient visual references.

■ **If alert appears below DH:**

Land if external visual references are sufficient.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

AMBER "CHECK HDG" ON TWO NDS AND TWO PFDS (CAT II)

Ident.: ABN-22-CATII-00008360.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION

Do not make any switching below 1 000 ft.

■ **If alert appears above 1 000 ft:**

Check heading with standby compass.

Use switching to recover valid data.

■ **If alert disappears:**

A CAT II approach is still possible.

■ **If alert persists:**

Revert to CAT I minima.

■ **If alert appears between 1 000 ft and DH:**

Go around if insufficient visual references.

■ **If alert appears below DH:**

Land if external visual references are sufficient.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

RED "HDG" ON ONE ND AND ONE PFD (CAT II)

Ident.: ABN-22-CATII-00008361.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

■ **If warning appears above 1 000 ft:**

Use switching to recover valid data.

■ **If warning disappears:**

A CAT II approach is still possible.

■ **If warning persists:**

Revert to CAT I minima.

■ **If warning appears between 1 000 ft and DH:**

Go around if insufficient visual references.

■ **If warning appears below DH:**

Land if external visual references are sufficient.

RED "SPD" ON ONE PFD (CAT II)

Ident.: ABN-22-CATII-00008362.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

■ **If warning appears above 1 000 ft:**

Use switching to recover valid data.

■ **If warning disappears:**

A CAT II approach is still possible.

■ **If warning persists:**

Revert to CAT I minima.

■ **If warning appears between 1 000 ft and DH:**

Go around if insufficient visual references.

■ **If warning appears below DH:**

Land if external visual references are sufficient.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

"AP OFF" WARNINGS (CAT II)

Ident.: ABN-22-CATII-00008363.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If warning appears above 1 000 ft:

Try to reengage autopilot.

● If unsuccessful:

Revert to CAT I minima.

■ If warning appears between 1 000 ft and DH:

Go around if insufficient visual references.

■ If warning appears below DH:

Land manually if external visual references are sufficient.

LOSS OF "CAT II" (CAT II)

Ident.: ABN-22-CATII-00008351.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If CAT II not displayed on FMA above 1 000 ft:

Try to recover.

● If no recovery:

Revert to CAT I minima.

■ If CAT II disappears on FMA between 1 000 ft and DH:

Go around if insufficient visual references.

■ If CAT II disappears on FMA below DH:

Land.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

LOC OR G/S EXCESSIVE DEVIATION ON PFD (CAT II)

Ident.: ABN-22-CATII-00008364.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If deviation appears above 200 ft:**

Monitor ILS tracking.

■ **If deviation appears between 200 ft and DH:**

Go around if visual references are not sufficient.

■ **If deviation appears below DH:**

Land manually if external references are sufficient.

"AUTOLAND" LIGHT (CAT II)

Ident.: ABN-22-CATII-00008365.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If warning appears between 200 ft and DH:**

Go around if insufficient visual references.

■ **If warning appears below DH:**

Land if external visual references are sufficient.

A/THR FAULT (CAT II)

Ident.: ABN-22-CATII-00008366.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If alert appears above 1 000 ft:**

Change over autopilot and try to reengage autothrust.

● **If unsuccessful:**

Control the thrust manually.

■ **If alert appears between 1 000 ft and DH:**

Control the thrust manually.

■ **If alert appears below DH:**

Land if external visual references are sufficient.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

NO "LAND" AT 350 FT (CAT II)

Ident.: ABN-22-CATII-00008367.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Go around or perform a manual landing if sufficient visual references.

INCORRECT SELECTED COURSE AT 350 FT > 5 DEG (CAT II)

Ident.: ABN-22-CATII-00008368.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Continue the landing and disconnect autopilot at 50 ft at the latest.

NO "FLARE" AT 30 FT (CAT II)

Ident.: ABN-22-CATII-00008369.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If visual references are sufficient:**

Disconnect autopilot and land manually.

■ **If visual references are insufficient:**

Execute a go-around.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
AUTO FLIGHT SYSTEM
FAILURES OR WARNINGS DURING A CAT II
APPROACH WITH OR WITHOUT AUTOMATIC LANDING

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

MULTIPLE FAILURES OR WARNINGS (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008370.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

In the case of multiple failures or warnings, the most limiting applies.

FAILURE LEADING SLATS/FLAPS LESS THAN CONF 3 (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008371.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- If failure appears above 200 ft:

Revert to CAT I minima.

Disconnect the autopilot not later than 500 ft.

NOSEWHEEL STEERING FAILURE (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008373.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- If failure occurs above 350 ft:

Revert to CAT III with DH 50 ft.

- If failure occurs between 350 ft and 200 ft:

Go around if visual references are not sufficient.

- If failure occurs below 200 ft:

Continue the landing.

Note: A go-around must be performed if visual references are insufficient at 50 ft for a CAT III single or at CAT II DH as appropriate.

Disconnect the autopilot at touchdown, or when the failure appears during landing roll.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

ANTISKID FAILURE (CAT III DH)

Ident.: ABN-22-CATIIDH-00008372.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If failure occurs above 350 ft:**

Revert to CAT III Single minima.

■ **If failure occurs between 350 ft and 200 ft:**

Go around if visual references are not sufficient.

■ **If failure occurs below 200 ft:**

Continue the landing.

Note: A go-around must be performed if visual references are insufficient at 50 ft for a CAT III single or at CAT II DH as appropriate.

Disconnect autopilot at touchdown, or when the failure appears during landing roll.

ALPHA FLOOR ACTIVATION (CAT III DH)

Ident.: ABN-22-CATIIDH-00008374.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If activation occurs above 1 000 ft:**

Check speed.

Disengage autothrust mode (TOGA LK) and reengage autothrust.

■ **If activation occurs below 1 000 ft:**

Go around if visual references are not sufficient.

Note: Alpha floor protection is inhibited below 100 ft at landing.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

ONE ENGINE FAILURE (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008375.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Note: Automatic approach, landing and rollout have been demonstrated in CONF 3 with one engine inoperative before initiating the approach.

■ If failure occurs above 1 000 ft:

Select CONF 3.

Revert to CAT III SINGLE minima.

■ If failure occurs between 1 000 ft and 200 ft:

Go around if visual references are not sufficient.

■ If failure occurs below 200 ft:

Continue the landing.

Note: A go-around must be performed if visual references are insufficient at 50 ft for CAT III SINGLE or CAT III DH as appropriate.

AUTOCALLOUT RA FAILURE (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008376.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If failure occurs between 1 000 ft and 200 ft:

Go around if visual references are not sufficient.

■ If failure occurs below 200 ft:

Continue the landing.

Note: A go-around must be performed if visual references are insufficient at 50 ft for CAT III SINGLE or CAT III DH as appropriate.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

RED "RA" FLAG (RADIO ALTIMETER) ON TWO PFDS (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008377.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Note: AP/FD is not available in APPR mode.

■ **If warning appears above 1 000 ft:**

Revert to CAT I minima.

■ **If warning appears between 1 000 ft and DH:**

Go around if visual references are not sufficient.

■ **If warning appears below DH:**

Land if external visual references are sufficient.

AMBER "CHECK ATT" FLAG ON TWO PFDS (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008378.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

■ **If alert appears above 1 000 ft:**

Check aircraft attitude with standby horizon.

Use switching to recover valid data.

■ **If alert disappears:**

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and one ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ **If alert persists:**

Revert to CAT I minima.

■ **If alert appears between 1 000 ft and 200 ft:**

Go around if visual references are not sufficient using standby horizon.

■ **If alert appears below 200 ft:**

Land if external visual references are sufficient.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

RED "ATT" FLAG ON ONE PFD (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008379.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION

Do not make any switching below 1 000 ft.

■ If warning appears above 1 000 ft:

Use switching to recover valid data.

■ If warning disappears:

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and one ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ If warning persists:

Revert to CAT I minima.

■ If warning appears between 1 000 ft and 200 ft:

Go around if visual references are not sufficient.

■ If warning appears below 200 ft:

Continue the landing.

Note: A go-around must be performed if visual references are insufficient at 50 ft for CAT III SINGLE or CAT III DH as appropriate.

AMBER "CHECK HDG" ON TWO NDS AND ON TWO PFDS (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008380.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.**■ If alert appears above 1 000 ft:**

Check heading with standby compass.

Use switching to recover valid data.

■ If alert disappears:

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ If alert persists:

Revert to CAT I minima.

■ If alert appears between 1 000 ft and 200 ft:

Go around if visual references are not sufficient.

■ If alert appears below 200 ft:

Land if external visual references are sufficient.

Note: A go-around must be performed if visual references are insufficient at 50 ft for a CAT III SINGLE or a CAT II DH as appropriate.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

RED "HDG" FLAG ON ONE ND AND ONE PFD (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008383.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

■ **If warning appears above 1 000 ft:**

Use switching to recover valid data.

■ **If warning disappears:**

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ **If warning persists:**

Revert to CAT I minima.

■ **If warning appears between 1 000 ft and 200 ft:**

Go around if visual references are not sufficient.

■ **If warning appears below 200 ft:**

Continue the landing.

Note: A go-around must be performed if visual references are insufficient at 50 ft for CAT III SINGLE or CAT III DH as appropriate.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

RED "SPD" FLAG ON ONE PFD (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008384.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

■ **If warning appears above 1 000 ft:**

Use switching to recover valid data.

■ **If warning disappears:**

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ **If warning persists:**

Revert to CAT I minima.

■ **If warning appears between 1 000 ft and 200 ft:**

Go around if visual references if are not sufficient.

■ **If warning appears below 200 ft:**

Continue the landing.

Note: A go-around must be performed if visual references are insufficient at 50 ft for CAT III SINGLE or CAT III DH as appropriate.

"AP OFF" WARNINGS (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008385.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If warning appears above 1 000 ft:**

Try to reengage autopilot.

● **If unsuccessful:**

Revert to the available capability.

■ **If warning appears between 1 000 ft and DH:**

Go around if visual references are not sufficient.

■ **If warning appears below DH:**

Land manually if external visual references are sufficient.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

CAPABILITY DECREASE (EXCEPT IF DUE TO A/THR LOSS) (CAT III DH).

Ident.: ABN-22-CATIIIDH-00008386.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If alert appears above 1 000 ft:

Try to recover.

● If unsuccessful:

Revert to the available capability.

■ If alert appears between 1 000 ft and 200 ft:

Go around if insufficient visual references.

TOTAL LOSS OF A/THR ("CAT III" DECREASES TO "CAT II") (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008387.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If failure appears above 1 000 ft:

Disconnect AP 1 (or change over if only one autopilot is engaged) and try to reengage autothrust.

■ If recovery:

Continue to CAT III SINGLE minima.

■ If no recovery:

Continue to CAT II minima and control thrust manually.

■ If failure appears between 1 000 ft and 200 ft:

Continue to CAT II minima.

Control thrust manually.

■ If failure appears below 200 ft:

Continue the landing.

Control thrust manually.

Note: A go-around must be performed if visual references are insufficient at 50 ft for a CAT III SINGLE or at CAT II DH as appropriate.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

LOC OR G/S EXCESSIVE DEVIATION ON PFD (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008388.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If failure occurs above 200 ft:**

Monitor ILS tracking.

■ **If failure occurs between 200 ft and DH:**

Go around if visual references are not sufficient.

■ **If failure occurs below DH:**

Land if external visual references are sufficient.

"AUTOLAND" LIGHT (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008389.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If warning appears between 200 ft and DH:**

Go around if visual references are not sufficient.

■ **If warning appears below DH:**

Land if external visual references are sufficient.

NO "LAND" AT 350 FT (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008390.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Go around or perform a manual landing if visual references are sufficient.

INCORRECT SELECTED COURSE AT 350 FT > 5 DEG (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008391.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Revert to CAT II minima.

Disconnect autopilot at 50 ft at the latest.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

NO "FLARE" AT 30FT (CAT III DH)

Ident.: ABN-22-CATIIIDH-00008392.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If visual references are sufficient:**

Disconnect autopilot and land manually.

■ **If visual references are insufficient:**

Execute a go-around.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH DH

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

MULTIPLE FAILURES OR WARNINGS (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008395.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

In the case of multiple failures or warnings, the most limiting applies.

FAILURE LEADING SLATS/FLAPS LESS THAN CONF 3 (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008393.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● If alert appears above 200 ft:

Revert to CAT I minima.

Disconnect the autopilot not later than 500 ft.

NOSEWHEEL STEERING FAILURE (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008396.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If failure occurs above 350 ft:

Revert to CAT III with DH 50 ft.

■ If failure occurs between 350 ft and 200 ft:

Go around if visual references are not sufficient.

■ If failure occurs below 200 ft:

Continue the landing.

Disconnect autopilot at touchdown, or when the failure appears during landing roll.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

ANTISKID FAILURE (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008397.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If failure occurs above 350 ft:**

Revert to CAT III single minima.

■ **If failure occurs between 350 ft and 200 ft:**

Go around if insufficient visual references.

■ **If failure occurs below 200 ft:**

Continue the landing.

Disconnect autopilot at touchdown, or when the failure appears during landing roll.

ALPHA FLOOR ACTIVATION (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008398.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If activation occurs above 1 000 ft:**

Check speed.

Disengage autothrust mode (TOGA LK) and reengage autothrust.

■ **If activation occurs below 1 000 ft:**

Go around if visual references are not sufficient.

Note: *Alpha floor protection is inhibited below 100 ft at landing.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

ONE ENGINE FAILURE (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008399.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If failure occurs above 1 000 ft:

Select CONF 3.

Revert to CAT III SINGLE minima.

■ If failure occurs between 1 000 ft and 200 ft:

Go around if visual references are not sufficient.

■ If failure occurs below 200 ft:

Continue the landing.

AUTOCALLOUT RA FAILURE (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008400.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If failure occurs between 1 000 ft and 200 ft:

Go around if visual references are not sufficient.

■ If failure occurs below 200 ft:

Continue the landing.

RED "RA" (RADIO ALTIMETER) FLAG ON TWO PFDS (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008401.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If warning appears above 1 000 ft:

Revert to basic modes minima (CAT I).

■ If warning appears below 1 000 ft:

Go around if visual references are not sufficient.

Note: AP/FD is not available in APPR mode.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

AMBER "CHECK ATT" ON TWO PFDS (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008402.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

Note: Below 1 000 ft, perform a manual go-around using STBY horizon.

■ **If alert appears above 1 000 ft:**

Check aircraft attitude with standby horizon.

Use switching to recover valid data.

■ **If alert disappears:**

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ **If alert persists:**

Revert to CAT I minima.

■ **If alert appears between 1 000 ft and 200 ft:**

Go around if visual references are not sufficient.

■ **If alert appears below 200 ft:**

Continue the landing.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

RED "ATT" ON ONE PFD (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008403.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION

Do not make any switching below 1 000 ft.

■ **If warning appears above 1 000 ft:**

Use switching to recover valid data.

■ **If warning disappears:**

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ **If warning persists:**

Revert to CAT I minima.

■ **If warning appears between 1 000 ft and 200 ft:**

Go around if visual references are not sufficient using standby horizon.

■ **If warning appears below 200 ft:**

Continue the landing.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

AMBER "CHECK HDG" ON TWO NDS AND TWO PFDS (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008404.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

■ **If alert appears above 1 000 ft:**

Check heading with standby compass.

Use switching to recover valid data.

■ **If alert disappears:**

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ **If alert persists:**

Revert to CAT I minima.

■ **If alert appears between 1 000 ft and 200 ft:**

Go around if visual references are not sufficient using standby compass.

■ **If alert appears below 200 ft:**

Continue the landing.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

RED "HDG" ON ONE ND AND ONE PFD (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008405.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION

Do not make any switching below 1 000 ft.

■ **If warning appears above 1 000 ft:**

Use switching to recover valid data.

■ **If warning disappears:**

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ **If warning persists:**

Revert to CAT I minima.

■ **If warning appears between 1 000 ft and 200 ft:**

Go around if visual references are not sufficient using standby compass.

■ **If warning appears below 200 ft:**

Continue the landing.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

RED "SPD" ON ONE PFD (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008406.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

CAUTION Do not make any switching below 1 000 ft.

■ **If warning appears above 1 000 ft:**

Use switching to recover valid data.

■ **If warning disappears:**

A CAT III SINGLE is still possible.

In case of diagonal line or "INVALID DATA" on one PFD and ND due to DMC failure, a CAT III DUAL is still possible after DMC switching.

■ **If warning persists:**

Revert to CAT I minima.

■ **If warning appears between 1 000 ft and 200 ft:**

Go around if visual references are not sufficient.

■ **If warning appears below 200 ft:**

Continue the landing.

"AP OFF" WARNINGS (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008407.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If warning appears above 1 000 ft:**

Try to reengage autopilot.

● **If unsuccessful:**

Revert to the available capability.

■ **If warning appears below 1 000 ft:**

Go around if visual references are not sufficient.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

CAPABILITY DECREASE (EXCEPT IF DUE TO A/THR LOSS) (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008408.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If alert appears above 1 000 ft:

Try to recover.

● if no recovery:

Revert to the available capability.

■ If alert appears between 1 000 ft and 200 ft:

Go around if visual references are not sufficient.

TOTAL LOSS OF A/THR ("CAT III" DECREASE TO "CAT II") (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008409.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If failure appears above 1 000 ft:

Disengage AP 1 (or change over if only one autopilot is engaged) and try to reengage autothrust.

■ If successful:

Continue to CAT III SINGLE minima.

■ If unsuccessful:

Continue to CAT II minima and control thrust manually.

■ If failure appears between 1 000 ft and 200 ft:

Continue to CAT II minima.

Control thrust manually.

■ If failure appears below 200 ft:

Continue the landing.

Control thrust manually.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

LOC OR G/S EXCESSIVE DEVIATION ON PFD (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008410.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- If failure occurs above 200 ft:

Monitor ILS tracking.

- If failure occurs below 200 ft:

Go around if visual references are not sufficient.

"AUTOLAND" LIGHT (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008411.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- If warning appears below 200 ft:

Go around if visual references are not sufficient.

NO "LAND" AT 350 FT (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008412.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Go around or perform a manual landing if visual references are sufficient.

INCORRECT SELECTED COURSE AT 350 FT >5 DEG (CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008413.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Revert to CAT II minima.

Disconnect autopilot at 50 ft at the latest.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

NO "FLARE" AT 30 FT(CAT III NO DH)

Ident.: ABN-22-CATIIIonoDH-00008414.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ **If visual references are sufficient:**

Disconnect autopilot and land manually.

■ **If visual references are insufficient:**

Execute a go-around.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

AUTO FLIGHT SYSTEM

FAILURES OR WARNINGS DURING A CAT III APPROACH WITH NO DH

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

ELECTRICAL POWER

ELEC - AC BUS 1 FAULT

Ident.: ABN-24-00005681.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Set ventilation extract to OVRD.

Set pack flow to HI.

ELEC - AC BUS 2 FAULT

Ident.: ABN-24-00005682.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Set pack flow to HI.

ELEC - AC ESS BUS FAULT

Ident.: ABN-24-00005685.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and ((47524 or 50616) and (51790 or 54786)))

Set AC ESS FEED to ALTN.

● If unsuccessful:

Set CAPT EFIS DMC to 3.

Set AIR DATA switching to CAPT ON 3.

ELEC - DC BUS 2 FAULT

Ident.: ABN-24-00005686.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 49632)

Note: The cockpit door locking system (CDLS) is inoperative.

Set AIR DATA switching to F/O ON 3.

Set FM SOURCE to BOTH ON 1.

Keep SEC 2 on.

● If dual PRIM failure:

Do not use speed brakes.

● If trim tank not empty and CG above 32 %:

Manually perform a forward fuel transfer from the trim tank.

Note: Do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.

Landing distance: multiply by 1.2

Note: 1. Slats and flaps extend slowly.

2. Half spoilers are inoperative.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

ELECTRICAL POWER

ELEC - DC BUS 1+2 FAULT

Ident.: ABN-24-00005687.0002001 / 16 APR 10

EASA APPROVED

Criteria: (330-200 or 330-200F)

- Note:**
1. For communications, only VHF 1 is available.
 2. For navaid tuning, only RMP 1 is available.
 3. The cockpit door locking system (CDLS) is inoperative.

Open wing crossfeed valves.

Set FM SOURCE to BOTH ON 1.

Keep SEC 2 on.

Monitor fuel imbalance.

- Note:**
1. Center tank pumps are inoperative.
 2. Unusable center tank fuel quantity is 15 t.

● **If trim tank not empty and CG above 32 %:**

Manually perform a forward fuel transfer from the trim tank.

Note: Do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.

Do not use speed brakes.

● **For approach and landing:**

Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION.

Landing distance: multiply by 1.2

- Note:**
1. Slats and flaps extend slowly.
 2. Half spoilers are inoperative.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
ELECTRICAL POWER

ELEC - DC ESS BUS FAULT

Ident.: ABN-24-00005688.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 49632)

- Note: 1. Wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.
2. For communications, only VHF 2 or VHF 3, and ATC 2 are available.

Set ECAM DMC switching to 3.

Turn off GPWS.

Trim tank fuel is trapped, apply trim tank fuel unusable procedure. Refer to ABN-28 TRIM TANK FUEL UNUSABLE

- Note: Slats extend slowly.

ELEC - DC ESS BUS SHED

Ident.: ABN-24-00005689.0002001 / 26 NOV 09

EASA APPROVED

Criteria: 330-200

- Note: 1. Wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.
2. Jettison is inoperative (if available).

Set FM SOURCE to BOTH ON 2.

Turn off GPWS flap mode.

- Note: Flaps extend slowly.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
FLIGHT CONTROLS

F/CTL - FLAPS FAULT

Ident.: ABN-27-00005412.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Speed is limited to the VFE corresponding to the next more extended flaps configuration.

Refer to LIM-SPD VFE.

● When speed below VFE:

Recycle flaps lever.

● If unsuccessful:

Apply flaps locked procedure. *Refer to ABN-27 F/CTL - FLAPS LOCKED.*

F/CTL - FLAPS LOCKED

Ident.: ABN-27-00005122.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Speed is limited to the VFE corresponding to the next more extended flaps configuration.

Refer to LIM-SPD VFE.

■ If flaps position below 3:

Use FLAPS 2 for landing.

Turn off GPWS flap mode.

■ If flaps position at 3:

Use FLAPS 3 for landing.

■ If flaps position above 3:

Use FLAPS FULL for landing.

Apply necessary approach speed and landing performance corrections. *Refer to ABN-27 Approach Speed Increment and Landing Distance Multiplication Factor.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FLIGHT CONTROLS

F/CTL - SLATS FAULT

Ident.: ABN-27-00005417.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Speed is limited to the VFE corresponding to the next more extended slats configuration.

Refer to LIM-SPD VFE.

- **When speed below VFE:**

Recycle flaps lever.

- **If unsuccessful:**

Apply slats locked procedure. Refer to ABN-27 F/CTL - SLATS LOCKED.

F/CTL - SLATS LOCKED

Ident.: ABN-27-00005124.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Speed is limited to the VFE corresponding to the next more extended slats configuration.

Refer to LIM-SPD VFE.

- **If slats position below 2:**

Use FLAPS 2 for landing.

Turn off GPWS flap mode.

- **If slats position at or above 2:**

Use FLAPS 3 for landing.

Apply necessary approach speed and landing performance corrections. Refer to ABN-27 Approach Speed Increment and Landing Distance Multiplication Factor.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FLIGHT CONTROLS

APPROACH SPEED INCREMENT AND LANDING DISTANCE MULTIPLICATION FACTOR

Ident.: ABN-27-00005123.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

APPROACH SPEED INCREMENT LANDING DISTANCE MULTIPLICATION FACTOR					
	Flaps at or above 0 and below 1 + F	Flaps at or above 1 + F and below 2	Flaps at or above 2 and below 3	Flaps at or above 3 and below FULL	Flaps FULL
Slats at or above 0 and below 1	VREF + 50 ⁽¹⁾ DIST x 1.9	VREF + 40 DIST x 1.75	VREF + 30 DIST x 1.6	VREF + 25 DIST x 1.5	VREF + 25 DIST x 1.5
Slats at or above 1 and below 2	VREF + 30 DIST x 1.65	VREF + 20 DIST x 1.45	VREF + 15 DIST x 1.35	VREF + 10 DIST x 1.3	VREF + 10 DIST x 1.25
Slats at or above 2	VREF + 30 DIST x 1.65	VREF + 15 DIST x 1.4	VREF + 10 DIST x 1.3	VREF + 5 DIST x 1.25	VREF DIST x 1.15

(1) At 300 ft reduce speed to obtain VREF + 45 at touchdown.

PERFORMANCE LIMITATION FOR LANDING IN CLEAN CONFIGURATION

Ident.: ABN-27-00005418.0004001 / 02 JUL 10

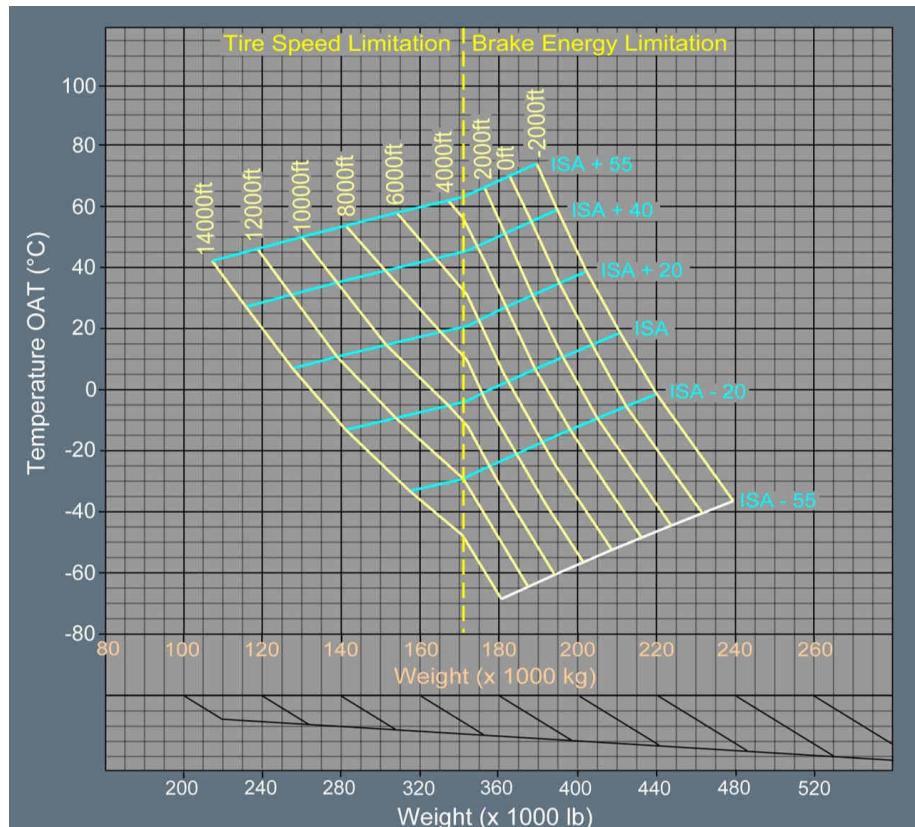
EASA APPROVED

Criteria: (330-200 or 330-200F)

The following graph gives information on compatibility between weight, maximum tire speed, and maximum brake energy for landing in clean configuration.

Maximum tire speed: *Refer to LIM-32 Tire Speed*

Landing in Clean Configuration



Wind effect on determined weight:

- Headwind: Add 0.4 t (882 lb) per kt of headwind

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES FLIGHT CONTROLS

Continued from the previous page Performance Limitation for Landing in Clean Configuration

- Tailwind: Subtract 4 t (8 818 lb) per kt of tailwind

F/CTL - SPD BRK DISAGREE

Ident.: **ABN-27-00005421.0001001** / 26 NOV 09
Criteria: A330

EASA APPROVED

Retract and do not use speed brakes.

F/CTL RUDDER TRIM RUNAWAY

Ident.: **ABN-27-00005422.0003001** / 16 APR 10
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((49193 or 54786) and (51802 or 51805 or 51806)))

EASA APPROVED

Use lateral control to level wings.
Center the rudder and maintain it central.

F/CTL RUDDER JAM

Ident.: **ABN-27-00005423.0002001** / 16 APR 10
Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and (51802 or 51805 or 51806)))

EASA APPROVED

● For approach and landing:

Avoid crosswind from the side where the rudder is deflected.
Use FLAPS 2 with ground spoilers armed for landing.
Turn off GPWS flap mode.
Stabilize speed and trajectory as soon as possible.
Approach speed = VLS + 10 kt.
Landing distance: multiply by 1.95

Note: ● If one engine inoperative:

*Approach and go-around speed: 170 kt
Landing distance: multiply by 2.55*

Use differential braking if necessary as soon as main gears are on ground.
Do not use asymmetric reverse thrust.
Below 100 kt, consider using nosewheel steering handle.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
FLIGHT CONTROLS

F/CTL - RUD NORM CTL FAULT

Ident.: **ABN-27-00008583.0002001 / 16 APR 10**

EASA APPROVED

Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((51790 or 54786) and (51802 or 51805 or 51806)))

Use rudder for turn coordination.

Use rudder with care above 160 kt.

F/CTL - RUDDER FAULT

Ident.: **ABN-27-00008594.0002001 / 16 APR 10**

EASA APPROVED

Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and (56729 and (51802 or 51805 or 51806)))

Maximum crosswind for landing: 15 kt.

Turn off GPWS flap mode.

Note: If one engine inoperative, autopilot and autothrust have to be disconnected.

Use FLAPS 2 for landing.

Landing distance: multiply by 1.75

Note: If one engine inoperative, approach and go-around speed: 170 kt

Use differential braking if necessary as soon as main gears are on ground.

F/CTL RUD PEDAL FAULT

Ident.: **ABN-27-00008595.0001001 / 16 APR 10**

EASA APPROVED

Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((49193 or 51790 or 54786) and (51802 or 51805 or 51806)))

Maximum crosswind for landing: 15 kt.

Use differential braking if necessary as soon as main gears are on ground.



A330
AIRPLANE FLIGHT MANUAL

**ABNORMAL PROCEDURES
FLIGHT CONTROLS**

F/CTL - SPLR FAULT

Ident.: **ABN-27-00005127.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

- If one or two pairs of spoilers inoperative:
Landing distance: multiply by 1.2
- If three or four pairs of spoilers inoperative:
Landing distance: multiply by 1.25
- If five or six pairs of spoilers inoperative:
Landing distance: multiply by 1.3

F/CTL - GND SPLR FAULT

Ident.: **ABN-27-00005424.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Refer to ABN-27 F/CTL - SPLR FAULT.

F/CTL - L(R) ELEV FAULT

Ident.: **ABN-27-00005425.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Note: Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).

- Do not use speed brakes.
- Use FLAPS 2 for landing.
- Turn off GPWS flap mode.
- Approach speed = VLS + 10 kt
- Landing distance: multiply by 1.45



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
FLIGHT CONTROLS

F/CTL - ELEV REDUND LOST

Ident.: ABN-27-00005426.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Do not use speed brakes.

■ If ailerons preset upwards:

Maximum flight level: FL 350.

Maximum speed: M 0.80

■ If ailerons not preset:

Maximum flight level: FL 300.

Maximum speed: M 0.75

Manually perform a forward fuel transfer from the trim tank.

Note: *If trim tank pump is not available, do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.*

F/CTL - FCDC 1+2 FAULT

Ident.: ABN-27-00005428.0002001 / 16 APR 10

EASA APPROVED

Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and ((49193 or 54786) and (51802 or 51805 or 51806)))

Do not use speed brakes above FL 200.

Monitor flight controls overhead panel.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
FLIGHT CONTROLS

F/CTL - PRIM FAULT

Ident.: ABN-27-00005430.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Turn off then on affected PRIM.

● If reset not successful:

Turn off affected PRIM.

● If dual PRIM failure:

Do not use speed brakes.

● If CG above 32 %:

Manually perform a forward fuel transfer from the trim tank.

Note: If trim tank pump is not available, do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.

● If PRIM 1+3 or PRIM 2+3 failure:

Landing distance: multiply by 1.2

Note: Half spoilers are inoperative.

● If triple PRIM failure:

Use FLAPS 3 for landing.

Landing distance: multiply by 1.35

Note: Most spoilers are inoperative.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FLIGHT CONTROLS

F/CTL - STAB CTL FAULT

Ident.: ABN-27-00005221.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Note: Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST)

■ **If manual pitch trim available:**

Use manual pitch trim to maintain elevator at zero position (indication on ECAM F/CTL page).

■ **If manual pitch trim not available:**

● **If stabilizer jammed at more than 8 ° UP:**

Maximum speed: 180 kt.

Minimize speed variations.

Pitch authority is reduced. Start the flare slightly earlier. More stick deflection may be needed to achieve the flare.

Use FLAPS 2 for landing.

Turn off GPWS flap mode.

Approach speed = VLS + 10 kt

Landing distance: multiply by 1.45

F/CTL - ALTN LAW (PROT LOST)

Ident.: ABN-27-00005125.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum speed: 330 kt/M 0.82

Use FLAPS 3 for landing.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
FLIGHT CONTROLS

F/CTL - DIRECT LAW (PROT LOST)

Ident.: ABN-27-00005126.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Do not use speed brakes.

Maximum speed: 330 kt/M 0.80

Use manual pitch trim.

Maneuver with care.

● If CG above 32 %:

Manually perform a forward fuel transfer from the trim tank.

Note: If trim tank pump is not available, do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.

Use FLAPS 3 for landing.



A330
AIRPLANE FLIGHT MANUAL

**ABNORMAL PROCEDURES
FLIGHT CONTROLS**

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FUEL

FUEL - CELL NOT FULL

Ident.: ABN-28-00010060.0001001 / 02 JUL 10

EASA APPROVED

Criteria: (A330 and (200004 and 58751))

- If engine feedline not broken and if no fuel leak:

Open wing crossfeed valve.

- If one collector cell is depleting and the wing crossfeed valve is not fully open, or if both collector cells are depleting:

Avoid negative g load factor.

FUEL - FUEL LO TEMP

Ident.: ABN-28-00005388.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (55191 or 55982))

Check fuel freezing point.

Manually perform a fuel transfer of the affected tank(s).

Increase TAT if necessary.

FUEL - APU AFT PUMP FAULT

Ident.: ABN-28-00005390.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- If APU required and trim tank not empty:

Maximum flight level: FL 250.

FUEL - ABNORM MAN FWD XFR

Ident.: ABN-28-00005391.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- If speed below 270 kt or in climb:

Use automatic trim tank fuel transfer mode.

- If speed at or above 270 kt and not in climb:

Manually perform a forward fuel transfer from the trim tank.

FUEL - WING X FEED FAULT

Ident.: ABN-28-00005392.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If wing crossfeed valve failed open:

Monitor fuel imbalance.

■ If wing crossfeed valve failed closed:Apply fuel imbalance procedure. *Refer to ABN-28 FUEL IMBALANCE.***FUEL - L (R) WING PUMPS LO PR**

Ident.: ABN-28-00005393.0003001 / 02 JUL 10

EASA APPROVED

Criteria: (A330 and 58751)

■ If engine feedline broken:

Do not open wing crossfeed valve.

Apply fuel gravity feeding procedure. *Refer to ABN-28 FUEL GRAVITY FEEDING.*

Turn off affected pumps.

Note: *The affected inner tank fuel is partly unusable.***■ If engine feedline not broken:**

Open wing crossfeed valve.

Turn off affected pumps.

● When L (R) tank fuel required:Apply fuel gravity feeding procedure. *Refer to ABN-28 FUEL GRAVITY FEEDING.*Note: *The unusable fuel quantity of the affected inner tank is 2 t (4 409 lb).*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FUEL

FUEL IMBALANCE

Ident.: ABN-28-00005132.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Compare FOB + FU with the FOB at departure.

If the difference is significant, or if FOB + FU decreases, suspect a fuel leak.

CAUTION Do not apply this procedure if a leak is suspected. Refer to ABN-28 FUEL LEAK.

Open wing crossfeed valve.

■ **If wing crossfeed valve open:**

Turn off all wing pumps (standby then normal) on the lighter side.

● **When fuel balanced:**

Turn on all wing pumps (normal then standby).

Close wing crossfeed valve.

■ **If wing crossfeed valve failed closed:**

Manually perform a fuel transfer from the outer tanks.

Fly with a blank angle of 3 ° wing down on the lighter side and use rudder trim to get constant course and neutral stick.

FUEL GRAVITY FEEDING

Ident.: ABN-28-00005133.0002001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F)

Descend to gravity feed ceiling (if applicable).

Flight conditions at the time of gravity feeding	Gravity feed ceiling
FUEL DEAERATED (Flight time from takeoff greater than 30 min)	20 000 ft
FUEL NON DEAERATED (Flight time from takeoff lower than 30 min)	15 000 ft (*) (*) 7 000 ft if JP4, JET B is used

● **When reaching gravity feed ceiling:**

Close wing crossfeed valve.

Set ENG START selector to IGN START.

Avoid negative g load factor.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FUEL

FUEL - ENG FEEDLINE BURST

Ident.: ABN-28-00009200.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 56729)

LAND ASAP

Do not open wing crossfeed valve.

Continue applying fuel gravity feeding procedure if not yet completed.

Confirm ENG START selector to IGN START.

Set affected thrust lever to idle.

Confirm affected pumps off.

- **If no engine relight after 30 s:**

Set affected engine master lever to OFF.

- **At gravity feed ceiling:**

Consider engine relight.

- **If engine relight unsuccessful:**

Apply engine shutdown procedure. *Refer to ABN-70 ENG - SHUTDOWN.*

FUEL - L (R) WING TK LO LVL

Ident.: TDU / ABN-28-00011168.0004001 / 27 JAN 11

EASA APPROVED

Criteria: ((330-200 or 330-200F) and 200590)

Impacted DU: 00005394 FUEL - L (R) WING TK LO LVL

Impacted by TR145 Issue 1.0

CAUTION Do not apply this procedure if a leak is suspected. *Refer to ABN-28 FUEL LEAK.*

Manually perform a fuel transfer from the center, outer and trim tanks.

- **If fuel imbalance:**

- **If no engine feedline broken:**

Open wing crossfeed valve.

- **If engine feedline not broken on the opposite side and if dual main pumps operative in the opposite tank:**

Turn off affected side pumps.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FUEL

FUEL - L (R) WING TK LO LVL

Ident.: **ABN-28-00005394.0004001** / 16 APR 10

EASA APPROVED

Criteria: ((330-200 or 330-200F) and 56729)

Impacted by TDU: 00011168 FUEL - L (R) WING TK LO LVL

CAUTION Do not apply this procedure if a leak is suspected. Refer to ABN-28 FUEL LEAK.

Manually perform a fuel transfer from the center, outer and trim tanks.

● If fuel imbalance:

● If engine feedline not broken:

Open wing crossfeed valve.

Turn off affected side pumps.

FUEL - L+R WING TK LO LVL

Ident.: **ABN-28-00005395.0004001** / 16 APR 10

EASA APPROVED

Criteria: ((330-200 or 330-200F) and 56729)

LAND ASAP

Manually perform a fuel transfer from the center, outer and trim tanks.

● If engine feedline not broken:

Turn on all wing pumps.

Open wing crossfeed valve.

● If one engine feedline broken:

Turn on opposite side pumps.

FUEL - FCMC 1+2 FAULTIdent.: **ABN-28-00005396.0002001 / 16 APR 10****EASA APPROVED**

Criteria: (330-200 or 330-200F)

Reset both FCMCs.

■ If successful:

Re-initialize weight and CG data.

■ If unsuccessful:

Determine Fuel on Board (FOB) from engine start fuel quantity minus Fuel Used (FU) quantity indication.

● If CG above 32 %:

Manually perform a forward fuel transfer from the trim tank.

Note: If trim tank pump is not available or not installed, do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.

● When FOB below 60 t (132 277 lb):

Manually perform a fuel transfer from the center and outer tanks.

● When below FL 250 in descent:

Manually perform a forward fuel transfer from the trim tanks.

Note: If trim tank pump is not available or not installed, do not perform manual forward fuel transfer while speed is at or below 270 kt.

FUEL - OUTR TO INR FAULTIdent.: **ABN-28-00005397.0002001 / 16 APR 10****EASA APPROVED**

Criteria: (330-200 or 330-200F)

● If any outer tank not empty:

Manually perform a fuel transfer from the outer tanks.

● If center tank not empty:

Turn off both center tank pumps.

● When both outer tanks empty:

Interrupt manual transfer.

● If center tank not empty:

Turn on both center tank pumps.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FUEL

FUEL - T TANK XFR FAULT

Ident.: ABN-28-00005398.0002001 / 16 APR 10

EASA APPROVED

Criteria: (330-200 or 330-200F)

Manually perform a forward fuel transfer from the trim tank.

Note: *If trim tank pump is not available or not installed, do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.*

● **If either aft transfer valve failed open:**

Monitor fuel imbalance.

● **If trim tank fuel quantity not decreasing:**

Interrupt manual transfer.

Note: *Trim tank fuel is unusable.*

● **If CG below 32 %:**

● **When trim tank fuel quantity below 2.4 t (5 291 lb):**

Interrupt manual transfer.

● **When center tank empty:**

Resume manual forward trim tank fuel transfer.

Note: *If trim tank pump is not available or not installed, do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.*

● **When trim tank empty:**

Interrupt manual transfer.

● **If trim tank fuel unusable:**

Apply trim tank fuel unusable procedure. *Refer to ABN-28 TRIM TANK FUEL UNUSABLE.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FUEL

FUEL - CTR TO INNER FAULT

Ident.: ABN-28-00008677.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-200 or 330-200F)

Turn off both center tank pumps.

- When either inner tank fuel quantity below 17 t (37 478 lb):

- If any outer inlet valve failed open:

Manually perform a fuel transfer from the outer tanks.

Manually perform a fuel transfer from the center tank.

Turn on both center tank pumps.

- When center tank empty:

Interrupt manual transfer.

FUEL - L+R CTR PUMPS LO PR

Ident.: ABN-28-00008682.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-200 or 330-200F)

Turn off both center tank pumps.

- When either inner tank fuel quantity below 17 t (37 478 lb):

Manually perform a fuel transfer from the center tank.

Note: 1. Manual center tank fuel transfer is done by gravity.
2. Unusable center tank fuel quantity is 15 t (33 069 lb).

TRIM TANK FUEL UNUSABLE

Ident.: ABN-28-00005135.0002001 / 16 APR 10

EASA APPROVED

Criteria: (330-200 or 330-200F)

Manually perform a forward fuel transfer from the trim tank.

- If trim tank fuel still unusable:

Manually perform a fuel transfer from the outer and center tanks.

- For landing:

- If CG above certified limit - 2 %:

Approach speed = VLS + 10 kt.

Landing distance: multiply by 1.25

FUEL LEAK

Ident.: ABN-28-00005134.0002001 / 26 NOV 09

EASA APPROVED

Criteria: 330-200

A fuel leak may be detected if:

- The sum of the FOB and the FU is significantly less than the FOB at engine start, or decreases, or
- A passenger observes fuel spray from engine/pylon or wing tip, or
- The total fuel quantity decreases at an abnormal rate, or
- A fuel imbalance develops, or
- The fuel quantity of a tank decreases too fast (leak from engine/pylon or a hole in a tank), or
- A tank overflows (due to a pipe rupture in a tank), or
- Fuel flow is excessive (leak from engine), or
- Fuel is smelt in the cabin.

If visibility permits, a visual check from the cabin may enable identification of the leak source.

● When a leak is confirmed:**LAND ASAP****■ If leak from engine/pylon confirmed:**

Shut down affected engine.

Note: *If the leak stops, the wing crossfeed valve can now be selected open to re-balance the fuel quantity or to enable use of fuel from both wings. Do not restart the engine.*

■ If leak from engine/pylon not confirmed or leak not located:

Keep wing crossfeed valve closed.

CAUTION

Do not open the wing crossfeed valve, even if requested by another ECAM procedure.

Turn off center tank pumps.

Set trim tank feed to ISOL.

Monitor inner tank fuel quantities and look for one tank depleting faster.

■ If one inner tank depletes faster than the other by at least 500 kg (1 102 lb) in less than 30 min:

Shut down affected engine and monitor the fuel leak.

■ If the leak stops:

Turn on center tank pumps.

Continued on the following page

Continued from the previous page FUEL LEAK

Set trim tank feed to AUTO.

Note: *The wing crossfeed valve can now be selected open to re-balance the fuel quantity, or to enable use of fuel from both wings. Do not restart the engine.*

■ **If the leak continues after engine shutdown:**

Suspect leak from wing.

Consider restarting the engine and applying the fuel loss reduction procedure.
Refer to ABN-28 FUEL LOSS REDUCTION PROCEDURE.

Note: *The wing crossfeed valve can be selected open.*

■ **If both inner tanks deplete at a similar rate:**

Turn on center tank pumps.

Note: *The wing crossfeed valve can be selected open.*

■ **If fuel smell in the cabin:**

Shut down APU if running.

Keep trim tank feed at ISOL.

■ **If no fuel smell in the cabin:**

Consider applying the fuel loss reduction procedure. *Refer to ABN-28 FUEL LOSS REDUCTION PROCEDURE.*

● **For landing:**

CAUTION

Do not use reverse



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FUEL

FUEL LOSS REDUCTION PROCEDURE

Ident.: ABN-28-00005136.0002001 / 16 APR 10

EASA APPROVED

Criteria: (330-200 or 330-200F)

● **When required by the fuel leak procedure and if trim tank not empty:**

Turn on center tank pumps.

Set center to inner tanks fuel transfer to MAN.

● **If trim tank not empty:**

Set trim tank feed to AUTO.

Set trim tank mode to FWD.

● **When the trim tank is empty:**

Set trim tank mode back to AUTO.

Set trim tank feed back to ISOL.

● **When the center tank is empty:**

Set center to inner tanks fuel transfer back to AUTO.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

FUEL

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

HYDRAULIC

HYD - G SYS LEAK

Ident.: ABN-29-00005690.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Monitor leak rate.

● **If level decreases:**

Turn off green hydraulic and electric pumps.

HYD - RSVR LO AIR PR

Ident.: ABN-29-00005729.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● **If pressure fluctuates:**

Turn off associated hydraulic and electric pumps.

● **If green hydraulic system affected:**

Apply green hydraulic system low pressure procedure. *Refer to ABN-29 HYD - G SYS LO PR.*

● **If blue hydraulic system affected:**

Apply blue hydraulic system low pressure procedure. *Refer to ABN-29 HYD - B SYS LO PR.*

● **If yellow hydraulic system affected:**

Apply yellow hydraulic system low pressure procedure. *Refer to ABN-29 HYD - Y SYS LO PR.*

Note: *System may be recovered at low altitude.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

HYDRAULIC

HYD - RSVR OVHT

Ident.: ABN-29-00005730.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Turn off associated hydraulic and electric pumps.

- **If green hydraulic system affected:**

Apply green hydraulic system low pressure procedure. *Refer to ABN-29 HYD - G SYS LO PR.*

- **If blue hydraulic system affected:**

Apply blue hydraulic system low pressure procedure. *Refer to ABN-29 HYD - B SYS LO PR.*

- **If yellow hydraulic system affected:**

Apply yellow hydraulic system low pressure procedure. *Refer to ABN-29 HYD - Y SYS LO PR.*

Note: *System may be recovered if OVHT indication has disappeared.*

HYD - RSVR LO LVL

Ident.: ABN-29-00005731.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Turn off associated hydraulic and electric pumps.

- **If green hydraulic system affected:**

Apply green hydraulic system low pressure procedure. *Refer to ABN-29 HYD - G SYS LO PR.*

- **If blue hydraulic system affected:**

Apply blue hydraulic system low pressure procedure. *Refer to ABN-29 HYD - B SYS LO PR.*

- **If yellow hydraulic system affected:**

Apply yellow hydraulic system low pressure procedure. *Refer to ABN-29 HYD - Y SYS LO PR.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

HYDRAULIC

HYD - G SYS LO PR

Ident.: ABN-29-00005130.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● For approach and landing:

Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION.

Landing distance: multiply by 1.25.

- Note:
1. Slats and flaps extend slowly.
 2. Spoilers are partially inoperative.

HYD - B SYS LO PR

Ident.: ABN-29-00005118.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● If green system supplied by RAT:

LAND ASAP

Turn off antiskid. Refer to ABN-32 BRAKES - ANTI SKID FAULT or A/SKID N/W OFF.

Landing distance: multiply by 1.2.

- Note:
1. Slats extend slowly.
 2. Spoilers are partially inoperative.

HYD - Y SYS LO PR

Ident.: ABN-29-00005119.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● If green system supplied by RAT:

LAND ASAP

Landing distance: multiply by 1.15.

- Note:
1. Flaps extend slowly.
 2. Spoilers are partially inoperative.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

HYDRAULIC

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A330
AIRPLANE FLIGHT MANUAL

**ABNORMAL PROCEDURES
ICE AND RAIN PROTECTION**

A.ICE - L INR (R INR) (L OUTR) (R OUTR) WING LO PR

Ident.: **ABN-30-00005406.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Increase engine thrust.

Note: *If unsuccessful, wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.*

A.ICE - WING VLVE NOT OPEN

Ident.: **ABN-30-00005407.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Note: *Wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.*

A.ICE - ENG VALVE CLOSED

Ident.: **ABN-30-00005408.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Avoid icing conditions.

A.ICE - WAI SYS FAULT OR OFF

Ident.: ABN-30-00005120.0002001 / 02 JUL 10

EASA APPROVED

Criteria: (A330 and 58751)

Turn off wing anti-ice.

Avoid icing conditions.

● If severe ice accretion:**■ If flaps at 0:**

Recommended speed: Green Dot.

Minimum speed: VLS + 15 kt .

■ If flaps above 0:

Minimum speed: VLS + 10 kt .

● For landing:

Landing distance: multiply by 1.25.

Maneuver with care.

Note: *In case of severe ice accretion, with anti-ice failed, the AOA protections are still efficient. However, if full back stick is maintained several seconds, while at max AOA, a divergent roll oscillation may appear. Releasing slightly the stick will stop this oscillation.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

ICE AND RAIN PROTECTION

A.ICE - L (R) (L INR) (R INR) (L OUTR) (R OUTR) WING OPEN

Ident.: **TDU / ABN-30-00012968.0001001** / 27 JAN 11

EASA APPROVED

Criteria: (A330 and 200590)

Impacted DU: 00005409 A.ICE - L INR (R INR) (L OUTR) (R OUTR) WING OPEN

Impacted by TR147 Issue 1.0

Turn off wing anti-ice.

Close crossbleed valve.

● **On ground:**

Turn off affected side engine bleed.

● **If left wing affected :**

Turn off APU bleed.

● **In flight:**

Turn on affected side engine bleed (if not already done).

Set crossbleed to AUTO or OPEN, depending on bleed state.

Set wing anti-ice as required.

A.ICE - L INR (R INR) (L OUTR) (R OUTR) WING OPEN

Ident.: **ABN-30-00005409.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Impacted by TDU: 00012968 A.ICE - L (R) (L INR) (R INR) (L OUTR) (R OUTR) WING OPEN

Turn off wing anti-ice.

Close crossbleed valve.

■ **On ground:**

Turn off affected side engine bleed.

● **If left wing affected :**

Turn off APU bleed.

■ **In flight:**

Turn on affected side engine bleed.

Set crossbleed to AUTO or OPEN, depending on bleed state.

Set wing anti-ice as required.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES ICE AND RAIN PROTECTION

A.ICE - CAPT (F/O) (STBY) PITOT (AOA) (L STAT) (R STAT) HEAT FAULT

Ident.: ABN-30-00005410.0003001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (51790 or 54786))

Use AIR DATA switching as appropriate.

- If pitot heat fault and non-related ADRs faulty or off:

- If icing conditions expected:

Apply unreliable airspeed procedure. *Refer to ABN-34 UNRELIABLE AIRSPEED INDICATION.*

A.ICE - CAPT (F/O) (STBY) PROBES HEAT FAULT

Ident.: ABN-30-00005411.0003001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (51790 or 54786))

Turn on probe and window heat.

- If unsuccessful:

Use AIR DATA switching as appropriate.

- If non-related ADR faulty or off:

- If icing conditions expected:

Apply unreliable airspeed procedure. *Refer to ABN-34 UNRELIABLE AIRSPEED INDICATION.*

DOUBLE AOA (STAT) (PITOT) HEAT FAULT

Ident.: ABN-30-00005413.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- If icing conditions cannot be avoided:

Turn off one of affected ADRs.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
ICE AND RAIN PROTECTION

A.ICE - CAPT + F/O (CAPT + STBY) (F/O + STBY) PITOT HEAT FAULT

Ident.: ABN-30-00008717.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (51790 or 54786))

● If all probes (STAT, AOA and PITOT) of one related channel affected:

Turn on probe and window heat.

● If unsuccessful:

■ If non-related ADR on and operative:

Turn off one of affected ADRs.

■ If non-related ADR faulty or off:

● If icing conditions expected:

Turn off one of affected ADRs.

Apply unreliable airspeed procedure. *Refer to ABN-34 UNRELIABLE AIRSPEED INDICATION.*

A.ICE - ALL PITOT HEAT FAULT

Ident.: ABN-30-00008718.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (51790 or 54786))

● If all probes (STAT, AOA and PITOT) of one related channel affected:

Turn on probe and window heat.

● If unsuccessful:

Turn off one of appropriate affected ADRs.

● If icing conditions expected:

Turn off another one of appropriate affected ADRs.

Apply unreliable airspeed procedure. *Refer to ABN-34 UNRELIABLE AIRSPEED INDICATION.*



A330
AIRPLANE FLIGHT MANUAL

**ABNORMAL PROCEDURES
ICE AND RAIN PROTECTION**

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A330
AIRPLANE FLIGHT MANUAL

**ABNORMAL PROCEDURES
INDICATING / RECORDING SYSTEM**

DISPLAY UNIT FAILURE

Ident.: ABN-31-00005415.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (47524 or 50616))

● Affected DU blank or display distorted:

Turn off affected DU as required.

● If ECAM DUs affected:

Use ECAM/ND SEL.

● If EFIS DUs affected:

Use PFD/ND XFR.

● "INVALID DISPLAY UNIT" message displayed:

Wait more than 40 s for automatic DU recovery.

● If unsuccessful:

Turn off non-recovered DU as required.

● "INVALID DATA" message on affected DU (not on all DUs):

Attempt to recover affected DU by using associated DMC switching.

● If unsuccessful:

Turn off then on affected DU.

● "INVALID DATA" message on all DUs:

Wait more than 40 s for automatic DUs recovery.

● If one or more DUs not recovered:

Turn off non-recovered DUs for 40 s.

Turn on non-recovered DUs in sequence.

● If "INVALID DATA" message reappears on all DUs when turning a given DU on:

Re-apply the procedure.

Leave this specific DU permanently off.

● Inversion of EWD and SD displays:

Turn off then on ECAM upper display.



A330
AIRPLANE FLIGHT MANUAL

**ABNORMAL PROCEDURES
INDICATING / RECORDING SYSTEM**

FWS - SDAC 1+2 FAULT

Ident.: ABN-31-00005416.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Monitor overhead panel.

Note: Only ECAM ENG, FUEL, F/CTL, WHEEL, PRESS, C/B pages are available.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
LANDING GEAR

L/G GRAVITY EXTENSION

Ident.: **ABN-32-00005129.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum speed: VLO/MLO.

Refer to LIM-SPD VLO/MLO and VLE/MLE.

Set the landing gear gravity extension switch to DOWN and pull down landing gear lever.

Confirm landing gear locked down.

Note: *Nosewheel steering is inoperative.*

BRAKES - ANTI SKID FAULT OR A/SKID N/WS OFF

Ident.: **ABN-32-00005131.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Apply maximum brake pressure 1 000 PSI.

Note: *Nosewheel steering is inoperative.*

Landing distance: multiply by 1.65.

BRAKES - BRAKES HOT

Ident.: **ABN-32-00005376.0002001** / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 49632)

■ On ground:

Turn on brake fans (if installed).

Note: *For parking, prefer chocks.*

Delay takeoff for cooling.

■ In flight after takeoff:

If performance permits, keep landing gear down for cooling.

Maximum speed: VLE/MLE.

Refer to LIM-SPD VLO/MLO and VLE/MLE.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

LANDING GEAR

AUTOBRAKE

Ident.: ABN-32-00005378.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

In the case of malfunction, take over brake control with brake pedals. If green DECEL light (corresponding to the selected mode) fails to illuminate, disarm autobraking and proceed as circumstances dictate.

BRAKES - RELEASED

Ident.: ABN-32-00005379.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Landing distance: multiply by 1.25.

L/G - LGCIU FAULT

Ident.: ABN-32-00005380.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● If LGCIU 1 affected:

Turn off GPWS.

L/G - LGCIU 1 + 2 FAULT

Ident.: ABN-32-00005381.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Turn off GPWS.

Try normal landing gear extension.

● If unsuccessful:

Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
LANDING GEAR

L/G - DOORS NOT CLOSED

Ident.: ABN-32-00005382.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum speed: VLO/MLO.

Refer to *LIM-SPD VLO/MLO and VLE/MLE*.

● When speed below VLO/MLO:

Recycle landing gear.

BRAKES - RESIDUAL BRAKING

Ident.: ABN-32-00008647.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (51790 or 54786))

Keep antiskid on.

Press brake pedals several times.

● If residual braking remains:

Select appropriate autobrake mode for landing.

● If autobrake not available:

Apply pedal braking just after touchdown.

L/G - GEAR NOT UPLOCKED

Ident.: ABN-32-00005384.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

■ If landing gear doors not closed:

Maximum speed: VLO/MLO.

Refer to *LIM-SPD VLO/MLO and VLE/MLE*.

● When speed below VLO/MLO:

Recycle landing gear.

● If unsuccessful:

Pull down landing gear lever.

■ If landing gear doors closed and landing gear not downlocked:

Avoid excessive g load factor.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

LANDING GEAR

L/G - RETRACTION FAULT

Ident.: ABN-32-00005385.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum speed: VLO/MLO.

Refer to LIM-SPD VLO/MLO and VLE/MLE.

- When speed below VLO/MLO:

Recycle landing gear.

- If unsuccessful:

Keep landing gear down.

L/G - GEAR UPLOCK FAULT

Ident.: ABN-32-00005386.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum speed: VLO/MLO.

Refer to LIM-SPD VLO/MLO and VLE/MLE.

Keep landing gear down.

L/G - L(R) LENGTHENING FAULT

Ident.: ABN-32-00005387.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum speed: VLO/MLO.

Refer to LIM-SPD VLO/MLO and VLE/MLE.

Keep landing gear down.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES NAVIGATION

ERRONEOUS RA HEIGHT INDICATION

Ident.: **TDU / ABN-34-00009834.0001001 / 02 JUN 10**

EASA APPROVED

Criteria: A330

Impacted DU: NONE

Impacted by TR37 Issue 1.0

Monitor and crosscheck all primary flight parameters and the FMA during all phases of flight.

During ILS approaches with autopilot engaged, and in the event of an unexpected early "THR IDLE" and "FLARE" engagement:

- Immediately perform an automatic go-around applying TOGA thrust, or
- Immediately disconnect the autopilot, then:
 - Continue the landing using raw data or visual references (FDs set to OFF), or
 - Perform a manual go-around applying TOGA thrust.

CAUTION | Significant longitudinal sidestick input may be required.

Note: *In case of go-around (automatic or manual), when climb gradient is established, reduce thrust without delay (thrust levers set to CLB detent).*

NAV - RA 1+2 FAULT

Ident.: **TDU / ABN-34-00014685.0001001 / 18 FEB 13**

EASA APPROVED

Criteria: (A330 and (58449 and 58751))

Impacted DU: NONE

Impacted by TR300 Issue 1.0

Turn off GPWS.

● **When landing gear down and autopilot off:**

Use manual pitch trim.

Note: *Flight controls are in flare law.*

NAV - IR 1 (2) (3) FAULT

Ident.: ABN-34-00005400.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Use ATT HDG switching as appropriate.

■ If affected IR available in ATT mode:

Set affected IR mode to ATT.

■ If affected IR not available in ATT mode:

Turn off affected IR.

NAV - IR 1+2 (2+3) (1+3) FAULT

Ident.: ABN-34-00005401.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Note: *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST) .*

Use ATT HDG switching as appropriate.

■ If an affected IR available in ATT mode:

Set affected IR mode to ATT.

■ If an affected IR not available in ATT mode:

Turn off affected IR.

Do not use speed brakes.

● If CG above 32 %:

Manually perform a forward fuel transfer from the trim tank.

Note: *If trim tank pump is not available, do not perform manual forward fuel transfer while speed is at or below 270 kt or while in climb.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
NAVIGATION

NAV - IR DISAGREE

Ident.: **ABN-34-00008668.0001001** / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (49193 or 55982))

Note: *Flight controls are in direct law.*

Use standby horizon to determine faulty IR.

■ If disagree confirmed:

Turn off faulty IR.

Turn off then on PRIM 3.

Turn off then on PRIM 2.

Turn off then on PRIM 1.

Note: *Flight controls revert to alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).*

■ If disagree not confirmed:

Flight controls remain in direct law. *Refer to ABN-27 F/CTL - DIRECT LAW (PROT LOST).*

NAV - ADR 1 (2) (3) FAULT

Ident.: **ABN-34-00005402.0002001** / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (51790 or 54786))

Use AIR DATA switching as appropriate.

Turn off affected ADR.

NAV - ADR 1+2 FAULT

Ident.: **ABN-34-00005403.0002001** / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (51790 or 54786))

Note: *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).*

Set AIR DATA switching to CAPT ON 3.

Turn off ADR 1 and ADR 2.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
NAVIGATION

NAV - ADR 1+3 (2+3) FAULT

Ident.: **ABN-34-00005404.0002001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and (51790 or 54786))

Note: Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST) .

Set AIR DATA switching to NORM.

Turn off affected ADRs.

Use ATC SYS as appropriate.

NAV - ADR DISAGREE

Ident.: **ABN-34-00008712.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and (49193 or 54786))

Note: Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST) .

Use both PFDs and standby airspeed indicator to determine the faulty ADR.

Turn off faulty ADR.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
NAVIGATION

UNRELIABLE AIRSPEED INDICATION

Ident.: **TDU / ABN-34-00009856.0001001 / 02 JUN 10**

EASA APPROVED

Criteria: (A330 and 53368)

Impacted DU: 00005138 UNRELIABLE AIRSPEED INDICATION

Impacted by TR39 Issue 1.0

Note: *Unreliable airspeed indication may be caused by a radome destruction or obstructed pitots.*

■ Below FL 250:

● If the safe conduct of the flight is impacted:

Disconnect autopilot.

Turn off flight directors.

Disconnect autothrust.

■ If below thrust reduction altitude:

Apply TOGA thrust.

Set pitch attitude to 15 °.

■ If above thrust reduction altitude:

Apply CLB thrust.

■ When below FL 100:

Set pitch attitude to 10 °.

■ When above FL 100:

Set pitch attitude to 5 °.

Maintain the slats/flaps in their current configuration.

Check that speed brakes are retracted.

● When airborne:

Retract landing gear.

Note: 1. Respect stall warning.

2. The GPS altitude appears on the MCDU GPS monitor page.

Turn on probe and window heat.

● If faulty ADR(s) cannot be identified or all ADRs provide erroneous data:

Turn off all ADRs.

Apply ADR 1+2+3 FAULT procedure. Refer to EMER-34 NAV - ADR 1+2+3 FAULT.

Continued on the following page

*Continued from the previous page UNRELIABLE AIRSPEED INDICATION***■ Above FL 250:**

Note: *If the failure is due to radome destruction, the drag will be increased and therefore N1 must be increased by 3 % in cruise.*

● If the safe conduct of the flight is impacted:

- Disconnect autopilot.
- Turn off flight directors.
- Disconnect autothrust.
- Apply CLB thrust.
- Set pitch attitude to 5 °.
- Check that speed brakes are retracted.

Note: *1. Respect stall warning.
2. The GPS altitude appears on the MCDU GPS monitor page.*

● When flight path is stabilized:

- Turn on probe and window heat.

● If faulty ADR(s) cannot be identified or all ADRs provide erroneous data:

- Keep one ADR on.

Adjust pitch attitude and thrust regarding flight phase and aircraft configuration to obtain and maintain target.

● When below FL 250 and speed is still unreliable:

- Turn off all ADRs.
- Apply ADR 1+2+3 FAULT procedure. *Refer to EMER-34 NAV - ADR 1+2+3 FAULT.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
NAVIGATION

UNRELIABLE AIRSPEED INDICATION

Ident.: ABN-34-00005138.0002001 / 02 JUL 10

EASA APPROVED

Criteria: (A330 and 53368)

Impacted by TDU: 00009856 UNRELIABLE AIRSPEED INDICATION

Note: *Unreliable airspeed indication may be caused by a radome destruction or obstructed pitots.*

● **If the safe conduct of the flight is impacted:**

Disconnect autopilot.

Turn off flight directors.

Disconnect autothrust.

■ **If below thrust reduction altitude:**

Apply TOGA thrust.

Set pitch attitude to 15 °.

■ **If above thrust reduction altitude:**

Apply CLB thrust.

■ **When below FL 100:**

Set pitch attitude to 10 °.

■ **When above FL 100:**

Set pitch attitude to 5 °.

Maintain flaps/slats in current configuration.

Check that speed brakes are retracted.

● **When airborne:**

Retract landing gear.

Note: 1. *Respect stall warning.*

2. *GPS altitude is displayed on MCDU GPS Monitor page.*

Turn on probe and window heat.

● **If faulty ADR(s) cannot be identified or all ADRs provide erroneous data:**

Turn off all ADRs.

Apply ADR 1+2+3 fault procedure. *Refer to EMER-34 NAV - ADR 1+2+3 FAULT.*



A330
AIRPLANE FLIGHT MANUAL

**ABNORMAL PROCEDURES
NAVIGATION**

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES
PNEUMATIC

AIR - ENG BLEED FAULT

Ident.: ABN-36-00005117.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Turn off affected side engine bleed (if not automatically done).

Open crossbleed valve.

■ If wing anti-ice off:

Set pack flow to low.

Set forward cargo cooling to OFF (if installed).

■ If wing anti-ice on or engine failure:

Turn off affected side pack.

AIR - X BLEED FAULT

Ident.: ABN-36-00005695.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Use crossbleed valve manual control.

Note: *If crossbleed valve failed closed and one bleed inoperative, wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.*

AIR - BLEED LO TEMP

Ident.: ABN-36-00005696.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Increase affected engine thrust.

● If unsuccessful:

● If one bleed low temperature:

Turn off affected side engine bleed. *Refer to ABN-36 AIR - ENG BLEED FAULT.*

Note: *If both bleeds low temperature, wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

PNEUMATIC

AIR - L (R) WING LEAK

Ident.: ABN-36-00005697.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Turn off affected side engine bleed (if not automatically done).

● **If left wing leak:**

Turn off APU bleed (if not automatically done).

Close crossbleed valve (if not automatically done).

Note: Wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.

AIR - ENG BLEED LEAK

Ident.: ABN-36-00005698.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Turn off affected side engine bleed (if not automatically done).

● **If engine 1 pylon leak:**

Turn off APU bleed (if not automatically done).

Close crossbleed valve (if not automatically done).

Note: Wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.

AIR - APU BLEED LEAK

Ident.: ABN-36-00005699.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (51790 or 54786))

■ **If APU leak fed by APU:**

Turn off APU bleed (if not automatically done).

■ **If APU leak fed by engine:**

Turn off engine 1 bleed (if not automatically done).

Close crossbleed valve (if not automatically done).

Note: Wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

DOORS

DOOR - FWD CABIN

Ident.: ABN-52-00010453.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

- If cabin vertical speed is abnormal:

Maximum flight level is the higher one of: FL 100 or MEA.

DOOR - AVIONIC OR BULK CARGO

Ident.: ABN-52-00010449.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

- If cabin vertical speed is abnormal:

Maximum flight level is the higher one of: FL 100 or MEA.

DOOR - CABIN (MID OR AFT)

Ident.: ABN-52-00010884.0001001 / 28 FEB 11

EASA APPROVED

Criteria: (330-200 or 330-300)

- If cabin vertical speed is abnormal:

Maximum flight level is the higher one of: FL 100 or MEA.

DOOR - EMER EXIT

Ident.: ABN-52-00013081.0001001 / 28 FEB 11

EASA APPROVED

Criteria: (330-200 or 330-300)

- If cabin vertical speed is abnormal:

Maximum flight level is the higher one of: FL 100 or MEA.

DOOR - CARGO (AFT OR FWD)

Ident.: ABN-52-00013082.0001001 / 28 FEB 11

EASA APPROVED

Criteria: (330-200 or 330-300)

- If cabin vertical speed is abnormal:

Maximum flight level is the higher one of: FL 100 or MEA.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

DOORS

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ENG - FAILIdent.: **ABN-70-00005265.0006001 / 26 NOV 09****EASA APPROVED**

Criteria: (((330-243 or 330-341 or 330-342 or 330-343) and 49632) or ((330-243 or 330-243F or 330-341 or 330-342 or 330-343) and 56729))

■ If shaft failure:

Shut down affected engine.

Push relevant FIRE pushbutton and discharge AGENT 1 after 10 s.

Turn on both inner tank splits.

Check FQI to detect a possible leak.

● If no evidence of a leak:

Turn off both inner tank splits.

■ If other failure:

Attempt an immediate engine relight setting ENG START selector to IGN START and affected engine thrust lever to idle.

● If no engine relight after 30 s:

Shut down affected engine.

■ If engine damage:

Push relevant FIRE pushbutton and discharge AGENT 1 after 10 s.

Turn on both inner tank splits.

Check FQI to detect a possible leak.

● If no evidence of a leak:

Turn off both inner tank splits.

■ If no engine damage:

Consider engine relight. *Refer to ABN-70 ENG RELIGHT IN FLIGHT.*

ENG - SHUTDOWN

Ident.: ABN-70-00005267.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 56729)

LAND ASAP

Set ENG START selector to IGN START.

● If engine feedline not broken:

Monitor fuel imbalance.

● If no fuel leak:

Turn off both inner tank splits.

Apply engine bleed fault procedure. *Refer to ABN-36 AIR - ENG BLEED FAULT.*

● If engine 1 affected:

Apply blue hydraulic system low pressure procedure. *Refer to ABN-29 HYD - B SYS LO PR.*

● If engine 2 affected:

Apply yellow hydraulic system low pressure procedure. *Refer to ABN-29 HYD - Y SYS LO PR.*

● If engine 1(2) feedline broken and L(R) tank fuel required:

Manually perform a fuel transfer from the outer tanks.

● During straight flight legs:

Fly with a bank angle of 3 ° wing down on the engine operative/lighter side.

Maintain heading by using the rudder.

Use rudder trim as necessary.

● When fuel transferred:

Interrupt manual transfer.

Return to normal wing level attitude.

Use rudder trim normally.

Use FLAPS 3 for landing.

Landing distance: multiply by 1.25



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

POWER PLANT

ENG - REV UNLOCKED

Ident.: **ABN-70-00005368.0002001** / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 49632)

Set affected engine thrust lever to idle.

Maximum speed: 300 kt/M 0.82

Use FLAPS 3 for landing.

■ **If buffet:**

Reduce speed to 250 kt/M 0.70 and shut down affected engine.

Use FLAPS 2 for landing.

Turn off GPWS flap mode.

Approach speed = VLS + 15 kt

Landing distance: multiply by 1.5

■ **If no buffet:**

Use FLAPS 3 for landing.

ENG - REV PRESSURIZED

Ident.: **ABN-70-00005359.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Set affected engine thrust lever to idle.

ENG - FADEC FAULT

Ident.: **ABN-70-00005360.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Confirm engine status using other ECAM system pages (ELEC, HYD, BLEED).

● **If abnormal engine operation:**

Shut down affected engine.

ENG - FADEC OVHTIdent.: **ABN-70-00005361.0001001 / 26 NOV 09****EASA APPROVED**

Criteria: A330

Confirm engine status using other ECAM system pages (ELEC, HYD, BLEED).

● If abnormal engine operation:

Shut down affected engine.

ENG - EPR MODE FAULTIdent.: **ABN-70-00008553.0001001 / 16 APR 10****EASA APPROVED**

Criteria: (330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343)

Turn on both engines N1 mode.

● If unrated N1 mode active:

Align the affected engine N1 on the N1 engine in rated mode.

● If ECAM caution recalled (EPR mode recoverable):

Turn off both engines N1 mode.

ENG - OIL HI TEMPIdent.: **ABN-70-00005362.0002001 / 16 APR 10****EASA APPROVED**

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

● If oil temperature above limit:

Move affected engine thrust lever to reduce oil temperature below limit.

● If overlimit persists after throttle back to idle position:

Shut down affected engine.

ENG - EGT OVERLIMITIdent.: **ABN-70-00005363.0001001 / 16 APR 10****EASA APPROVED**

Criteria: (330-201 or 330-202 or 330-203 or 330-243 or 330-243F or 330-301 or 330-302 or 330-303 or 330-341 or 330-342 or 330-343)

Move affected engine thrust lever to reduce EGT below limit.

● If overlimit persists for more than 5 s after throttle back to idle position:

Shut down affected engine.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

POWER PLANT

ENG - THR LEVER FAULT

Ident.: ABN-70-00005364.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

LAND ASAP

Engage autothrust (if not already engaged).

At slats or landing gear extension, the engine is automatically set to idle.

Use FLAPS 3 for landing.

ENG - THR LEVER DISAGREE

Ident.: ABN-70-00005365.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 49632)

LAND ASAP

Engage autothrust (if not already engaged).

At landing gear extension, the engine is automatically set to idle.

Use FLAPS 3 for landing.

ENG RELIGHT IN FLIGHT

Ident.: ABN-70-00005116.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum flight level: FL 300.

Set affected engine master lever to OFF.

Set affected engine thrust lever to idle.

Set ENG START selector to IGN START.

Open crossbleed valve if necessary.

Turn off wing anti-ice.

Set engine master lever to ON.

● **When idle reached:**

Set ENG START selector to NORM.

● **If no relight:**

Set affected engine master lever to OFF and wait 30 s before a new start.

ENG - XWIND PROT FAULT

Ident.: ABN-70-00008560.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

If the warning occurs on the ground (the automatic rolling takeoff logic is inoperative) then the takeoff thrust must be set slowly.

Note: The slow setting of the takeoff thrust may be achieved as follows:

- Release brakes.
- Apply 1.1 EPR on both engines.
- When thrust is stable, increase thrust progressively to get FLX/TOGA thrust at 60 kt ground speed to ensure symmetrical acceleration on both engines.

ENG - START VALVE FAULT (NOT CLOSED)

Ident.: ABN-70-00005369.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● If engine 1 start valve not closed and APU available:

Turn off APU bleed.

● If opposite engine running or APU available on opposite wing:

Close crossbleed valve.

Turn off affected side engine bleed.

● On ground:

Turn off affected engine manual start.

Set affected engine master lever to OFF.

Note: In flight, wing anti-ice is inoperative. Refer to ABN-30 A.ICE - WAI SYS FAULT or OFF.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

POWER PLANT

ENG - START VALVE FAULT (NOT OPEN)

Ident.: ABN-70-00005370.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- **If start valve stuck closed:**

Attempt a windmill relight.

- **If windmill relight not successful:**

Turn off affected engine manual start.

Set affected engine master lever to OFF.

- **If no starter air pressure:**

Open crossbleed valve.

Note: Do not open crossbleed valve if commanded closed because of a previous failure.

- **If no other engine bleed available:**

Turn on APU bleed.

Attempt a windmill relight.

- **If windmill relight not successful:**

Turn off affected engine manual start.

Set affected engine master lever to OFF.

ENG - THRUST LIMITED

Ident.: ABN-70-00013096.0001001 / 28 FEB 11

EASA APPROVED

Criteria: ((330-243 or 330-341 or 330-342 or 330-343) and 58751)

- **If warning persists after 10 min:**

Set affected engine thrust lever to idle.



A330
AIRPLANE FLIGHT MANUAL

**ABNORMAL PROCEDURES
POWER PLANT**

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A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

MISCELLANEOUS

TAIL STRIKE

Ident.: ABN-90-00009202.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

LAND ASAP

Maximum flight level: FL 100/MSA.

OVERWEIGHT LANDING

Ident.: ABN-90-00005383.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

If circumstances dictate, landing may be made at a weight corresponding to the maximum structural takeoff weight.

- If the **overweight landing procedure follows a failure requesting to land in FLAPS 3 or below:**

Use the requested FLAPS setting for landing.

- For go-around:

Select FLAPS 1.

- Otherwise :

- If approach climb performance requirement is met in CONF 3:

Use FLAPS FULL for landing and select FLAPS 3 in case of go-around.

- If approach climb performance requirement is not met in CONF 3:

Use FLAPS 3 for landing and select FLAPS 1 in case of go-around.

Note: 1. At this weight the maximum touchdown vertical speed should not exceed 360 ft/min.
2. Air conditioning should be turned off or supplied by APU.
3. Approach climb requirement must be checked.



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

MISCELLANEOUS

REJECTED TAKEOFF WITH ALL ENGINES OPERATIVE

Ident.: ABN-90-00005389.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Immediately reduce all thrust levers to idle.

Monitor autobrake operation.

Take over brake control with brake pedals if necessary.

- Note:
1. *If autobrake is not used, maximum brakes must be applied simultaneously with reduction of thrust levers.*
 2. *If the takeoff is rejected above 100 kt, it is recommended that maximum reverse thrust is selected.*
 3. *It is mandatory to use the maximum reverse thrust when the performance takes benefit of the reverse thrust effect.*



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

MISCELLANEOUS

BOMB ON BOARD

Ident.: ABN-90-00005596.0002001 / 28 FEB 11

EASA APPROVED

Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200) and (51802 or 51805 or 51806))

FLIGHT CREW PROCEDURES

Establish communication between cockpit and cabin.

■ If landing and evacuation possible within 30 min:

Notify ATC / Company.

Land and initiate evacuation.

■ If not possible:

Level off.

Manually control the cabin pressure in order not to increase the cabin altitude.

Notify ATC / Company.

Descend the aircraft in order to reach aircraft altitude equal to the higher one of: cabin altitude + 2 500 ft or MEA.

Avoid sharp maneuvers.

Maximum cabin differential pressure: 1 PSI.

● When aircraft altitude equal to cabin altitude + 2 500 ft or MEA:

Maintain cabin differential pressure at 1 PSI.

Turn off galley.

Turn off COMMERCIAL and PAX SYS (as installed).

Note: 1. Turn off COMMERCIAL only when bomb is secured at the LRBL or if bomb cannot be moved.

2. Turn on emergency exit light before turning off COMMERCIAL.

● If fuel permits:

Use at least FLAPS 1.

Extend landing gear.

● For approach and landing:

Set cabin altitude mode to AUTO.

Reduce the differential pressure to zero.

■ If evacuation required:

Initiate evacuation.

Turn off all batteries.

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

ABNORMAL PROCEDURES

MISCELLANEOUS

Continued from the previous page BOMB ON BOARD

■ **If evacuation not required:**

Notify cabin crew and passengers.

CABIN CREW PROCEDURES

● **If landing and evacuation not possible within 30 min:**

If the bomb can be moved, move it to the prepared Least Risk Bomb Location (centre of the right hand aft cabin door).

NORMAL PROCEDURES

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A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

PRELIMINARY PAGES

TABLE OF CONTENTS

NORM-GEN GENERAL

Introduction.....	A
-------------------	---

NORM-PFLT PREFLIGHT CHECKS

Batteries.....	A
ECAM Alerts.....	B
Cockpit Door.....	C

NORM-TO TAKEOFF

Takeoff Procedure.....	A
------------------------	---

NORM-FLT FLIGHT

Buffet Onset.....	A
Severe Turbulence.....	B

NORM-LDG APPROACH AND LANDING

Normal Landing.....	A
Balked Landing (All Engines Operating).....	B
Reverse Thrust.....	C
Autobrake.....	D

NORM-22 AUTO FLIGHT SYSTEM

NORM-22-CONF Demonstrated System Configuration

AP/FD, Speed Modes, Autothrust.....	A
Takeoff.....	B
Climb, Cruise, Descent.....	C
Climb, Cruise, Descent.....	D
Non Precision Approach.....	E
CAT I ILS Approach.....	F
CAT II ILS Approach.....	G
CAT II/III ILS Approach and Automatic Landing.....	H
Go-Around.....	I
Altitude Loss After Automatic Go-Around Initiation.....	J
Maximum Encountered Wind During Flight Tests (CAT II or Cat III).....	K

NORM-22-NPA Non Precision Approach

General.....	A
General.....	B
Instrument Approach Using NAV Mode.....	C
Instrument Approach Using NAV Mode.....	D

Continued on the following page

*Continued from the previous page***NORM-22-PA Precision Approach**

CAT II and CAT III Approach and/or Automatic Landing.....	A
Required Equipment for CAT II and CAT III Approach and Landing.....	B

NORM-23 COMMUNICATIONS

Communications.....	A
---------------------	---

NORM-28 FUEL

Fuel System.....	A
------------------	---

NORM-30 ICE AND RAIN PROTECTION

Operations in Icing Conditions.....	A
Ground Ice Shedding Procedure.....	B
Rain Repellent (If Activated).....	C

NORM-34 NAVIGATION

Ground Proximity Warning System (GPWS).....	A
Inertial Reference System (IRS).....	B
Integrated Standby Instrument System (ISIS).....	C
Windshear Warning and Guidance System.....	D
Traffic Alert and Collision Avoidance System (TCAS).....	E
Traffic Alert and Collision Avoidance System (TCAS).....	F
Reduced Vertical Separation Minimum (RVSM).....	G

NORM-49 AUXILIARY POWER UNIT

Auxiliary Power Unit (APU).....	A
---------------------------------	---



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

GENERAL

INTRODUCTION

Ident.: **NORM-GEN-00005798.0001001** / 28 FEB 11

EASA APPROVED

Criteria: A330

The procedures contained in this chapter have been established and are recommended by the aircraft manufacturer.

Only particular operations which are considered useful to highlight are presented. The procedures which are considered to be "basic airmanship" are therefore not covered.

When actions depend on a condition, a black dot (•) or a black square (■) identifies this condition. The black square is used when there is a choice between one or more conditions and only one is applicable.

These procedures are approved by the Airworthiness Authorities as acceptable procedures for a convenient use of the aircraft. This approval does not prevent the operator from developing equivalent procedures provided these procedures are approved by appropriate operational authorities.



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

GENERAL

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A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

PREFLIGHT CHECKS

BATTERIES

Ident.: NORM-PFLT-00005799.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

- If the batteries have been at rest for at least 6 h:

Check the batteries condition.

BATTERIES CONDITION CHECK:

While all batteries (1 + 2 + APU) are OFF, check batteries voltage is at least 25 V.

Perform a charging cycle of about 20 min, if batteries voltage is below 25 V.

ECAM ALERTS

Ident.: NORM-PFLT-00005800.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Before each flight, recall all ECAM warnings by depressing RECALL pushbutton for at least 3 s and check warnings are compatible with MMEL.

COCKPIT DOOR

Ident.: NORM-PFLT-00005801.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (330-200 or 330-300)

- If required by local Airworthiness Authorities:

Check that the cockpit door is closed and locked before each flight.



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

PREFLIGHT CHECKS

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TAKEOFF PROCEDUREIdent.: **NORM-TO-00005804.0004001 / 16 APR 10****EASA APPROVED**

Criteria: ((330-243 or 330-243F or 330-341 or 330-342 or 330-343) and 46874)

Set slats, flaps and horizontal stabilizer as required.

Perform flight controls checks using the pedals and each sidestick.

Arm ground spoilers and select maximum autobrake.

Set ENG START selector as required.

■ If crosswind at or below 20 kt and no tailwind:

Apply 1.1 EPR on both engines with brakes on.

Note: *Brakes may be released so as to perform a rolling takeoff.*

Then release brakes with stick half forward.

Apply thrust up to FLX/TOGA thrust whilst maintaining stick half forward up to 80 kt.

■ If crosswind above 20 kt or tailwind:

Release brakes with stick full forward.

Apply FLX/TOGA thrust whilst maintaining stick close to full forward up to 80 kt.

Then release stick progressively to reach neutral at 100 kt.

Note: *Once throttle is set to FLX MCT gate, any change to FLEX TEMP setting will not be taken into account by FADEC for EPR TARGET computation.*

Check takeoff EPR is set prior to reaching 80 kt.

● At VR:

Rotate the aircraft with a positive sidestick input to achieve a normal and continuous rotation rate to the pitch attitude necessary to maintain an airspeed at or above $V2 + 10 \text{ kt}$.

● Once airborne and with a positive rate of climb:

Retract landing gear.

SRS guidance can be followed when FD pitch order has stabilized.

Disarm ground spoilers.

● At safe height:

Perform acceleration and slats/flaps retraction.

Note: *If takeoff is performed with packs off, pack 1 should be selected ON after thrust reduction to CLB.*



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

TAKEOFF

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A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

FLIGHT

BUFFET ONSET

Ident.: NORM-FLT-00005806.0001001 / 02 JUL 10

EASA APPROVED

Criteria: A330

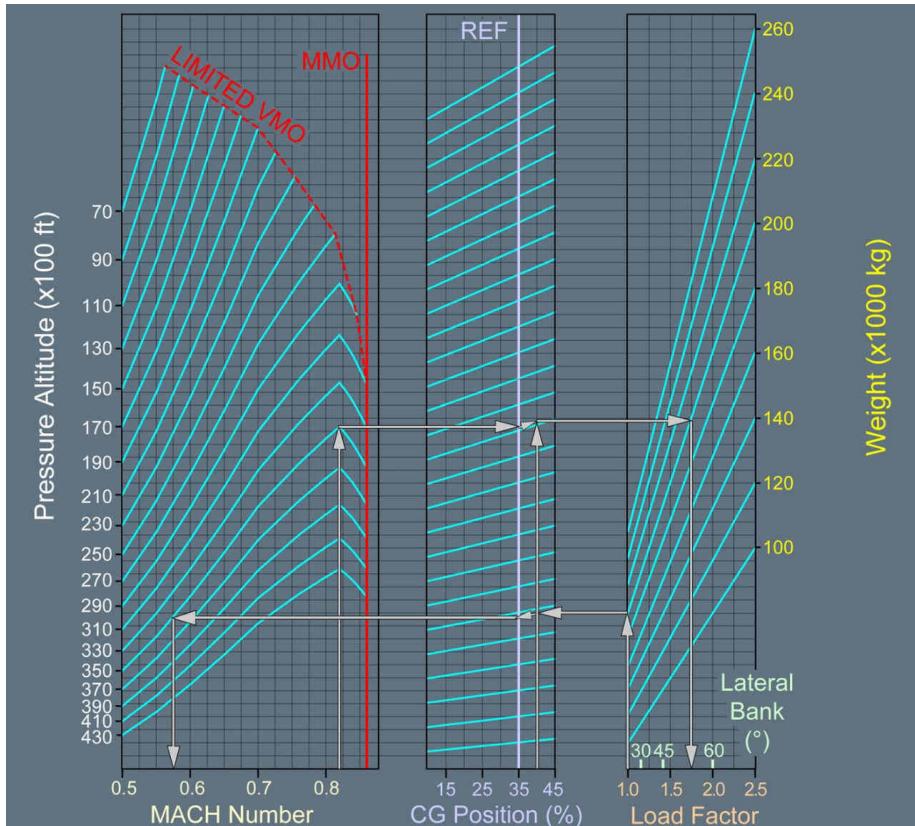
At any flight conditions it is possible to determine maneuvering margins before buffet onset occurs, by reference to the following graphs.

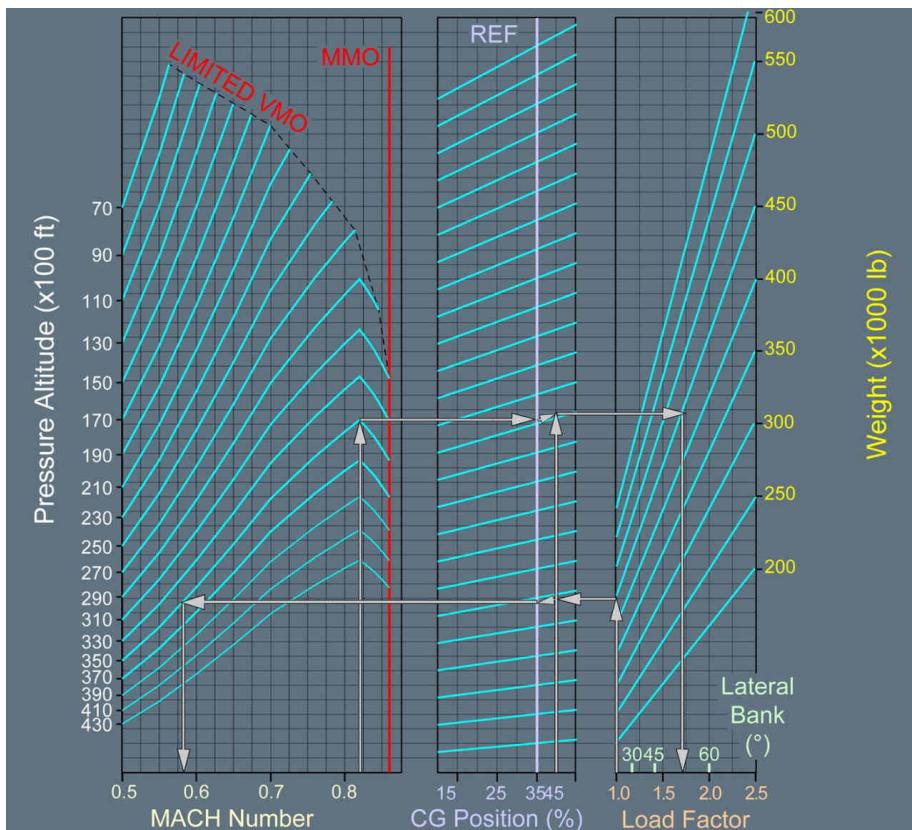
Example 1 (Weight in kg):

- Data:
 - $M = 0.82$
 - Flight Level = 350
 - CG = 40 %
 - Weight = 200 t
- Results: Buffet onset at
 - $M = 0.82$ at 1.75 g
 - Low Speed (1 g): $M = 0.58$

Example 2 (Weight in lb):

- Data:
 - $M = 0.82$
 - Flight Level = 350
 - CG = 40 %
 - Weight = 450 000 lb
- Results: Buffet onset at
 - $M = 0.82$ at 1.70 g
 - Low Speed (1 g): $M = 0.58$

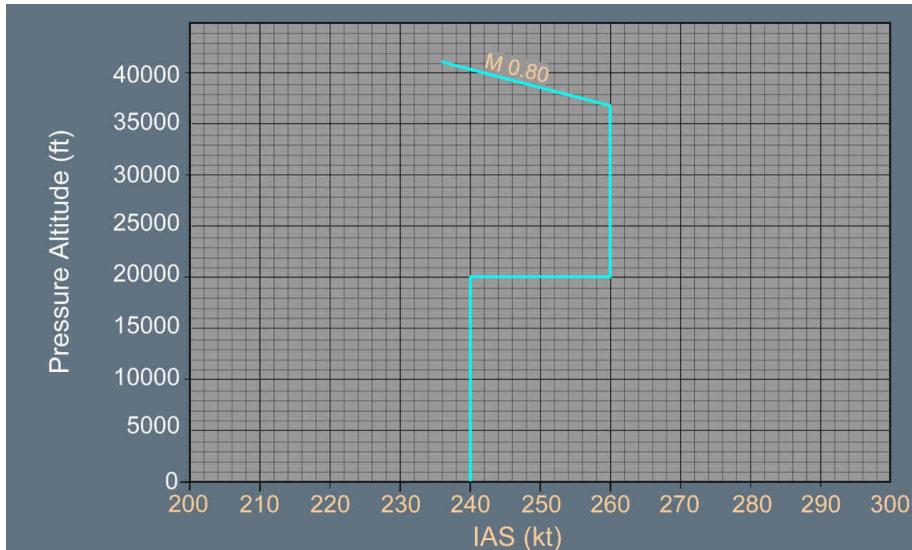
Buffet Onset (Weight in kg)

Buffet Onset (Weight in lb)**SEVERE TURBULENCE**

Ident.: **NORM-FLT-00005809.0002001 / 02 JUL 10**
Criteria: (330-200 or 330-200F)

EASA APPROVED

Turn on cabin signs.
Disconnect autothrust.
Respect the following maximum speed:

Maximum Speed in Severe Turbulence



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

APPROACH AND LANDING

NORMAL LANDING

Ident.: NORM-LDG-00005810.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

The minimum final approach speed is 1.23 VS1G of the landing configuration.

Set engine ignition as required.

Note: *The flare height should be increased for landing at high altitude airports particularly with high approach speeds or for approaches with increased glide slope or to uphill sloping runways.*

BALKED LANDING (ALL ENGINES OPERATING)

Ident.: NORM-LDG-00005811.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Apply go-around thrust.

Rotate to achieve a positive rate of climb and establish the required pitch attitude as directed by SRS pitch command bar.

Retract the flaps one step and maintain the final approach speed.

● When a positive rate of climb is established:

Retract landing gear.

REVERSE THRUST

Ident.: NORM-LDG-00005812.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Maximum reverse thrust may be applied down to 70 kt IAS.

AUTOBRAKE

Ident.: NORM-LDG-00005813.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Autobrake may be used provided the available landing distance is compatible with the performance of the associated selected automatic mode.

Its use does not relieve the pilot of the responsibility to achieve a safe stop within the available runway length, if necessary by taking over brake control with brake pedals.

Disengagement of automatic braking system may be done either by firm action on the brake pedals or by pressing the pushbutton of the armed mode.



A330
AIRPLANE FLIGHT MANUAL

**NORMAL PROCEDURES
APPROACH AND LANDING**

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A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUTO FLIGHT SYSTEM

DEMONSTRATED SYSTEM CONFIGURATION

AP/FD, SPEED MODES, AUTOTHRUST

Ident.: **NORM-22-CONF-00008431.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

All AP/FD modes may be used with or without autothrust, except if specified.

Autothrust may be used with or without AP/FD, in selected or managed speed/Mach.

TAKEOFF

Ident.: **NORM-22-CONF-00008432.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

Autopilot engagement is approved with use of SRS + (HDG, TRK, RWY, RWY TRK or NAV) modes at or above 100 ft AGL and at least 5 s after liftoff.

Use of FD is approved in the same modes after the rotation.

CLIMB, CRUISE, DESCENT

Ident.: **TDU / NORM-22-CONF-00014191.0001001 / 24 JAN 12**

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and 57425)

Impacted DU: 00008433 Climb, Cruise, Descent

Impacted by TR141 Issue 1.0

The use of AP or FD is approved in the following modes:

- Lateral modes: HDG, TRK, NAV.
- Vertical modes: V/S, FPA, ALT*, ALT, ALT CRZ*, ALT CRZ, ALT CST*, ALT CST, OP CLB, OP DES, CLB, DES, TCAS.

CLIMB, CRUISE, DESCENT

Ident.: **NORM-22-CONF-00008433.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

Impacted by TDU: 00014191 Climb, Cruise, Descent

The use of AP or FD in the following modes is approved:

- Lateral modes: HDG, TRK, NAV
- Vertical modes: V/S, FPA, ALT*, ALT, ALT CRZ, ALT CSTR, OP CLB, OP DES, CLB, DES.

NON PRECISION APPROACH

Ident.: **NORM-22-CONF-00008434.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

The following modes are approved to be used with AP and/or FD:

- Lateral modes: LOC, LOC*, LOC-BC, LOC-BC*, HDG, TRK, NAV, APP NAV
- Vertical modes: ALT*, ALT, V/S, FPA, FINAL APP.

CAT I ILS APPROACH

Ident.: NORM-22-CONF-00008435.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

The use of AP and/or FD with or without autothrust is approved in APPR modes (GS*, LOC*, GS, LOC, LAND).

Dual AP engagement is approved.

CAT II ILS APPROACH

Ident.: NORM-22-CONF-00008436.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

The use of AP with or without FD with or without A/THR is approved in APPR modes (GS*, LOC*, GS, LOC, LAND).

Dual AP engagement is approved.

One engine may be inoperative.

Note: *Compliance with CAT II approach criteria has been demonstrated with CAT II and CAT III performance quality ILS beam only.*

CAT II/III ILS APPROACH AND AUTOMATIC LANDING

Ident.: NORM-22-CONF-00008437.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

The use of AP with or without FD, with autothrust for CAT III and with or without autothrust for CAT II is approved using APPR modes (GS*, LOC*, GS, LOC, LAND, FLARE, ROLL OUT) in CONF FULL and CONF 3.

Dual AP engagement is approved.

Note: *1. CAT III DUAL approach is not available with one engine inoperative.
2. Compliance with CAT II and CAT III approach and landing criteria has been demonstrated with CAT II and CAT III performance quality ILS beam only.*

GO-AROUND

Ident.: NORM-22-CONF-00008438.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

The use of AP and/or FD is approved with use of SRS + (GA TRK, HDG, TRK or NAV) modes.



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUTO FLIGHT SYSTEM

DEMONSTRATED SYSTEM CONFIGURATION

Dual AP use is approved.

ALTITUDE LOSS AFTER AUTOMATIC GO-AROUND INITIATION

Ident.: **NORM-22-CONF-00005821.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

Initiation Height (ft)	Height Loss (ft)
60 ft to 100 ft	31 ft
50 ft	26 ft
40 ft	21 ft
30 ft	16 ft
20 ft	11 ft

MAXIMUM ENCOUNTERED WIND DURING FLIGHT TESTS (CAT II OR CAT III)

Ident.: **NORM-22-CONF-00008272.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

Maximum encountered wind during flight tests for CAT II or CAT III automatic approach or automatic landing and rollout:

- Headwind: 37 kt
- Tailwind: 13 kt
- Crosswind: 23 kt



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUTO FLIGHT SYSTEM

DEMONSTRATED SYSTEM CONFIGURATION

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A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUTO FLIGHT SYSTEM

NON PRECISION APPROACH

GENERAL

Ident.: **TDU / NORM-22-NPA-00014079.0001001 / 31 MAY 12**

EASA APPROVED

Criteria: (A330 and (44308 or 44339 or 46572 or 46893))

Impacted DU: 00008439 General

Impacted by TR95 Issue 2.0

The final approach (FAF or FAP to runway or MAP), as extracted from the navigation database and inserted in the primary F-PLN including altitude constraints, must not be modified by the crew.

Before starting the approach, the crew must check the lateral and vertical profile of the FMS approach against the published approach chart.

GENERAL

Ident.: **NORM-22-NPA-00008439.0005001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and ((46572 and 51144 and 51411) or (46893 and 52797) or (50073 and 51144 and 51411) or (46572 and 52797) or (50073 and 52797)))

Impacted by TDU: 00014079 General

The final approach (FAF to runway or MAP), as extracted from the navigation database and inserted in the primary F-PLN including altitude constraints, must not be modified by the crew.

Before starting the approach, the crew must check the lateral and vertical profile of the FMS approach against the published approach chart.

To start a RNAV (GPS) approach (or equivalent), 2 FM and 2 GPS must be operative.

For instrument approach procedures requiring GPS PRIMARY, the GPS PRIMARY availability must be verified before flight unless an instrument approach procedure not requiring GPS is available at destination or destination alternate.

RAIM is available worldwide if 24 GPS satellites or more are operative.

- **If the number of GPS satellites is 23 or less:**

Check RAIM availability using the approved version of the Honeywell ground based prediction program.

- **If GPS PRIMARY availability cannot be verified prior to flight:**

RAIM availability can be checked in flight using the PREDICTIVE GPS MCDU page.



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUTO FLIGHT SYSTEM

NON PRECISION APPROACH

INSTRUMENT APPROACH USING NAV MODE

Ident.: **TDU / NORM-22-NPA-00011480.0007001 / 26 JAN 12**

EASA APPROVED

Criteria: (A330 and ((44308 or 44339 or 46572 or 46893) and (200286 and 200309)))

Impacted DU: 00008445 Instrument Approach Using NAV Mode

Impacted by TR196 Issue 1.0

■ For approach procedure with A/C in GPS PRIMARY

● If GPS PRIMARY LOST indication appears on ND during the approach

Discontinue the approach unless:

- GPS PRIMARY is lost on only one FMGC, the approach can be continued using AP/FD associated to the other FMGC, or
- GPS is not required and navigation accuracy is confirmed against the radio navaid raw data.

● If FM/GPS POS DISAGREE ECAM caution is triggered during the approach:

Discontinue the approach unless radio navaid raw data is available and indicates correct navigation to continue the approach using selected FMGS modes.

● For RNAV(GNSS) approaches with LNAV/VNAV Minimum:

Between the FAP and the DA, discontinue the approach as soon as the deviation below the vertical path exceed 75 ft unless external visual references are sufficient.

■ For approach procedure without GPS PRIMARY

Before starting the approach, check FM position accuracy with radio navaid raw data.

● If HIGH accuracy is lost during a VOR, VOR/DME, NDB or NDB/DME instrument approach procedure:

The approach can be continued in NAV mode if the navigation accuracy is confirmed against the radio navaid raw data.

INSTRUMENT APPROACH USING NAV MODE

Ident.: **NORM-22-NPA-00008445.0007001 / 28 FEB 11**

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and ((44308 or 44339 or 46572 or 46893) and 200309))

Impacted by TDU: 00011480 Instrument Approach Using NAV Mode

■ Approach Procedure without GPS PRIMARY

Before starting the approach, check FM position accuracy with radio navaid raw data. For RNAV approach, check in addition that HIGH accuracy is displayed on MCDU with the specified RNP value.

● **If HIGH accuracy is lost during a VOR, VOR/DME, NDB or NDB/DME instrument approach procedure:**

The approach can be continued in NAV mode if the navigation accuracy is confirmed against the radio navaid raw data.

● **If, during a RNAV instrument approach procedure, HIGH accuracy is lost on one FMGC:**

The approach can be continued with AP/FD associated to the other FMGC.

● **If, during a RNAV instrument approach procedure, HIGH accuracy is lost on both FMGC.**

Discontinue the approach.

■ **Approach Procedure with GPS PRIMARY**

Before starting the approach, check that GPS PRIMARY is available on both MCDU.

● **If GPS PRIMARY LOST indication appears on ND during the approach, discontinue the approach unless :**

- GPS is not required and navigation accuracy is confirmed against the radio navaid raw data, or
- For RNAV approach not requiring GPS, HIGH accuracy is displayed on MCDU with the appropriate RNP value.
- If GPS PRIMARY is lost on only one FMGC, the approach can be continued using AP/FD associated to the other FMGC.

● **If FM/GPS POS DISAGREE ECAM caution is triggered during the approach,**

Discontinue the approach unless radio navaid raw data is available and indicates correct navigation to continue the approach using selected FMGS modes.



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUTO FLIGHT SYSTEM

NON PRECISION APPROACH

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A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUTO FLIGHT SYSTEM

PRECISION APPROACH

CAT II AND CAT III APPROACH AND/OR AUTOMATIC LANDING

Ident.: NORM-22-PA-00008441.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

● Before the approach:

Select DH (or « NO » DH if applicable).

Note: For automatic landing in CAT I or better weather condition, select appropriate MDA.

● During interception of final approach:

Arm APPR mode.

Check approach phase is active on MCDU PERF page.

Engage second autopilot if available.

Engage autothrust (not required for CAT II).

Note: Approach speed is VLS + wind correction (minimum wind correction: 5 kt maximum wind correction: 15 kt)

Check desired capability on PFD.

Note: If APPR is selected at high altitude, CAT 1 only will be displayed initially on FMA. The valid capability will be displayed at lower altitude.

● During final approach and landing:

At 350 ft RA, check "LAND" on PFD and ILS course on heading scale.

At 30 ft, check "FLARE" on PFD.

At 10 ft, reduce thrust levers to idle.

At touchdown, check "ROLL OUT" on PFD.

At the latest when leaving the runway, disconnect the autopilot.

- Note:
1. For CAT II automatic approach, the autopilot should be disconnected at or before 80 ft if manual landing is intended.
 2. For CAT III A automatic approach and landing, the autopilot may be disconnected at touchdown if external visual references are sufficient.
 3. A callout (indicating that a flight parameter is exceeded) must be made if:
 - speed goes below VAPP -5 kt or above VAPP +10 kt
 - pitch attitude goes below 0 ° or above +10 ° nose up
 - bank angle goes above 7 °
 - descent rate goes above 1 000 ft/min
 - excessive LOC or GLIDE deviation occurs.
 4. For CAT II approach climb performance, refer to FCOM Go Around Performance chapter (Refer to FCOM/PER-GOA-GEN PROCEDURE).
 5. Whenever the required landing distance for automatic landing is higher than the required landing distance for manual landing, corrections to be added to the required landing distance for manual landing (provided by the Performance Engineer's Programs/AFM_OCTO at the latest approved revision reported in the PERFORMANCE chapter of this AFM) are given in Automatic Landing Distance Increment chapter (Refer to PERF-LDG Autoland Landing Distance Increment). The required landing distance for automatic landing is calculated with the same braking conditions as for manual landing (i.e. full pilot braking at main landing gear touchdown) but with a lower multiplicative coefficient (1.15 instead of 1.66).

REQUIRED EQUIPMENT FOR CAT II AND CAT III APPROACH AND LANDINGIdent.: **NORM-22-PA-00008444.0002001 / 16 APR 10****EASA APPROVED**

Criteria: ((330-301 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200 or 330-200F) and (51802 or 51805 or 51806))

Required Equipment	CAT II	CAT III Single	CAT III Dual
AP	1 AP engaged	1 AP engaged	2 AP engaged
AP disconnect Pushbutton	2	2	2
Autothrust	0	1	1
ILS Receiver	2	2	2
Attitude Indication	N°1+N°2+STBY	N°1+N°2+STBY	N°1+N°2+STBY
PFD/ND Displays	2/1	2/2	2/2
Radio Altimeter	1 (But two displays)	2	2
Auto Callout Radio Altimeter	1 ⁽³⁾	1	1
DH Indication	1 ⁽¹⁾	1 ⁽¹⁾	1 ⁽¹⁾
Flight Warning Computer	1	1	2
"AP OFF" Warning	1	1	2
"AUTOLAND" Light	1	1	1

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUTO FLIGHT SYSTEM

PRECISION APPROACH

Continued from the previous page

Required Equipment	CAT II	CAT III Single	CAT III Dual
Rain Repellent (if activated) or Windshield Wipers	1 ⁽²⁾	1 ⁽²⁾	1 ⁽²⁾
L or R Windshield Heat	1 ⁽²⁾	1 ⁽²⁾	1 ⁽²⁾
Nosewheel Steering	1 ⁽⁴⁾	1 ⁽⁴⁾	1
Antiskid	1 ⁽⁴⁾	1 ⁽⁴⁾	1
BSCU Channel	1 ⁽⁴⁾	1 ⁽⁴⁾	1
Beam Excessive Deviation	1 ⁽¹⁾	2	2
FMA	1	2	2
"A/THR OFF" Caution	0	1	1
PRIM	1	1	(N°1+N°2) or (N°1+N°3)
SEC	1	1	2
ADR/IR	2/2	2/2	3/3
Hydraulic Circuit	2	2	3
FMGEC Electrical Supply Split	0	0	1
Rudder Trim	1	1	2

(1) One unit required for the PNF.

(2) One unit required for PF.

(3) Required only for autoland.

(4) Required only for automatic rollout.

Note: 1. Compliance with CAT II approach and landing criteria has been demonstrated with CAT II and CAT III performance quality ILS beam only.
 2. Compliance with CAT III approach and landing criteria has been demonstrated with CAT II and CAT III performance quality ILS beam only.



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUTO FLIGHT SYSTEM

PRECISION APPROACH

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A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

COMMUNICATIONS

COMMUNICATIONS

Ident.: **NORM-23-00005817.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

For aircraft fitted with ACARS, use only VHF1 or VHF2 for communications with ATC.



A330
AIRPLANE FLIGHT MANUAL

**NORMAL PROCEDURES
COMMUNICATIONS**

Intentionally left blank



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

FUEL

FUEL SYSTEM

Ident.: **NORM-28-00008270.0002001 / 16 APR 10**

EASA APPROVED

Criteria: (330-201 or 330-202 or 330-203 or 330-243 or 330-243F)

APU FEEDING

- **When using JET B/JP4 fuel:**

APU feeding is possible up to 25 000 ft.

FUEL TRANSFER

- **When using JET B/JP4 fuel:**

Fuel transfer from center tank to inner tanks with center tank pumps operative is possible up to 20 000 ft.



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

FUEL

Intentionally left blank



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

ICE AND RAIN PROTECTION

OPERATIONS IN ICING CONDITIONS

Ident.: NORM-30-00005814.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

For icing conditions definition: Refer to LIM-GEN Icing Conditions Definition.

● When icing conditions are encountered:

Turn on engine anti-ice.

Set wing anti-ice as required.

● If there is evidence of significant ice accretion and to take into account ice formation on non heated structure:

■ If flaps position at 0:

Minimum speed: VLS + 15 kt.

■ If flaps position above 0:

Minimum speed: VLS + 5 kt.

CAUTION

1. Extended flight in icing conditions with slats extended should be avoided.
2. Apply performance adjustments according to note of Approach Climb and Landing Climb (Refer to PERF-LDG Approach Climb and Landing Climb).

GROUND ICE SHEDDING PROCEDURE

Ident.: NORM-30-00008271.0001001 / 28 FEB 11

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

When taxiing in icing conditions, in temperature lower than +1 °C (34 °F):

■ If there is no freezing fog:

Inform ATC.

Set the parking brake to ON or brake with pedals.

Accelerate the engines to 50 % N1 for 10 s (if ground surface conditions and the environment permit) at least every hour of engine ground running time.

■ If there is freezing fog:

Compute the cumulative taxi time (previous flight's taxi-in time plus current flight's taxi-out time, with the engines running).

■ If the cumulative taxi time is being longer than 45 min:

Perform the following actions within a cumulative taxi time of 45 min and at least every 45 min:

■ If -7 °C < OAT < 1 °C:

Inform ATC.

Set the parking brake to ON or brake with pedals.

Accelerate the engines to 50 % N1 for 1 min (if ground surface conditions and the environment permit).

■ If $-20^{\circ}\text{C} < \text{OAT} \leq -7^{\circ}\text{C}$:

Inform ATC.

Set the parking brake to ON or brake with pedals.

Accelerate the engines one after the other, each to 70 % N1 for 50 s (if ground surface conditions and the environment permit).

■ If $\text{OAT} \leq -20^{\circ}\text{C}$, or surface conditions not permitting the application of previous procedures:

Delay takeoff and request maintenance action for manual engine de-icing.

■ If the cumulative taxi time is being 45 min or less:

Inform ATC.

Set the parking brake to ON or brake with pedals.

Accelerate the engines to 50 % N1 for 10 s (if ground surface conditions and the environment permit).

CAUTION

If, during thrust increase, the aircraft starts to move, immediately retard the thrust levers to idle.

RAIN REPELLENT (IF ACTIVATED)

Ident.: NORM-30-00005816.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Use rain repellent in the case of heavy rain only.



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

NAVIGATION

GROUND PROXIMITY WARNING SYSTEM (GPWS)

Ident.: NORM-34-00005818.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

● When a warning occurs:

Pull up using full back stick.

Apply takeoff thrust and climb until the warning ceases.

Warnings may be considered cautionary during daylight VMC conditions provided the cause of the warning can be identified immediately.

● When a caution occurs:

Adjust the flight path/configuration so that the alert ceases.

INERTIAL REFERENCE SYSTEM (IRS)

Ident.: NORM-34-00005819.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Ensure IRS alignment is complete and all IR are in the NAV mode before the aircraft is moved.

● When an IR is in the ATT mode:

Magnetic heading will drift after initialization in a manner similar to a directional gyro and requires crew monitoring and periodic manual heading updates to ensure adequate accuracy.

INTEGRATED STANDBY INSTRUMENT SYSTEM (ISIS)

Ident.: NORM-34-00005820.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 47244)

Whenever the Integrated Standby Instrument System (ISIS) is used as the primary means for indicating the basic parameters for aircraft piloting, do not use the Bugs pushbutton.

WINDSHEAR WARNING AND GUIDANCE SYSTEM

Ident.: NORM-34-00005824.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

Windshear detection is available below 1 300 ft at takeoff, approach and go-around.

In the case of warning, TOGA power application provides guidance in SRS mode, using FD or AP at takeoff.

If engaged AP may be used for go-around.

FD guidance may lead to speeds of VALPHAMAX.

The aircraft configuration should not be changed before end of windshear conditions.

TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS)

Ident.: **TDU / NORM-34-00012808.0003001 / 24 JAN 12**

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and 57425)

Impacted DU: 00008285 Traffic Alert and Collision Avoidance System (TCAS)

Impacted by TR141 Issue 1.0

GENERAL

TCAS Traffic Advisory (TA) and Resolution Advisory (RA) modes can be used without any restriction when operating within the certified limits of the aircraft flight envelope.

Aircraft may deviate from current ATC clearance to the extent necessary to comply with a TCAS II resolution advisory (RA).

PROCEDURES

For normal TCAS operation, set:

- Transponder : ON or AUTO
- ALT report : ON
- TCAS : TA/RA

Select TA for:

- Dispatch with landing gear down
- Engine failure
- Operation near closely spaced parallel runway (less than 1 200 ft).

Maneuvers must not be based solely on information presented on the traffic display.

Compliance with a TCAS II Resolution Advisory (RA) is always required unless the pilot considers it unsafe to do so. Compliance with a RA is required, even if there is a conflict between the RA and an Air Traffic Control (ATC) instruction to maneuver.

Go around procedure must be considered when a RA "Climb" or "Increase Climb" is triggered on final approach.

CAUTION

Once an RA has been issued, safe separation could be compromised if current vertical speed is changed, except as necessary to comply with the RA. This is because TCAS II-to-TCAS II coordination may be in progress with the intruder airplane, and any change in vertical speed that does not comply with the RA may negate the effectiveness of the other aircraft's compliance with the RA.

● If AP/FD TCAS mode available:**CAUTION**

If for any reason during an RA, the aircraft vertical speed does not reach the green area of the vertical speed scale, the pilot flying should disconnect the AP, and override the FD orders, in order to lead the aircraft vertical speed out of the red area of the vertical speed scale.

Note: Following a TCAS II "clear of conflict" advisory, the pilot should expeditiously return to the applicable ATC clearance unless otherwise directed by ATC.

TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM (TCAS)

Ident.: NORM-34-00008285.0003001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (46728 or 46824 or 46986 or 47392 or 47572))

Impacted by TDU: 00012808 Traffic Alert and Collision Avoidance System (TCAS)

GENERAL

TCAS Traffic Advisory (TA) and Resolution Advisory (RA) modes can be used without any restriction when operating within the certified limits of the aircraft flight envelope.

PROCEDURES

For normal TCAS operation, select:

- Transponder: ON or Auto
- ALT report: ON
- TCAS: TA/RA.

Select TA for:

- Dispatch with landing gear down
- Engine failure
- Operation near closely spaced parallel runway (less than 1 200 ft).

Maneuvers must not be based solely on information presented on the traffic display.

Compliance with a TCAS II RA is always required unless the pilot considers it unsafe to do so. Compliance with a RA is required even if there is a conflict between the RA and an Air Traffic Control (ATC) instruction to maneuver.

Go-around procedure must be performed when a RA "Climb" or "Increase Climb" is triggered on final approach.

CAUTION

Once an RA has been issued, safe separation could be compromised if current vertical speed is changed, except as necessary to comply with the RA. This is because TCAS II-to-TCAS II coordination may be in progress with the intruder aircraft, and any change in vertical speed that does not comply with the RA may negate the effectiveness of the other aircraft's compliance with the RA.



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

NAVIGATION

Note: Following a TCAS II "Clear of Conflict" advisory, the pilot should expeditiously return to the applicable ATC clearance unless otherwise directed by ATC.

REDUCED VERTICAL SEPARATION MINIMUM (RVSM)

Ident.: NORM-34-00005825.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 43537)

The following table gives the minimum equipment/functions required to begin RVSM operation.

Required Equipment/Functions	Quantity
ADR	2
ATC Transponder	1
Flight Warning Computer (for ALTITUDE ALERT function)	1
Autopilot	1
PFD function (for altitude indication)	2
FCU (for altitude target selection and OP CLB/OP DES mode engagement)	1

Minimum Equipment/Functions Required to Begin RVSM Operation



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES

AUXILIARY POWER UNIT

AUXILIARY POWER UNIT (APU)

Ident.: **NORM-49-00005815.0002001** / 26 NOV 09

EASA APPROVED

Criteria: (A330 and 52536)

STARTING IN FLIGHT

Use main electrical power supply up to 41 450 ft.

In the case of APU TR not available use APU battery below 25 000 ft.

AIR BLEED EXTRACTION IN FLIGHT

Air bleed extraction in flight: up to 22 500 ft.

Note: *Air bleed extraction for wing anti-ice is not permitted.*

FLIGHT WITH APU REMOVED

Flight with APU removed is authorized in accordance with SIL 49-009 revision 7 (or higher).



A330
AIRPLANE FLIGHT MANUAL

NORMAL PROCEDURES
AUXILIARY POWER UNIT

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PERFORMANCE

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PERF-GEN GENERAL

Introduction.....	A
Aircraft Configuration.....	B
Maximum Demonstrated Crosswind at Takeoff and Landing.....	C

PERF-CAL AIRSPEED AND ALTITUDE CALIBRATION**PERF-CAL-TO TAKEOFF**

Speed Corrections in Ground Effect.....	A
Speed Corrections out of Ground Effect.....	B
Altitude Corrections.....	C

PERF-CAL-CRU CRUISE (Clean Configuration)

Speed and Mach Corrections.....	A
Altitude Corrections.....	B

PERF-CAL-LDG LANDING

Speed Corrections.....	A
Altitude Corrections.....	B

PERF-TO TAKEOFF PERFORMANCE

Speeds Definitions.....	A
Distances Definitions.....	B
Takeoff Performance.....	C
Takeoff Flight Path.....	D

PERF-FLT IN-FLIGHT PERFORMANCE

In-Flight Performance.....	A
----------------------------	---

PERF-LDG LANDING PERFORMANCE

Approach Climb and Landing Climb.....	A
Approach and Landing Speeds Definition.....	B
Landing Distance Definitions.....	C
Landing Performance.....	D
Autoland Landing Distance Increment.....	E

PERF-OCTO PERFORMANCE DATABASE

Performance Database.....	A
---------------------------	---

PERF-ENG ENGINE MANAGEMENT

Engine Management Takeoff Thrust.....	A
Engine Management Maximum Continuous Thrust.....	B
Engine Management Go-Around Thrust.....	C



A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
PRELIMINARY PAGES
TABLE OF CONTENTS

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A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE

GENERAL

INTRODUCTION

Ident.: **PERF-GEN-00005827.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

In compliance with airworthiness regulations, an aircraft is cleared to take off from any airport if the weight allows it to achieve the takeoff, "en route", and landing performance included in this chapter.

Note: *The performance and speeds of the lowest weight at which the Performance Engineer's Programs/AFM_OCTO approved FM module is able to give results can be considered as valid from this weight down to the certified minimum weight.*

The considered atmosphere is the international standard atmosphere.

Performance are related to VS1G.

Wind speed is measured at the height of 10 m (32.8 ft).

The results provided by the Performance Engineer's Programs/AFM_OCTO approved FM module must be used in conjunction with the gross weight, operational and environmental limitations given in the LIMITATIONS chapter of this AFM.

AIRCRAFT CONFIGURATION

Ident.: **PERF-GEN-00005829.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

The performance has been established in the following configuration:

	Slats / Flaps	Engine Thrust	Remarks
Takeoff	1+F 2 3	Takeoff thrust	Ground spoilers armed. <u>Dry runway</u> Acceleration Stop Distance (ASD) made using only wheel brakes, brakes supplied by green hydraulic system, antiskid ON and ground spoilers. <u>Wet runway</u> Acceleration Stop Distance (ASD) made using only wheel brakes, brakes supplied by green hydraulic system, antiskid ON, ground spoilers and with or without thrust reversers.
En route	0	Maximum Continuous Thrust (MCT)	
Go-around	2 3	Go-around thrust taking Mach number into account	
Landing	3 FULL		Landing distances established with brake pedals depressed upon main landing gear touchdown, brakes supplied by green hydraulic system, antiskid ON and using ground spoilers.

Systems which may be ON or OFF:

- Air conditioning
- Wing anti-ice or engine anti-ice.

Note: For normal operation, use of thrust reversers is recommended.

MAXIMUM DEMONSTRATED CROSSWIND AT TAKEOFF AND LANDING

Ident.: **PERF-GEN-00005830.0004001 / 16 APR 10**

EASA APPROVED

Criteria: ((330-243 or 330-243F) and 51802)

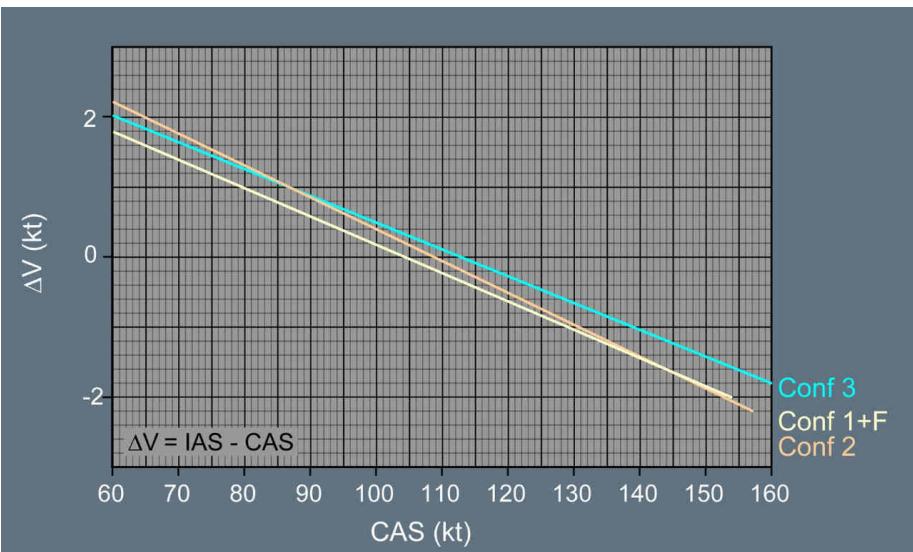
- At takeoff: 45 kt (gust included).

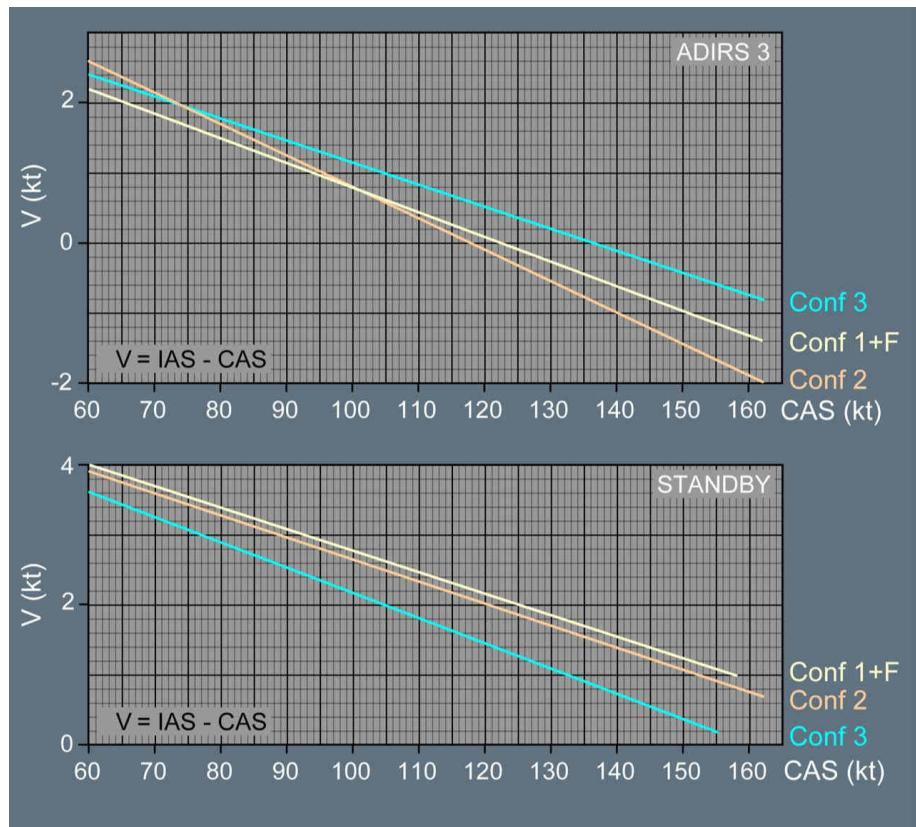
Note: The demonstrated crosswind value at takeoff exceeds the maximum crosswind value allowed for Rolls-Royce engines at takeoff as defined in the LIMITATIONS chapter. Refer to LIM-70 Crosswind.

- At landing: 45 kt (gust included).

SPEED CORRECTIONS IN GROUND EFFECTIdent.: **PERF-CAL-TO-00005832.0002001** / 16 APR 10**EASA APPROVED**

Criteria: (330-200 or 330-200F)

SPEED CORRECTION - PILOT AND COPILOT ADIRS 1 OR 2 IN GROUND EFFECT

SPEED CORRECTION - ADIRS 3 OR STANDBY AIRSPEED INDICATOR IN GROUND EFFECT**SPEED CORRECTIONS OUT OF GROUND EFFECT**Ident.: **PERF-CAL-TO-00008442.0001001** / 26 NOV 09**EASA APPROVED**

Criteria: A330

Negligible



A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE

AIRSPEED AND ALTITUDE CALIBRATION

TAKEOFF

ALTITUDE CORRECTIONS

Ident.: **PERF-CAL-TO-00008443.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Lower than \pm 20 ft



A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
AIRSPEED AND ALTITUDE CALIBRATION
TAKEOFF

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A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
AIRSPEED AND ALTITUDE CALIBRATION
CRUISE (CLEAN CONFIGURATION)

SPEED AND MACH CORRECTIONS

Ident.: **PERF-CAL-CRU-00005836.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Negligible

ALTITUDE CORRECTIONS

Ident.: **PERF-CAL-CRU-00005837.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Lower than \pm 20 ft



A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
AIRSPEED AND ALTITUDE CALIBRATION
CRUISE (CLEAN CONFIGURATION)

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A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
AIRSPEED AND ALTITUDE CALIBRATION
LANDING

SPEED CORRECTIONS

Ident.: **PERF-CAL-LDG-00005839.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Lower than \pm 2 kt

ALTITUDE CORRECTIONS

Ident.: **PERF-CAL-LDG-00005840.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Lower than 10 ft



A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
AIRSPEED AND ALTITUDE CALIBRATION
LANDING

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A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
TAKEOFF PERFORMANCE

SPEEDS DEFINITIONS

Ident.: **PERF-TO-00005845.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

V1

V1 is the highest speed at which the decision must be made:

- To continue the takeoff, or
- To stop the aircraft.

VR

VR is the speed at which rotation is initiated to reach V2 before an altitude of 35 ft.

V2

V2 is the takeoff safety speed reached before the altitude of 35 ft with one engine failed and providing not less than the minimum second segment gradient (2.4 %).

DISTANCES DEFINITIONS

Ident.: **PERF-TO-00005846.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

STOPWAY (SWY)

Extension to runway, adequate for deceleration of the aircraft in the case of aborted takeoff.

CLEARWAY (CWY)

Area beyond the runway which can be taken into account for TOD calculation.

TAKEOFF DISTANCE AVAILABLE (TODA)

Sum of the TORA and the CWY available.

TAKEOFF RUN AVAILABLE (TORA)

Length of runway available and suitable for the ground run of an aircraft taking off.

ACCELERATE-STOP DISTANCE AVAILABLE (ASDA)

Sum of the TORA and the SWY available.

TAKEOFF DISTANCE (TOD)

Distance covered from the brake release to a point at which the aircraft is at the 35 ft height (15 ft height on wet runway). The TOD must not exceed the TODA.

TAKEOFF RUN (TOR)

Distance covered from the brake release to a point at which the aircraft is half of the segment between the liftoff speed (VLOF) and 35 ft height (15 ft height on wet runway). The TOR must not exceed the TORA.

ACCELERATE-STOP DISTANCE (ASD)

Distance necessary to accelerate the aircraft to V1, reject the takeoff at V1 and come to a full stop. The ASD must not exceed the ASDA.

TAKEOFF PERFORMANCEIdent.: **PERF-TO-00005847.0001001 / 26 NOV 09****EASA APPROVED**

Criteria: A330

For takeoff performance determination on dry and wet runways, the Performance Engineer's Programs/AFM_OCTO approved FM module at the latest approved revision must be used. *Refer to PERF-OCTO Performance Database.*

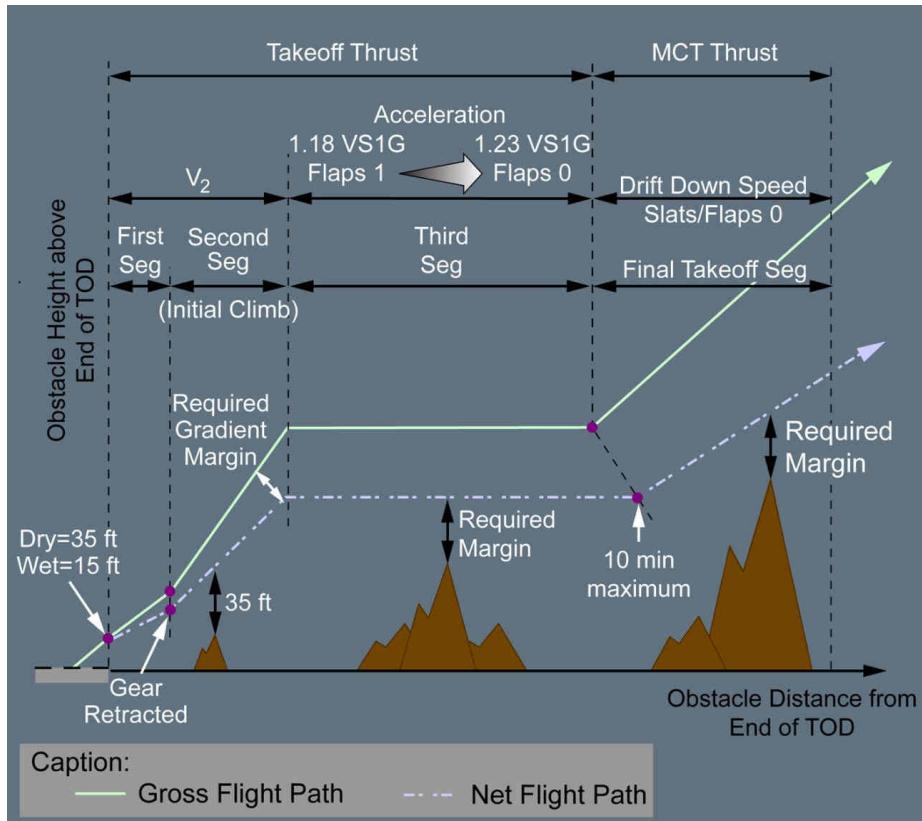
CAUTION

For takeoff performance on wet runways, the takeoff weight must be the lowest of the computed one on dry runways and the computed one on wet runways.

TAKEOFF FLIGHT PATH

Ident.: **PERF-TO-00005848.0001001** / 02 JUL 10**EASA APPROVED**

Criteria: A330



Caption:

— Gross Flight Path - - - Net Flight Path



A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
TAKEOFF PERFORMANCE

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A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
IN-FLIGHT PERFORMANCE

IN-FLIGHT PERFORMANCE

Ident.: **PERF-FLT-00008394.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

For en route net flight path (single engine cruise) performance determination, the Performance Engineer's Programs/AFM_OCTO approved FM module at the latest approved revision must be used. Refer to *PERF-OCTO Performance Database*.

Note: *If severe icing conditions are encountered, ice formation may build up on non-heated structure and therefore:*

- The one engine inoperative net ceiling will be reduced by 2 500 ft.*



A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
IN-FLIGHT PERFORMANCE

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A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE LANDING PERFORMANCE

APPROACH CLIMB AND LANDING CLIMB

Ident.: **PERF-LDG-00005164.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

The approach climb speed is at least 1.23 VS1G of the approach configuration, approach speed up to 1.41 VS1G is permitted.

For approach and landing climb limiting weight determination, the Performance Engineer's Programs/AFM_OCTO approved FM module at the latest approved revision must be used. Refer to *PERF-OCTO Performance Database*.

Note: When icing conditions are predicted during the flight and TAT is below 10 °C and there is evidence of significant ice accretion, to take into account ice formation on the non-heated structure:

- Decrease the approach/landing climb limiting weight by 5 %
- For landing:
 - The minimum approach speed is VLS + 5 kt
 - Multiply landing distance by 1.1

APPROACH AND LANDING SPEEDS DEFINITION

Ident.: **PERF-LDG-00005852.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

The final approach speed (landing speed) is the minimum recommended speed at 50 ft height for normal landing. It is equal to 1.23 VS1G of the landing configuration.

LANDING DISTANCE DEFINITIONS

Ident.: **PERF-LDG-00005853.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

LANDING DISTANCE

The landing distance represents the distance from the 50 ft height point to complete stop on a smooth, dry, hard-surfaced runway. It is determined with brake pedals depressed at main landing gear touchdown, and assumes the use of ground spoilers and antiskid. In normal operation, the use of thrust reversers is recommended.

REQUIRED LANDING DISTANCE (RLD)

The Required Landing Distance (RLD) is the landing distance divided by 0.6 assuming the surface is dry.

Under wet runway conditions, the Required Landing Distance (RLD) is increased by 15 %.



A330
AIRPLANE FLIGHT MANUAL

PERFORMANCE
LANDING PERFORMANCE

LANDING PERFORMANCE

Ident.: **PERF-LDG-00005854.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

For landing distance determination, the Performance Engineer's Programs/AFM_OCTO approved FM module at the latest approved revision must be used. *Refer to PERF-OCTO Performance Database.*

AUTOLAND LANDING DISTANCE INCREMENT

Ident.: **PERF-LDG-00009381.0001001** / 02 JUL 10

EASA APPROVED

Criteria: (330-243 or 330-243F)

The required landing distance in automatic landing is below the required landing distance calculated by the Performance Engineer's Programs/AFM_OCTO approved FM module at the latest approved revision (*Refer to PERF-OCTO Performance Database*). Therefore no increment on the required landing distance must be applied.



A330
AIRPLANE FLIGHT MANUAL

**PERFORMANCE
PERFORMANCE DATABASE**

PERFORMANCE DATABASE

Ident.: **PERF-OCTO-00005244.0034001** / 26 NOV 09

EASA APPROVED

Criteria: (330-243 and 51802)

Takeoff, final takeoff, en route net flight path (single engine cruise), go-around and landing performance are provided in the Performance Engineer's Programs/AFM_OCTO approved FM module:

- At the revision 22.0 or higher using approved aircraft database reference **AB243C01**, or
- At the revision 23.3 or higher using approved aircraft database reference **AB243C02**.

***Note:** 1. Only the PC version of this program is approved.*

*2. For extended flex temperature (optional: Mod 55212) performance computation, only the approved database reference **AB243C02** must be used.*

Launch PEP.



A330
AIRPLANE FLIGHT MANUAL

**PERFORMANCE
PERFORMANCE DATABASE**

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A330
AIRPLANE FLIGHT MANUAL

**PERFORMANCE
ENGINE MANAGEMENT**

ENGINE MANAGEMENT TAKEOFF THRUST

Ident.: **PERF-ENG-00005841.0007001** / 16 APR 10
Criteria: ((330-243 or 330-243F or 330-343) and 55212)

EASA APPROVED

ROLLS ROYCE TRENT 772B ENGINE MANAGEMENT - TAKEOFF M = 0.0

TRENT772B		TAKEOFF EPR		NO AIR BLEED				MACH=.000				
EPR CORRECTIONS FOR AIR BLEED												
AIR CONDITIONING ON										ADD -0.006 TO EPR		
NACELLE ANTI ICE ON										READ AT DAT +0.9 (C)		
NACELLE AND WING ANTI ICE ON										READ AT DAT +1.70 (C)		
OAT (C)		PRESSURE ALTITUDE (FT)										
		-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.
-50.0	1.540	1.568	1.596	1.609	1.622	1.650	1.670	1.681	1.683	1.685	1.688	1.688
8.0	1.540	1.568	1.596	1.609	1.622	1.650	1.670	1.681	1.683	1.685	1.688	1.688
10.0	1.540	1.568	1.596	1.609	1.622	1.650	1.670	1.681	1.683	1.685	1.688	1.688
12.0	1.540	1.568	1.596	1.609	1.622	1.650	1.670	1.681	1.683	1.685	1.688	1.688
14.0	1.540	1.568	1.596	1.609	1.622	1.650	1.670	1.681	1.683	1.685	1.688	1.688
16.0	1.540	1.569	1.596	1.609	1.622	1.650	1.670	1.681	1.683	1.685	1.685	1.685
18.0	1.540	1.568	1.596	1.609	1.622	1.650	1.670	1.681	1.683	1.685	1.688	1.688
20.0	1.540	1.568	1.596	1.609	1.622	1.650	1.670	1.681	1.683	1.685	1.688	1.688
22.0	1.540	1.568	1.596	1.609	1.622	1.650	1.670	1.677	1.676	1.675	1.675	1.675
24.0	1.540	1.568	1.596	1.609	1.622	1.650	1.670	1.673	1.672	1.670	1.672	1.672
26.0	1.540	1.569	1.596	1.609	1.622	1.650	1.663	1.669	1.665	1.662	1.669	1.669
28.0	1.540	1.568	1.596	1.609	1.622	1.650	1.658	1.659	1.652	1.655	1.659	1.659
30.0	1.540	1.568	1.596	1.609	1.622	1.643	1.644	1.643	1.642	1.644	1.644	1.644
32.0	1.540	1.568	1.596	1.609	1.622	1.630	1.628	1.628	1.626	1.629	1.629	1.629
34.0	1.540	1.568	1.596	1.609	1.615	1.614	1.614	1.613	1.613	1.613	1.613	1.613
36.0	1.540	1.569	1.596	1.602	1.600	1.600	1.599	1.598	1.597	1.597	1.598	1.598
38.0	1.540	1.568	1.596	1.598	1.587	1.585	1.583	1.581	1.581	1.582	1.583	1.583
40.0	1.540	1.561	1.576	1.575	1.570	1.568	1.567	1.565	1.565	1.566	1.569	1.569
42.0	1.532	1.547	1.564	1.560	1.554	1.553	1.551	1.549	1.549	1.552	1.557	1.557
44.0	1.517	1.535	1.549	1.543	1.538	1.537	1.535	1.533	1.533	1.535	1.540	1.544
46.0	1.506	1.522	1.532	1.528	1.523	1.521	1.519	1.519	1.524	1.529	1.532	1.532
48.0	1.495	1.508	1.518	1.513	1.508	1.506	1.506	1.507	1.512	1.517	1.520	1.520
50.0	1.483	1.495	1.504	1.498	1.492	1.492	1.494	1.494	1.501	1.506	1.507	1.507
52.0	1.473	1.483	1.489	1.483	1.479	1.481	1.483	1.484	1.484	1.489	1.494	1.495
54.0	1.462	1.470	1.475		1.471	1.468	1.470	1.472	1.472	1.477	1.483	1.483
56.0	1.451	1.457	1.462		1.460	1.458	1.459	1.460	1.461	1.466	1.471	1.470
58.0	1.440	1.446	1.452		1.450	1.447	1.448	1.449	1.449	1.454	1.460	1.458
60.0	1.430	1.437	1.442		1.439	1.436	1.437	1.438	1.437	1.443		
62.0	1.421	1.427	1.431		1.429	1.426	1.426	1.428	1.426	1.431		
64.0	1.412	1.417	1.421		1.418	1.415	1.415	1.415	1.414			
66.0	1.403	1.408	1.411		1.408	1.404	1.404	1.404				
68.0	1.394	1.398	1.401		1.397	1.394	1.393					
70.0	1.385	1.388	1.390		1.387	1.383						
72.0	1.376	1.379	1.380		1.376							
74.0	1.367	1.369	1.370									
76.0	1.359	1.360										
78.0	1.350											
80.0												

DATA ABOVE ISA+40. (C) ARE GIVEN FOR FLEX TAKEOFF ONLY



A330
AIRPLANE FLIGHT MANUAL

**PERFORMANCE
ENGINE MANAGEMENT**

ROLLS ROYCE TRENT 772B ENGINE MANAGEMENT - TAKEOFF M = 0.0

TRENT772B		TAKEOFF EPR		NO AIR BLEED				MACH=.000			
EPR CORRECTIONS FOR AIR BLEED											
AIR CONDITIONING ON						ADD -0.010 TO EPR					
NACELLE ANTI ICE ON						READ AT OAT +1.20 (C)					
NACELLE AND WING ANTI ICE ON						READ AT OAT +2.50 (C)					
OAT (C)		PRESSURE ALTITUDE (FT)									
		8000.	9000.	10000.	11000.	12000.	13000.	14000.	15000.	16000.	
-60.0	1.688	1.699	1.706	1.708	1.709	1.710	1.711	1.712	1.715		
-5.0	1.688	1.699	1.706	1.708	1.709	1.710	1.711	1.712	1.715		
-4.0	1.688	1.699	1.706	1.708	1.709	1.710	1.711	1.712	1.715		
-2.0	1.688	1.699	1.706	1.708	1.709	1.710	1.711	1.708	1.701	1.693	
0.0	1.688	1.699	1.706	1.708	1.709	1.707	1.699	1.692	1.685		
2.0	1.688	1.699	1.706	1.708	1.706	1.699	1.691	1.684	1.678		
4.0	1.688	1.699	1.706	1.705	1.698	1.691	1.684	1.677	1.671		
6.0	1.688	1.699	1.704	1.697	1.691	1.683	1.676	1.670	1.664		
8.0	1.688	1.699	1.697	1.690	1.682	1.675	1.669	1.663	1.657		
10.0	1.688	1.699	1.690	1.682	1.674	1.667	1.661	1.655	1.648		
12.0	1.688	1.689	1.681	1.673	1.666	1.659	1.654	1.647	1.639		
14.0	1.688	1.683	1.672	1.664	1.658	1.651	1.644	1.638	1.630		
16.0	1.685	1.673	1.663	1.656	1.649	1.642	1.635	1.628	1.619		
18.0	1.681	1.671	1.654	1.647	1.639	1.632	1.625	1.617	1.607		
20.0	1.679	1.664	1.645	1.637	1.629	1.622	1.615	1.606	1.596		
22.0	1.675	1.558	1.634	1.626	1.618	1.611	1.604	1.595	1.585		
24.0	1.672	1.651	1.623	1.615	1.607	1.600	1.593	1.585	1.574		
26.0	1.589	1.841	1.611	1.603	1.596	1.589	1.582	1.574	1.563		
28.0	1.659	1.627	1.600	1.592	1.585	1.578	1.572	1.564	1.553		
30.0	1.544	1.614	1.588	1.581	1.574	1.567	1.562	1.553	1.542		
32.0	1.529	1.501	1.577	1.570	1.563	1.557	1.551	1.543	1.532		
34.0	1.513	1.588	1.565	1.559	1.553	1.547	1.541	1.533	1.521		
36.0	1.598	1.574	1.554	1.548	1.542	1.536	1.531	1.523	1.511		
38.0	1.583	1.562	1.544	1.537	1.532	1.526	1.521	1.512	1.501		
40.0	1.569	1.560	1.533	1.527	1.521	1.516	1.511	1.502	1.492		
42.0	1.557	1.539	1.522	1.516	1.511	1.506	1.501	1.492	1.483		
44.0	1.544	1.527	1.511	1.505	1.500	1.495	1.490	1.482			
46.0	1.532	1.515	1.501	1.495	1.490	1.485	1.480				
48.0	1.520	1.504	1.490	1.485	1.479	1.475					
50.0	1.507	1.492	1.479	1.474	1.469						
52.0	1.495	1.481	1.468	1.463							
54.0	1.483	1.469	1.458								
56.0	1.470		1.458								
58.0	1.458										
60.0											
62.0											
64.0											
DATA ABOVE ISA+40. (C) ARE GIVEN FOR FLEX TAKEOFF ONLY											



A330
AIRPLANE FLIGHT MANUAL

**PERFORMANCE
ENGINE MANAGEMENT**

ENGINE MANAGEMENT MAXIMUM CONTINUOUS THRUST

Ident.: **PERF-ENG-00005842.0005001** / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B ENGINE MANAGEMENT - MAXIMUM CONTINUOUS - VC = 230 kt

TRENT772B		MAXIMUM CONTINUOUS EPR									AIR COND ON (*)		VC=230 KT	
CORRECTIONS FOR AIR BLEED														
AIR CONDITIONING OFF											ADD 0.019 TO EPR			
NACELLE ANTI-ICE ON											READ AT TAT +1.20(C)			
NACELLE ANTI-ICE AND WING ANTI-ICE ON											READ AT TAT +3.40(C)			
TAT (C)	PRESSURE ALTITUDE (FT)													
	-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.			
-60.0	1.447	1.497	1.553	1.620	1.676	1.664	1.643	1.651	1.673	1.704	1.695			
-38.0	1.447	1.497	1.553	1.620	1.676	1.664	1.643	1.651	1.673	1.704	1.695			
-34.0	1.447	1.497	1.553	1.620	1.676	1.664	1.643	1.651	1.673	1.704	1.695			
-30.0	1.447	1.497	1.553	1.620	1.676	1.664	1.643	1.651	1.673	1.704	1.695			
-26.0	1.447	1.497	1.553	1.620	1.676	1.664	1.643	1.651	1.673	1.704	1.695			
-22.0	1.447	1.497	1.553	1.620	1.676	1.664	1.643	1.651	1.673	1.699	1.695			
-18.0	1.447	1.497	1.553	1.620	1.676	1.664	1.643	1.651	1.673	1.676	1.676			
-14.0	1.447	1.497	1.553	1.620	1.676	1.664	1.643	1.651	1.660	1.650	1.650			
-10.0	1.447	1.497	1.553	1.620	1.676	1.664	1.643	1.638	1.624	1.622	1.622			
-6.0	1.447	1.497	1.553	1.620	1.676	1.664	1.642	1.613	1.597	1.595	1.593			
-2.0	1.447	1.497	1.553	1.620	1.676	1.664	1.618	1.587	1.570	1.567	1.565			
2.0	1.447	1.497	1.553	1.620	1.676	1.653	1.593	1.561	1.543	1.539	1.537			
6.0	1.447	1.497	1.553	1.620	1.676	1.628	1.567	1.534	1.516	1.510	1.508			
10.0	1.447	1.497	1.553	1.620	1.654	1.603	1.541	1.508	1.489	1.482	1.479			
14.0	1.447	1.497	1.553	1.615	1.628	1.577	1.516	1.483	1.463					
18.0	1.447	1.497	1.553	1.589	1.602	1.552	1.491	1.457						
22.0	1.447	1.497	1.553	1.585	1.576	1.526	1.466							
28.0	1.447	1.497	1.535	1.540	1.550	1.501								
30.0	1.447	1.497	1.512	1.515	1.523	1.476								
34.0	1.447	1.486	1.489	1.491	1.497									
38.0	1.447	1.465												
42.0	1.432	1.443	1.444	1.445										
46.0	1.412	1.422	1.423											
52.0	1.381	1.392												
56.0	1.362	1.372												
60.0	1.343													
64.0	1.325													
68.0	1.300													

* One engine inoperative

One pack operative on remaining engine.

ENGINE MANAGEMENT GO-AROUND THRUST

Ident.: **PERF-ENG-00005843.0005001** / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B ENGINE MANAGEMENT - GO-AROUND M = 0.225

TRENT772B		GO-AROUND EPR		AIR COND ON				MACH=.225					
CORRECTIONS FOR AIR BLEED													
AIR CONDITIONING OFF										ADD 0.008 TO EPR			
NACELLE ANTI-ICE ON										READ AT TAT + 0.90(C)			
NACELLE ANTI-ICE AND WING ANTIICE ON										READ AT TAT + 1.70(C)			
TAT (C)		PRESSURE ALTITUDE (FT)											
		-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.	
-50.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.694	1.687	1.690	1.693		
10.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.690	1.693		
12.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.690	1.693		
14.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.690	1.693		
16.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.690	1.693		
18.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.690	1.693		
20.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.688	1.687		
22.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.688	1.687		
24.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.688	1.687		
26.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.688	1.687		
28.0	1.540	1.567	1.595	1.609	1.623	1.651	1.671	1.684	1.687	1.690	1.693		
30.0	1.540	1.567	1.595	1.609	1.623	1.651	1.660	1.684	1.687	1.688	1.687		
32.0	1.540	1.567	1.595	1.609	1.623	1.651	1.660	1.684	1.687	1.688	1.687		
34.0	1.540	1.567	1.595	1.609	1.623	1.651	1.660	1.684	1.687	1.688	1.687		
36.0	1.540	1.567	1.595	1.609	1.623	1.651	1.660	1.684	1.687	1.688	1.687		
38.0	1.540	1.567	1.595	1.609	1.623	1.651	1.660	1.684	1.687	1.688	1.687		
40.0	1.540	1.567	1.595	1.609	1.623	1.651	1.660	1.684	1.687	1.688	1.687		
42.0	1.540	1.567	1.595	1.609	1.623	1.651	1.660	1.684	1.687	1.688	1.687		
44.0	1.540	1.555	1.569	1.589	1.567	1.564	1.561	1.558	1.558	1.558	1.559		
46.0	1.528	1.542	1.566	1.553	1.562	1.549	1.545	1.542	1.542	1.542			
48.0	1.515	1.529	1.538	1.537	1.536	1.533	1.529	1.526					
50.0	1.502	1.514	1.523	1.522	1.520	1.517	1.513						
52.0	1.490	1.501	1.509	1.507	1.505	1.501							
54.0	1.479	1.488	1.493	1.492	1.489								
56.0	1.467	1.475	1.475	1.475									
58.0	1.456	1.462	1.464										
60.0	1.445	1.449											
62.0	1.434												



A330
AIRPLANE FLIGHT MANUAL

**PERFORMANCE
ENGINE MANAGEMENT**

ROLLS ROYCE TRENT 772B ENGINE MANAGEMENT - GO-AROUND M = 0.225

TRENT772B		GO-AROUND EPR		AIR COND ON				MACH=.225		
CORRECTIONS FOR AIR BLEED										
AIR CONDITIONING OFF						ADD 0.010 TO EPR				
NACELLE ANTI-ICE ON						READ AT TAT +1.20(C)				
NACELLE ANTI-ICE AND WING ANTI-ICE ON						READ AT TAT +2.40(C)				
TAT (C)		PRESSURE ALTITUDE (FT)								
		8000.	9000.	10000.	11000.	12000.	13000.	14000.	15000.	16000.
-60.0	1.693	1.709	1.723	1.723	1.723	1.723	1.723	1.722	1.723	1.724
-5.0	1.693	1.709	1.723	1.723	1.723	1.723	1.723	1.722	1.723	1.724
-4.0	1.693	1.709	1.723	1.723	1.723	1.723	1.723	1.722	1.723	1.724
-3.0	1.693	1.709	1.723	1.723	1.723	1.723	1.723	1.722	1.723	1.724
0.0	1.693	1.709	1.723	1.723	1.723	1.723	1.723	1.722	1.713	1.704
2.0	1.693	1.709	1.723	1.723	1.723	1.723	1.723	1.712	1.703	1.694
4.0	1.693	1.709	1.723	1.723	1.723	1.713	1.703	1.693	1.683	
6.0	1.693	1.709	1.723	1.723	1.713	1.703	1.692	1.682	1.672	
8.0	1.693	1.709	1.723	1.713	1.703	1.693	1.682	1.671	1.661	
10.0	1.693	1.709	1.713	1.703	1.693	1.682	1.671	1.660	1.650	1.649
12.0	1.693	1.709	1.703	1.693	1.682	1.671	1.660	1.649	1.640	1.638
14.0	1.693	1.701	1.693	1.682	1.671	1.660	1.649	1.638	1.627	1.627
16.0	1.693	1.692	1.682	1.671	1.660	1.649	1.638	1.627	1.616	
18.0	1.691	1.684	1.671	1.660	1.649	1.638	1.628	1.617	1.605	
20.0	1.687	1.677	1.660	1.649	1.638	1.627	1.617	1.605	1.593	
22.0	1.682	1.669	1.649	1.638	1.627	1.617	1.605	1.594	1.582	
24.0	1.677	1.661	1.638	1.627	1.616	1.605	1.594	1.583	1.570	
26.0	1.672	1.653	1.627	1.616	1.605	1.594	1.583	1.571	1.559	
28.0	1.667	1.645	1.616	1.605	1.594	1.583	1.572	1.560		
30.0	1.662	1.632	1.605	1.594	1.583	1.572	1.561			
32.0	1.647	1.619	1.593	1.582	1.571	1.560				
34.0	1.633	1.606	1.582	1.571	1.560					
36.0	1.618	1.593	1.571	1.560						
38.0	1.604	1.580	1.559							
40.0	1.589		1.567							
42.0	1.574									
44.0										
46.0										



A330
AIRPLANE FLIGHT MANUAL

**PERFORMANCE
ENGINE MANAGEMENT**

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APPENDICES AND SUPPLEMENTS

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A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

PRELIMINARY PAGES

TABLE OF CONTENTS

APP-NOI EXTERNAL NOISE

General.....	A
External Noise.....	B

APP-INOP DISPATCH WITH INOPERATIVE ITEMS

General.....	A
Performance.....	B

APP-ETOPS EXTENDED OPERATIONS (ETOPS)

General.....	A
Limitations.....	B
Procedures.....	C
Performance.....	D
Appendices and Supplements.....	E

APP-DTO DERATED TAKEOFF

APP-DTO-GEN GENERAL

General.....	A
--------------	---

APP-DTO-LIM LIMITATIONS

Limitations.....	A
------------------	---

APP-DTO-NORM NORMAL PROCEDURES

Normal Procedures.....	A
------------------------	---

APP-DTO-PERF PERFORMANCE

General.....	A
Takeoff Performance.....	B
Engine Management D04.....	C
Engine Management D08.....	D
Engine Management D12.....	E
Engine Management D16.....	F
Engine Management D20.....	G
Engine Management D24.....	H

APP-DTO-APP APPENDICES AND SUPPLEMENTS

Appendices and Supplements.....	A
---------------------------------	---

Continued on the following page

*Continued from the previous page***APP-LGDN FLIGHT WITH LANDING GEAR DOWN**

General.....	A
Limitations.....	B
Normal Procedures.....	C
Performance.....	D
Appendices and Supplements.....	E

APP-TLWD TAILWIND OPERATIONS

General.....	A
Limitations.....	B

APP-N1 DISPATCH WITH BOTH FADEC IN RATED N1 MODE**APP-N1-GEN GENERAL**

General.....	A
--------------	---

APP-N1-LIM LIMITATIONS

Limitations.....	A
------------------	---

APP-N1-NORM NORMAL PROCEDURES

Takeoff Procedure.....	A
------------------------	---

APP-N1-PERF PERFORMANCE

Performance.....	A
Engine Management Takeoff Thrust.....	B
Engine Management Maximum Continuous Thrust.....	C
Engine Management Go-Around Thrust.....	D

APP-N1-APP APPENDICES AND SUPPLEMENTS

Appendices and Supplements.....	A
---------------------------------	---

APP-TAWS TAWS - GPWS

General.....	A
General.....	B
Limitations.....	C
Normal Procedures.....	D



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

EXTERNAL NOISE

GENERAL

Ident.: APP-NOI-00005206.0002001 / 16 APR 10

EASA APPROVED

Criteria: (330-223 or 330-243 or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343 or 330-200F)

NOISE CHARACTERISTICS

No determination has been made by the EASA that the noise levels of this aircraft are or should be acceptable for operation at, into, or out of any airport.

NOISE LEVELS

Noise levels shown in this supplement comply with EASA CS-36, JAR 36, 14 CFR (FAR) Part 36 Stage 4, and ICAO Annex 16 Chapter 4, noise requirements and were obtained by analysis of approved data from approved noise tests. Identification of the maximum takeoff and landing weights applicable to a particular aircraft is provided in the LIMITATIONS chapter of this AFM (*Refer to LIM-WGHT Weight Limitations*).

NOISE CERTIFICATION PROCEDURES

Compliance with EASA CS-36, JAR 36, 14 CFR (FAR) Part 36, and ICAO Annex 16 included the following procedures:

- An all-engine takeoff configuration 1 + F was used with a constant climb speed equal to the all-engine operating speed at 35 ft, which is at least $V2 + 10$ kt and not greater than $V2 + 20$ kt, with a thrust cutback procedure initiated prior to over-flight of the flyover noise control point, with APU off, air conditioning system off, mid center of gravity and landing gear retracted
- Landing approach on a 3 ° glide slope, at a speed of $VREF + 10$ kt, was used with APU on, air conditioning system on, forward center of gravity, landing gear extended and configuration FULL.

EXTERNAL NOISE

Ident.: APP-NOI-00008555.0012001 / 26 NOV 09

EASA APPROVED

Criteria: (330-243 or 330-342 or 330-343)

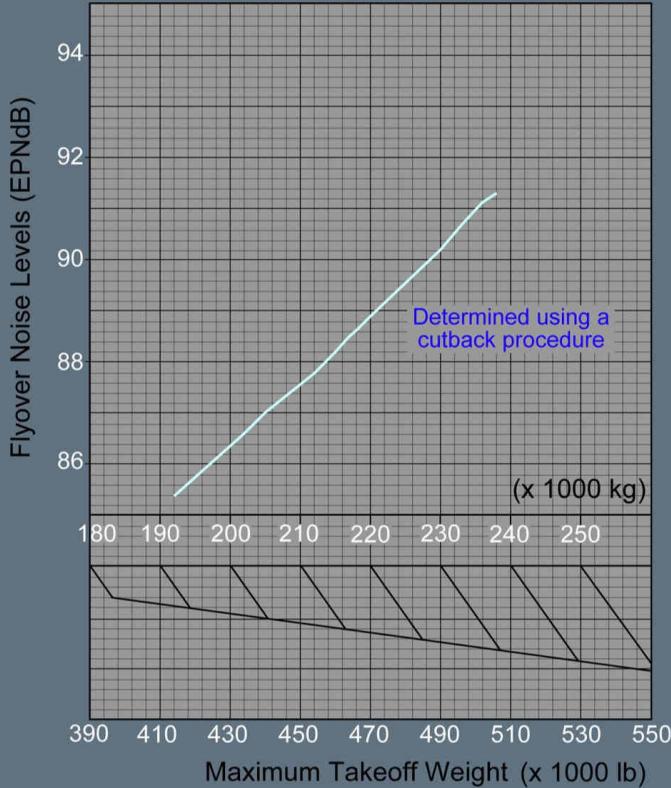
CONFIGURATION

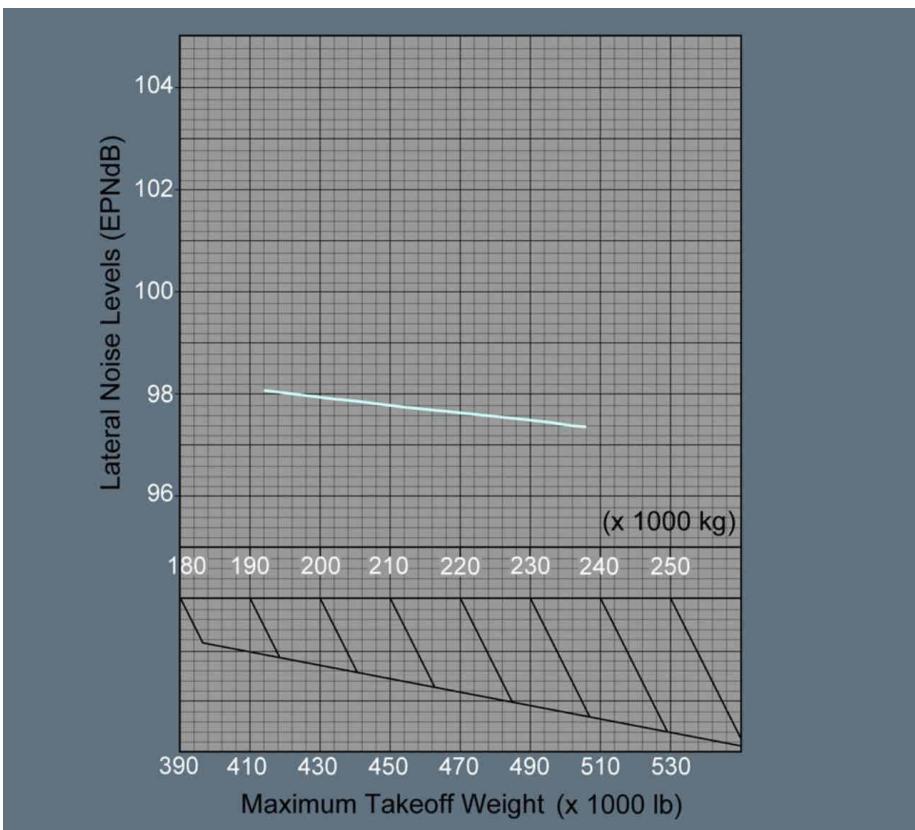
Engines: Rolls Royce Trent 772 or Trent 772B or Trent 772C – 71 100 lb ideal sea level static thrust.

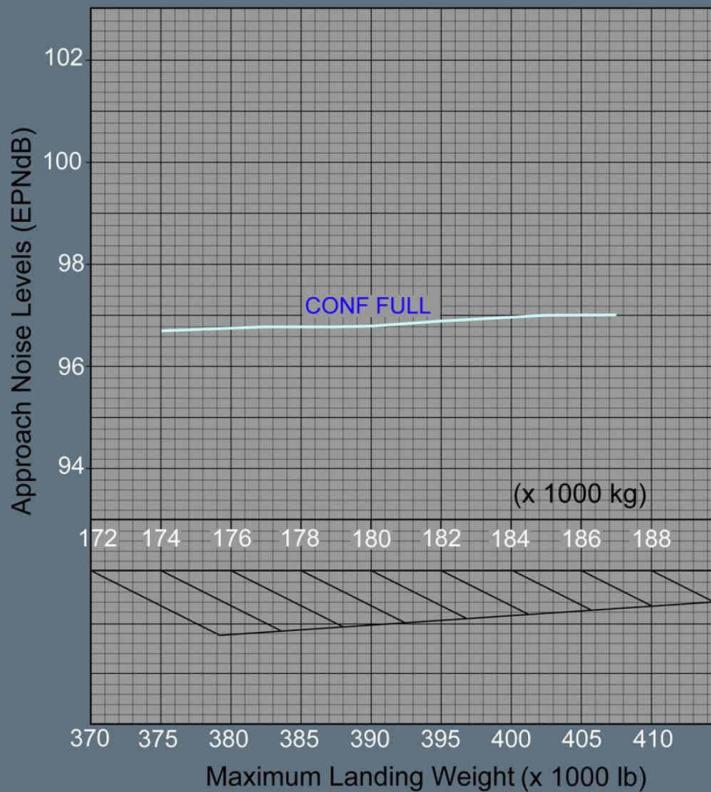
Nacelle treatment: Basic configuration including inlet and fan duct treatments.

CERTIFICATED NOISE LEVELS

EASA CS-36, JAR 36, 14 CFR (FAR) Part 36 Stage 4, and ICAO Annex 16 Chapter 4 certificated noise levels are determined by entering the following graphs at the maximum weights defined in the LIMITATIONS chapter of this AFM (*Refer to LIM-WGHT Weight Limitations*).

Flyover Noise Levels

Lateral Noise Levels

Approach Noise Levels



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS
DISPATCH WITH INOPERATIVE ITEMS

GENERAL

Ident.: APP-INOP-00005139.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

This supplement is applicable to dispatch the aircraft with inoperative items affecting the certified AFM performance.

The provision of performance data in this supplement does not constitute authorization to operate the aircraft with the specified items inoperative.

Unless amended in this supplement, all the chapters of this AFM remain applicable.

PERFORMANCE

Ident.: APP-INOP-00005537.0001001 / 02 JUL 10

EASA APPROVED

Criteria: ((330-201 or 330-202 or 330-203 or 330-223 or 330-223F or 330-301 or 330-302 or 330-303 or 330-321 or 330-322 or 330-323) or ((330-243 or 330-243F or 330-341 or 330-342 or 330-343) and 46878))

For takeoff, en route net flight path and landing performance determination, the Performance Engineer's Programs / AFM _OCTO approved FM module at the latest approved revision must be used. *Refer to PERF-OCTO Performance Database.*

Select the relevant failure case in the SPECIAL CASES field of the input data for AFM performance calculation.

The following table summarizes all the permitted dispatch cases and gives the affected AFM performance:

	Dispatch Case	Affected Performance
ATA 27	One or two pairs (surfaces 1 and 2) of spoilers inoperative in the retracted position	<ul style="list-style-type: none"> - Accelerate Stop Distance (ASD) and decision speed limited by max brakes energy - Landing distance
	Ground spoiler system inoperative	<ul style="list-style-type: none"> - Accelerate Stop Distance (ASD) and decision speed limited by max brakes energy - Landing distance
ATA 30	One or both engine de-icing valve in open position	<ul style="list-style-type: none"> - Takeoff Distance (TOD) - Takeoff Run (TOR) - Accelerate Stop Distance (ASD) - First and second segments - Takeoff flight path - Final takeoff - En route net flight path - Approach and landing climb

Continued on the following page

Continued from the previous page

	Dispatch Case	Affected Performance
ATA 32	One brake inoperative on one or both main landing gears	<ul style="list-style-type: none">- Accelerate Stop Distance (ASD) and decision speed limited by max brakes energy- Landing distance
	One tachometer inoperative	<ul style="list-style-type: none">- Accelerate Stop Distance (ASD) and decision speed limited by max brakes energy- Landing distance
ATA 70	Ground idle system inoperative	<ul style="list-style-type: none">- Accelerate Stop Distance (ASD)- Landing distance



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

EXTENDED OPERATIONS (ETOPS)

GENERAL

Ident.: APP-ETOPS-00005538.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

This supplement is applicable to extended operations (ETOPS/EDTO).

ETOPS/EDTO requirements apply to operations of two engine aircraft beyond the applicable threshold specified by the national authority.

The type-design reliability and performance of this aircraft-engine combination has been evaluated and found to comply with the criteria of AMC 20-6 (ACJ 20X6/AMJ 120-42/IL 20) for operations between 60 min and 180 min diversion time when the configuration, maintenance, and procedures standards contained in EASA approved Airbus ETOPS CMP document reference "LR2/EASA: AMC 20-6/CMP" at the latest applicable revision are met.

The actual maximum approved diversion time for this aircraft may be less based on its most limiting system time capability.

This supplement does not constitute an operational approval. Such authorization must be obtained by the operator from the appropriate authorities.

Unless amended in this supplement, all the chapters of this AFM remain applicable.

LIMITATIONS

Ident.: APP-ETOPS-00005539.0002001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (40314 or 40487 or 45435))

Maximum diversion time at planning may not exceed 180 min or 207 min on a case by case basis (as per applicable regulations) at one engine cruising speed, under standard conditions and still air.

The time capability of the cargo fire suppression system is 260 min.

The time capability of all the other ETOPS significant systems exceeds 222 min.

PROCEDURES

Ident.: APP-ETOPS-00005541.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

The procedures given in the EASA approved Airbus ETOPS CMP document are applicable.

- **In addition to diversion cases covered in EMERGENCY PROCEDURES and ABNORMAL PROCEDURES chapters of this AFM (LAND ASAP, LAND ASAP and fire procedures), diversion becomes mandatory during ETOPS in the case of:**

- Only one generator (either one IDG, APU GEN or CSM/G) remaining available following multiple failure, or
- Only one main generator (either one IDG or APU GEN) remaining available and low level or low pressure or overheating on green hydraulic circuit.

● In the case of failure of one engine or one IDG:

Start APU and use the APU electrical channel.

PERFORMANCE

Ident.: APP-ETOPS-00005542.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

For en route net flight path performance determination associated with the speed used for chosen diversion procedure, the Performance Engineer's Programs/AFM_OCTO approved FM module at the latest approved revision must be used. *Refer to PERF-OCTO Performance Database.*

The following in-flight performance information are provided in the FCOM One engine inoperative chapter (*Refer to FCOM/PER-OEI-GEN-05 INTRODUCTION*):

- Deterioration of performance due to ice accumulation on non-heated structure
- Fuel flow.

APPENDICES AND SUPPLEMENTS

Ident.: APP-ETOPS-00005540.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

The combination with the following supplement is not allowed:

- Flight with Landing Gear Down.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

GENERAL

GENERAL

Ident.: APP-DTO-GEN-00005543.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (43037 or 44629 or 45055))

This supplement is applicable to derated takeoff thrust operations.

Six derate levels are available (04, 08, 12, 16, 20 and 24 %).

Unless amended in this supplement, all the chapters of this AFM remain applicable.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

GENERAL

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A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

LIMITATIONS

LIMITATIONS

Ident.: APP-DTO-LIM-00005544.0002001 / 02 JUL 10

EASA APPROVED

Criteria: ((330-223 or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and (43037 or 44629))

Selection of full takeoff thrust by setting thrust levers at TOGA is not permitted when a derated takeoff is performed.

The use of reduced thrust takeoff (flex takeoff) is not allowed in conjunction with derated takeoff.
The EPR control mode must be operative.

The use of derated takeoff is permitted whatever the runway condition (dry, wet or contaminated).



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

LIMITATIONS

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A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

NORMAL PROCEDURES

NORMAL PROCEDURES

Ident.: APP-DTO-NORM-00005545.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (43037 or 44629 or 45055))

The applicable derate level (D04, D08, D12, D16, D20 or D24) must be entered in the MCDU prior to takeoff.

Relevant derated takeoff thrust is obtained by setting throttle levers in the FLX/MCT detent.
Normal procedure for takeoff remains unchanged.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

NORMAL PROCEDURES

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A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

GENERAL

Ident.: APP-DTO-PERF-00005546.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (43037 or 44629 or 45055))

In determining whether derate or flex should be used for takeoff, consideration of all operational aspects should be made. For a particular power setting, derated takeoff procedures provide an operational benefit over flex takeoff procedures by permitting the use of reduced minimum control speeds, hence lower V1. Derated takeoff procedures do not permit the selection of TOGA thrust in emergency. Consequently, flex takeoff procedures are expected to provide the best net safety benefit on most occasions with derated takeoff procedures being used on a limiting runway. Derated thrusts lower than the one allowing to take off the maximum weight and to meet runway criteria are not permitted.

TAKEOFF PERFORMANCE

Ident.: APP-DTO-PERF-00005547.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (43037 or 44629 or 45055))

For derated takeoff thrust performance determination, the Performance Engineer's Programs/AFM_OCTO approved FM module at the latest approved revision must be used. Refer to *PERF-OCTO Performance Database*.
Select the relevant derate level (D04, D08, D12, D16, D20 or D24) in the ENGINE OPTION field of the input data for AFM performance calculation.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ENGINE MANAGEMENT D04

Ident.: APP-DTO-PERF-00005550.0006001 / 02 JUL 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B - D04 DERATED TO EPR

TRENT772B		D04 DERATED TO EPR								NO AIR BLEED		MACH=.000					
CORRECTIONS FOR AIR BLEED																	
AIR CONDITIONING ON								ADD -0.008 TO EPR									
NACELLE ANTI-ICE ON								READ AT OAT +0.80(C)									
NACELLE ANTI-ICE AND WING ANTI-ICE ON								READ AT OAT +1.70(C)									
OAT (C)		PRESSURE ALTITUDE (FT)															
		-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.					
-60.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.648	1.650	1.652	1.654						
8.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.648	1.650	1.652	1.654						
10.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.648	1.650	1.652	1.654						
12.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.648	1.650	1.652	1.654						
14.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.648	1.650	1.652	1.654						
16.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.648	1.650	1.652	1.654						
18.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.648	1.650	1.649	1.649						
20.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.648	1.647	1.646	1.646						
22.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.645	1.644	1.643	1.643						
24.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.642	1.641	1.639	1.641						
26.0	1.517	1.543	1.570	1.582	1.594	1.621	1.639	1.634	1.632	1.632	1.638						
28.0	1.517	1.543	1.570	1.582	1.594	1.621	1.626	1.630	1.623	1.625	1.629						
30.0	1.517	1.543	1.570	1.582	1.594	1.614	1.616	1.614	1.613	1.615	1.615						
32.0	1.517	1.543	1.570	1.582	1.594	1.602	1.600	1.600	1.600	1.600	1.600						
34.0	1.517	1.543	1.570	1.582	1.588	1.587	1.587	1.586	1.585	1.585	1.586						
36.0	1.517	1.543	1.570	1.576	1.574	1.574	1.572	1.571	1.570	1.570	1.571						
38.0	1.517	1.543	1.564	1.562	1.561	1.559	1.557	1.555	1.555	1.555	1.556						
40.0	1.517	1.536	1.551	1.550	1.545	1.543	1.542	1.540	1.539	1.540	1.540						
42.0	1.509	1.523	1.540	1.535	1.529	1.528	1.526	1.524	1.524	1.524	1.524						
44.0	1.495	1.512	1.525	1.519	1.514	1.513	1.511	1.509									
46.0	1.484	1.499	1.509	1.505	1.499	1.498	1.495										
48.0	1.473	1.486	1.495	1.490	1.485	1.483											
50.0	1.462	1.474	1.481	1.475	1.470												
52.0	1.452	1.462	1.468	1.462													
54.0	1.442	1.449	1.454														
56.0	1.431	1.437															
58.0	1.421																



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ROLLS ROYCE TRENT 772B - D04 DERATED TO EPR

TRENT772B		D04 DERATED TO EPR		NO AIR BLEED		MACH=.000			
CORRECTIONS FOR AIR BLEED									
AIR CONDITIONING ON						ADD -0.010 TO EPR			
NACELLE ANTI-ICE ON						READ AT OAT +1.20(C)			
NACELLE ANTI-ICE AND WING ANTI-ICE ON						READ AT OAT +2.40(C)			
OAT (C)	PRESSURE ALTITUDE (FT)								
	8000.	9000.	10000.	11000.	12000.	13000.	14000.	15000.	16000.
-80.0	1.654	1.665	1.672	1.673	1.674	1.675	1.675	1.677	1.679
-8.0	1.654	1.665	1.672	1.673	1.674	1.675	1.675	1.677	1.679
-8.0	1.654	1.665	1.672	1.673	1.674	1.675	1.675	1.677	1.679
-4.0	1.654	1.665	1.672	1.673	1.674	1.675	1.675	1.677	1.687
-2.0	1.654	1.665	1.672	1.673	1.674	1.675	1.672	1.665	1.657
0.0	1.654	1.665	1.672	1.673	1.674	1.672	1.664	1.657	1.651
2.0	1.654	1.665	1.672	1.673	1.671	1.664	1.656	1.650	1.644
4.0	1.654	1.665	1.672	1.670	1.663	1.656	1.649	1.643	1.638
6.0	1.654	1.665	1.669	1.663	1.655	1.648	1.642	1.636	1.631
8.0	1.654	1.665	1.662	1.655	1.648	1.641	1.635	1.630	1.625
10.0	1.654	1.663	1.655	1.647	1.640	1.634	1.628	1.623	1.617
12.0	1.654	1.655	1.647	1.639	1.633	1.627	1.622	1.615	1.608
14.0	1.654	1.649	1.639	1.631	1.625	1.619	1.613	1.607	1.599
16.0	1.651	1.644	1.630	1.623	1.617	1.611	1.604	1.598	1.589
18.0	1.649	1.638	1.622	1.615	1.608	1.601	1.595	1.588	1.578
20.0	1.646	1.633	1.613	1.605	1.598	1.592	1.585	1.577	1.568
22.0	1.643	1.627	1.603	1.595	1.588	1.581	1.575	1.567	1.557
24.0	1.641	1.620	1.592	1.585	1.578	1.571	1.565		
26.0	1.638	1.611	1.581	1.574	1.557	1.561	1.555		
28.0	1.629	1.598	1.571	1.564	1.557	1.551			
30.0	1.615	1.595	1.560	1.553	1.547				
32.0	1.600	1.573	1.549	1.542					
34.0	1.586	1.560	1.538						
36.0	1.571	1.547							
38.0	1.556								



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ENGINE MANAGEMENT D08

Ident.: APP-DTO-PERF-00005551.0006001 / 02 JUL 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B - D08 DERATED TO EPR

TRENT772B		D08 DERATED TO EPR										NO AIR BLEED		MACH=.000					
CORRECTIONS FOR AIR BLEED																			
AIR CONDITIONING ON										ADD -0.008 TO EPR									
NACELLE ANTI-ICE ON										READ AT DAT +0.90(C)									
NACELLE ANTI-ICE AND WING ANTI-ICE ON										READ AT DAT +1.70(C)									
DAT (C)	PRESSURE ALTITUDE (FT)																		
	-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.								
-60.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.617	1.618	1.619	1.620								
8.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.617	1.618	1.619	1.620								
10.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.617	1.618	1.619	1.620								
12.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.617	1.618	1.619	1.620								
14.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.617	1.618	1.619	1.620								
16.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.617	1.618	1.619	1.619								
18.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.617	1.618	1.617	1.617								
20.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.617	1.616	1.614	1.615								
22.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.614	1.613	1.612	1.613								
24.0	1.494	1.519	1.545	1.556	1.567	1.592	1.609	1.612	1.611	1.608	1.611								
26.0	1.494	1.519	1.545	1.556	1.567	1.592	1.604	1.609	1.604	1.602	1.609								
28.0	1.494	1.519	1.545	1.556	1.567	1.592	1.598	1.601	1.594	1.598	1.600								
30.0	1.494	1.519	1.545	1.556	1.567	1.586	1.588	1.586	1.584	1.586	1.586								
32.0	1.494	1.519	1.545	1.556	1.567	1.574	1.573	1.572	1.572	1.572	1.572								
34.0	1.494	1.519	1.545	1.556	1.561	1.560	1.560	1.559	1.558	1.557	1.558								
36.0	1.494	1.519	1.545	1.556	1.548	1.548	1.546	1.545	1.544	1.543	1.544								
38.0	1.494	1.519	1.539	1.537	1.535	1.533	1.531	1.530	1.529	1.528	1.530								
40.0	1.494	1.512	1.527	1.525	1.520	1.518	1.517	1.515	1.514	1.514	1.514								
42.0	1.486	1.500	1.516	1.511	1.505	1.504	1.502	1.500	1.499										
44.0	1.473	1.489	1.501	1.496	1.491	1.489	1.487	1.485											
46.0	1.452	1.477	1.486	1.482	1.475	1.475	1.473												
48.0	1.452	1.464	1.473	1.468	1.462	1.460													
50.0	1.442	1.453	1.460	1.454	1.448														
52.0	1.432	1.441	1.446	1.441															
54.0	1.422	1.429	1.433																
56.0	1.412	1.418																	
58.0	1.402																		



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ROLLS ROYCE TRENT 772B - D08 DERATED TO EPR

TRENT772B		D08 DERATED TO EPR		NO AIR BLEED				MACH=.000			
CORRECTIONS FOR AIR BLEED											
AIR CONDITIONING ON				ADD -0.010 TO EPR							
NACELLE ANTI-ICE ON				READ AT DAT +1.20(C)							
NACELLE ANTI-ICE AND WING ANTI-ICE ON				READ AT DAT +2.40(C)							
DAT (C)	PRESSURE ALTITUDE (FT)										
	8000.	9000.	10000.	11000.	12000.	13000.	14000.	15000.	16000.		
-60.0	1.620	1.631	1.638	1.639	1.640	1.640	1.641	1.643	1.645		
-5.0	1.620	1.631	1.638	1.639	1.640	1.640	1.641	1.643	1.645		
-4.0	1.620	1.631	1.638	1.639	1.640	1.640	1.641	1.643	1.645		
-2.0	1.620	1.631	1.638	1.639	1.640	1.640	1.641	1.639	1.632		
0.0	1.620	1.631	1.638	1.639	1.640	1.637	1.630	1.622	1.617		
2.0	1.620	1.631	1.638	1.639	1.637	1.629	1.622	1.616	1.611		
4.0	1.620	1.631	1.638	1.636	1.629	1.622	1.615	1.610	1.605		
6.0	1.620	1.631	1.635	1.629	1.621	1.615	1.609	1.604	1.599		
8.0	1.620	1.631	1.628	1.621	1.614	1.608	1.603	1.598	1.593		
10.0	1.620	1.630	1.621	1.614	1.607	1.602	1.597	1.592	1.586		
12.0	1.620	1.621	1.614	1.607	1.600	1.595	1.590	1.584	1.578		
14.0	1.620	1.615	1.606	1.599	1.593	1.588	1.582	1.577	1.570		
16.0	1.619	1.611	1.598	1.592	1.586	1.580	1.574	1.568	1.560		
18.0	1.617	1.605	1.590	1.585	1.578	1.572	1.566	1.559	1.550		
20.0	1.615	1.601	1.583	1.575	1.569	1.563	1.556	1.549	1.540		
22.0	1.613	1.597	1.573	1.566	1.559	1.553	1.547	1.540	1.530		
24.0	1.611	1.591	1.563	1.556	1.549	1.543	1.537				
26.0	1.609	1.582	1.553	1.546	1.540	1.534	1.528				
28.0	1.600	1.569	1.542	1.536	1.530	1.524					
30.0	1.586	1.557	1.532	1.526	1.520						
32.0	1.572	1.545	1.522	1.516							
34.0	1.558	1.533	1.512								
36.0	1.544	1.521									
38.0	1.530										



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ENGINE MANAGEMENT D12

Ident.: APP-DTO-PERF-00005552.0006001 / 02 JUL 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B - D12 DERATED TO EPR

TRENT772B		D12 DERATED TO EPR								NO AIR BLEED		MACH = .000					
CORRECTIONS FOR AIR BLEED																	
AIR CONDITIONING ON								ADD -0.008 TO EPR									
NACELLE ANTI-ICE ON								READ AT OAT +0.80(C)									
NACELLE ANTI-ICE AND WING ANTI-ICE ON								READ AT OAT +1.70(C)									
OAT (C)		PRESSURE ALTITUDE (FT)															
		-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.					
80.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.588					
8.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.588					
10.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.588					
12.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.588					
14.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.588					
16.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.587					
18.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.585					
20.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.584					
22.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.583					
24.0	1.471	1.495	1.520	1.530	1.541	1.564	1.580	1.586	1.587	1.587	1.587	1.581					
26.0	1.471	1.495	1.520	1.530	1.541	1.564	1.575	1.580	1.578	1.578	1.578	1.580					
28.0	1.471	1.495	1.520	1.530	1.541	1.564	1.569	1.573	1.565	1.567	1.567	1.572					
30.0	1.471	1.495	1.520	1.530	1.541	1.559	1.560	1.558	1.557	1.558	1.558	1.559					
32.0	1.471	1.495	1.520	1.530	1.541	1.547	1.546	1.546	1.545	1.545	1.545	1.545					
34.0	1.471	1.495	1.520	1.530	1.535	1.534	1.534	1.533	1.532	1.531	1.531	1.532					
36.0	1.471	1.495	1.520	1.524	1.522	1.522	1.521	1.519	1.518	1.517	1.517	1.519					
38.0	1.471	1.495	1.514	1.512	1.510	1.508	1.506	1.505	1.504	1.503	1.503	1.505					
40.0	1.471	1.489	1.503	1.501	1.496	1.494	1.492	1.490	1.490	1.489	1.489						
42.0	1.464	1.477	1.492	1.487	1.481	1.480	1.478	1.476	1.476	1.475							
44.0	1.451	1.467	1.479	1.473	1.468	1.466	1.464	1.462									
46.0	1.441	1.455	1.464	1.459	1.454	1.452	1.450										
48.0	1.431	1.443	1.451	1.446	1.440	1.438											
50.0	1.422	1.432	1.439	1.433	1.427												
52.0	1.412	1.421	1.426	1.420													
54.0	1.403	1.410	1.413														
56.0	1.393	1.398															
58.0	1.384																



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ROLLS ROYCE TRENT 772B - D12 DERATED TO EPR

TRENT772B		D12 DERATED TO EPR		NO AIR BLEED				MACH=.000	
CORRECTIONS FOR AIR BLEED									
AIR CONDITIONING ON								ADD -0.010 TO EPR	
NACELLE ANTI-ICE ON								HEAD AT OAT +1.20(C)	
NACELLE ANTI-ICE AND WING ANTI-ICE ON								HEAD AT OAT +2.40(C)	
OAT (C)	PRESSURE ALTITUDE (FT)								
	8000.	9000.	10000.	11000.	12000.	13000.	14000.	15000.	16000.
-60.0	1.588	1.599	1.605	1.606	1.606	1.607	1.608	1.609	1.611
-8.0	1.588	1.599	1.605	1.606	1.606	1.607	1.608	1.609	1.611
-5.0	1.588	1.599	1.605	1.606	1.606	1.607	1.608	1.609	1.608
-4.0	1.588	1.599	1.605	1.606	1.606	1.607	1.608	1.606	1.599
-2.0	1.588	1.599	1.605	1.606	1.606	1.607	1.605	1.597	1.589
0.0	1.588	1.599	1.605	1.606	1.606	1.604	1.597	1.589	1.584
2.0	1.588	1.599	1.605	1.606	1.604	1.596	1.588	1.583	1.578
4.0	1.588	1.599	1.605	1.603	1.596	1.588	1.582	1.577	1.573
6.0	1.588	1.599	1.602	1.596	1.588	1.582	1.577	1.572	1.568
8.0	1.588	1.599	1.595	1.588	1.582	1.576	1.571	1.567	1.562
10.0	1.588	1.597	1.588	1.582	1.575	1.570	1.565	1.561	1.556
12.0	1.588	1.589	1.581	1.575	1.569	1.564	1.560	1.554	1.549
14.0	1.588	1.584	1.574	1.568	1.563	1.558	1.553	1.547	1.541
16.0	1.587	1.580	1.567	1.561	1.556	1.550	1.545	1.540	1.532
18.0	1.585	1.575	1.560	1.554	1.548	1.542	1.537	1.531	1.522
20.0	1.584	1.571	1.553	1.546	1.540	1.534	1.528	1.522	1.513
22.0	1.583	1.567	1.543	1.537	1.531	1.525	1.519	1.513	1.504
24.0	1.581	1.562	1.534	1.528	1.522	1.516	1.511		
26.0	1.580	1.553	1.524	1.518	1.512	1.507	1.502		
28.0	1.572	1.542	1.515	1.509	1.503	1.498			
30.0	1.559	1.530	1.505	1.499	1.494				
32.0	1.545	1.519	1.496	1.490					
34.0	1.532	1.507	1.486						
36.0	1.519	1.496							
38.0	1.505								



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ENGINE MANAGEMENT D16

Ident.: APP-DTO-PERF-00005553.0006001 / 02 JUL 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B - D16 DERATED TO EPR

TRENT772B		D16 DERATED TO EPR		NO AIR BLEED				MACH=.000							
CORRECTIONS FOR AIR BLEED															
AIR CONDITIONING ON							ADD -0.008 TO EPR								
NACELLE ANTI-ICE ON							READ AT DAT +0.90(C)								
NACELLE ANTI-ICE AND WING ANTI-ICE ON							READ AT DAT +1.70(C)								
OAT (C)		PRESSURE ALTITUDE (FT)													
		-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.			
-60.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.556	1.556	1.556	1.556	1.557			
	8.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.558	1.556	1.558	1.557			
	10.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.558	1.556	1.556	1.557			
	12.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.558	1.556	1.558	1.557			
	14.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.558	1.556	1.558	1.557			
16.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.558	1.556	1.558	1.556	1.556			
	18.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.558	1.556	1.555	1.555			
	20.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.558	1.556	1.553	1.554			
	22.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.558	1.556	1.552	1.553			
	24.0	1.449	1.472	1.495	1.505	1.515	1.537	1.551	1.558	1.556	1.550	1.553			
26.0	1.449	1.472	1.495	1.505	1.515	1.537	1.547	1.552	1.547	1.544	1.552	1.552			
	28.0	1.449	1.472	1.495	1.505	1.515	1.537	1.542	1.545	1.538	1.540	1.545			
	30.0	1.449	1.472	1.495	1.505	1.515	1.537	1.553	1.531	1.530	1.531	1.532			
	32.0	1.449	1.472	1.495	1.505	1.515	1.521	1.520	1.519	1.519	1.518	1.519			
	34.0	1.449	1.472	1.495	1.505	1.509	1.508	1.507	1.506	1.505	1.506	1.508			
36.0	1.449	1.472	1.495	1.500	1.497	1.497	1.496	1.494	1.492	1.491	1.493	1.493			
	38.0	1.449	1.472	1.490	1.488	1.486	1.484	1.482	1.480	1.479	1.479	1.481			
	40.0	1.449	1.466	1.479	1.478	1.473	1.470	1.469	1.467	1.465	1.465	1.465			
	42.0	1.442	1.454	1.469	1.464	1.458	1.457	1.455	1.453	1.452					
	44.0	1.430	1.445	1.456	1.450	1.445	1.443	1.441	1.439						
46.0	1.420	1.434	1.442	1.438	1.432	1.430	1.428								
	48.0	1.411	1.422	1.430	1.425	1.419	1.417								
	50.0	1.402	1.412	1.418	1.412	1.406									
	52.0	1.393	1.401	1.405	1.399										
	54.0	1.384	1.390	1.393											
56.0	1.375	1.380													
	58.0	1.356													



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ROLLS ROYCE TRENT 772B - D16 DERATED TO EPR

TRENT772B		D16 DERATED TO EPR		NO AIR BLEED				MACH=.000					
CORRECTIONS FOR AIR BLEED													
AIR CONDITIONING ON						ADD -0.010 TO EPR							
NACELLE ANTI-ICE ON						READ AT OAT +1.20(C)							
NACELLE ANTI-ICE AND WING ANTI-ICE ON						READ AT OAT +2.40(C)							
OAT (C)	PRESSURE ALTITUDE (FT)												
	8000.	9000.	10000.	11000.	12000.	13000.	14000.	15000.	16000.				
-60.0	1.557	1.567	1.573	1.574	1.574	1.575	1.576	1.580	1.590				
-8.0	1.557	1.567	1.573	1.574	1.574	1.575	1.576	1.580	1.590				
-6.0	1.557	1.567	1.573	1.574	1.574	1.575	1.576	1.580	1.588				
-4.0	1.557	1.567	1.573	1.574	1.574	1.575	1.576	1.576	1.575				
-2.0	1.557	1.567	1.573	1.574	1.574	1.575	1.573	1.565	1.564				
0.0	1.557	1.567	1.573	1.574	1.574	1.572	1.564	1.556	1.554				
2.0	1.557	1.567	1.573	1.574	1.571	1.564	1.556	1.551	1.547				
4.0	1.557	1.567	1.573	1.571	1.564	1.556	1.551	1.546	1.542				
6.0	1.557	1.567	1.570	1.564	1.566	1.550	1.545	1.541	1.537				
8.0	1.557	1.567	1.563	1.556	1.550	1.545	1.540	1.536	1.533				
10.0	1.557	1.566	1.557	1.550	1.544	1.539	1.535	1.532	1.526				
12.0	1.557	1.557	1.550	1.544	1.539	1.534	1.530	1.525	1.520				
14.0	1.557	1.553	1.543	1.538	1.533	1.529	1.524	1.519	1.513				
16.0	1.556	1.549	1.537	1.531	1.527	1.521	1.517	1.511	1.504				
18.0	1.555	1.545	1.530	1.525	1.519	1.514	1.509	1.503	1.495				
20.0	1.554	1.542	1.523	1.517	1.511	1.506	1.501	1.495	1.487				
22.0	1.553	1.538	1.515	1.508	1.503	1.498	1.493	1.486	1.478				
24.0	1.553	1.533	1.506	1.500	1.494	1.489	1.484						
26.0	1.552	1.525	1.497	1.491	1.486	1.481	1.476						
28.0	1.545	1.514	1.488	1.482	1.477	1.472							
30.0	1.532	1.503	1.479	1.473	1.468								
32.0	1.519	1.492	1.470	1.464									
34.0	1.506	1.481	1.461										
36.0	1.493	1.471											
38.0	1.481												



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ENGINE MANAGEMENT D20

Ident.: APP-DTO-PERF-00005554.0006001 / 02 JUL 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B - D20 DERATED TO EPR

TRENT772B		D20 DERATED TO EPR		NO AIR BLEED				MACH = .000					
CORRECTIONS FOR AIR BLEED													
AIR CONDITIONING ON					ADD -0.008 TO EPR								
NACELLE ANTI-ICE ON					READ AT OAT +0.80(C)								
NACELLE ANTI-ICE AND WING ANTI-ICE ON					READ AT OAT +1.70(C)								
OAT (C)		PRESSURE ALTITUDE (FT)											
-2000.		-1000.		0.		1000.		2000.					
2000.		3000.		4000.		5000.		6000.					
7000.		8000.											
-80.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
8.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
10.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
12.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
14.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
16.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
18.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
20.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
22.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.526	1.525			
24.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.525	1.524			
26.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
28.0		1.427	1.449	1.471	1.481	1.490	1.511	1.523	1.527	1.526			
30.0		1.427	1.449	1.471	1.481	1.490	1.506	1.507	1.505	1.504			
32.0		1.427	1.449	1.471	1.481	1.490	1.496	1.494	1.493	1.492			
34.0		1.427	1.449	1.471	1.481	1.494	1.484	1.483	1.482	1.481			
36.0		1.427	1.449	1.471	1.475	1.473	1.473	1.471	1.470	1.468			
38.0		1.427	1.449	1.466	1.464	1.462	1.460	1.458	1.456	1.455			
40.0		1.427	1.444	1.456	1.455	1.449	1.447	1.445	1.443	1.441			
42.0		1.421	1.432	1.447	1.442	1.435	1.434	1.432	1.430	1.429			
44.0		1.409	1.423	1.434	1.428	1.423	1.421	1.419	1.417				
46.0		1.400	1.413	1.421	1.418	1.410	1.408						
48.0		1.391	1.402	1.409	1.404	1.397	1.395						
50.0		1.383	1.392	1.397	1.391	1.385							
52.0		1.374	1.381	1.385	1.379								
54.0		1.365	1.371	1.374									
56.0		1.357	1.361										
58.0		1.348											



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ROLLS ROYCE TRENT 772B - D20 DERATED TO EPR

TRENT772B		D20 DERATED TO EPR		NO AIR BLEED				MACH=.000									
CORRECTIONS FOR AIR BLEED																	
AIR CONDITIONING ON ADD -0.010 TO EPR																	
NACELLE ANTI-ICE ON READ AT DAT +1.20(C)																	
NACELLE ANTI-ICE AND WING ANTI-ICE ON READ AT DAT +2.40(C)																	
DAT (C)	PRESSURE ALTITUDE (FT)																
	8000.	9000.	10000.	11000.	12000.	13000.	14000.	15000.	16000.								
-60.0	1.526	1.536	1.542	1.542	1.550	1.560	1.570	1.580	1.590								
-8.0	1.526	1.536	1.542	1.542	1.550	1.560	1.570	1.580	1.590								
-6.0	1.526	1.536	1.542	1.542	1.550	1.560	1.570	1.580	1.586								
-4.0	1.526	1.536	1.542	1.542	1.550	1.560	1.570	1.576	1.575								
-2.0	1.526	1.536	1.542	1.542	1.550	1.560	1.568	1.565	1.564								
0.0	1.526	1.536	1.542	1.542	1.550	1.556	1.555	1.554	1.554								
2.0	1.526	1.536	1.542	1.542	1.546	1.545	1.544	1.545	1.545								
4.0	1.526	1.536	1.542	1.540	1.535	1.534	1.535	1.536	1.537								
6.0	1.526	1.536	1.539	1.532	1.525	1.525	1.527	1.527	1.528								
8.0	1.526	1.536	1.532	1.525	1.519	1.517	1.518	1.519	1.519								
10.0	1.526	1.535	1.525	1.519	1.514	1.510	1.510	1.510	1.510								
12.0	1.526	1.526	1.519	1.514	1.509	1.505	1.501	1.501	1.501								
14.0	1.526	1.523	1.513	1.508	1.503	1.500	1.495	1.493	1.491								
16.0	1.526	1.519	1.507	1.502	1.498	1.493	1.489	1.484	1.480								
18.0	1.526	1.516	1.501	1.497	1.491	1.486	1.482	1.476	1.469								
20.0	1.525	1.513	1.495	1.489	1.484	1.479	1.474	1.469	1.461								
22.0	1.525	1.510	1.487	1.481	1.476	1.471	1.467	1.461	1.453								
24.0	1.525	1.506	1.479	1.473	1.468	1.463	1.459										
26.0	1.524	1.498	1.470	1.465	1.460	1.455	1.451										
28.0	1.518	1.488	1.462	1.456	1.452	1.447											
30.0	1.508	1.477	1.453	1.448	1.444												
32.0	1.493	1.467	1.445	1.440													
34.0	1.481	1.457	1.436														
36.0	1.469	1.446															
38.0	1.456																



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ENGINE MANAGEMENT D24

Ident.: APP-DTO-PERF-00005555.0006001 / 02 JUL 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B - D24 DERATED TO EPR

TRENT772B		D24 DERATED TO EPR										NO AIR BLEED		MACH = .000					
CORRECTIONS FOR AIR BLEED																			
AIR CONDITIONING ON										ADD -0.008 TO EPR									
NACELLE ANTI-ICE ON										READ AT OAT +0.90(C)									
NACELLE ANTI-ICE AND WING ANTI-ICE ON										READ AT OAT +1.70(C)									
OAT (C)	PRESSURE ALTITUDE (FT)																		
	-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.								
-60.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.499	1.497	1.500	1.510								
8.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.499	1.497	1.500	1.510								
10.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.499	1.497	1.500	1.506								
12.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.499	1.497	1.496	1.496								
14.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.499	1.497	1.496	1.496								
16.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.499	1.497	1.496	1.496								
18.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.499	1.497	1.496	1.497								
20.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.499	1.497	1.496	1.497								
22.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.498	1.497	1.496	1.497								
24.0	1.411	1.427	1.448	1.457	1.465	1.485	1.496	1.498	1.497	1.496	1.498								
26.0	1.411	1.427	1.448	1.457	1.465	1.485	1.493	1.498	1.493	1.490	1.498								
28.0	1.411	1.427	1.448	1.457	1.465	1.485	1.489	1.492	1.485	1.486	1.492								
30.0	1.406	1.427	1.448	1.457	1.465	1.480	1.481	1.479	1.477	1.479	1.480								
32.0	1.406	1.427	1.448	1.457	1.465	1.471	1.489	1.489	1.488	1.486	1.487								
34.0	1.406	1.427	1.448	1.457	1.460	1.459	1.459	1.458	1.456	1.454	1.456								
36.0	1.406	1.427	1.448	1.452	1.449	1.447	1.446	1.444	1.442	1.442	1.445								
38.0	1.406	1.427	1.443	1.441	1.439	1.437	1.435	1.433	1.431	1.430	1.433								
40.0	1.406	1.422	1.433	1.432	1.427	1.424	1.422	1.420	1.419	1.417									
42.0	1.400	1.411	1.425	1.420	1.413	1.412	1.410	1.408	1.406										
44.0	1.388	1.402	1.413	1.407	1.401	1.399	1.397	1.395											
46.0	1.380	1.392	1.400	1.395	1.389	1.387	1.385												
48.0	1.372	1.382	1.388	1.383	1.377	1.375													
50.0	1.364	1.372	1.377	1.371	1.365														
52.0	1.356	1.362	1.366	1.359															
54.0	1.347	1.353	1.354																
56.0	1.339	1.343																	
58.0	1.331																		



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

ROLLS ROYCE TRENT 772B - D24 DERATED TO EPR

TRENT772B		D24 DERATED TO EPR		NO AIR BLEED		MACH=.000			
CORRECTIONS FOR AIR BLEED									
AIR CONDITIONING ON				ADD -0.010 TO EPR					
NACELLE ANTI-ICE ON				READ AT OAT +1.20(C)					
NACELLE ANTI-ICE AND WING ANTI-ICE ON				READ AT OAT +2.40(C)					
OAT (C)		PRESSURE ALTITUDE (FT)							
		8000.	9000.	10000.	11000.	12000.	13000.		
-80.0	1.510	1.520	1.530	1.540	1.550	1.560	1.570	1.580	1.590
-8.0	1.510	1.520	1.530	1.540	1.550	1.560	1.570	1.580	1.590
-6.0	1.510	1.520	1.530	1.540	1.550	1.560	1.570	1.580	1.588
-4.0	1.510	1.520	1.530	1.540	1.550	1.560	1.570	1.579	1.575
-2.0	1.510	1.520	1.530	1.540	1.550	1.560	1.566	1.565	1.564
0.0	1.510	1.520	1.530	1.540	1.550	1.556	1.555	1.554	1.554
2.0	1.510	1.520	1.530	1.540	1.546	1.545	1.544	1.545	1.545
4.0	1.510	1.520	1.530	1.538	1.535	1.534	1.535	1.536	1.537
6.0	1.510	1.520	1.526	1.525	1.524	1.525	1.527	1.527	1.528
8.0	1.510	1.516	1.515	1.514	1.516	1.517	1.518	1.519	1.519
10.0	1.506	1.505	1.504	1.508	1.508	1.509	1.510	1.510	1.510
12.0	1.496	1.496	1.496	1.498	1.500	1.501	1.501	1.501	1.501
14.0	1.496	1.493	1.489	1.491	1.492	1.493	1.493	1.493	1.491
16.0	1.496	1.490	1.482	1.483	1.484	1.485	1.485	1.483	1.480
18.0	1.497	1.498	1.474	1.476	1.476	1.476	1.475	1.472	1.469
20.0	1.497	1.495	1.467	1.468	1.468	1.467	1.465	1.462	1.458
22.0	1.497	1.482	1.460	1.460	1.460	1.457	1.454	1.451	1.447
24.0	1.498	1.479	1.452	1.452	1.449	1.447	1.444		
26.0	1.498	1.472	1.444	1.442	1.439	1.436	1.433		
28.0	1.492	1.462	1.436	1.432	1.429	1.426			
30.0	1.480	1.452	1.428	1.423	1.419				
32.0	1.468	1.442	1.420	1.416					
34.0	1.456	1.432	1.412						
36.0	1.445	1.422							
38.0	1.433								



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

PERFORMANCE

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A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

APPENDICES AND SUPPLEMENTS

APPENDICES AND SUPPLEMENTS

Ident.: APP-DTO-APP-00005548.0001001 / 02 JUL 10

EASA APPROVED

Criteria: ((330-223 or 330-243 or 330-243F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342 or 330-343) and (43037 or 44629))

The combination with the following supplement is not allowed:

- Dispatch with Both FADEC in Rated N1 Mode.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

DERATED TAKEOFF

APPENDICES AND SUPPLEMENTS

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A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

FLIGHT WITH LANDING GEAR DOWN

GENERAL

Ident.: APP-LGDN-00005556.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

This supplement is applicable to dispatch a revenue flight with the landing gear down and the landing gear doors closed.

Unless amended in this supplement, all the chapters of this AFM remain applicable.

LIMITATIONS

Ident.: APP-LGDN-00005557.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

VMO/MMO = 255 kt IAS/M 0.6

Maximum altitude: 35 000 ft

Ditching has not been demonstrated.

Flight in forecasted icing conditions is not permitted.

Managed vertical modes CLB and DES must not be used.

Managed speed (except in approach) must not be used.

The FMS fuel predictions must be disregarded.

NORMAL PROCEDURES

Ident.: APP-LGDN-00005558.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

PREFLIGHT CHECK

The L/G DOWN VMO/MMO switch located in the avionic bay on 808VU must be set to L/G DOWN position.

PERFORMANCE

Ident.: APP-LGDN-00005559.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

For takeoff, en route net flight path and go-around performance determination, the Performance Engineer's Programs/AFM_OCTO approved FM module at the latest approved revision must be used. *Refer to PERF-OCTO Performance Database.*

Select the LANDING GEARS EXTENDED case in the SPECIAL CASES field of the input data for AFM performance calculation.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

FLIGHT WITH LANDING GEAR DOWN

APPENDICES AND SUPPLEMENTS

Ident.: APP-LGDN-00005560.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

The combination with the following supplement is not allowed:

- Extended Operations (ETOPS).



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

TAILWIND OPERATIONS

GENERAL

Ident.: **APP-TLWD-00005561.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and (41757 or 44313 or 46281 or 46285 or 46468 or 47407 or 49794 or 52342 or 55240 or 55241))

This supplement is applicable to operations with tailwind greater than 10 kt.

Unless amended in this supplement, all the chapters of this AFM remain applicable.

LIMITATIONS

Ident.: **APP-TLWD-00005562.0005001 / 02 JUL 10**

EASA APPROVED

Criteria: ((330-201 or 330-202 or 330-203 or 330-243 or 330-243F or 330-301 or 330-302 or 330-303 or 330-341 or 330-342 or 330-343) and 55240)

Maximum tailwind for takeoff: 15 kt.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

TAILWIND OPERATIONS

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A330
AIRPLANE FLIGHT MANUAL

**APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE**

GENERAL

GENERAL

Ident.: **APP-N1-GEN-00005564.0001001 / 16 APR 10**

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342) or ((330-243 or 330-243F or 330-343) and 46874))

This supplement is applicable to dispatch the aircraft with both FADEC in rated N1 mode.
Unless amended in this supplement, all the chapters of this AFM remain applicable.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE
GENERAL

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A330
AIRPLANE FLIGHT MANUAL

**APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE**

LIMITATIONS

LIMITATIONS

Ident.: APP-N1-LIM-00005565.0001001 / 16 APR 10

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342) or ((330-243 or 330-243F or 330-343) and 46874))

Reduced thrust takeoff is not allowed.

Dispatch in degraded mode (unrated N1 mode) is not allowed.

Note: Autothrust is inoperative.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE
LIMITATIONS

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TAKEOFF PROCEDURE

Ident.: **APP-N1-NORM-00005566.0003001 / 16 APR 10**
Criteria: ((330-243 or 330-243F or 330-341 or 330-342 or 330-343) and 46874)

EASA APPROVED

Turn on both engines N1 mode.

Set slats, flaps and horizontal stabilizer as required.

Perform flight controls checks using the pedals and each sidestick.

Arm ground spoilers and select maximum autobrake.

■ If crosswind at or below 20 kt and no tailwind:

Release brakes with stick half forward.

Apply 50 % N1 on both engines.

When thrust is stable, increase thrust progressively to get TOGA thrust at 40 kt ground speed, whilst maintaining stick half forward up to 80 kt.

■ If crosswind above 20 kt or if tailwind:

Release brakes with stick full forward.

Apply 50 % N1 on both engines.

When thrust is stable, increase thrust progressively to get TOGA thrust at 40 kt ground speed, whilst maintaining stick close to full forward up to 80 kt.

Then release stick progressively to reach neutral at 100 kt.

Check takeoff N1 is set prior to reaching 80 kt.

● At VR:

Rotate the aircraft with a positive sidestick input to achieve a normal and continuous rotation rate to the pitch attitude necessary to maintain an airspeed at or above $V2 + 10$ kt.

● Once airborne and with a positive rate of climb:

Retract landing gear.

SRS guidance can be followed when FD pitch order has stabilized.

Disarm ground spoilers.

● At safe height:

Perform acceleration and slats/flaps retraction.

Note: *If takeoff is performed with packs off, pack 1 should be selected ON after thrust reduction to CLB.*



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE
NORMAL PROCEDURES

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A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE
PERFORMANCE

PERFORMANCE

Ident.: **APP-N1-PERF-00005567.0001001 / 16 APR 10**

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342) or ((330-243 or 330-243F or 330-343) and 46874))

For takeoff, en route net flight path and landing performance determination, the Performance Engineer's Programs / AFM_OCTO approved FM module at the latest approved revision must be used. *Refer to **PERF-OCTO Performance Database**.*

Select N1 mode in the SPECIAL CASES field of the input data for AFM performance calculation.

ENGINE MANAGEMENT TAKEOFF THRUST

Ident.: **APP-N1-PERF-00005568.0003001 / 16 APR 10**

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B - TAKEOFF N1 (%) - RATED N1 MODE

TRENT772B		TAKE-OFF N1		NO AIR BLEED				MACH=.000					
CORRECTIONS FOR AIR BLEED													
OAT (C)	PRESSURE ALTITUDE (FT)												
	-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.		
-80.0	71.6	72.8	74.0	74.6	75.1	76.4	77.2	77.7	77.8	77.9	78.0		
-12.0	79.2	80.6	81.9	82.6	83.2	84.5	85.5	86.0	86.1	86.2	86.3		
-8.0	79.8	81.2	82.6	83.2	83.8	85.2	86.1	86.7	86.8	86.9	87.0		
-4.0	80.4	81.8	83.2	83.8	84.4	85.8	86.8	87.3	87.4	87.5	87.7		
0.0	81.0	82.4	83.8	84.4	85.1	86.4	87.4	88.0	88.1	88.2	88.3		
4.0	81.5	83.0	84.4	85.0	85.7	87.1	88.0	88.6	88.7	88.8	88.9		
8.0	82.2	83.6	85.0	85.7	86.3	87.7	88.7	89.2	89.4	89.5	89.6		
10.0	82.5	83.9	85.3	86.0	86.6	88.0	89.0	89.5	89.7	89.8	89.9		
12.0	82.8	84.2	85.6	86.3	86.9	88.3	89.3	89.9	90.0	90.1	90.2		
14.0	83.1	84.5	85.9	86.6	87.2	88.6	89.6	90.2	90.3	90.4	90.5		
16.0	83.4	84.8	86.2	86.9	87.5	88.9	89.9	90.5	90.6	90.7	90.7		
18.0	83.7	85.1	86.5	87.2	87.8	89.2	90.2	90.8	90.9	90.9	90.8		
20.0	83.9	85.4	86.8	87.5	88.1	89.6	90.6	91.1	91.1	91.0	91.0		
22.0	84.2	85.7	87.1	87.8	88.4	89.9	90.9	91.2	91.2	91.1	91.1		
24.0	84.5	86.0	87.4	88.1	88.7	90.2	91.2	91.3	91.3	91.2	91.3		
26.0	84.8	86.2	87.7	88.4	89.0	90.5	91.2	91.4	91.2	91.1	91.4		
28.0	85.1	85.5	88.0	88.7	89.3	90.8	91.1	91.2	90.9	91.0	91.2		
30.0	85.4	86.8	89.3	89.9	90.6	90.7	90.8	90.7	90.6	90.8	90.7		
32.0	85.5	87.1	88.6	89.2	89.9	90.3	90.3	90.2	90.3	90.3	90.3		
34.0	85.9	87.4	88.9	89.5	89.8	90.8	90.8	89.8	89.7	89.7	89.8		
36.0	86.2	87.7	89.1	89.5	89.4	89.4	89.3	89.2	89.2	89.2	89.2		
38.0	86.5	88.0	89.1	89.0	88.9	88.8	88.7	88.7	88.7	88.7	88.7		
40.0	86.8	87.9	88.7	88.6	88.4	88.3	88.2	88.1	88.1	88.1	88.1		
42.0	86.5	87.4	88.3	88.1	87.8	87.7	87.6	87.5	87.5	87.5	87.5		
44.0	86.1	87.0	87.8	87.5	87.2	87.2	87.1	86.9					
46.0	85.8	86.6	87.2	86.9	86.7	86.6	86.5						
48.0	85.4	86.1	86.7	86.4	86.1	86.0							
50.0	85.0	85.7	86.2	85.9	85.5								
52.0	84.6	85.2	85.6	85.3									
54.0	84.2	84.7	85.0										
56.0	83.9	84.2											
58.0	83.5												

ROLLS ROYCE TRENT 772B - TAKEOFF N1 (%) - RATED N1 MODE

TRENT772B		TAKE-OFF N1		NO AIR BLEED				MACH=.000			
CORRECTIONS FOR AIR BLEED											
AIR CONDITIONING ON				ADD -0.70 TO N1							
NACELLE ANTI-ICE ON				ADD -0.40 TO N1 ABOVE CORNER POINT TEMPERATURE							
NACELLE ANTI-ICE AND WING ANTI-ICE ON				ADD -0.70 TO N1 ABOVE CORNER POINT TEMPERATURE							
DAT (C)		PRESSURE ALTITUDE (FT)									
		8000.	9000.	10000.	11000.	12000.	13000.	14000.	15000.		
-60.0	78.0	78.5	78.9	79.0	79.0	79.1	79.1	79.2	79.3		
-26.0	84.0	84.5	85.0	85.0	85.1	85.1	85.2	85.3	85.4		
-22.0	84.7	85.2	85.5	85.7	85.8	85.8	85.9	86.0	86.1		
-18.0	85.3	85.9	86.3	86.4	86.4	86.5	86.6	86.7	86.8		
-14.0	86.0	86.6	87.0	87.1	87.1	87.2	87.2	87.3	87.5		
-10.0	86.7	87.2	87.7	87.7	87.8	87.8	87.9	88.0	88.1		
-6.0	87.3	87.9	88.3	88.4	88.5	88.5	88.6	88.7	88.6		
-4.0	87.7	88.2	88.7	88.7	88.8	88.8	88.9	88.8	88.4		
-2.0	88.0	88.6	89.0	89.0	89.1	89.2	89.2	88.5	88.2		
0.0	88.3	88.9	89.3	89.4	89.4	89.3	88.9	88.5	88.2		
2.0	89.6	89.2	89.6	89.7	89.6	89.2	88.8	88.5	88.2		
4.0	89.9	89.5	90.0	89.9	89.5	89.1	88.7	88.4	88.1		
6.0	89.3	89.9	90.1	89.8	89.4	89.0	88.7	88.4	88.1		
8.0	89.6	90.2	90.0	89.7	89.3	89.0	88.6	88.3	88.0		
10.0	89.9	90.4	90.0	89.6	89.2	88.9	88.6	88.3	87.9		
12.0	90.2	90.3	89.9	89.5	89.1	88.8	88.5	88.2	87.8		
14.0	90.5	90.3	89.8	89.4	89.0	88.7	88.4	88.0	87.5		
16.0	90.7	90.3	89.6	89.2	88.9	88.5	88.2	87.8	87.3		
18.0	90.8	90.3	89.5	89.1	88.7	88.3	88.0	87.5	87.1		
20.0	91.0	90.3	89.3	88.9	88.5	88.1	87.7	87.3	86.8		
22.0	91.1	90.3	89.0	88.6	88.2	87.9	87.5	87.1	86.5		
24.0	91.3	90.2	88.8	88.4	88.0	87.6	87.2	86.8			
26.0	91.4	90.0	88.5	88.1	87.7	87.3	87.0				
28.0	91.2	89.6	88.2	87.8	87.4	87.0					
30.0	90.7	89.2	87.9	87.5	87.1						
32.0	90.3	88.8	87.6	87.2							
34.0	89.8	88.4	87.2								
36.0	89.2	88.0									
38.0	88.7										
40.0											

Note: The corner point temperatures for takeoff are:

- ISA +22 °C for altitudes below 2 000 ft
- ISA +15 °C for altitudes between 5 000 ft and 8 000 ft
- ISA +10 °C for altitudes above 10 000 ft.

Between these altitude values, the variation is linear.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE
PERFORMANCE

ENGINE MANAGEMENT MAXIMUM CONTINUOUS THRUST

Ident.: APP-N1-PERF-00005569.0003001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B - MAXIMUM CONTINUOUS N1 (%) - RATED N1 MODE

TRENT772B		MAXIMUM CONTINUOUS N1								AIR COND ON (*)	VC=230 KT	
CORRECTIONS FOR AIR BLEED												
AIR CONDITIONING OFF										ADD 0.850 TO N1		
NACELLE ANTI-ICE ON										ADD -0.40 TO N1 ABOVE CORNER POINT TEMPERATURE		
NACELLE ANTI-ICE AND WING ANTI-ICE ON										ADD -1.10 TO N1 ABOVE CORNER POINT TEMPERATURE		
TAT (C)		PRESSURE ALTITUDE (FT)										
		-1000.	3000.	7000.	11000.	15000.	19000.	23000.	27000.	31000.	35000.	39000.
-60.0		88.6	70.8	73.2	76.2	78.7	78.5	77.8	78.4	79.5	81.1	80.9
-46.0		70.8	73.1	75.6	78.6	81.3	81.0	80.3	80.9	82.1	83.7	83.5
-42.0		71.4	73.7	76.2	79.3	82.0	81.7	81.0	81.6	82.8	84.5	84.2
-38.0		72.0	74.4	75.6	80.0	82.7	82.5	81.7	82.3	83.6	85.2	84.9
-34.0		72.6	75.0	77.5	80.7	83.4	83.2	82.4	83.0	84.3	85.9	85.7
-30.0		73.2	75.6	78.2	81.3	84.1	83.8	83.1	83.7	85.0	86.6	86.4
-26.0		73.8	76.2	78.8	82.0	84.8	84.5	83.8	84.4	85.7	87.3	87.1
-22.0		74.4	76.8	79.5	82.7	85.5	85.2	84.5	85.1	86.3	87.8	87.6
-18.0		75.0	77.5	80.1	83.3	86.1	85.9	85.1	85.7	87.0	87.4	87.6
-14.0		75.6	76.1	80.7	84.0	86.8	86.5	85.8	86.4	86.6	86.8	87.0
-10.0		76.2	76.7	81.3	84.6	87.5	87.2	86.5	86.5	86.0	86.2	86.3
-6.0		76.8	79.3	81.9	85.3	88.1	87.9	87.1	85.9	85.3	85.5	85.6
-2.0		77.3	79.9	82.6	85.9	88.8	88.5	88.5	88.3	84.6	84.8	84.9
2.0		77.9	80.4	83.2	86.5	89.5	89.5	89.5	89.5	84.6	83.9	84.0
6.0		78.5	81.0	83.8	87.2	90.1	88.1	85.3	83.9	83.2	83.2	83.3
10.0		79.0	81.6	84.4	87.8	89.7	87.5	84.6	83.2	82.5	82.5	82.6
14.0		79.6	82.2	85.0	88.1	89.0	88.6	83.9	82.6	82.0		
18.0		80.1	82.7	85.5	87.5	88.4	86.1	83.3	82.1			
22.0		80.7	83.3	86.1	86.9	87.7	85.4	82.8				
26.0		81.2	83.9	85.8	86.3	87.0	84.8					
30.0		81.8	84.4	85.3	85.6	86.2	84.1					
34.0		82.3	84.5	84.7	84.9	85.4						
38.0		82.9	83.9	84.1	84.4							
42.0		82.6	83.3	83.5	83.8							
46.0		82.0	82.8	83.0								
52.0		81.2	82.0									
56.0		80.6	81.5									
60.0		80.1										
64.0		79.7										
68.0												

- * One engine inoperative
- One pack operative on remaining engine.

Note: The corner point temperatures for maximum continuous are:

- ISA +15 °C for altitudes below 5 000 ft
- ISA +10 °C for altitudes above 10 000 ft.

Between both altitude values, the variation is linear.

ENGINE MANAGEMENT GO-AROUND THRUST

Ident.: APP-N1-PERF-00005570.0003001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-343)

ROLLS ROYCE TRENT 772B - GO-AROUND N1 (%) - RATED N1 MODE

TRENT772B		GO-AROUND N1		AIR COND ON		MACH = .225						
CORRECTIONS FOR AIR BLEED												
AIR CONDITIONING OFF				ADD 0.400 TO N1								
NACELLE ANTI-ICE ON				ADD -0.30 TO N1 ABOVE CORNER POINT TEMPERATURE								
NACELLE ANTI-ICE AND WING ANTI-ICE ON				ADD -0.60 TO N1 ABOVE CORNER POINT TEMPERATURE								
TAT (C)		PRESSURE ALTITUDE (FT)										
		-2000.	-1000.	0.	1000.	2000.	3000.	4000.	5000.			
-60.0	72.1	73.4	74.5	75.2	75.8	77.0	77.9	78.5	78.6	78.9		
-12.0	79.9	81.2	82.5	83.2	83.9	85.3	86.2	86.8	87.0	87.2		
-8.0	80.5	81.8	83.2	83.9	84.5	85.9	86.9	87.5	87.7	87.8		
-4.0	81.1	82.4	83.8	84.5	85.2	86.6	87.5	88.2	88.3	88.5		
0.0	81.7	83.0	84.4	85.1	85.8	87.2	88.2	88.8	89.0	89.1		
4.0	82.3	83.7	85.0	85.7	86.4	87.8	88.9	89.5	89.6	89.8		
8.0	82.9	84.3	85.5	86.4	87.1	88.5	89.5	90.1	90.3	90.4		
10.0	83.2	84.6	85.9	86.7	87.4	88.8	89.8	90.4	90.6	90.8		
12.0	83.4	84.9	86.3	87.0	87.7	89.1	90.1	90.7	90.9	91.1		
14.0	83.7	85.1	86.5	87.3	88.0	89.4	90.4	91.1	91.2	91.4		
16.0	84.0	85.4	86.9	87.6	88.3	89.7	90.7	91.4	91.5	91.7		
18.0	84.3	85.7	87.2	87.9	88.6	90.0	91.1	91.7	91.9	92.0		
20.0	84.6	85.0	87.5	88.2	88.9	90.3	91.4	92.0	92.2	92.2		
22.0	84.9	85.3	87.8	88.5	89.2	90.6	91.7	92.3	92.4	92.2		
24.0	85.2	85.6	88.0	88.8	89.5	90.9	92.0	92.5	92.4	92.3		
26.0	85.5	85.9	88.3	89.1	89.8	91.3	92.3	92.5	92.5	92.4		
28.0	85.8	87.2	88.6	89.4	90.1	91.6	92.5	92.6	92.5	92.3		
30.0	86.0	87.5	88.9	89.7	90.4	91.9	92.3	92.6	92.2	92.1		
32.0	86.3	87.8	89.2	90.0	90.7	92.1	92.2	92.1	91.9	92.0		
34.0	86.6	88.1	89.5	90.3	91.0	91.8	91.7	91.6	91.6	91.5		
36.0	86.9	88.3	89.8	90.5	91.3	91.3	91.2	91.1	91.1	91.0		
38.0	87.2	88.6	90.1	90.8	90.8	90.8	90.7	90.6	90.6	90.6		
40.0	87.5	88.9	90.4	90.4	90.4	90.3	90.3	90.1	90.0	90.1		
42.0	87.7	89.2	90.0	90.0	89.9	89.9	89.7	89.5	89.5	89.5		
44.0	88.0	89.8	89.6	89.6	89.5	89.3	89.1	89.0	89.0	89.0		
46.0	87.7	88.4	89.2	89.0	88.9	88.8	88.6	88.4				
48.0	87.2	88.0	88.5	88.4	88.4	88.2	88.0	87.8				
50.0	86.8	87.4	87.9	87.9	87.8	87.6	87.4					
52.0	86.4	87.0	87.4	87.3	87.2	87.0						
54.0	86.0	86.5	86.9	86.7	86.6							
56.0	85.6	86.0	86.3	86.1								
58.0	85.2	85.5	85.7									
60.0	84.8	85.0										
62.0	84.4											

ROLLS ROYCE TRENT 772B - GO-AROUND N1 (%) - RATED N1 MODE

TRENT772B		GO-AROUND N1		AIR COND ON				MACH=.225					
CORRECTIONS FOR AIR BLEED													
AIR CONDITIONING OFF					ADD 0.700 TO N1								
NACELLE ANTI-ICE ON					ADD -0.40 TO N1 ABOVE CORNER POINT TEMPERATURE								
NACELLE ANTI-ICE AND WING ANTI-ICE ON					ADD -0.70 TO N1 ABOVE CORNER POINT TEMPERATURE								
TAT (C)		8000.	9000.	10000.	11000.	12000.	13000.	14000.	15000.	16000.			
-60.0		78.9	79.6	80.3	80.3	80.3	80.2	80.2	80.2	80.3			
-26.0		84.9	85.7	86.4	86.4	86.4	86.4	86.4	86.4	86.4			
-22.0		85.6	86.4	87.1	87.1	87.1	87.1	87.1	87.1	87.1			
-18.0		86.3	87.1	87.8	87.8	87.8	87.8	87.8	87.8	87.8			
-14.0		87.0	87.8	88.5	88.5	88.5	88.5	88.5	88.5	88.5			
-10.0		87.7	88.4	89.2	89.2	89.2	89.2	89.2	89.2	89.2			
-6.0		88.3	89.1	89.9	89.8	89.8	89.8	89.8	89.8	89.9			
-4.0		88.6	89.4	90.2	90.2	90.2	90.2	90.2	90.2	90.2			
-2.0		89.0	89.8	90.5	90.5	90.5	90.5	90.5	90.5	90.5			
0.0		89.3	90.1	90.9	90.9	90.8	90.8	90.8	90.8	90.8			
2.0		89.6	90.4	91.2	91.2	91.2	91.2	91.2	91.2	91.2			
4.0		90.0	90.7	91.5	91.5	91.5	91.0	90.4	89.9	89.4			
6.0		90.3	91.1	91.9	91.9	91.3	90.8	90.2	89.7	89.2			
8.0		90.6	91.4	92.2	91.6	91.1	90.6	90.0	89.5	88.9			
10.0		90.9	91.7	92.0	91.4	90.9	90.3	89.8	89.2	88.7			
12.0		91.2	92.1	91.8	91.2	90.7	90.1	89.5	89.0	88.4			
14.0		91.6	92.0	91.5	91.0	90.4	89.9	89.3	88.8	88.2			
16.0		91.9	91.8	91.3	90.7	90.2	89.6	89.1	88.5	87.9			
18.0		92.1	91.7	91.1	90.5	89.9	89.4	88.8	88.3	87.6			
20.0		92.2	91.7	90.8	90.2	89.7	89.1	88.6	88.0	87.4			
22.0		92.2	91.6	90.5	90.0	89.4	88.9	88.3	87.7	87.1			
24.0		92.3	91.4	90.3	89.7	89.2	88.6	88.0	87.4	86.8			
26.0		92.3	91.3	90.0	89.4	88.9	88.3	87.7	87.1	86.5			
28.0		92.4	91.2	89.7	89.2	88.6	88.0	87.4	86.8				
30.0		92.5	90.9	88.4	88.9	88.3	87.7	87.1					
32.0		92.0	90.5	89.1	88.6	88.0	87.4						
34.0		91.5	90.1	88.8	88.3								
36.0		91.0	89.7	88.5	87.9								
38.0		90.6	89.3	88.2									
40.0		90.1	88.9										
42.0		89.6											
44.0													
46.0													

Note: The corner point temperatures for go-around are:

- ISA +22 °C for altitudes below 2 000 ft
- ISA +15 °C for altitudes between 5 000 ft and 8 000 ft
- ISA +10 °C for altitudes above 10 000 ft.

Between these altitude values, the variation is linear.



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE
PERFORMANCE

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A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE
APPENDICES AND SUPPLEMENTS

APPENDICES AND SUPPLEMENTS

Ident.: **APP-N1-APP-00005571.0001001 / 16 APR 10**

EASA APPROVED

Criteria: ((330-223 or 330-223F or 330-321 or 330-322 or 330-323 or 330-341 or 330-342) or ((330-243 or 330-243F or 330-343) and 46874))

The combination with the following supplement is not allowed:

- Derated Takeoff (if applicable).



A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS
DISPATCH WITH BOTH FADEC IN RATED N1 MODE
APPENDICES AND SUPPLEMENTS

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A330
AIRPLANE FLIGHT MANUAL

APPENDICES AND SUPPLEMENTS

TAWS - GPWS

GENERAL

Ident.: **TDU / APP-TAWS-00012813.0001001 / 03 MAR 11**

EASA APPROVED

Criteria: (A330 and 58449)

Impacted DU: 00005590 General

Impacted by TR132 Issue 1.0

This supplement is applicable to aircraft fitted with the Terrain Awareness Warning System (TAWS) T2CAS or T3CAS.

A list of areas where no terrain data are available along the scheduled route should be made available to the flight crew.

Approval of T3CAS TAWS function is based on the assumption that TAWS databases (excluding Performance database) are compliant with DO-200A DPAL2.

Unless amended in this supplement, all the chapters of this AFM remain applicable.

GENERAL

Ident.: **APP-TAWS-00005590.0002001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and 52992)

Impacted by TDU: 00012813 General

This supplement is applicable to aircraft fitted with the Terrain Awareness Warning System (TAWS) T2CAS.

A list of areas where no terrain data are available along the scheduled route should be made available to the flight crew.

Unless amended in this supplement, all the chapters of this AFM remain applicable.

LIMITATIONS

Ident.: **APP-TAWS-00005591.0002001 / 26 NOV 09**

EASA APPROVED

Criteria: (A330 and 52992)

Aircraft navigation is not to be predicated upon the use of the terrain display.

The terrain display is intended to serve as a situation awareness tool only, and may not provide the accuracy on which to solely base terrain avoidance maneuvering.

The TAWS database, display, and alerting algorithms currently do not account for man made obstructions.

The TAWS predictive function should be inhibited (TERR pushbutton set to OFF on GPWS panel) when the aircraft position is less than 15 nm from the airfield:

- For operations from/to runways not incorporated into the TAWS database
- For specific approach procedures which have previously been identified as potentially producing false terrain alerts.

NORMAL PROCEDURES

Ident.: APP-TAWS-00005592.0004001 / 26 NOV 09

EASA APPROVED

Criteria: (A330 and (52992 and 54274))

The following procedures replace the GPWS procedures published in the NORMAL PROCEDURES chapter of this AFM.

● When a warning occurs:

Pull up using full back stick.

Apply takeoff thrust and climb until the warning ceases.

For TAWS predictive function, in addition to climbing, a turning maneuver can be initiated after verifying the aircraft position and if the crew concludes turning is the safest way of action.

Note: *In the case of an "Avoid Terrain" alert, in addition to climbing, a turning maneuver is recommended.*

Warnings may be considered cautionary during daylight VMC conditions provided the cause of the warning can be identified immediately.

● When a caution occurs:

Adjust the flight path/configuration so that the caution alert ceases.

Climb and/or turn as necessary based on analysis of all available instruments and information.

MASTER CONFIGURATION DEVIATION LIST

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A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

PRELIMINARY PAGES

TABLE OF CONTENTS

MCDL-GEN GENERAL

MCDL-GEN-INTR INTRODUCTION

Introduction.....	.A
-------------------	----

MCDL-GEN-LIM LIMITATIONS

Limitations.....	A
------------------	---

MCDL-GEN-PERF PERFORMANCE

Performance Determination Method.....	.A
---------------------------------------	----

Performance Penalties Published in the Airplane Flight Manual MCDL Chapter.....	B
---	---

Performance Penalties Calculated with AFM_OCTO Software.....	C
--	---

MCDL-21 AIR CONDITIONING

MCDL-21-01 Ram Air Inlet Flap

Ram Air Inlet Flap.....	A
-------------------------	---

Illustration Ram Air Inlet Flap.....	B
--------------------------------------	---

MCDL-21-02 Ram Air Outlet Flap

Ram Air Outlet Flap.....	.A
--------------------------	----

Illustration Ram Air Outlet Flap.....	B
---------------------------------------	---

MCDL-23 COMMUNICATIONS

MCDL-23-01 Static Discharger

Static Discharger.....	.A
------------------------	----

Illustration Static Discharger.....	B
-------------------------------------	---

MCDL-27 FLIGHT CONTROLS

MCDL-27-02 Slat Track Closing Plate

Slat Track Closing Plate.....	.A
-------------------------------	----

Illustration Slat Track Closing Plate.....	B
--	---

MCDL-27-03 Rubber Seal under Slats

Rubber Seal under Slats.....	.A
------------------------------	----

Illustration Rubber Seal under Slats.....	B
---	---

MCDL-27-04 Aileron Rubber Seal

Aileron Rubber Seal.....	.A
--------------------------	----

Illustration Aileron Rubber Seal.....	B
---------------------------------------	---

MCDL-27-05 Aileron Servo Actuator Fairing

Aileron Servo Actuator Fairing.....	.A
-------------------------------------	----

Illustration Aileron Servo Actuator Fairing.....	B
--	---

Continued on the following page

*Continued from the previous page***MCDL-27-06 Slat End Blade Seal**

Slat End Blade Seal.....	A
Illustration Slat End Blade Seal.....	B

MCDL-27-07 Flap Blade Seal and Triangular Cushion Seal

Flap Blade Seal and Triangular Cushion Seal.....	A
Illustration Flap Blade Seal and Triangular Cushion Seal.....	B

MCDL-27-08 Slat End Filling

Slat End Filling.....	A
Illustration Slat End Filling.....	B

MCDL-27-10 Inner Aileron Seal (Upper and Lower)

Inner Aileron Seal (Upper and Lower).....	A
Illustration Inner Aileron Seal (Upper and Lower).....	B

MCDL-27-11 Inner Aileron Large Seal

Inner Aileron Large Seal.....	A
Illustration Inner Aileron Large Seal.....	B

MCDL-28 FUEL SYSTEM**MCDL-28-01 Refuel/Defuel Coupling Cap**

Refuel/Defuel Coupling Cap.....	A
Illustration Refuel/Defuel Coupling Cap.....	B

MCDL-28-02 Refuel/Defuel Control Panel Access Door on Belly Fairing

Refuel/Defuel Control Panel Access Door on Belly Fairing.....	A
Illustration Refuel/Defuel Control Panel Access Door on Belly Fairing.....	B

MCDL-28-04 Fuel Pump Fairing

Fuel Pump Fairing.....	A
Illustration Fuel Pump Fairing.....	B

MCDL-29 HYDRAULIC**MCDL-29-01 Ground Green Hydraulic Connection Access Door**

Ground Green Hydraulic Connection Access Door.....	A
Illustration Ground Green Hydraulic Connection Access Door.....	B

MCDL-29-02 Ground Blue Hydraulic Connection Access Door

Ground Blue Hydraulic Connection Access Door.....	A
Illustration Ground Blue Hydraulic Connection Access Door.....	B

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

PRELIMINARY PAGES

TABLE OF CONTENTS

Continued from the previous page

MCDL-29-03 Ground Yellow Hydraulic Connection Access Door

Ground Yellow Hydraulic Connection Access Door.....	A
Illustration Ground Yellow Hydraulic Connection Access Door.....	B

MCDL-30 ICE AND RAIN PROTECTION

MCDL-30-01 Icing Indicator

Icing Indicator.....	A
Illustration Icing Indicator.....	B

MCDL-32 LANDING GEAR

MCDL-32-01 Center Landing Gear Door Ground Opening Access Door

Center Landing Gear Door Ground Opening Access Door.....	A
Illustration Center Landing Gear Door Ground Opening Access Door.....	B

MCDL-32-02 Main Landing Gear Door Seal

Main Landing Gear Door Seal.....	A
Illustration Main Landing Gear Door Seal.....	B

MCDL-32-03 Main Landing Gear Leg Door and Hinged Door Rubber Seal

Main Landing Gear Leg Door and Hinged Door Rubber Seal.....	A
Illustration Main Landing Gear Leg Door and Hinged Door Rubber Seal.....	B

MCDL-32-04 Nose Fitting Towing

Nose Fitting Towing.....	A
Illustration Nose Fitting Towing.....	B

MCDL-32-05 Nose Landing Gear Wheel Hubcap

Nose Landing Gear Wheel Hubcap.....	A
Illustration Nose Landing Gear Wheel Hubcap.....	B

MCDL-32-06 Main Landing Gear Wheel Hubcap

Main Landing Gear Wheel Hubcap.....	A
Illustration Main Landing Gear Wheel Hubcap.....	B

MCDL-33 LIGHTS

MCDL-33-01 Wing/Landing Light Glazing

Wing/Landing Light Glazing.....	A
Illustration Wing/Landing Light Glazing.....	B

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

PRELIMINARY PAGES

TABLE OF CONTENTS

Continued from the previous page

MCDL-33-02 Taxi/Takeoff Light

Taxi/Takeoff Light.....	A
Illustration Taxi/Takeoff Light.....	B

MCDL-33-03 Runway Turnoff Light

Runway Turnoff Light.....	A
Illustration Runway Turnoff Light.....	B

MCDL-33-04 Logo Light Lens

Logo Light Lens.....	A
Illustration Logo Light Lens.....	B

MCDL-33-05 Rear Navigation/Strobe Lights Glazing

Rear Navigation/Strobe Lights Glazing.....	A
Illustration Rear Navigation/Strobe Lights Glazing.....	B

MCDL-33-06 Upper Anti-Collision (Beacon) Light Cover

Upper Anti-Collision (Beacon) Light Cover.....	A
Illustration Upper Anti-Collision (Beacon) Light Cover.....	B

MCDL-33-07 Lower Anti-Collision (Beacon) Light Cover

Lower Anti-Collision (Beacon) Light Cover.....	A
Illustration Lower Anti-Collision (Beacon) Light Cover.....	B

MCDL-51 STRUCTURE

MCDL-51-01 Radome Conducting Strip

Radome Conducting Strip.....	A
Illustration Radome Conducting Strip.....	B

MCDL-51-02 Passenger Door Scuff Plate

Passenger Door Scuff Plate.....	A
Illustration Passenger Door Scuff Plate.....	B

MCDL-51-03 Bulk Door Scuff Plate

Bulk Door Scuff Plate.....	A
Illustration Bulk Door Scuff Plate.....	B

MCDL-51-04 Passenger Door Gutter

Passenger Door Gutter.....	A
Illustration Passenger Door Gutter.....	B

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

PRELIMINARY PAGES

TABLE OF CONTENTS

Continued from the previous page

MCDL-52 DOORS

MCDL-52-02 Forward Cargo Loading Operation Control Panel Door

Forward Cargo Loading Operation Control Panel Door.....	A
Illustration Forward Cargo Loading Operation Control Panel Door.....	B

MCDL-52-03 Aft Cargo Door Control Panel Access Door

Aft Cargo Door Control Panel Access Door.....	A
Illustration Aft Cargo Door Control Panel Access Door.....	B

MCDL-52-04 Aft Cargo Loading Operation Control Panel Door

Aft Cargo Loading Operation Control Panel Door.....	A
Illustration Aft Cargo Loading Operation Control Panel Door.....	B

MCDL-52-05 Forward Jacking Point Receptable Door

Forward Jacking Point Receptable Door.....	A
Illustration Forward Jacking Point Receptable Door.....	B

MCDL-52-06 Potable Water Drain Connection Service Door

Potable Water Drain Connection Service Door.....	A
Illustration Potable Water Drain Connection Service Door.....	B

MCDL-52-07 Potable Water Service Door

Potable Water Service Door.....	A
Illustration Potable Water Service Door.....	B

MCDL-52-08 Vacuum Toilet Service Door

Vacuum Toilet Service Door.....	A
Illustration Vacuum Toilet Service Door.....	B

MCDL-52-09 Fuel Center Tank Water Drain Access Door

Fuel Center Tank Water Drain Access Door.....	A
Illustration Fuel Center Tank Water Drain Access Door.....	B

MCDL-52-10 Cargo Door Indicator Flag

Cargo Door Indicator Flag.....	A
Illustration Cargo Door Indicator Flag.....	B

MCDL-52-11 Potable Water Forward Drain Panel Access Door

Potable Water Forward Drain Panel Access Door.....	A
Illustration Potable Water Forward Drain Panel Access Door.....	B

MCDL-52-12 Forward Cargo Door Access Cover Panel

Forward Cargo Door Access Cover Panel.....	A
Illustration Forward Cargo Door Access Cover Panel.....	B

Continued on the following page

*Continued from the previous page***MCDL-52-13 Aft Cargo Door Access Cover Panel**

Aft Cargo Door Access Cover Panel.....	A
Illustration Aft Cargo Door Access Cover Panel.....	B

MCDL-52-14 Passenger Door and Emergency Exits Upper Cover Plate

Passenger Door and Emergency Exits Upper Cover Plate.....	A
Illustration Passenger Door and Emergency Exits Upper Cover Plate.....	B

MCDL-53 FUSELAGE**MCDL-53-01 "Dog House" Closing Panel**

"Dog House" Closing Panel.....	A
Illustration "Dog House" Closing Panel.....	B

MCDL-53-02 Belly Fairing Sliding Panel

Belly Fairing Sliding Panel.....	A
Illustration Belly Fairing Sliding Panel.....	B

MCDL-53-03 Flap Valve Assy

Flap Valve Assy.....	A
Illustration Flap Valve Assy.....	B

MCDL-53-04 Belly Fairing Seal

Belly Fairing Seal.....	A
Illustration Belly Fairing Seal.....	B

MCDL-54 NACELLE/PYLON**MCDL-54-03 Spring Plate**

Spring Plate.....	A
Illustration Spring Plate.....	B

MCDL-54-04 Pylon Access Panel

Pylon Access Panel.....	A
Illustration Pylon Access Panel.....	B

MCDL-57 WINGS**MCDL-57-01 Underwing Plug for Jacking Point**

Underwing Plug for Jacking Point.....	A
Illustration Underwing Plug for Jacking Point	B

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

PRELIMINARY PAGES

TABLE OF CONTENTS

Continued from the previous page

MCDL-57-02 Winglet

Winglet.....	A
Illustration Winglet.....	B

MCDL-57-04 Flap Track Fairing

Flap Track Fairing.....	A
Illustration Flap Track Fairing.....	B

MCDL-57-05 Access Panel to Slat Actuator Overtorque Indicator Flag

Access Panel to Slat Actuator Overtorque Indicator Flag.....	A
Illustration Access Panel to Slat Actuator Overtorque Indicator Flag.....	B

MCDL-57-07 Flap Track Fairing Cover

Flap Track Fairing Cover.....	A
Illustration Flap Track Fairing Cover.....	B

MCDL-57-08 Flap to Movable Flap Track Fairing Seal

Flap to Movable Flap Track Fairing Seal.....	A
Illustration Flap to Movable Flap Track Fairing Seal.....	B

MCDL-57-09 Cover on Flap Track Fixed Fairing

Cover on Flap Track Fixed Fairing.....	A
Illustration Cover on Flap Track Fixed Fairing.....	B

MCDL-71 POWER PLANT

MCDL-71-05 Fan Cowl Door Hoist Point Plug

Fan Cowl Door Hoist Point Plug.....	A
Illustration Fan Cowl Door Hoist Point Plug.....	B

MCDL-71-06 Fan Cowl Door Hold Open Rod

Fan Cowl Door Hold Open Rod.....	A
Illustration Fan Cowl Door Hold Open Rod.....	B

MCDL-71-07 Nacelle Hoist Point Plug Nose Cowl

Nacelle Hoist Point Plug Nose Cowl.....	A
Illustration Nacelle Hoist Point Plug Noise Cowl.....	B

MCDL-78 EXHAUST

MCDL-78-08 Thrust Reverser Hoist Point Plug

Thrust Reverser Hoist Point Plug.....	A
Illustration Thrust Reverser Hoist Point Plug.....	B

Continued on the following page

*Continued from the previous page***MCDL-78-09 Thrust Reverser Cinching Device**

Thrust Reverser Cinching Device.....	A
Illustration Thrust Reverser Cinching Device.....	B

MCDL-78-10 Thrust Reverser "C" Duct Actuation System

Thrust Reverser "C" Duct Actuation System.....	A
Illustration Thrust Reverser "C" Duct Actuation System.....	B

MCDL-78-11 Thrust Reverser Front and Rear Hold Open Rod

Thrust Reverser Front and Rear Hold Open Rod.....	A
Illustration Thrust Reverser Front and Rear Hold Open Rod.....	B

MCDL-78-12 Thrust Reverser Hinge Access Cover

Thrust Reverser Hinge Access Cover.....	A
Illustration Thrust Reverser Hinge Access Cover.....	B

MCDL-78-13 Thrust Reverser Bavette Fairing

Thrust Reverser Bavette Fairing.....	A
Illustration Thrust Reverser Bavette Fairing.....	B

MCDL-78-14 Thrust Reverser Door Actuator Pit Fairing

Thrust Reverser Door Actuator Pit Fairing.....	A
Illustration Thrust Reverser Door Actuator Pit Fairing.....	B

MCDL-78-15 Thrust Reverser Pivot Door Access Panel

Thrust Reverser Pivot Door Access Panel.....	A
Illustration Thrust Reverser Pivot Door Access Panel.....	B

MCDL-78-16 Thrust Reverser Rectangular Movable Panel

Thrust Reverser Rectangular Movable Panel.....	A
Illustration Thrust Reverser Rectangular Movable Panel.....	B

MCDL-78-17 Thrust Reverser Triangular Movable Panel

Thrust Reverser Triangular Movable Panel.....	A
Illustration Thrust Reverser Triangular Movable Panel.....	B

MCDL-78-18 Common Nozzle Assembly Hoist Point Plug

Common Nozzle Assembly Hoist Point Plug.....	A
Illustration Common Nozzle Assembly Hoist Point Plug.....	B

MCDL-78-19 Common Nozzle Assembly Pylon Fairing Trailing Edge

Common Nozzle Assembly Pylon Fairing Trailing Edge.....	A
Illustration Common Nozzle Assembly Pylon Fairing Trailing Edge.....	B

Continued on the following page



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

PRELIMINARY PAGES

TABLE OF CONTENTS

Continued from the previous page

MCDL-78-20 Latch Number 4 Access Panel

Latch Number 4 Access Panel.....	A
Illustration Latch Number 4 Access Panel.....	B



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

PRELIMINARY PAGES

TABLE OF CONTENTS

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A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

GENERAL

INTRODUCTION

INTRODUCTION

Ident.: **MCDL-GEN-INTR-00008851.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Operation of the aircraft without certain secondary airframe and engine parts is possible as indicated in this Master Configuration Deviation List (MCDL). Any part not included in this list must be considered as necessary.

It is important to repair the aircraft at the first airport where repairs or replacements may reasonably be made, since additional malfunctions may require the aircraft to be taken out of service.

Letter (m) associated to an item indicates that some maintenance action is necessary to permit flight with these parts missing. Refer to the related section of the Aircraft Maintenance Manual (AMM) for this information.

- Note:**
1. The sign “-” in “Quantity installed” column indicates that the quantity is variable.
 2. The illustrations included in this MCDL are given only for information to facilitate location of missing items and must not be considered as approved data.
 3. Items numbering is used for item identification only. As a consequence it may appear some gaps in the item numbering sequence of a given aircraft. In such a case, completeness of the MCDL may be checked by referring to the LEDU.



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

GENERAL

INTRODUCTION

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A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

GENERAL

LIMITATIONS

LIMITATIONS

Ident.: **MCDL-GEN-LIM-00008852.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

No more than one part of one system may be missing except if otherwise specified. Parts of different systems may be simultaneously missing, unless otherwise specified in this list.

When missing part introduces additional limitation(s), this limitation is indicated in the dispatch condition of the item of this list. This limitation comes in addition to the ones of the LIMITATIONS chapter of this AFM. This limitation must be clearly indicated by a placard on the pilot's instrument panel.

When an MCDL dispatch condition refers to the MMEL, the minimum number of equipment required for dispatch is the most limiting of the two documents.



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

GENERAL

LIMITATIONS

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A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

GENERAL

PERFORMANCE

PERFORMANCE DETERMINATION METHOD

Ident.: **MCDL-GEN-PERF-00008853.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

There are two approved ways of determining the performance impact of CDL items missing:

- Using MCDL chapter of the AFM, or
- Using AFM_OCTO software.

The MCDL performance penalties associated to the missing items when published in this chapter are envelope penalties. More accurate penalties can be determined by using AFM_OCTO software. According to the operations, operators can select the most adequate method.

If no performance data are available in AFM_OCTO for a given item listed in this MCDL chapter, the penalties published in this MCDL chapter must be used.

PERFORMANCE PENALTIES PUBLISHED IN THE AIRPLANE FLIGHT MANUAL MCDL CHAPTER

Ident.: **MCDL-GEN-PERF-00008854.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

Performance penalties are cumulative unless specific penalties for particular combinations of missing items are indicated.

These takeoff, en route and landing penalties apply to the most limiting corresponding weight.

If performance penalties are not indicated for removed items, no more than three of such items can be missing without taking further penalty. If more than three of such items are missing together, the following performance penalties are applicable per additional missing item:

- Takeoff and approach climb performance limiting weights are reduced by 50 kg (111 lb)
- En route performance limiting weight is reduced by 120 kg (265 lb) (i.e. corresponding to a 60 ft decrease of en route net ceiling).

PERFORMANCE PENALTIES CALCULATED WITH AFM_OCTO SOFTWARE

Ident.: **MCDL-GEN-PERF-00008855.0001001 / 28 FEB 11**

EASA APPROVED

Criteria: A330

The takeoff, approach climb and en route performance with MCDL items missing can be determined by selecting the missing items in the "CDL item..." menu of the AFM_OCTO interface, using the database given in PERFORMANCE chapter (*Refer to PERFOCTO Performance Database*) of this AFM associated to CDL DATA file at issue 6.0 or higher, using AFM_OCTO approved FM module at the revision 26 or higher.

Items for which no performance penalty is indicated in this MCDL chapter are referenced as negligible items. Select the number of negligible items in the "CDL item..." menu to determine performance impact when four or more of such items are missing.



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

GENERAL

PERFORMANCE

CAUTION

The most limiting performance between the one computed with items missing and the one computed without item missing must be used.



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

AIR CONDITIONING

RAM AIR INLET FLAP

21-01

Ram Air Inlet Flap

Ident.: MCDL-21-01-00009315.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

21-01	Quantity installed
RAM AIR INLET FLAP	2

(m) Refer to AMM 21-53-00-040-808

All may be missing.

- Note:
1. May be combined with MCDL item 21-02 (Refer to 21-02 Ram Air Outlet Flap) on one pack only.
 2. System performance in heating mode will be decreased.

- **Performance:**

The following performance penalties are applicable per missing inlet flap:

- Takeoff and approach climb performance limiting weights are reduced by 343 kg (757 lb)
- En route performance limiting weight is reduced by 680 kg (1 500 lb)
- Fuel consumption is increased by 0.50 %.

When combined with MCDL item 21-02 (Refer to 21-02 Ram Air Outlet Flap) of the same pack, the following performance penalties are applicable per affected pack:

- Takeoff and approach climb performance limiting weights are reduced by 515 kg (1 136 lb)
- En route performance limiting weight is reduced by 1 020 kg (2 249 lb)
- Fuel consumption is increased by 0.72 %.

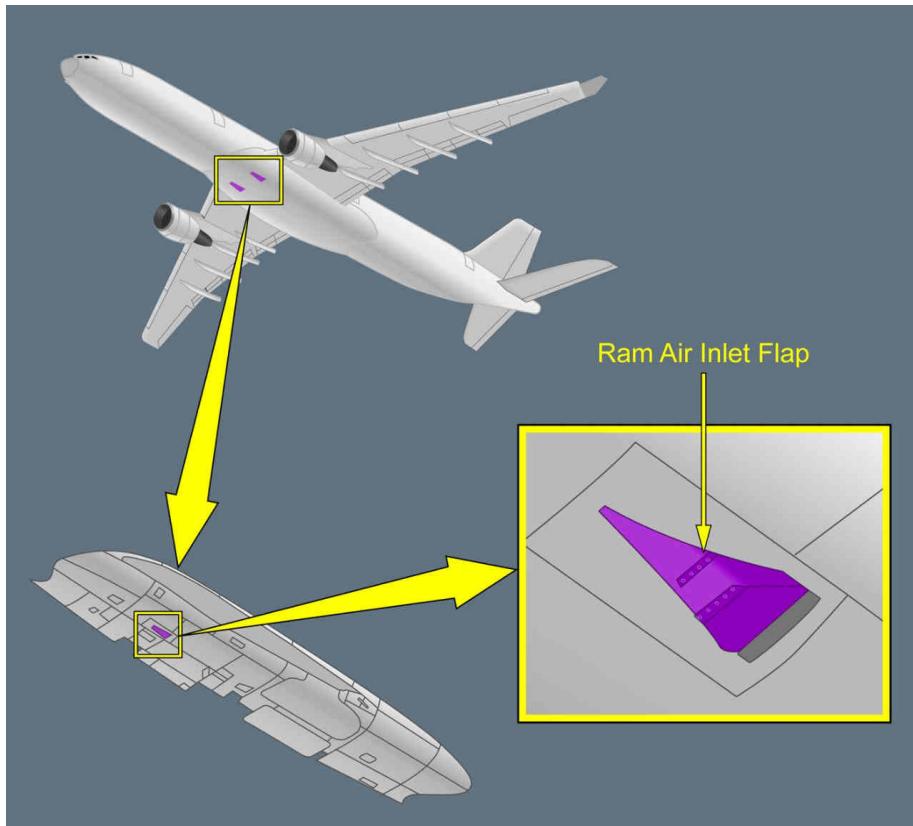
Refer to MCDL-21-01 Illustration Ram Air Inlet Flap

ILLUSTRATION RAM AIR INLET FLAP

Ident.: MCDL-21-01-00009316.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 21-01 Ram Air Inlet Flap.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

AIR CONDITIONING

RAM AIR OUTLET FLAP

21-02

Ram Air Outlet Flap

Ident.: MCDL-21-02-00009317.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

21-02 RAM AIR OUTLET FLAP	Quantity installed 2
------------------------------	-------------------------

(m) Refer to AMM 21-53-00-040-808

All may be missing.

- Note:
1. May be combined with MCDL item 21-01 (Refer to 21-01 Ram Air Inlet Flap) on one pack only.
 2. System performance in heating mode will be decreased.

- **Performance:**

When combined with MCDL item 21-01 (Refer to 21-01 Ram Air Inlet Flap) of the same pack, the following performance penalties are applicable per affected pack:

- Takeoff and approach climb performance limiting weights are reduced by 515 kg (1 136 lb)
- En route performance limiting weight is reduced by 1 020 kg (2 249 lb)
- Fuel consumption is increased by 0.72 %.

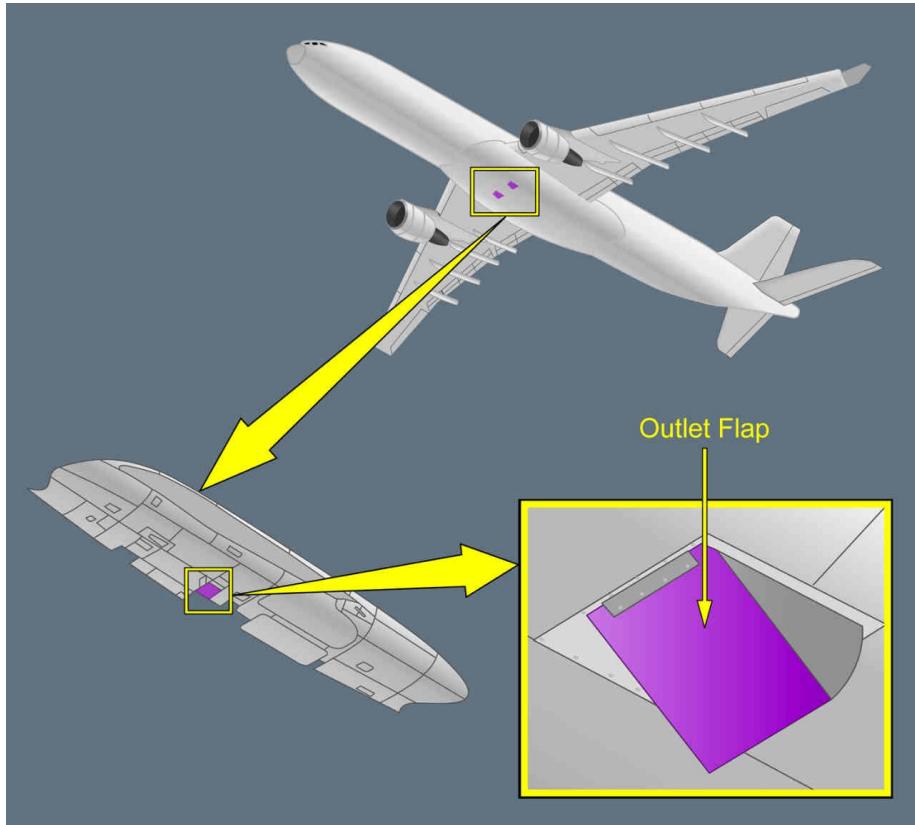
Refer to MCDL-21-02 Illustration Ram Air Outlet Flap

ILLUSTRATION RAM AIR OUTLET FLAP

Ident.: MCDL-21-02-00009318.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 21-02 Ram Air Outlet Flap.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

COMMUNICATIONS

STATIC DISCHARGER

23-01

Static Discharger

Ident.: MCDL-23-01-00008858.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

23-01 STATIC DISCHARGER	Quantity installed -
-----------------------------------	--------------------------------

20 % of static dischargers may be missing or inoperative from each of the following areas:

- Right wing
- Left wing
- Vertical stabilizer (including rudder)
- Right horizontal stabilizer (including elevator)
- Left horizontal stabilizer (including elevator).

Note: 1. If a static discharger is missing or inoperative on a flap track fairing, it is recommended to replace it before flight.

2. When combined with the case of dispatch with a winglet missing, 20 % of the remaining static dischargers of the affected wing are allowed to be missing or inoperative (Refer to 57-02 Winglet).

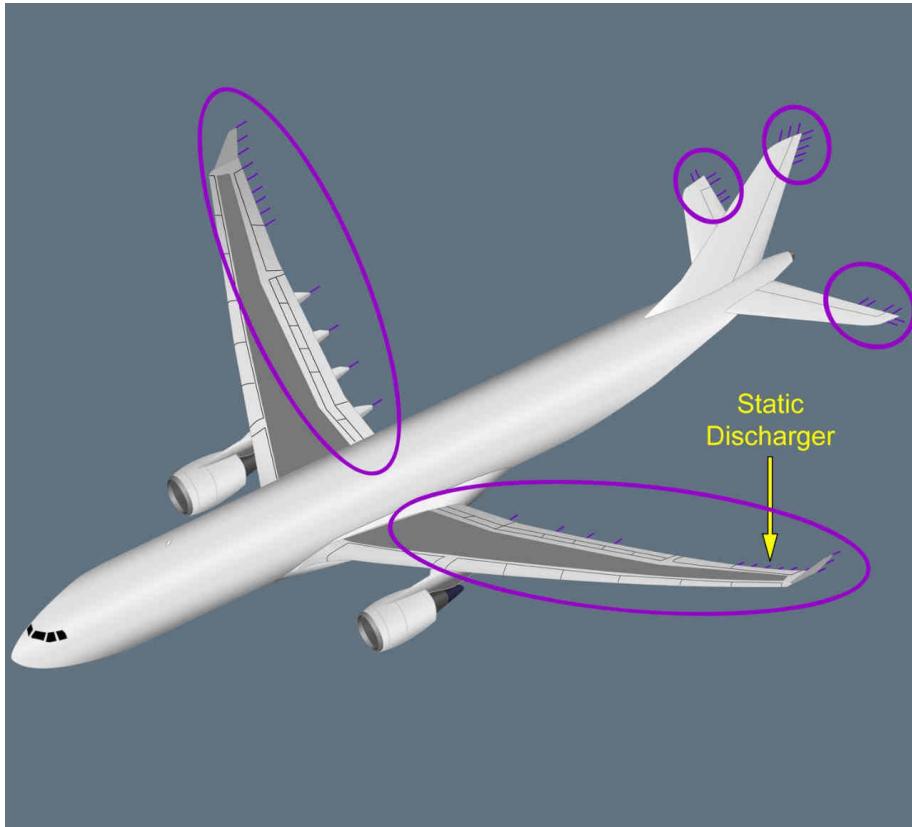
Refer to MCDL-23-01 Illustration Static Discharger

ILLUSTRATION STATIC DISCHARGER

Ident.: MCDL-23-01-00008859.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 23-01 Static Discharger.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FLIGHT CONTROLS

SLAT TRACK CLOSING PLATE

27-02

Slat Track Closing Plate

Ident.: MCDL-27-02-00008862.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

27-02

SLAT TRACK CLOSING PLATE

Quantity installed

32

Two may be missing per wing.

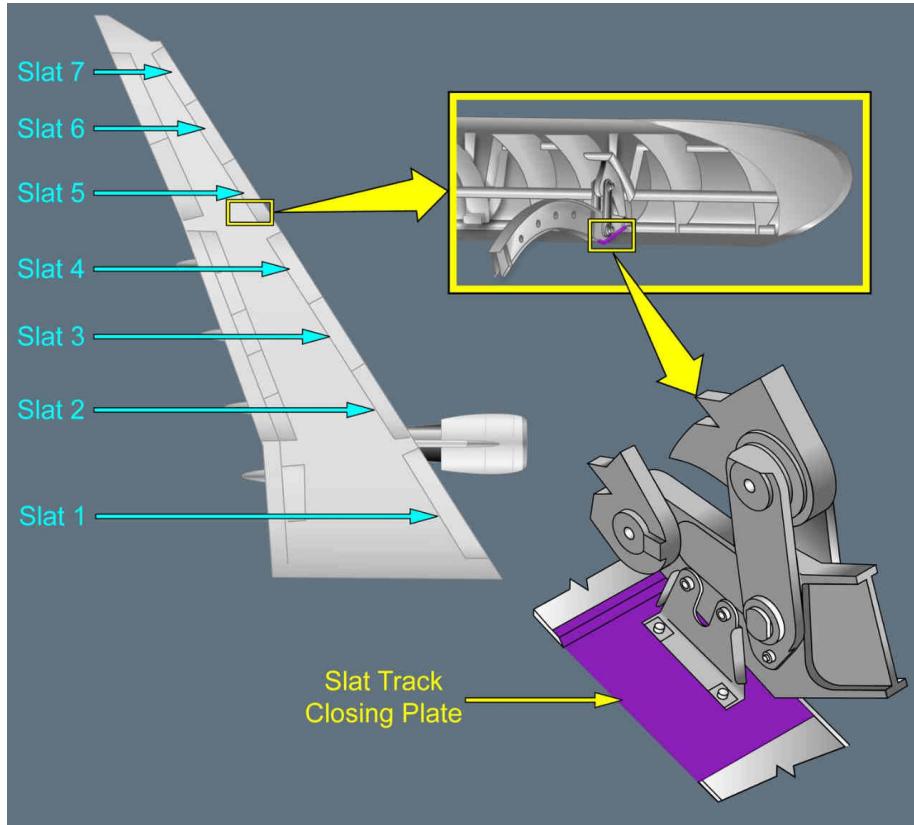
Refer to MCDL-27-02 Illustration Slat Track Closing Plate

ILLUSTRATION SLAT TRACK CLOSING PLATE

Ident.: MCDL-27-02-00008863.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 27-02 Slat Track Closing Plate.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FLIGHT CONTROLS

RUBBER SEAL UNDER SLATS

27-03

Rubber Seal under Slats

Ident.: MCDL-27-03-00008864.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

27-03	Quantity installed
RUBBER SEAL UNDER SLATS	-

One segment of 25 cm (10 in) of rubber seal or one full slat track rubber seal loop may be missing per slat.

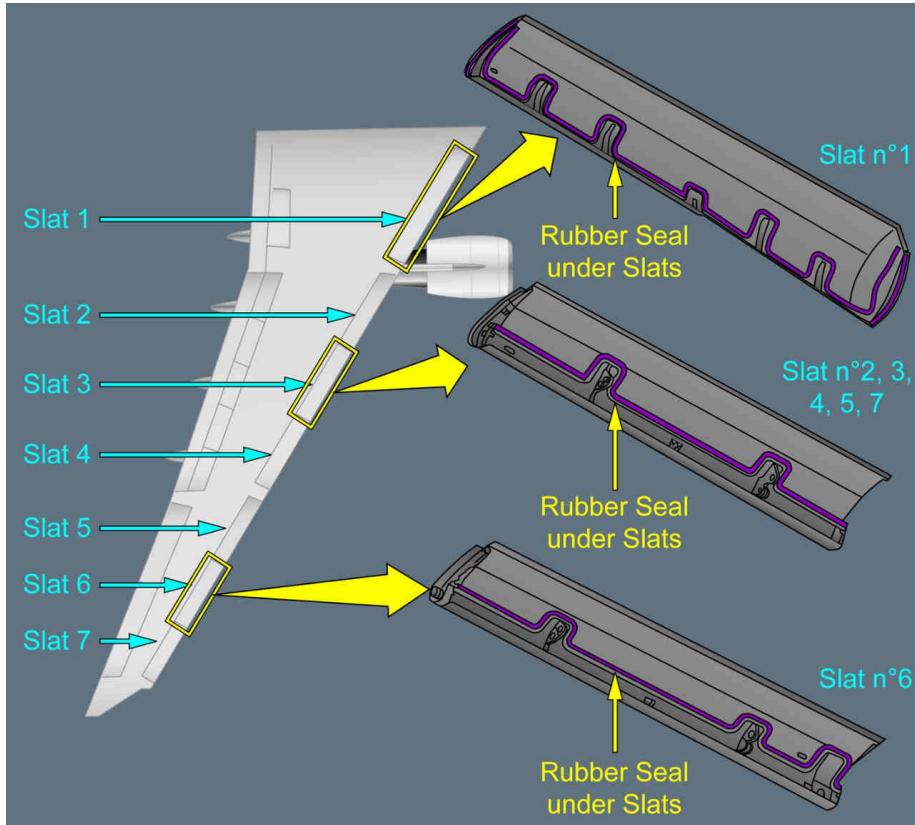
Refer to MCDL-27-03 Illustration Rubber Seal under Slats

ILLUSTRATION RUBBER SEAL UNDER SLATS

Ident.: MCDL-27-03-00008865.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 27-03 Rubber Seal under Slats.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FLIGHT CONTROLS

AILERON RUBBER SEAL

27-04

Aileron Rubber Seal

Ident.: MCDL-27-04-00008866.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

27-04 AILERON RUBBER SEAL	Quantity installed 16
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Two may be missing on the same location (upper and lower surface) on each wing.

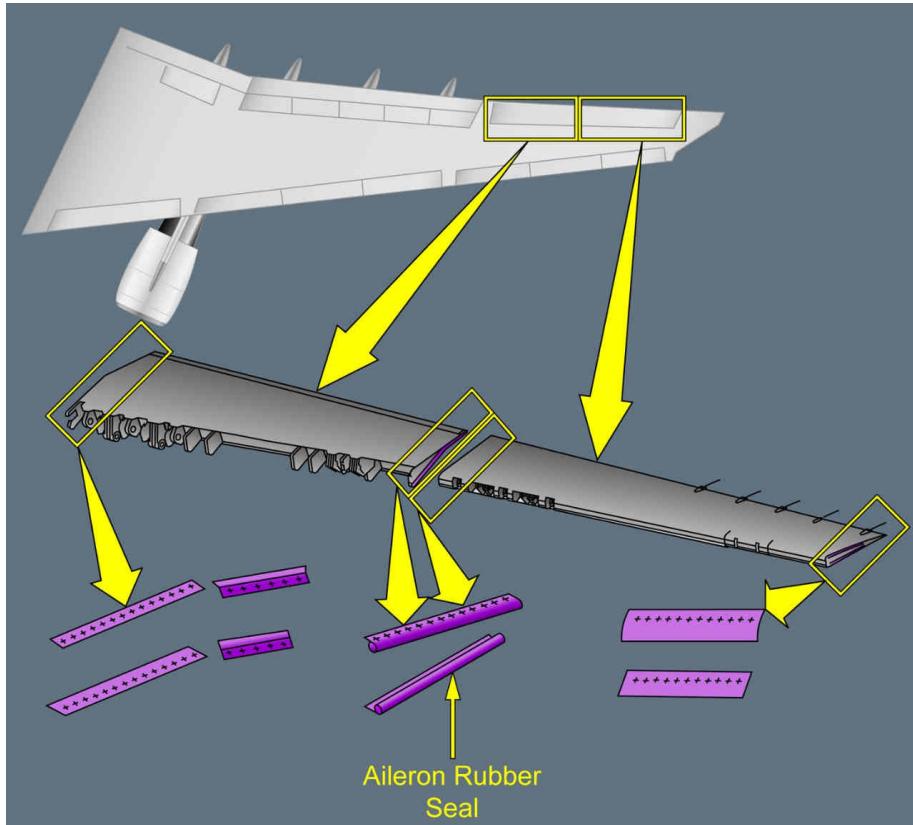
Refer to MCDL-27-04 Illustration Aileron Rubber Seal

ILLUSTRATION AILERON RUBBER SEAL

Ident.: MCDL-27-04-00008867.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 27-04 Aileron Rubber Seal.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FLIGHT CONTROLS

AILERON SERVO ACTUATOR FAIRING

27-05

Aileron Servo Actuator Fairing

Ident.: MCDL-27-05-00008868.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

27-05	AILERON SERVO ACTUATOR FAIRING	Quantity installed
		8

One may be missing.

- **Performance:**

The following performance penalty is applicable:

- En route performance limiting weight is reduced by 150 kg (331 lb).

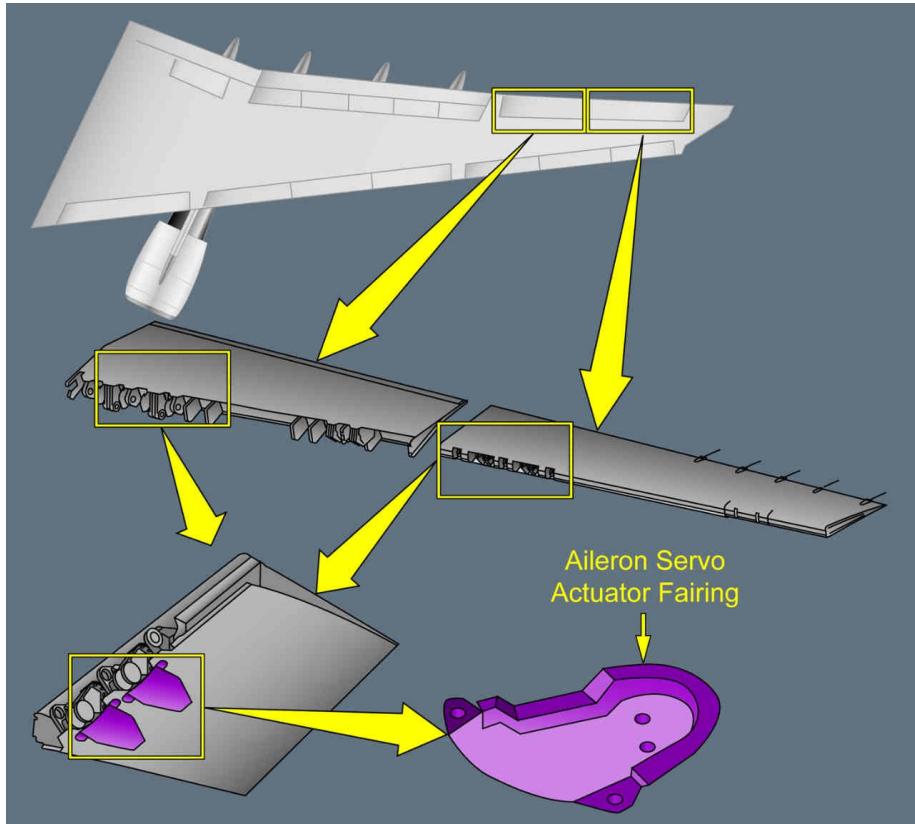
Refer to MCDL-27-05 Illustration Aileron Servo Actuator Fairing

ILLUSTRATION AILERON SERVO ACTUATOR FAIRING

Ident.: MCDL-27-05-00008869.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 27-05 Aileron Servo Actuator Fairing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FLIGHT CONTROLS

SLAT END BLADE SEAL

27-06

Slat End Blade Seal

Ident.: MCDL-27-06-00008870.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

27-06	SLAT END BLADE SEAL	Quantity installed 8
-------	---------------------	-------------------------

Three may be missing per wing.

- **Performance:**

The following performance penalties are applicable:

- En route performance limiting weight is reduced by 170 kg (375 lb) per missing seal
- When two or more seals are missing, fuel consumption is increased by 0.13 % per missing seal.

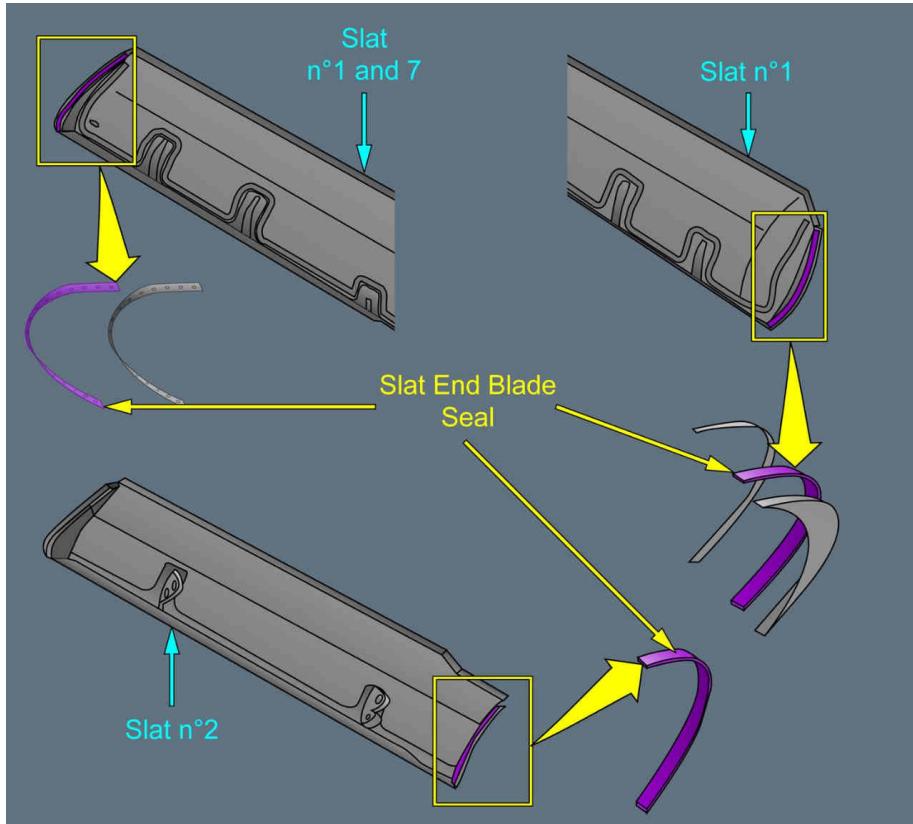
Refer to MCDL-27-06 Illustration Slat End Blade Seal

ILLUSTRATION SLAT END BLADE SEAL

Ident.: MCDL-27-06-00008871.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 27-06 Slat End Blade Seal.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FLIGHT CONTROLS

FLAP BLADE SEAL AND TRIANGULAR CUSHION SEAL

27-07

Flap Blade Seal and Triangular Cushion Seal

Ident.: MCDL-27-07-00008873.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

27-07	FLAP BLADE SEAL AND TRIANGULAR CUSHION SEAL	Quantity installed 12
-------	---	--------------------------

Three seals may be missing per wing.

Note: *The cushion seals of the flap leading edge are not allowed missing.*

- Performance:**

The following performance penalties are applicable per missing seal:

- En route performance limiting weight is reduced by 224 kg (494 lb)
- When two or more seals are missing, fuel consumption is increased by 0.17 %.

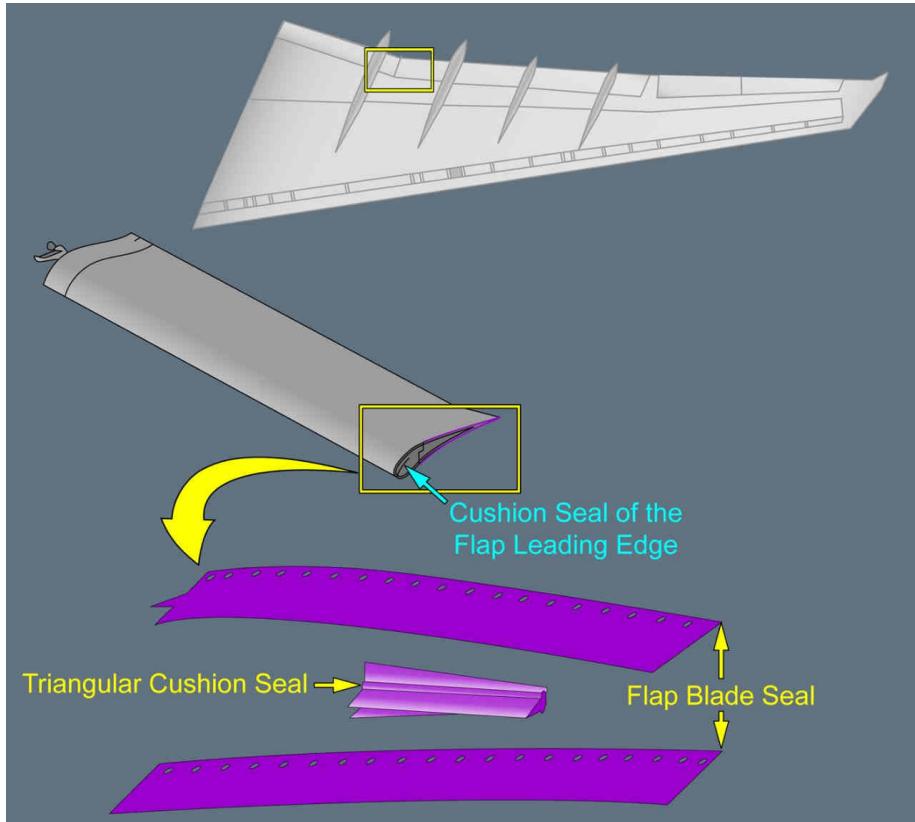
Refer to MCDL-27-07 Illustration Flap Blade Seal and Triangular Cushion Seal

ILLUSTRATION FLAP BLADE SEAL AND TRIANGULAR CUSHION SEAL

Ident.: MCDL-27-07-00008875.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: Refer to 27-07 Flap Blade Seal and Triangular Cushion Seal.



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FLIGHT CONTROLS

SLAT END FILLING

27-08

Slat End Filling

Ident.: MCDL-27-08-00008877.0001001 / 02 JUL 10

EASA APPROVED

Criteria: A330

27-08	Quantity installed
SLAT END FILLING	2

All may be missing.

- **Procedures:**

Approach speed: VLS + 5 kt

Landing distance: multiply by 1.08

- **Performance:**

The following performance penalties are applicable:

- When one filling is missing, takeoff performance limiting weight is reduced by 6 130 kg (13 515 lb)

Note: This performance penalty is not applicable if the flight crew can check V2 greater than 1.15 VS1G.

- When both fillings are missing:

- Takeoff performance limiting weight is reduced by 10 540 kg (23 237 lb)
- V2 and VR are increased by 1 kt.

Note: These performance penalties are not applicable if the flight crew can check V2 greater than 1.16 VS1G.

- En route performance limiting weight is reduced by 170 kg (375 lb) per missing filling

- When both fillings are missing, fuel consumption is increased by 0.26 %

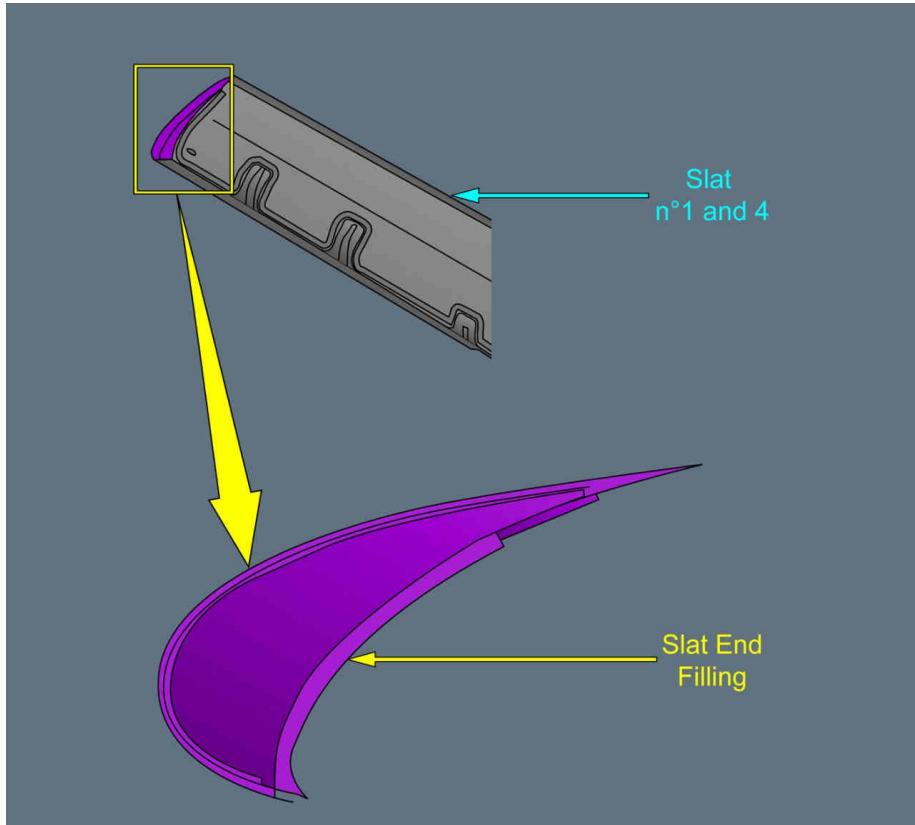
Refer to MCDL-27-08 Illustration Slat End Filling

ILLUSTRATION SLAT END FILLING

Ident.: MCDL-27-08-00008878.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 27-08 Slat End Filling.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FLIGHT CONTROLS

INNER AILERON SEAL (UPPER AND LOWER)

27-10

Inner Aileron Seal (Upper and Lower)

Ident.: MCDL-27-10-00008880.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

27-10 INNER AILERON SEAL (UPPER AND LOWER)	Quantity installed 4
---	-------------------------

All may be missing.

Note: May be combined with MCDL item 27-11 (Refer to 27-11 Inner Aileron Large Seal).

- Performance:**

The following performance penalties are applicable:

- When two or more seals are missing, en route performance limiting weight is reduced by 68 kg (150 lb) per missing seal
- When all seals are missing, fuel consumption is increased by 0.2 %.

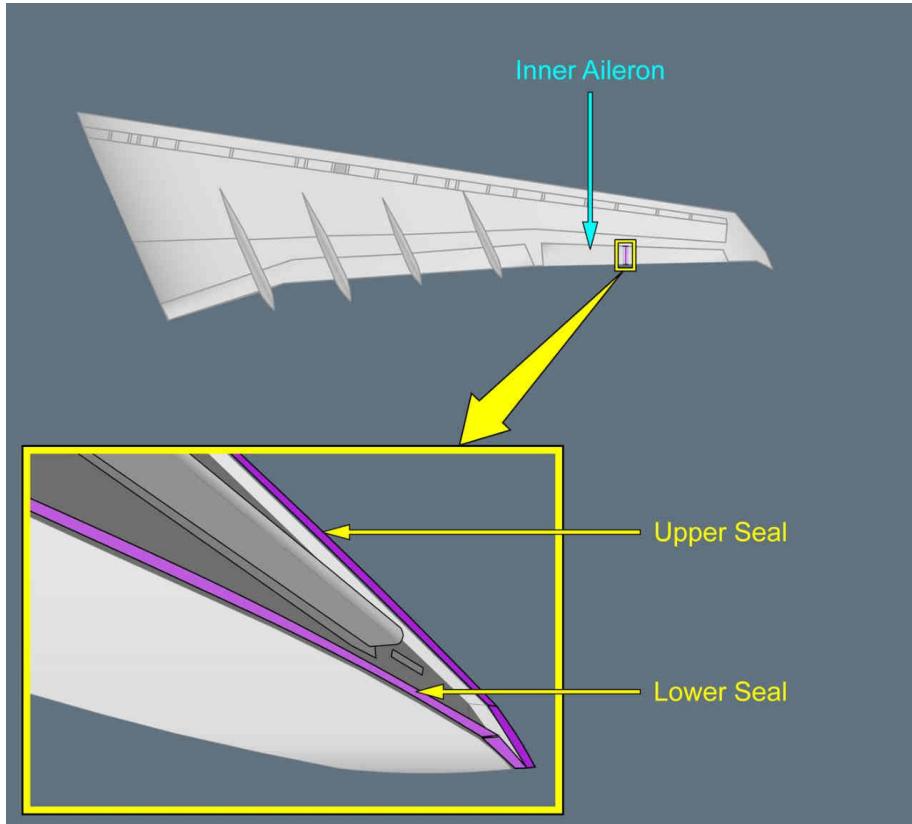
Refer to MCDL-27-10 Illustration Inner Aileron Seal (Upper and Lower)

ILLUSTRATION INNER AILERON SEAL (UPPER AND LOWER)

Ident.: MCDL-27-10-00008881.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 27-10 Inner Aileron Seal (Upper and Lower).*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FLIGHT CONTROLS

INNER AILERON LARGE SEAL

27-11

Inner Aileron Large Seal

Ident.: MCDL-27-11-00008882.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

27-11	INNER AILERON LARGE SEAL	Quantity installed 2
-------	--------------------------	-------------------------

(m) Refer to AMM 27-14-41-040-801

All may be missing.

Note: May be combined with MCDL item 27-10 (Refer to 27-10 Inner Aileron Seal (Upper and Lower)).

- Performance:**

When both seals are missing, the following performance penalty is applicable:

- En route performance limiting weight is reduced by 136 kg (300 lb).

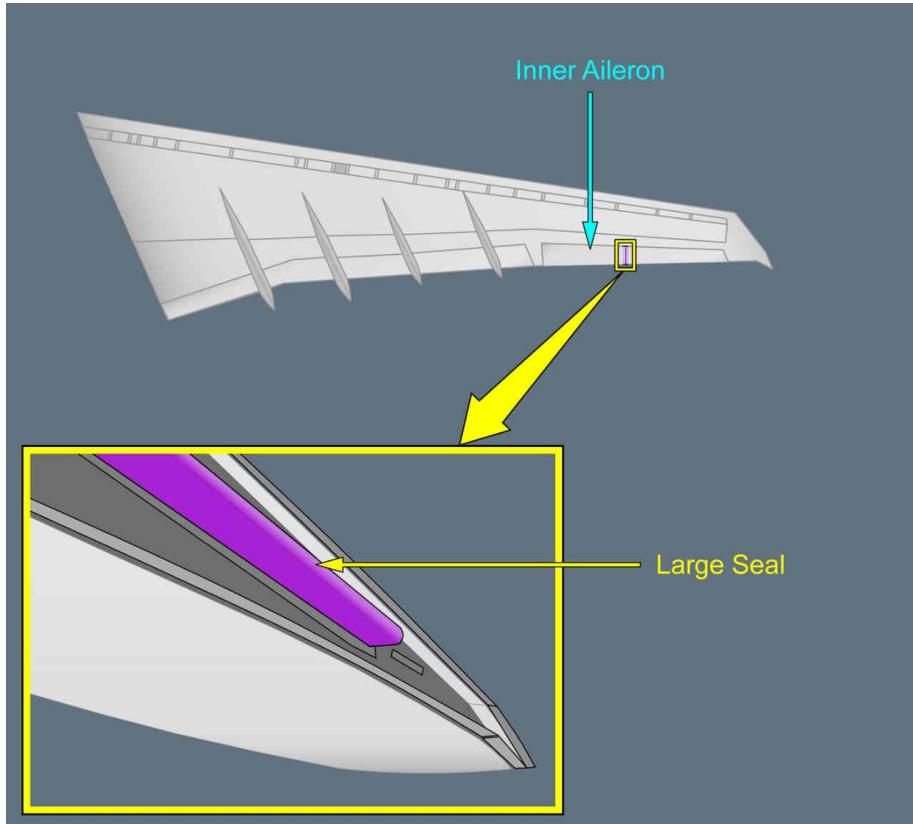
Refer to MCDL-27-11 Illustration Inner Aileron Large Seal

ILLUSTRATION INNER AILERON LARGE SEAL

Ident.: MCDL-27-11-00008883.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 27-11 Inner Aileron Large Seal.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FUEL SYSTEM

REFUEL/DEFUEL COUPLING CAP

28-01

Refuel/Defuel Coupling Cap

Ident.: MCDL-28-01-00009002.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

28-01	REFUEL/DEFUEL COUPLING CAP	Quantity installed
		-

(m) Refer to AMM 28-25-00-040-811

All may be missing provided seal integrity of coupling is positively confirmed (i.e. no fuel leak reported).

Note: 1. If the coupling or O-ring is damaged and the cap cannot be fitted, dispatch is permitted in accordance with this MCDL item provided the cap is removed and coupling integrity is verified.

2. If only the lanyard is missing, the removal of the cap is not necessary.

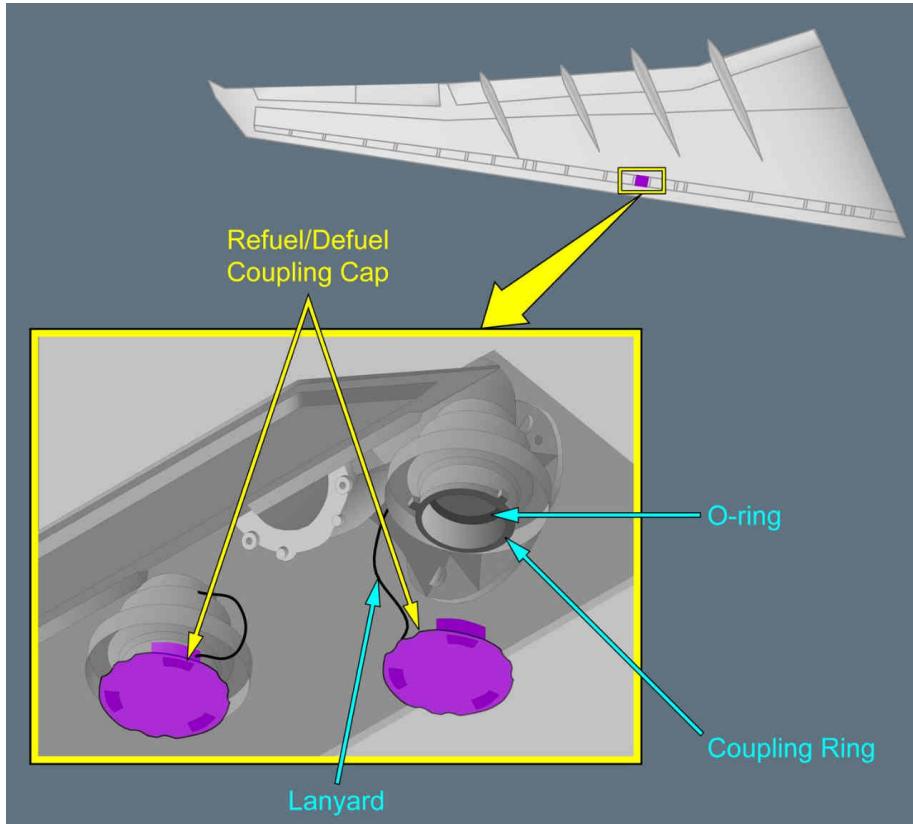
Refer to MCDL-28-01 Illustration Refuel/Defuel Coupling Cap

ILLUSTRATION REFUEL/DEFUEL COUPLING CAP

Ident.: MCDL-28-01-00009003.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 28-01 Refuel/Defuel Coupling Cap.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FUEL SYSTEM

REFUEL/DEFUEL CONTROL PANEL ACCESS DOOR ON BELLY FAIRING

28-02

Refuel/Defuel Control Panel Access Door on Belly Fairing

Ident.: MCDL-28-02-00009004.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

28-02	REFUEL/DEFUEL CONTROL PANEL ACCESS DOOR ON BELLY FAIRING	Quantity installed
		1

(m) Refer to AMM 52-42-00-040-801

May be missing provided hole is covered.

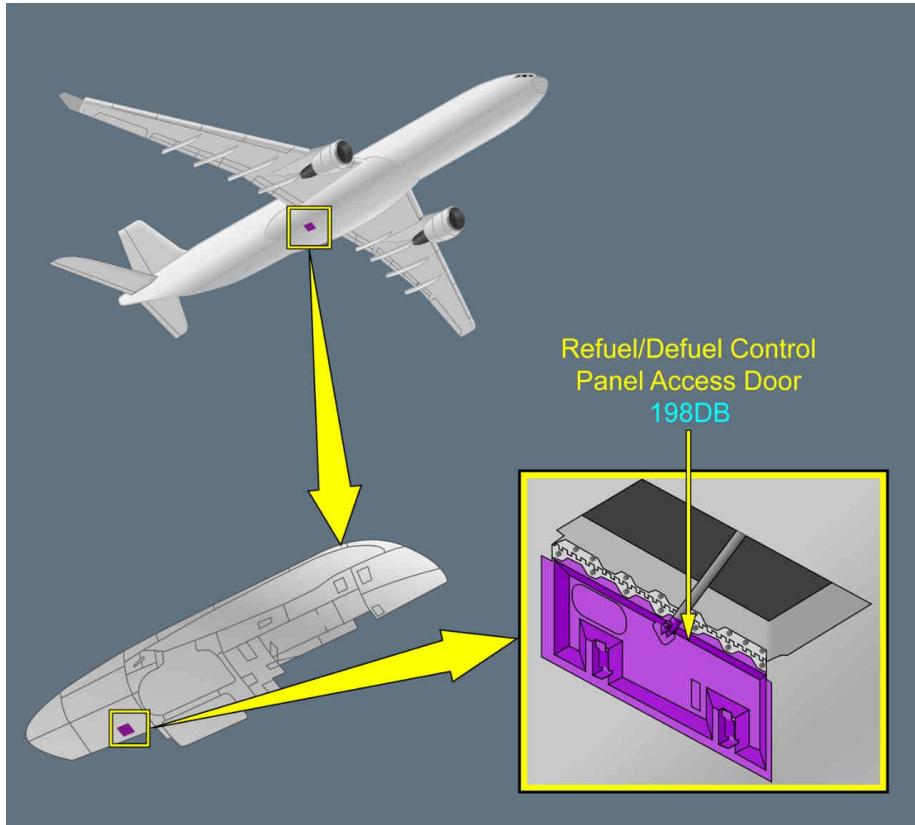
Refer to MCDL-28-02 Illustration Refuel/Defuel Control Panel Access Door on Belly Fairing

ILLUSTRATION REFUEL/DEFUEL CONTROL PANEL ACCESS DOOR ON BELLY FAIRING

Ident.: MCDL-28-02-00009005.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 28-02 Refuel/Defuel Control Panel Access Door on Belly Fairing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FUEL SYSTEM

FUEL PUMP FAIRING

28-04

Fuel Pump Fairing

Ident.: MCDL-28-04-00009011.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

28-04	Quantity installed
FUEL PUMP FAIRING	4

(m) Refer to AMM 28-21-00-040-802

All may be missing provided:

- The complete fairing (all sections) is removed
- Aluminium high speed tape is applied on the visible electrical installation and inspected before each flight.

• **Limitations:**

Avoid forecasted thunderstorm condition.

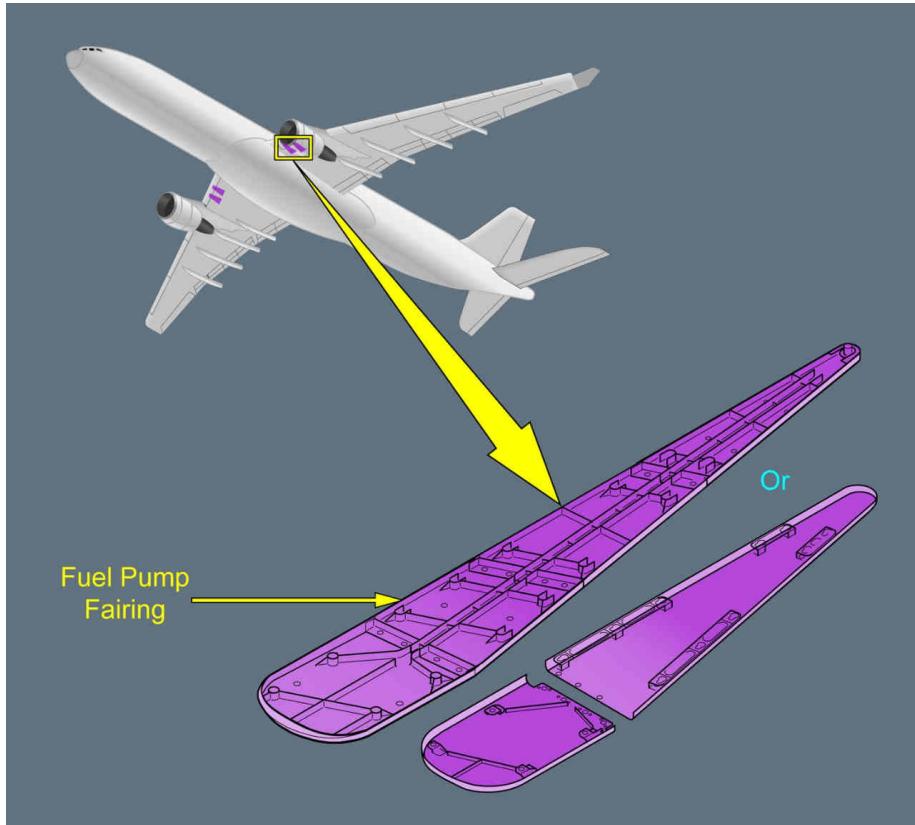
Refer to MCDL-28-04 Illustration Fuel Pump Fairing

ILLUSTRATION FUEL PUMP FAIRING

Ident.: MCDL-28-04-00009012.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 28-04 Fuel Pump Fairing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

HYDRAULIC

GROUND GREEN HYDRAULIC CONNECTION ACCESS DOOR

29-01

Ground Green Hydraulic Connection Access Door

Ident.: MCDL-29-01-00009022.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

29-01

GROUND GREEN HYDRAULIC CONNECTION ACCESS
DOOR

Quantity installed

1

May be missing.

- **Performance:**

The following performance penalty is applicable:

- Takeoff performance limiting weight is reduced by 51 kg (113 lb).

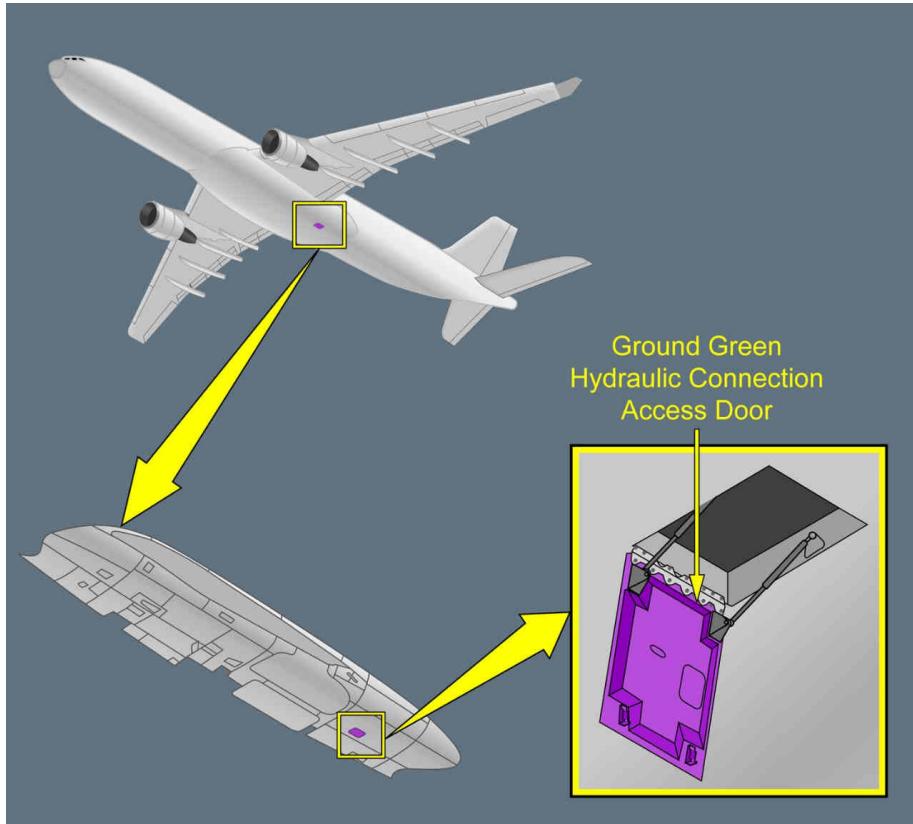
Refer to MCDL-29-01 Illustration Ground Green Hydraulic Connection Access Door

ILLUSTRATION GROUND GREEN HYDRAULIC CONNECTION ACCESS DOOR

Ident.: MCDL-29-01-00009023.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 29-01 Ground Green Hydraulic Connection Access Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

HYDRAULIC

GROUND BLUE HYDRAULIC CONNECTION ACCESS DOOR

29-02

Ground Blue Hydraulic Connection Access Door

Ident.: MCDL-29-02-00009024.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

29-02	Quantity installed
GROUND BLUE HYDRAULIC CONNECTION ACCESS DOOR	1

May be missing.

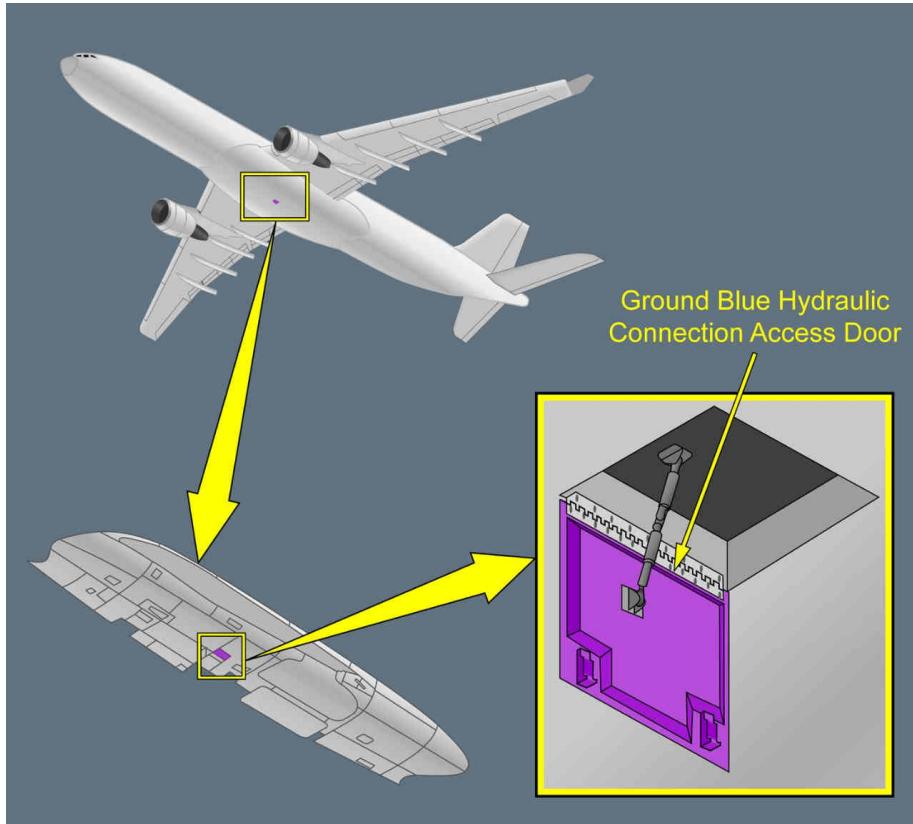
Refer to MCDL-29-02 Illustration Ground Blue Hydraulic Connection Access Door

ILLUSTRATION GROUND BLUE HYDRAULIC CONNECTION ACCESS DOOR

Ident.: MCDL-29-02-00009025.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 29-02 Ground Blue Hydraulic Connection Access Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

HYDRAULIC

GROUND YELLOW HYDRAULIC CONNECTION ACCESS DOOR

29-03

Ground Yellow Hydraulic Connection Access Door

Ident.: MCDL-29-03-00009026.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

29-03

GROUND YELLOW HYDRAULIC CONNECTION ACCESS
DOOR

Quantity installed

1

May be missing.

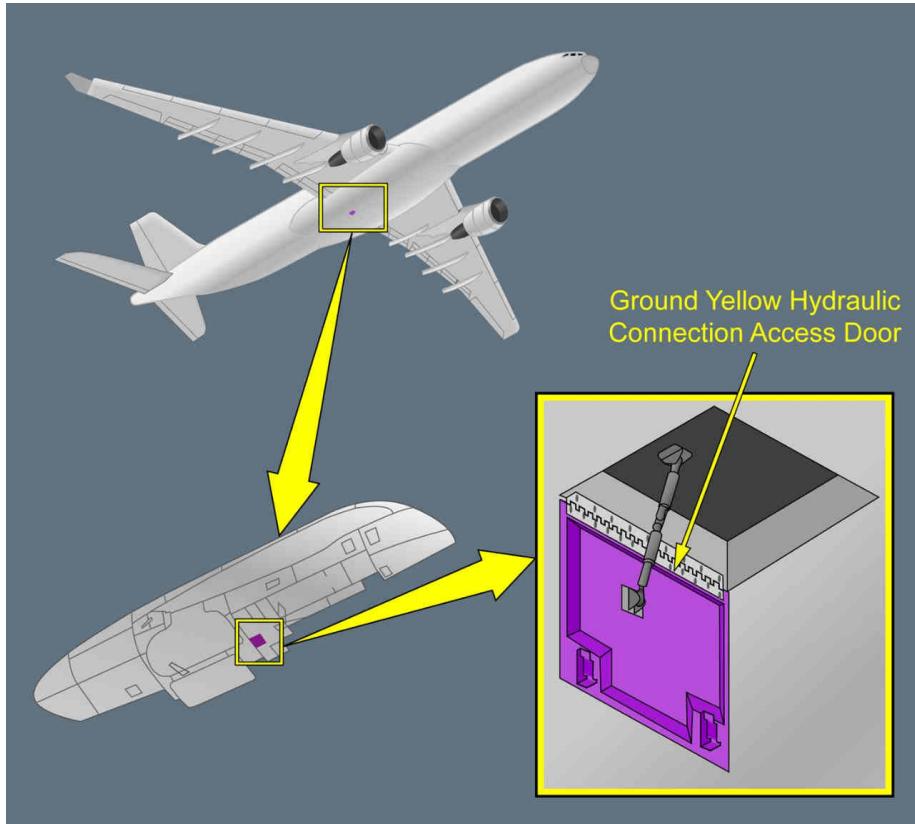
Refer to MCDL-29-03 Illustration Ground Yellow Hydraulic Connection Access Door

ILLUSTRATION GROUND YELLOW HYDRAULIC CONNECTION ACCESS DOOR

Ident.: MCDL-29-03-00009027.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 29-03 Ground Yellow Hydraulic Connection Access Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

ICE AND RAIN PROTECTION

ICING INDICATOR

30-01

Icing Indicator

Ident.: MCDL-30-01-00009028.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

30-01 ICING INDICATOR	Quantity installed 1
--------------------------	-------------------------

May be missing.

- Procedures:**

- If icing conditions expected:**

Turn on engine and wing anti-ice (*Refer to LIM-70 Operations in Icing Conditions*)

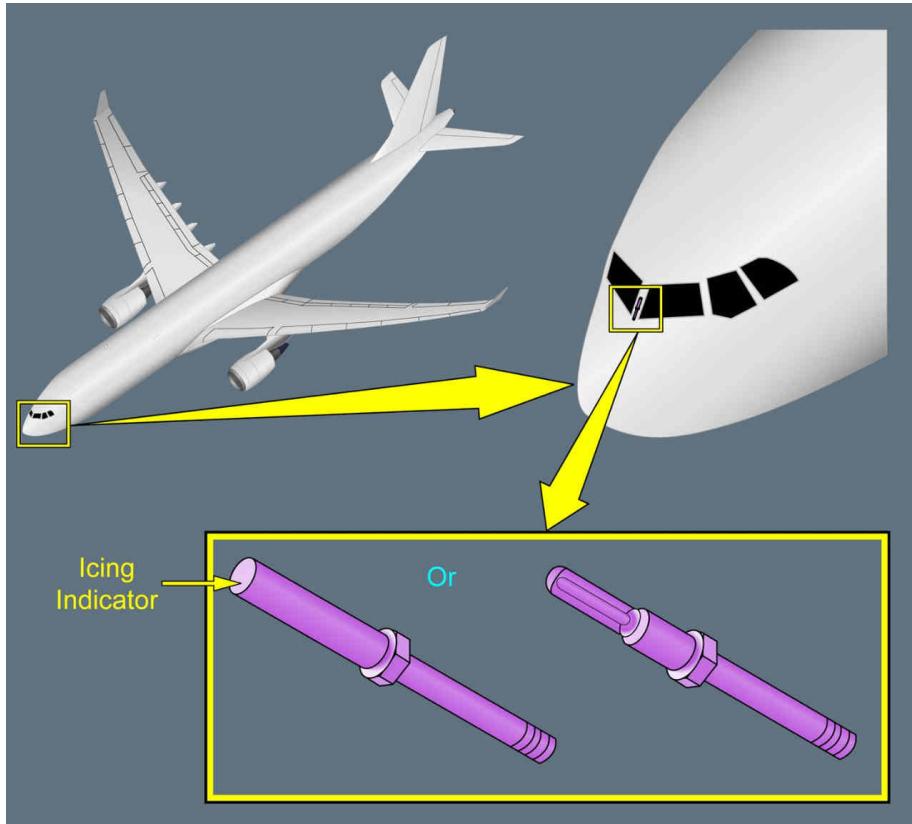
Refer to MCDL-30-01 Illustration Icing Indicator

ILLUSTRATION ICING INDICATOR

Ident.: MCDL-30-01-00009029.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 30-01 Icing Indicator.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LANDING GEAR

CENTER LANDING GEAR DOOR GROUND OPENING ACCESS DOOR

32-01

Center Landing Gear Door Ground Opening Access Door

Ident.: MCDL-32-01-00010871.0001001 / 02 JUL 10

EASA APPROVED

Criteria: A330

32-01

CENTER LANDING GEAR DOOR GROUND OPENING
ACCESS DOOR

Quantity installed

1

May be missing

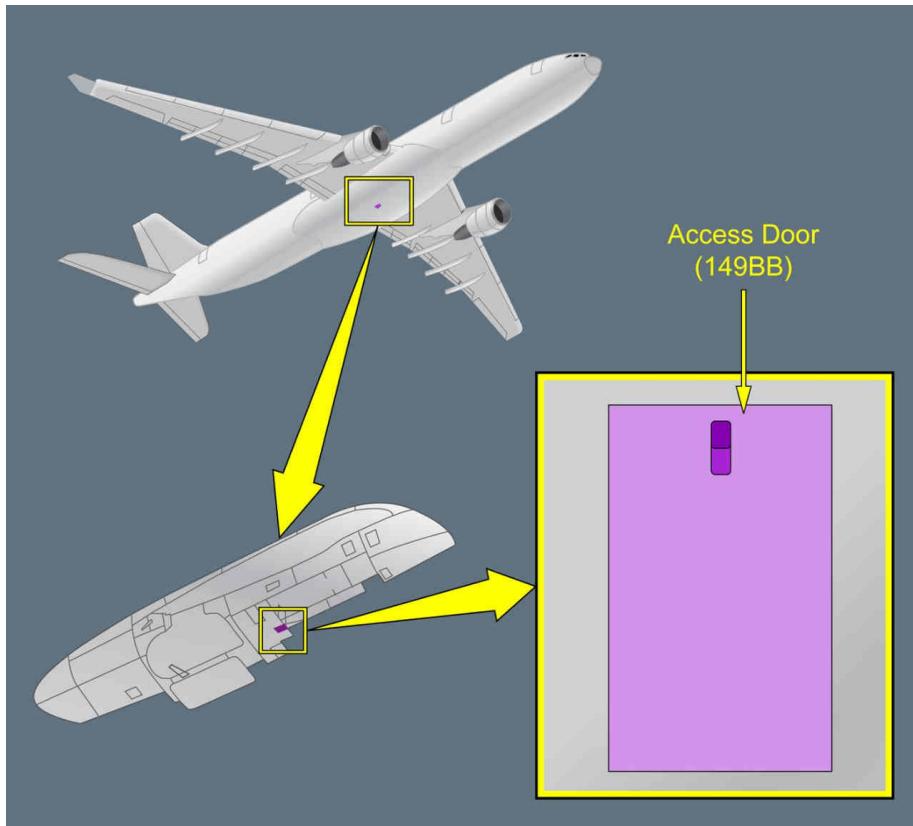
Refer to MCDL-32-01 Illustration Center Landing Gear Door Ground Opening Access Door

ILLUSTRATION CENTER LANDING GEAR DOOR GROUND OPENING ACCESS DOOR

Ident.: MCDL-32-01-00010872.0001001 / 02 JUL 10

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 32-01 Center Landing Gear Door Ground Opening Access Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LANDING GEAR

MAIN LANDING GEAR DOOR SEAL

32-02

Main Landing Gear Door Seal

Ident.: MCDL-32-02-00009441.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

32-02

MAIN LANDING GEAR DOOR SEAL

Quantity installed

-

Up to 50 cm (19 in) may be missing per main landing gear door.

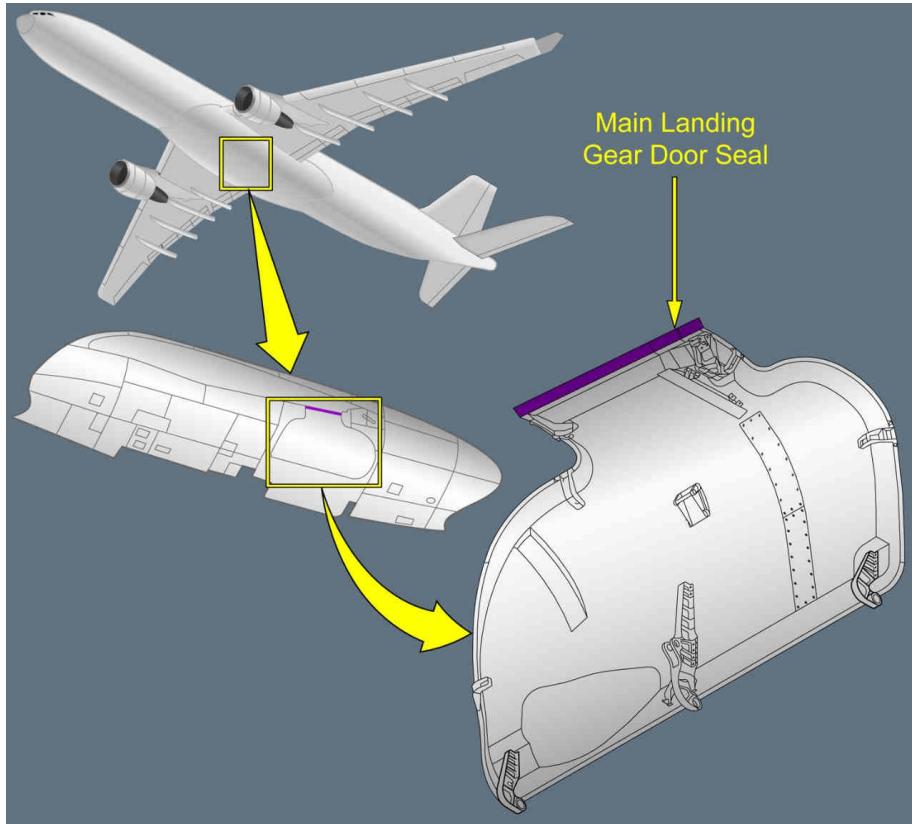
Refer to MCDL-32-02 Illustration Main Landing Gear Door Seal

ILLUSTRATION MAIN LANDING GEAR DOOR SEAL

Ident.: MCDL-32-02-00009442.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 32-02 Main Landing Gear Door Seal.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LANDING GEAR

MAIN LANDING GEAR LEG DOOR AND HINGED DOOR RUBBER SEAL

32-03

Main Landing Gear Leg Door and Hinged Door Rubber Seal

Ident.: MCDL-32-03-00009030.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

32-03

MAIN LANDING GEAR LEG DOOR AND HINGED DOOR
RUBBER SEAL

Quantity installed

-

Up to 50 cm (19 in) may be missing per main landing gear.

- Performance:**

The following performance penalties are applicable per affected landing gear:

- Takeoff and approach climb performance limiting weights are reduced by 62 kg (137 lb)
- En route performance limiting weight is reduced by 122 kg (269 lb).

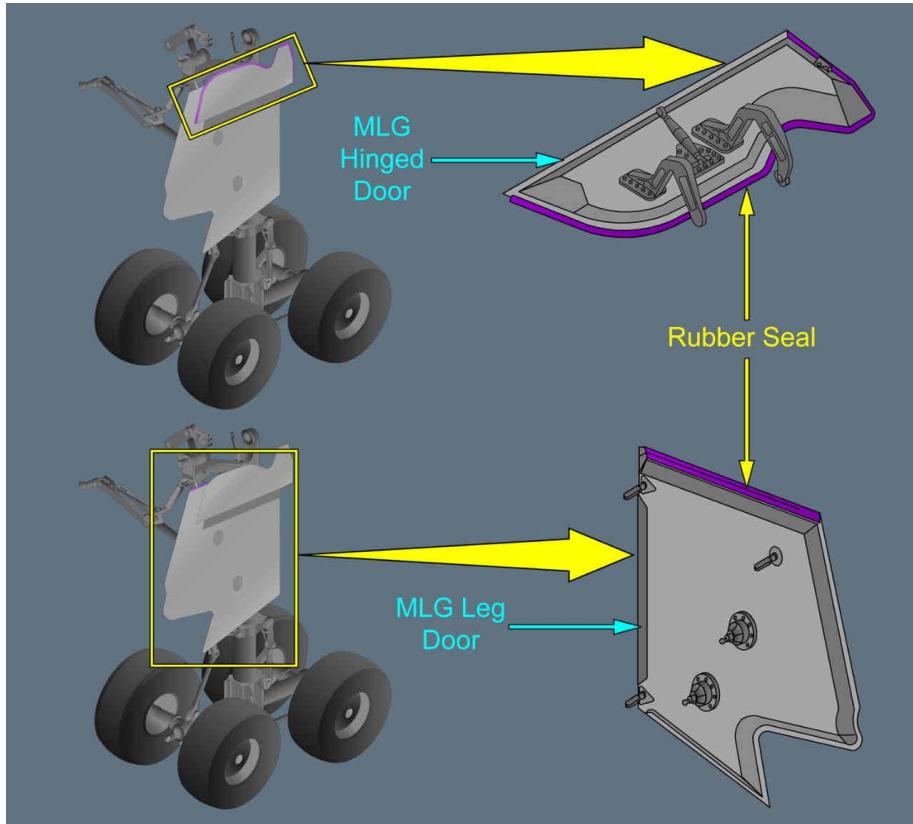
Refer to MCDL-32-03 Illustration Main Landing Gear Leg Door and Hinged Door Rubber Seal

ILLUSTRATION MAIN LANDING GEAR LEG DOOR AND HINGED DOOR RUBBER SEAL

Ident.: MCDL-32-03-00009031.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 32-03 Main Landing Gear Leg Door and Hinged Door Rubber Seal.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LANDING GEAR

NOSE FITTING TOWING

32-04

Nose Fitting Towing

Ident.: MCDL-32-04-00009032.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

32-04 NOSE FITTING TOWING	Quantity installed -
------------------------------	-------------------------

(m) Refer to AMM 32-21-00-040-802

All may be missing.

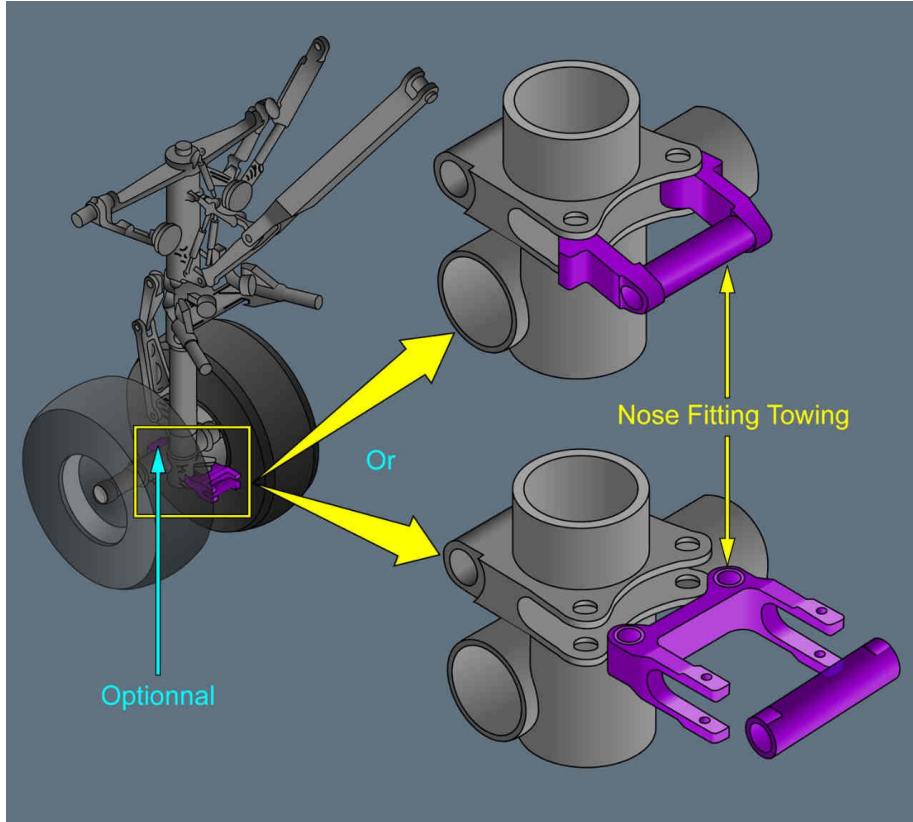
Refer to MCDL-32-04 Illustration Nose Fitting Towing

ILLUSTRATION NOSE FITTING TOWING

Ident.: MCDL-32-04-00009033.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 32-04 Nose Fitting Towing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LANDING GEAR

NOSE LANDING GEAR WHEEL HUBCAP

32-05

Nose Landing Gear Wheel Hubcap

Ident.: MCDL-32-05-00010862.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

32-05	Quantity installed
NOSE LANDING GEAR WHEEL HUBCAP	2

All may be missing for 5 flight cycles.

The wheel Tire Pressure Indication System (TPIS) sensor, if installed, must be considered as inoperative (Refer to MMEL/MI-32-07 Tires Pressure Indication on the WHEEL SD page).

Note: May be combined with item 32-06 (Main Landing Gear Wheel Hubcap) or item 32-07 (Main Landing Gear Debris Guard).

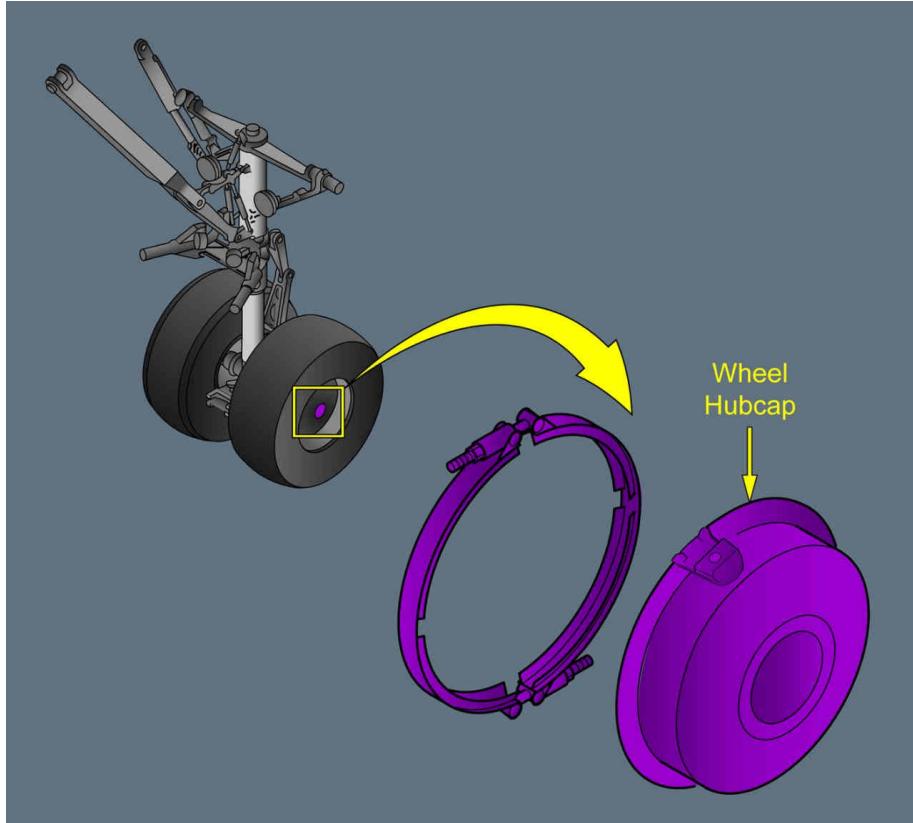
Refer to MCDL-32-05 Illustration Nose Landing Gear Wheel Hubcap

ILLUSTRATION NOSE LANDING GEAR WHEEL HUBCAP

Ident.: MCDL-32-05-00010863.0001001 / 02 JUL 10

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 32-05 Nose Landing Gear Wheel Hubcap.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LANDING GEAR

MAIN LANDING GEAR WHEEL HUBCAP

32-06

Main Landing Gear Wheel Hubcap

Ident.: MCDL-32-06-00010879.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

32-06	Quantity installed
MAIN LANDING GEAR WHEEL HUBCAP	8

One may be missing for 5 flight cycles provided the associated tachometer is considered as inoperative (Refer to MMEL/MI-32-42 Tachometer).

The wheel Tire Pressure Indication System (TPIS) sensor, if installed, must be considered as inoperative (Refer to MMEL/MI-32-07 Tires Pressure Indication on the WHEEL SD page).

Note: May be combined with item 32-05 (Refer to 32-05 Nose Landing Gear Wheel Hubcap).

- **Performance:**

Performance penalties for one tachometer inoperative are applicable (Refer to APP-INOP Performance).

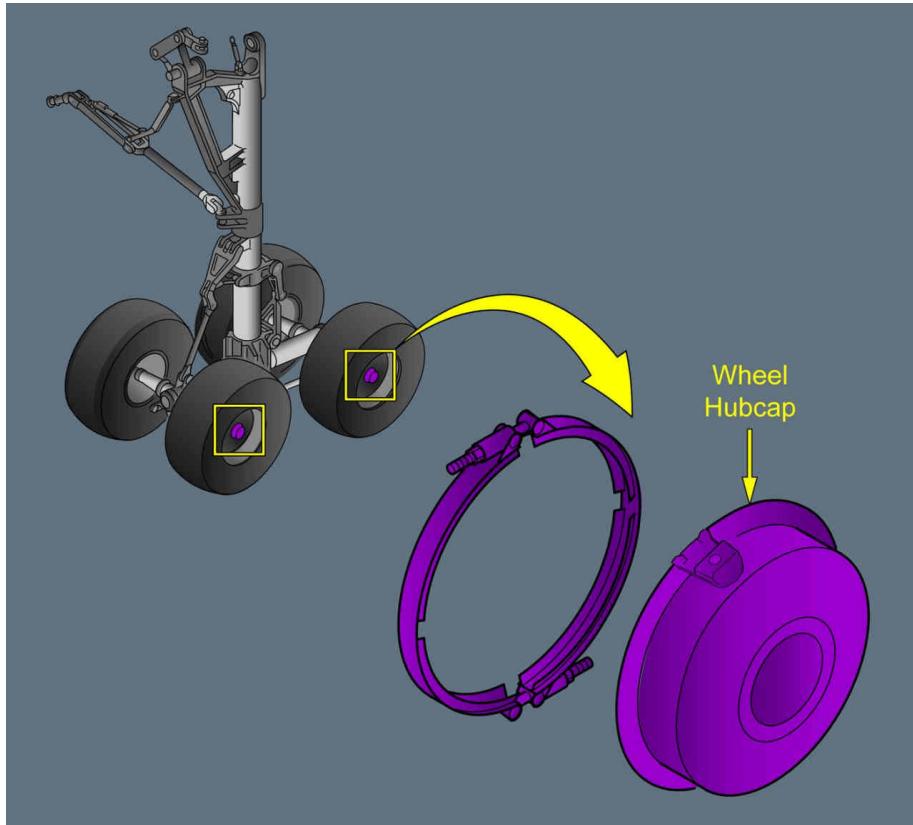
Refer to MCDL-32-06 Illustration Main Landing Gear Wheel Hubcap

ILLUSTRATION MAIN LANDING GEAR WHEEL HUBCAP

Ident.: MCDL-32-06-00010880.0001001 / 02 JUL 10

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 32-06 Main Landing Gear Wheel Hubcap.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LIGHTS

WING/LANDING LIGHT GLAZING

33-01

Wing/Landing Light Glazing

Ident.: MCDL-33-01-00009035.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

33-01	WING/LANDING LIGHT GLAZING	Quantity installed 2
-------	----------------------------	-------------------------

(m) Refer to AMM 57-41-00-040-802

All may be missing provided the hole is covered.

Note: The affected light must be considered inoperative (Refer to MMEL/MI-33-40 Landing light).

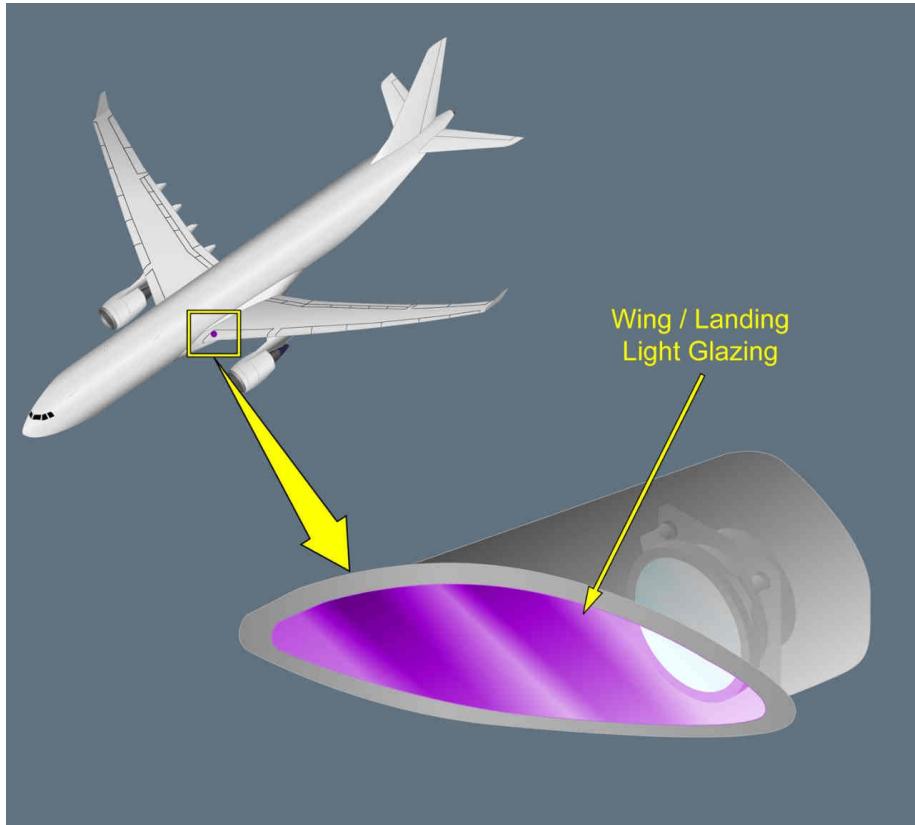
Refer to MCDL-33-01 Illustration Wing/Landing Light Glazing

ILLUSTRATION WING/LANDING LIGHT GLAZING

Ident.: MCDL-33-01-00009036.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 33-01 Wing/Landing Light Glazing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LIGHTS

TAXI/TAKEOFF LIGHT

33-02

Taxi/Takeoff Light

Ident.: MCDL-33-02-00009037.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

33-02	Quantity installed
TAXI/TAKEOFF LIGHT	2

(m) Refer to AMM 33-46-00-040-801

All may be missing provided the affected light is deactivated (Refer to MMEL/MI-33-40 Taxi and Takeoff light).

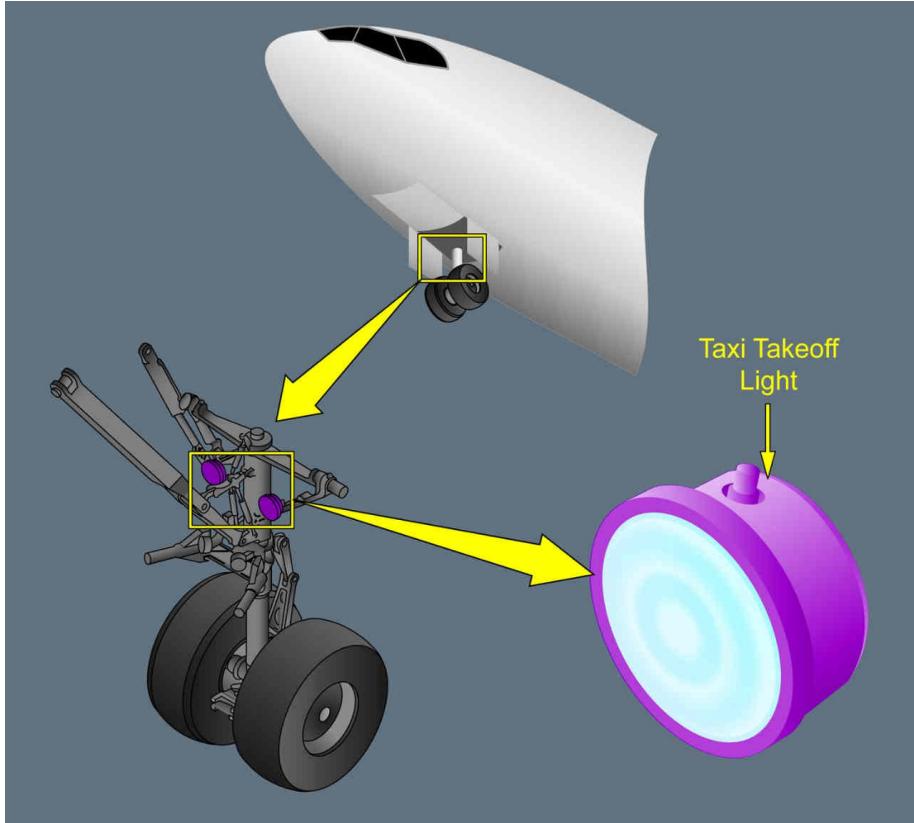
Refer to MCDL-33-02 Illustration Taxi/Takeoff Light

ILLUSTRATION TAXI/TAKEOFF LIGHT

Ident.: MCDL-33-02-00009038.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 33-02 Taxi/Takeoff Light.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LIGHTS

RUNWAY TURNOFF LIGHT

33-03

Runway Turnoff Light

Ident.: MCDL-33-03-00009039.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

33-03	Quantity installed
RUNWAY TURNOFF LIGHT	2

(m) Refer to AMM 33-43-00-040-801

All may be missing provided the affected light is deactivated (Refer to MMEL/MI-33-40 Runway Turnoff light).

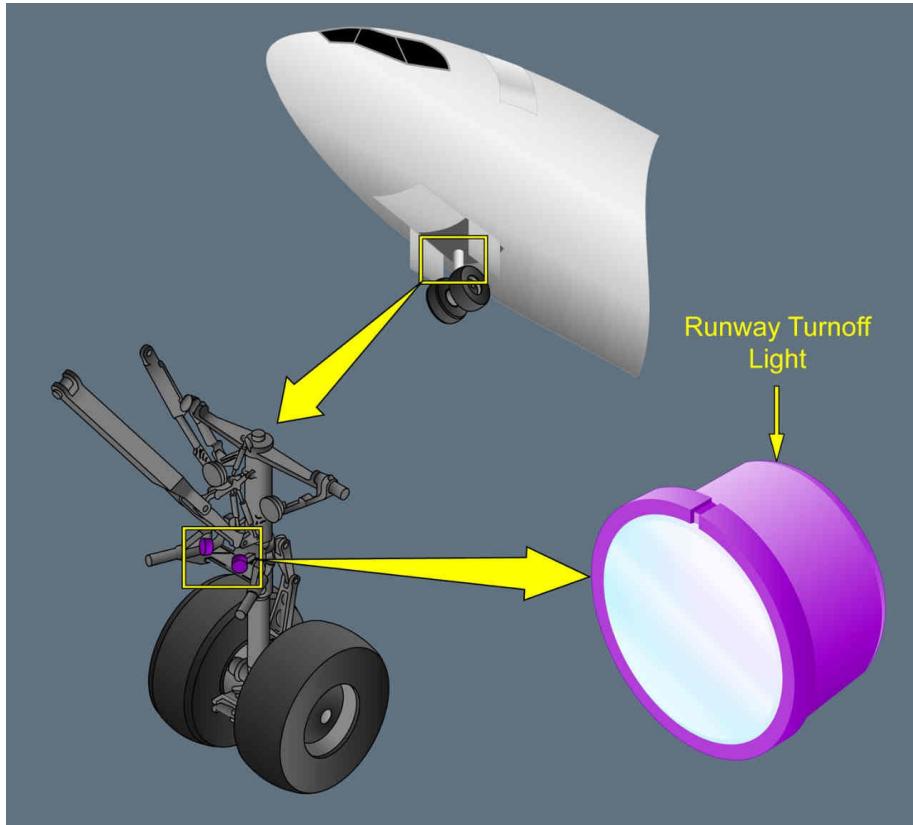
Refer to MCDL-33-03 Illustration Runway Turnoff Light

ILLUSTRATION RUNWAY TURNOFF LIGHT

Ident.: MCDL-33-03-00009040.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 33-03 Runway Turnoff Light.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LIGHTS

LOGO LIGHT LENS

33-04

Logo Light Lens

Ident.: MCDL-33-04-00009041.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

33-04 LOGO LIGHT LENS	Quantity installed 2
--------------------------	-------------------------

(m) Refer to AMM 33-47-00-040-801

All may be missing provided hole is covered with high speed tape.

Note: If non-transparent high speed tape is used, the affected light must be deactivated
(Refer to MMEL/MI-33-40 Logo light).

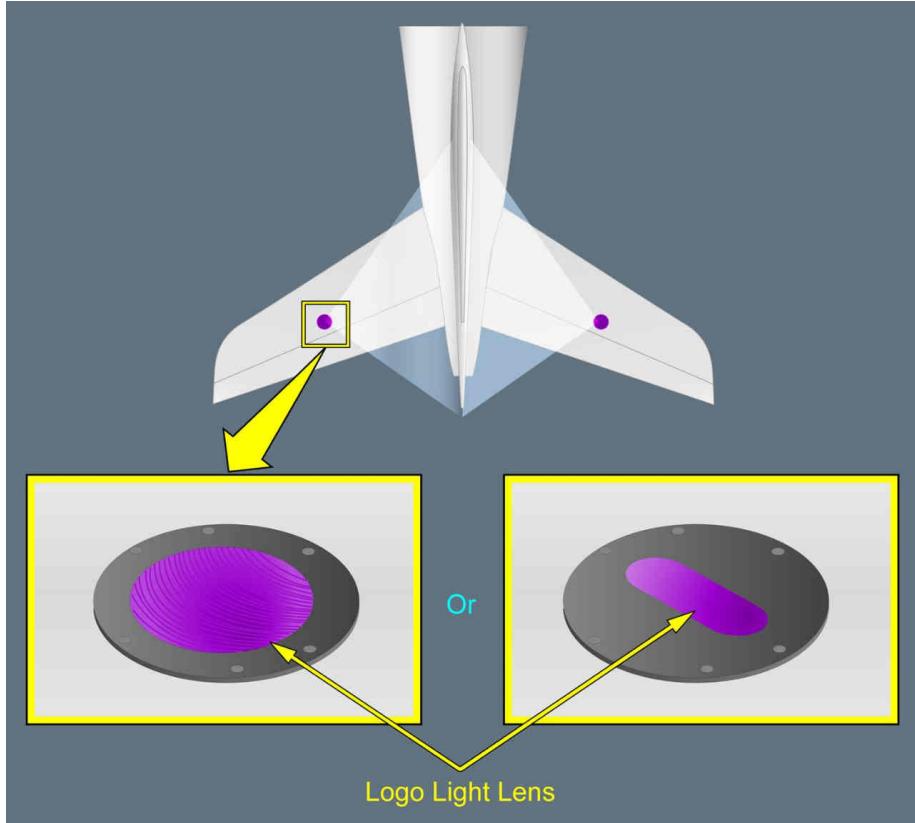
Refer to MCDL-33-04 Illustration Logo Light Lens

ILLUSTRATION LOGO LIGHT LENS

Ident.: MCDL-33-04-00009042.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 33-04 Logo Light Lens.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LIGHTS

REAR NAVIGATION/STROBE LIGHTS GLAZING

33-05

Rear Navigation/Strobe Lights Glazing

Ident.: MCDL-33-05-00009043.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

33-05	Quantity installed
REAR NAVIGATION/STROBE LIGHTS GLAZING	1

May be missing for up to four flights provided a check is done before each flight to ensure that the strobe light and navigation lights are operative. If inoperative, refer to MMEL (Refer to MMEL/MI-33-40 Navigation light).

Note: APU operation on ground with tailwind could damage strobe light and navigation lights unit.

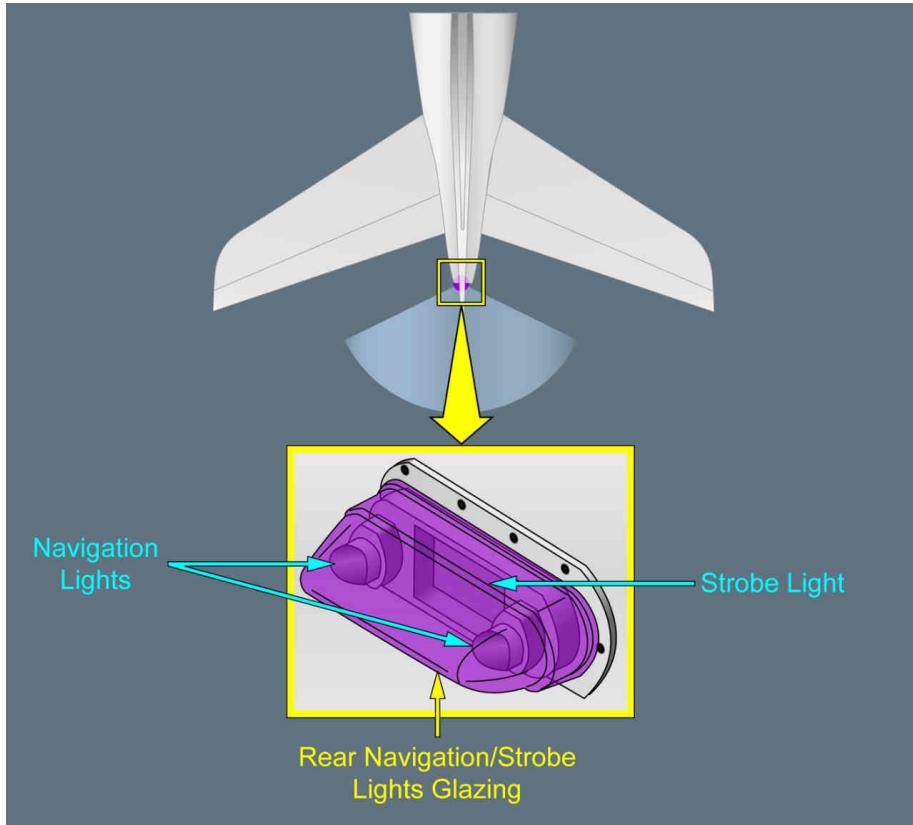
Refer to MCDL-33-05 Illustration Rear Navigation/Strobe Lights Glazing

ILLUSTRATION REAR NAVIGATION/STROBE LIGHTS GLAZING

Ident.: MCDL-33-05-00009044.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 33-05 Rear Navigation/Strobe Lights Glazing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LIGHTS

UPPER ANTI-COLLISION (BEACON) LIGHT COVER

33-06

Upper Anti-Collision (Beacon) Light Cover

Ident.: MCDL-33-06-00009046.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

33-06	Quantity installed
UPPER ANTI-COLLISION (BEACON) LIGHT COVER	1

(m) Refer to AMM 33-48-11-040-801

May be missing provided the hole is covered and the affected light is deactivated (Refer to MMEL/MI-33-40 Beacon light).

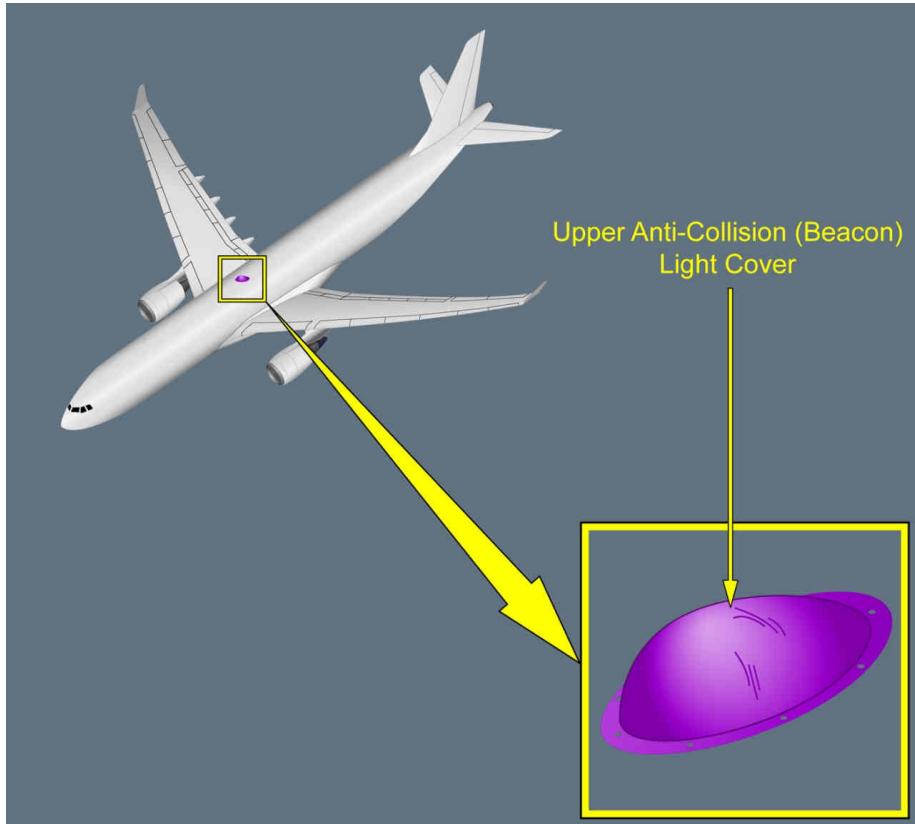
Refer to MCDL-33-06 Illustration Upper Anti-Collision (Beacon) Light Cover

ILLUSTRATION UPPER ANTI-COLLISION (BEACON) LIGHT COVER

Ident.: MCDL-33-06-00009047.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 33-06 Upper Anti-Collision (Beacon) Light Cover.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

LIGHTS

LOWER ANTI-COLLISION (BEACON) LIGHT COVER

33-07

Lower Anti-Collision (Beacon) Light Cover

Ident.: MCDL-33-07-00009048.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

33-07	Quantity installed
LOWER ANTI-COLLISION (BEACON) LIGHT COVER	1

(m) Refer to AMM 33-48-12-040-801

May be missing provided the hole is covered and the affected light is deactivated (Refer to MMEL/MI-33-40 Beacon light).

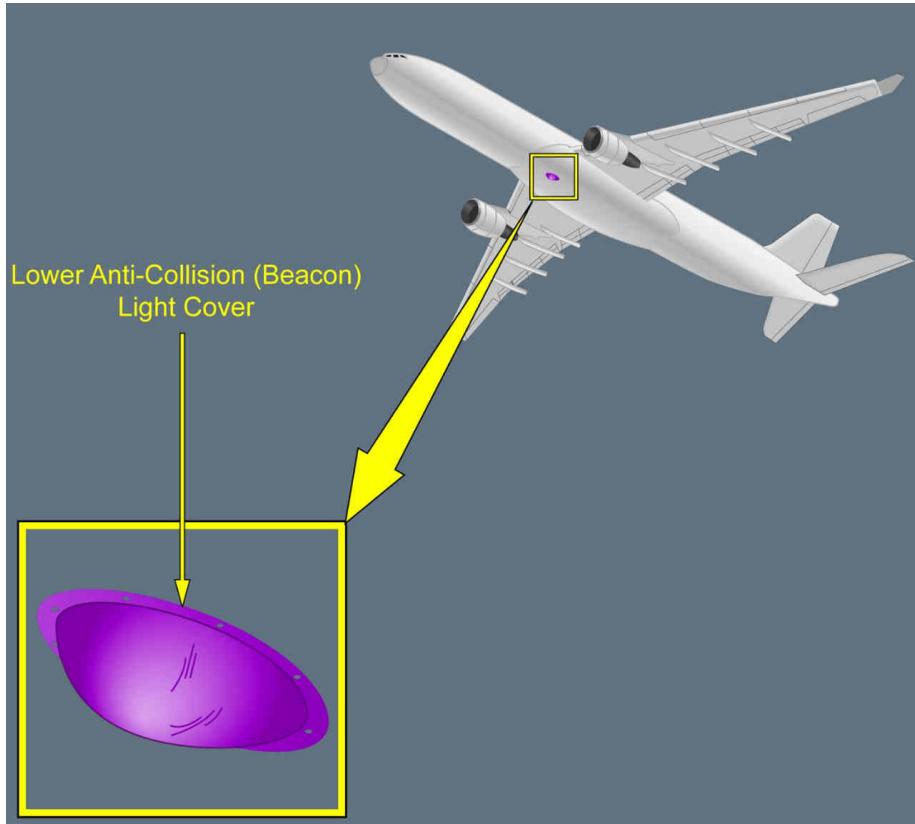
Refer to MCDL-33-07 Illustration Lower Anti-Collision (Beacon) Light Cover

ILLUSTRATION LOWER ANTI-COLLISION (BEACON) LIGHT COVER

Ident.: MCDL-33-07-00009049.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 33-07 Lower Anti-Collision (Beacon) Light Cover.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

STRUCTURE

RADOME CONDUCTING STRIP

51-01

Radome Conducting Strip

Ident.: MCDL-51-01-00009050.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

51-01	Quantity installed
RADOME CONDUCTING STRIP	-

One may be missing.

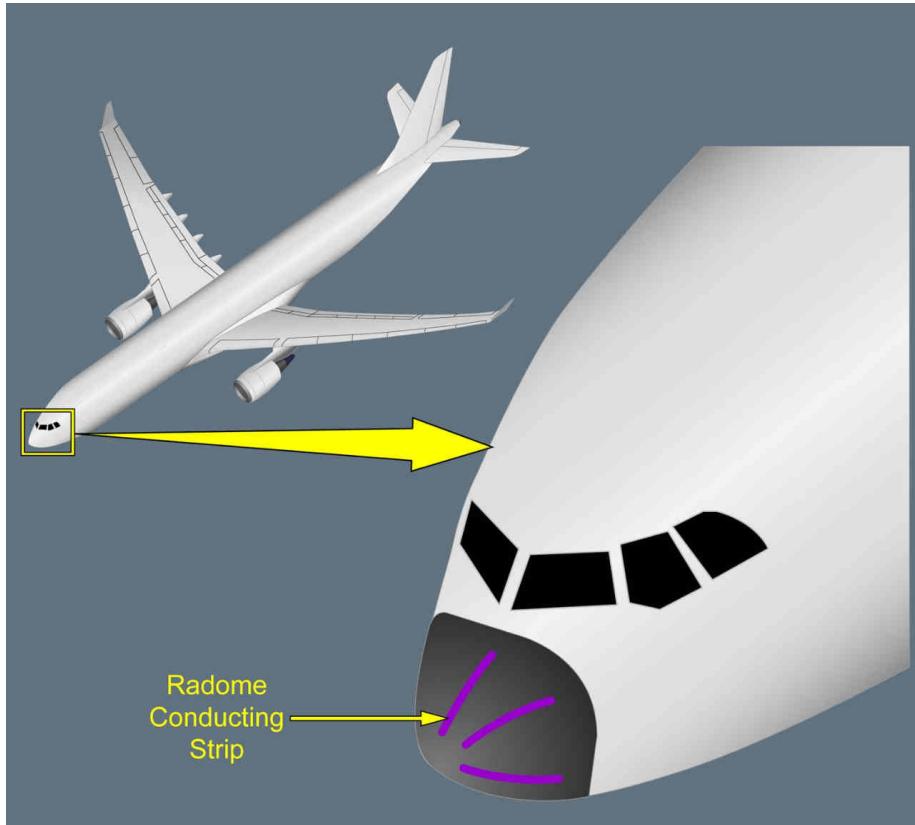
Refer to MCDL-51-01 Illustration Radome Conducting Strip

ILLUSTRATION RADOME CONDUCTING STRIP

Ident.: MCDL-51-01-00009051.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 51-01 Radome Conducting Strip.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

STRUCTURE

PASSENGER DOOR SCUFF PLATE

51-02

Passenger Door Scuff Plate

Ident.: MCDL-51-02-00009052.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (330-200 or 330-300)

51-02 PASSENGER DOOR SCUFF PLATE	Quantity installed 8
-------------------------------------	-------------------------

Two may be missing.

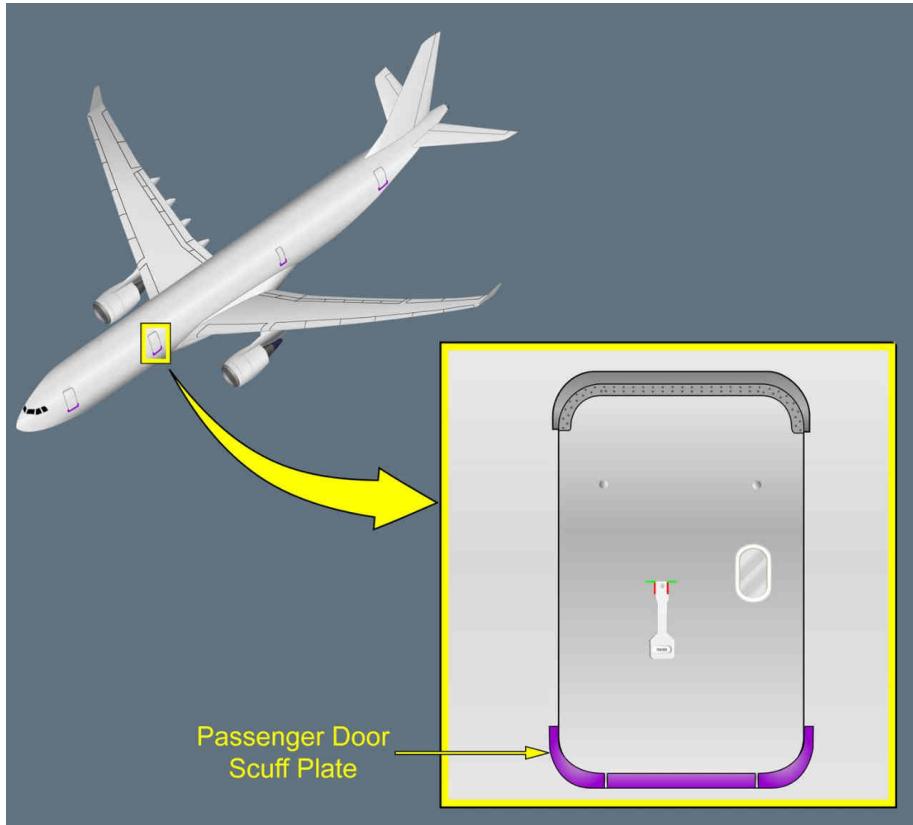
Refer to MCDL-51-02 Illustration Passenger Door Scuff Plate

ILLUSTRATION PASSENGER DOOR SCUFF PLATE

Ident.: MCDL-51-02-00009053.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: (330-200 or 330-300)

For dispatch conditions: *Refer to 51-02 Passenger Door Scuff Plate.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

STRUCTURE

BULK DOOR SCUFF PLATE

51-03

Bulk Door Scuff Plate

Ident.: MCDL-51-03-00009054.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

51-03	Quantity installed
BULK DOOR SCUFF PLATE	1

May be missing.

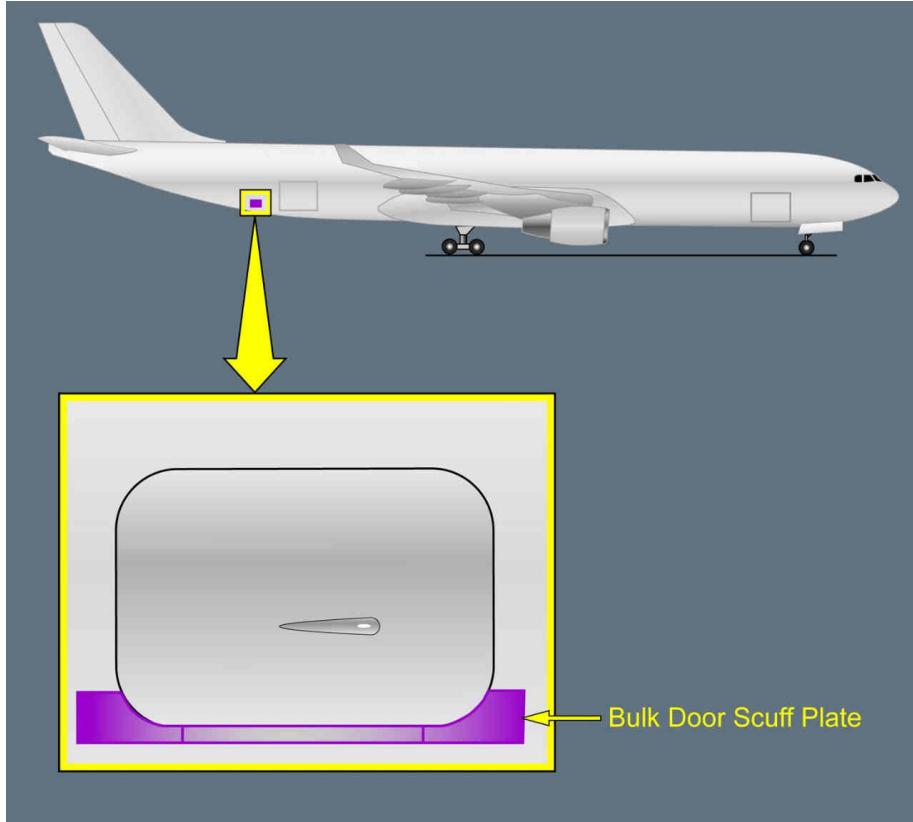
Refer to MCDL-51-03 Illustration Bulk Door Scuff Plate

ILLUSTRATION BULK DOOR SCUFF PLATE

Ident.: MCDL-51-03-00009055.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 51-03 Bulk Door Scuff Plate.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

STRUCTURE

PASSENGER DOOR GUTTER

51-04

Passenger Door Gutter

Ident.: MCDL-51-04-00009056.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (330-200 or 330-300)

51-04 PASSENGER DOOR GUTTER	Quantity installed 8
--------------------------------	-------------------------

All may be missing.

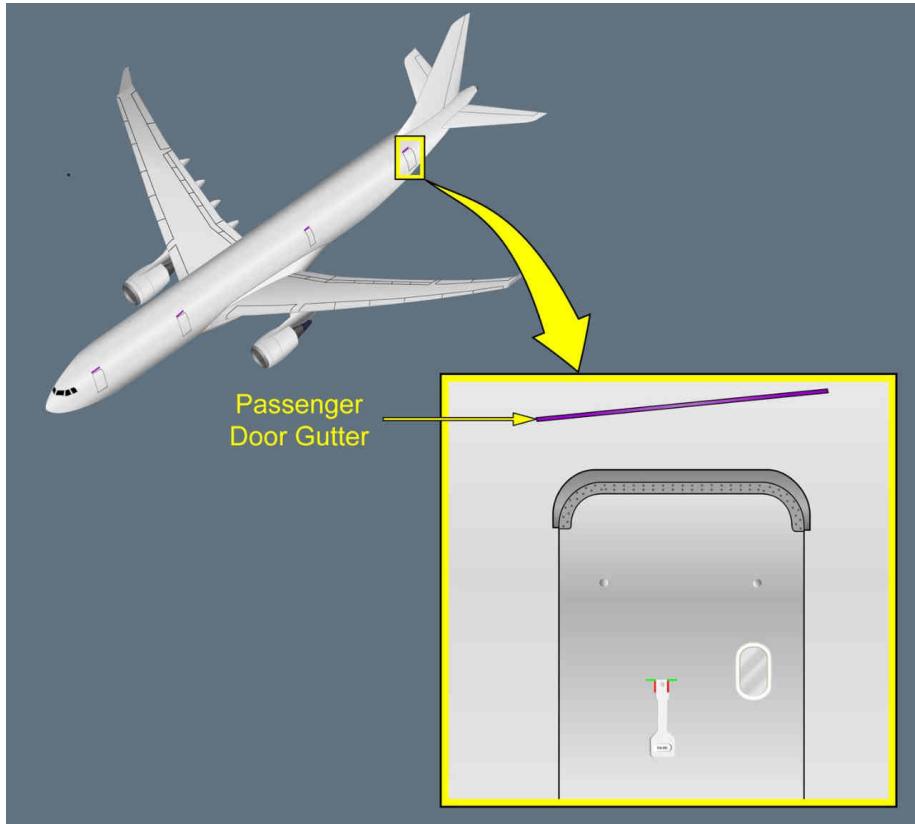
Refer to MCDL-51-04 Illustration Passenger Door Gutter

ILLUSTRATION PASSENGER DOOR GUTTER

Ident.: MCDL-51-04-00009057.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: (330-200 or 330-300)



For dispatch conditions: *Refer to 51-04 Passenger Door Gutter.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

FORWARD CARGO LOADING OPERATION CONTROL PANEL DOOR

52-02

Forward Cargo Loading Operation Control Panel Door

Ident.: MCDL-52-02-00009059.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

52-02

**FORWARD CARGO LOADING OPERATION CONTROL
PANEL DOOR**

Quantity installed

1

May be missing.

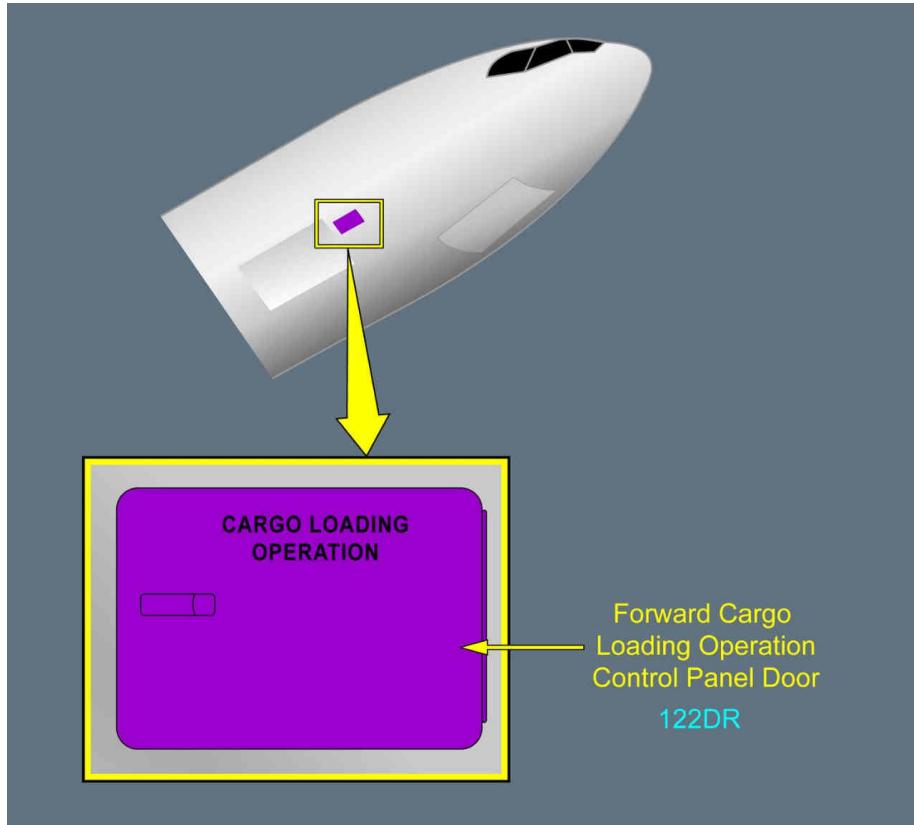
Refer to MCDL-52-02 Illustration Forward Cargo Loading Operation Control Panel Door

ILLUSTRATION FORWARD CARGO LOADING OPERATION CONTROL PANEL DOOR

Ident.: MCDL-52-02-00009060.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 52-02 Forward Cargo Loading Operation Control Panel Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

AFT CARGO DOOR CONTROL PANEL ACCESS DOOR

52-03

Aft Cargo Door Control Panel Access Door

Ident.: MCDL-52-03-00009061.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

52-03	AFT CARGO DOOR CONTROL PANEL ACCESS DOOR	Quantity installed 1
-------	--	-------------------------

May be missing.

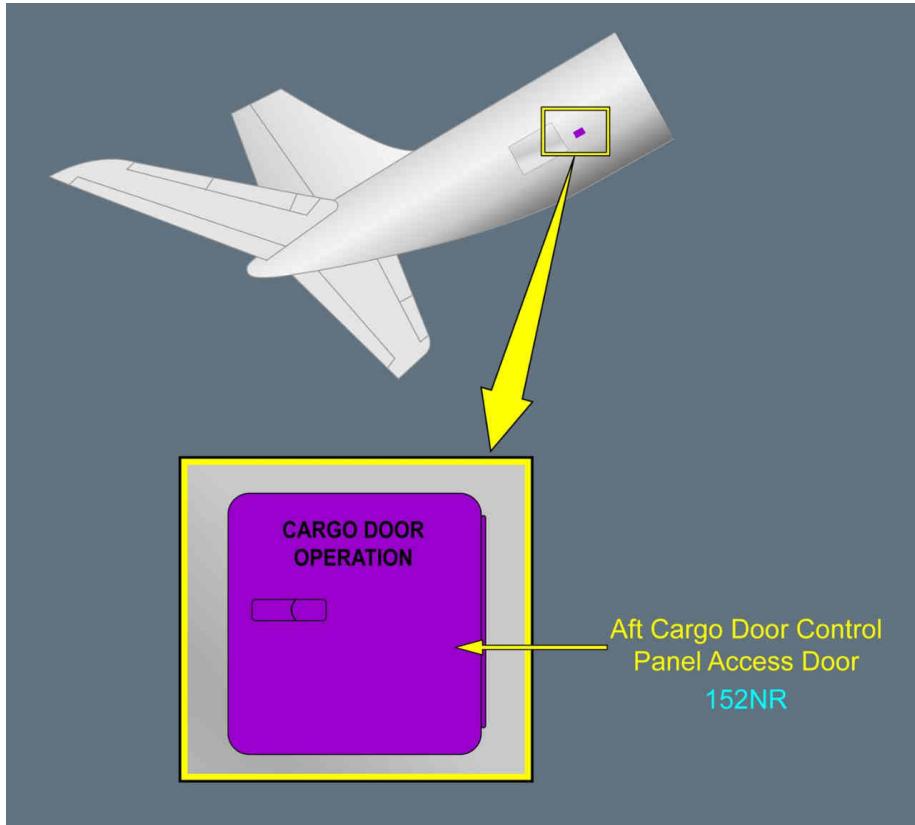
Refer to MCDL-52-03 Illustration Aft Cargo Door Control Panel Access Door

ILLUSTRATION AFT CARGO DOOR CONTROL PANEL ACCESS DOOR

Ident.: MCDL-52-03-00009062.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 52-03 Aft Cargo Door Control Panel Access Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

AFT CARGO LOADING OPERATION CONTROL PANEL DOOR

52-04

Aft Cargo Loading Operation Control Panel Door

Ident.: MCDL-52-04-00009063.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

52-04

AFT CARGO LOADING OPERATION CONTROL PANEL
DOOR

Quantity installed

1

May be missing.

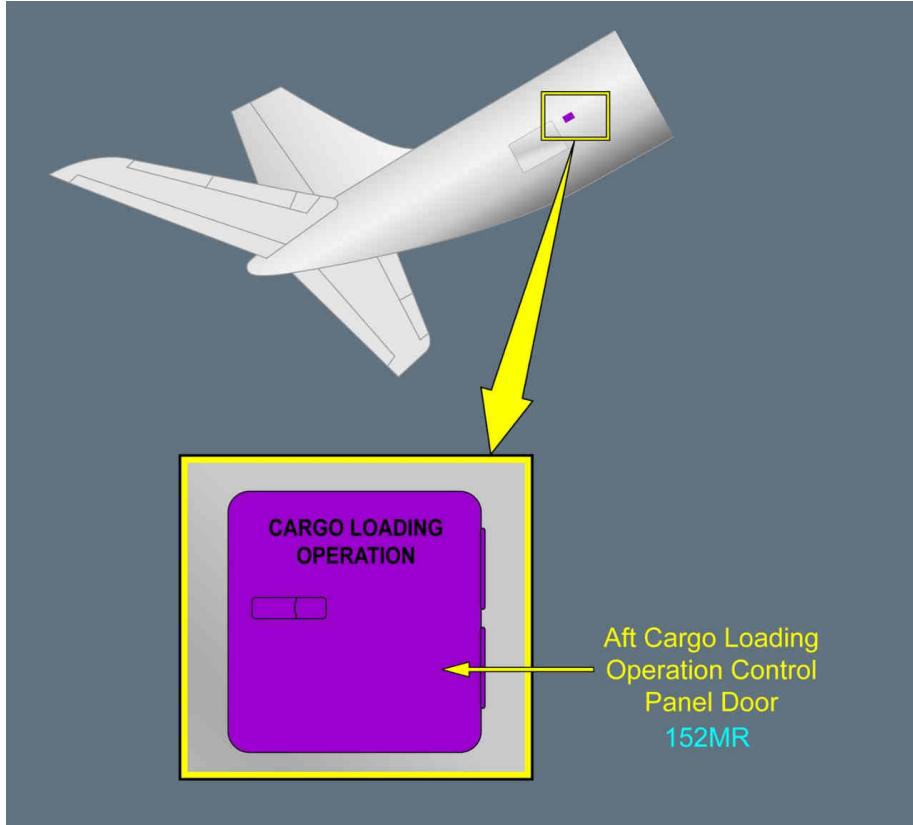
Refer to MCDL-52-04 Illustration Aft Cargo Loading Operation Control Panel Door

ILLUSTRATION AFT CARGO LOADING OPERATION CONTROL PANEL DOOR

Ident.: MCDL-52-04-00009064.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 52-04 Aft Cargo Loading Operation Control Panel Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

FORWARD JACKING POINT RECEPTABLE DOOR

52-05

Forward Jacking Point Receptable Door

Ident.: MCDL-52-05-00009065.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

52-05 FORWARD JACKING POINT RECEPTABLE DOOR	Quantity installed 1
--	-------------------------

May be missing.

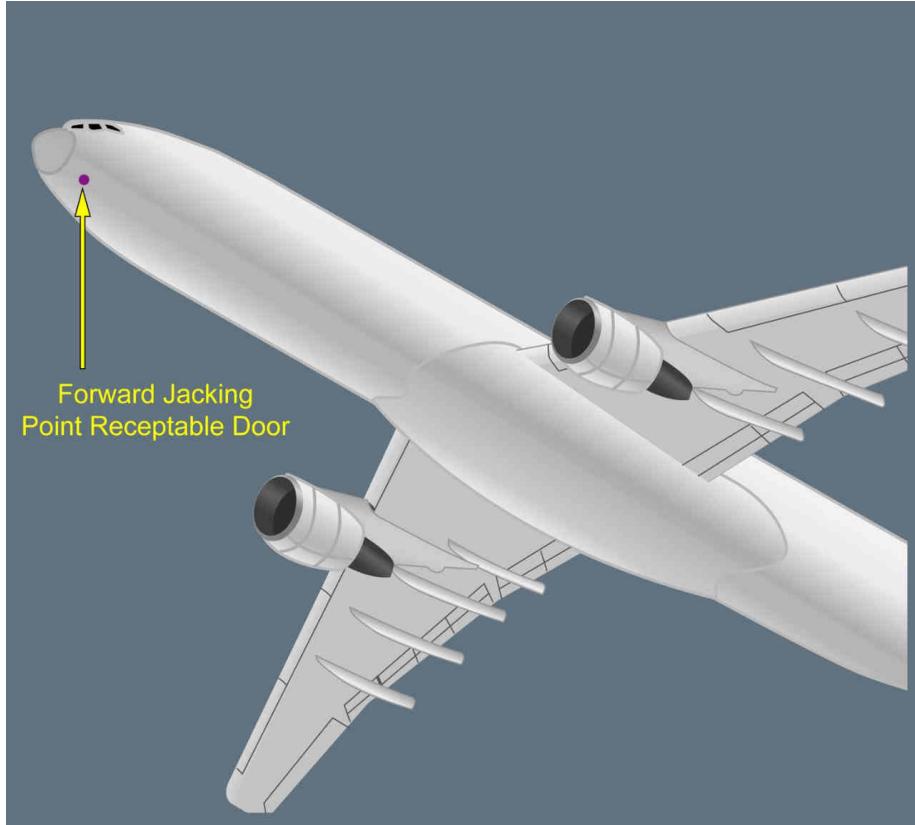
Refer to MCDL-52-05 Illustration Forward Jacking Point Receptable Door

ILLUSTRATION FORWARD JACKING POINT RECEPTABLE DOOR

Ident.: MCDL-52-05-00009066.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 52-05 Forward Jacking Point Receptable Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

POTABLE WATER DRAIN CONNECTION SERVICE DOOR

52-06

Potable Water Drain Connection Service Door

Ident.: MCDL-52-06-00009067.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (330-200 or 330-300)

52-06	Quantity installed
POTABLE WATER DRAIN CONNECTION SERVICE DOOR	1

May be missing.

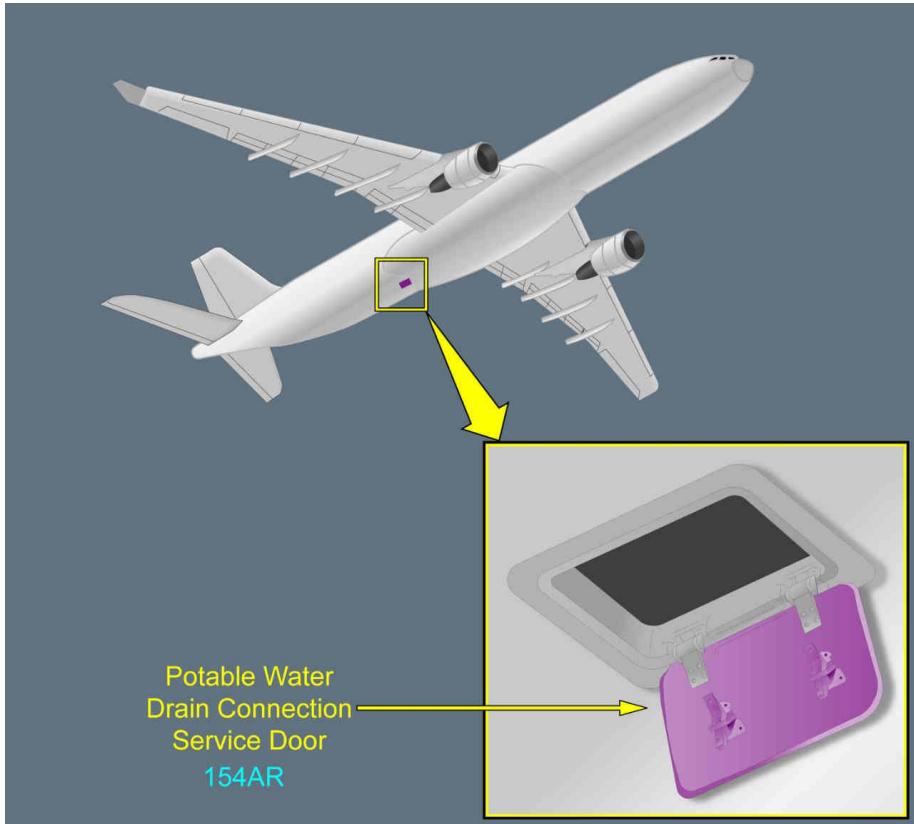
Refer to MCDL-52-06 Illustration Potable Water Drain Connection Service Door

ILLUSTRATION POTABLE WATER DRAIN CONNECTION SERVICE DOOR

Ident.: MCDL-52-06-00009068.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: (330-200 or 330-300)

For dispatch conditions: *Refer to 52-06 Potable Water Drain Connection Service Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

POTABLE WATER SERVICE DOOR

52-07

Potable Water Service Door

Ident.: MCDL-52-07-00009069.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (330-200 or 330-300)

52-07	POTABLE WATER SERVICE DOOR	Quantity installed
		1

(m) Refer to AMM 52-42-00-040-804

May be missing.

- **Performance:**

The following performance penalty is applicable:

- Takeoff performance limiting weight is reduced by 51 kg (113 lb).

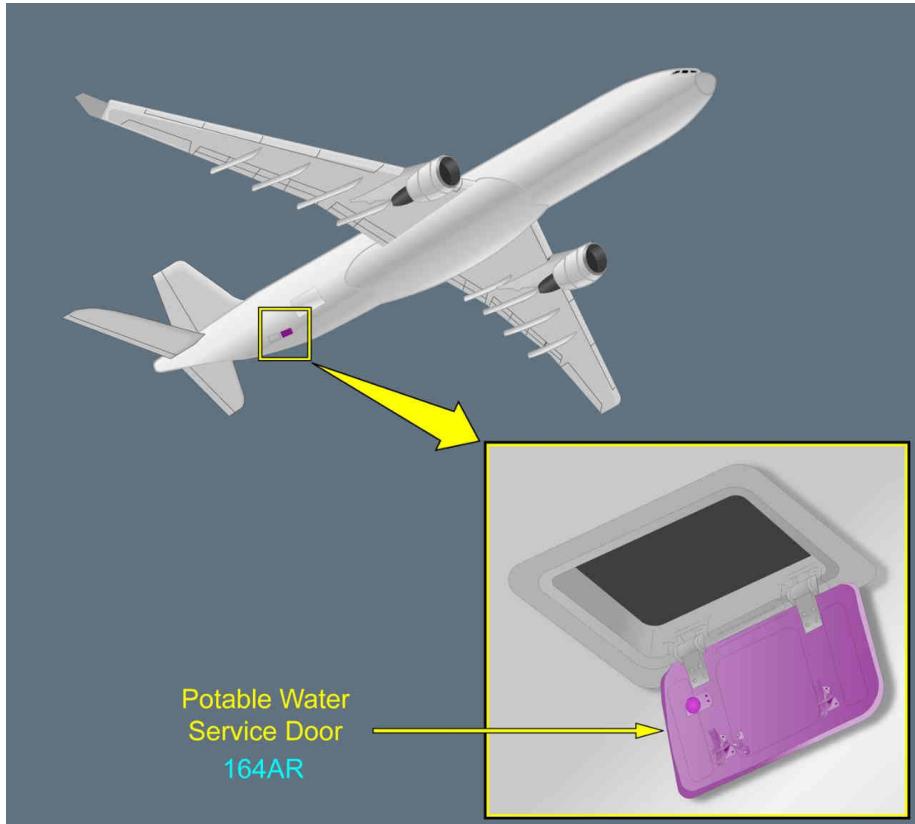
Refer to MCDL-52-07 Illustration Potable Water Service Door

ILLUSTRATION POTABLE WATER SERVICE DOOR

Ident.: MCDL-52-07-00009070.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: (330-200 or 330-300)

For dispatch conditions: *Refer to 52-07 Potable Water Service Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

VACUUM TOILET SERVICE DOOR

52-08

Vacuum Toilet Service Door

Ident.: MCDL-52-08-00009071.0001001 / 26 NOV 09

EASA APPROVED

Criteria: (330-200 or 330-300)

52-08	Quantity installed
VACUUM TOILET SERVICE DOOR	1

(m) Refer to AMM 52-42-00-040-802

May be missing.

Note: The toilet system is inoperative on ground.

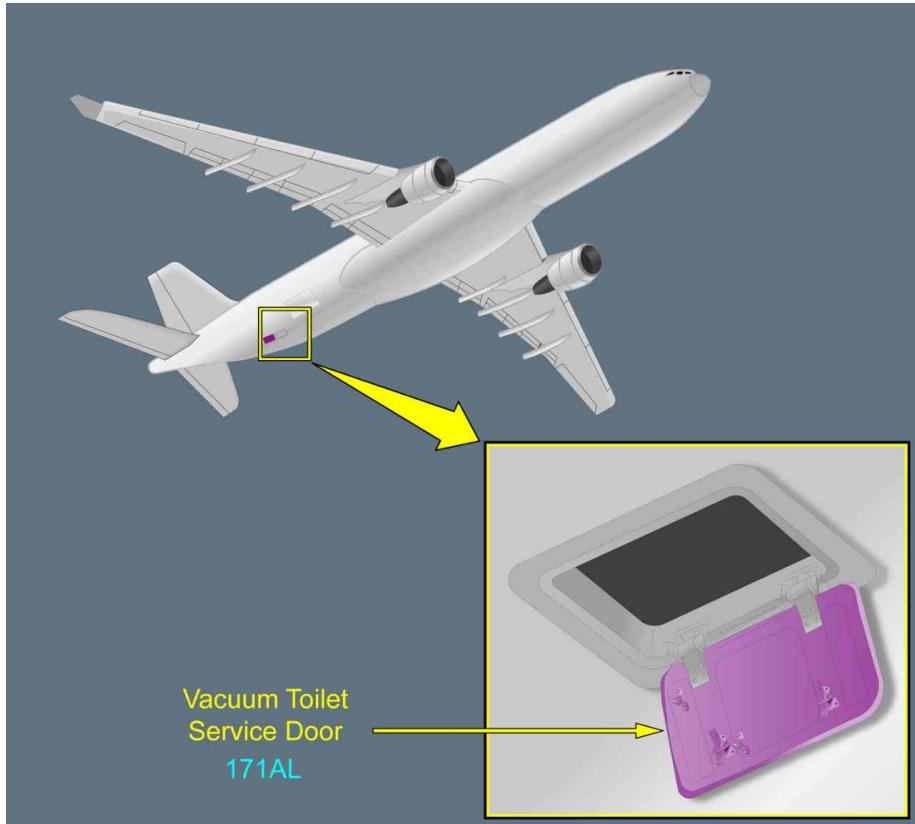
Refer to MCDL-52-08 Illustration Vacuum Toilet Service Door

ILLUSTRATION VACUUM TOILET SERVICE DOOR

Ident.: MCDL-52-08-00009072.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: (330-200 or 330-300)

For dispatch conditions: *Refer to 52-08 Vacuum Toilet Service Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

FUEL CENTER TANK WATER DRAIN ACCESS DOOR

52-09

Fuel Center Tank Water Drain Access Door

Ident.: MCDL-52-09-00009073.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

	Quantity installed
FUEL CENTER TANK WATER DRAIN ACCESS DOOR	2

(m) Refer to AMM 52-42-00-040-803

Two may be missing provided high speed tape is applied.

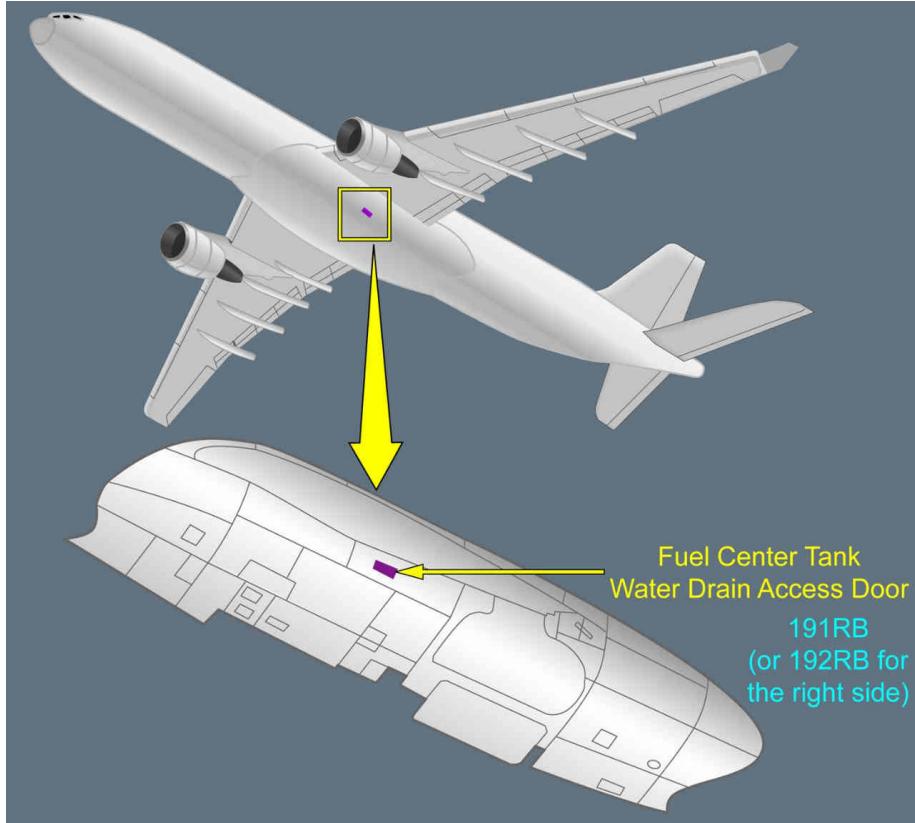
Refer to MCDL-52-09 Illustration Fuel Center Tank Water Drain Access Door

ILLUSTRATION FUEL CENTER TANK WATER DRAIN ACCESS DOOR

Ident.: MCDL-52-09-00009074.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 52-09 Fuel Center Tank Water Drain Access Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

CARGO DOOR INDICATOR FLAG

52-10

Cargo Door Indicator Flag

Ident.: MCDL-52-10-00009075.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

52-10	Quantity installed
CARGO DOOR INDICATOR FLAG	-

(m) Refer to AMM 52-30-00-040-804

Three may be missing on each door provided all associated latching hooks are checked latched before each flight.

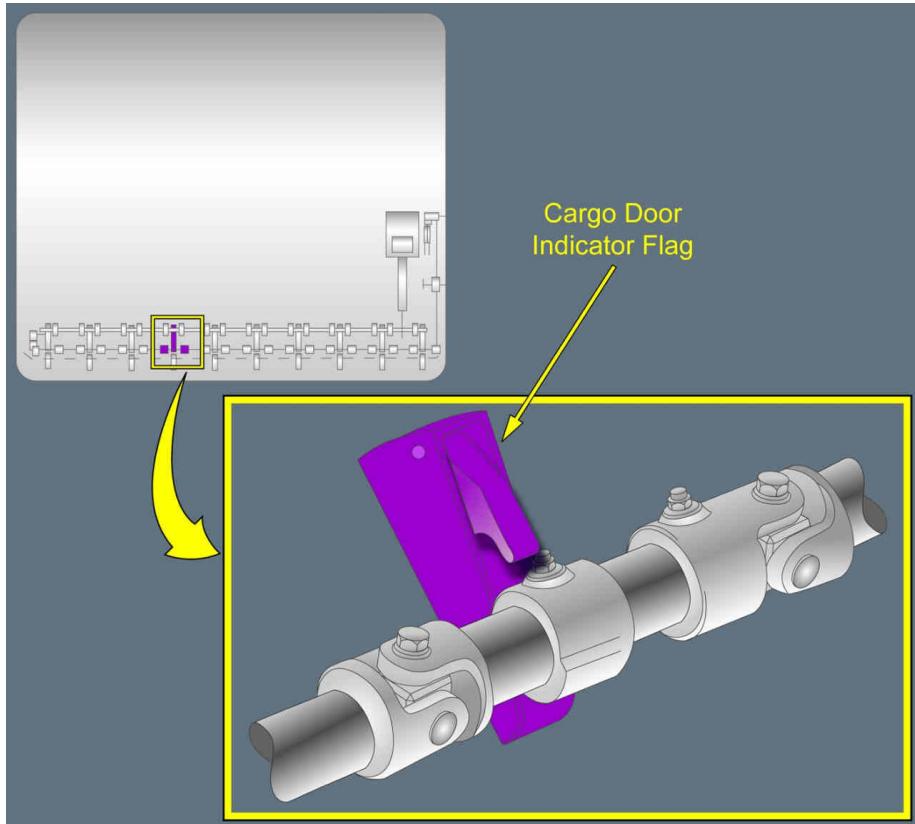
Refer to MCDL-52-10 Illustration Cargo Door Indicator Flag

ILLUSTRATION CARGO DOOR INDICATOR FLAG

Ident.: MCDL-52-10-00009076.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 52-10 Cargo Door Indicator Flag.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

POTABLE WATER FORWARD DRAIN PANEL ACCESS DOOR

52-11

Potable Water Forward Drain Panel Access Door

Ident.: MCDL-52-11-00009077.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

52-11 POTABLE WATER FORWARD DRAIN PANEL ACCESS DOOR	Quantity installed 1
---	--------------------------------

May be missing.

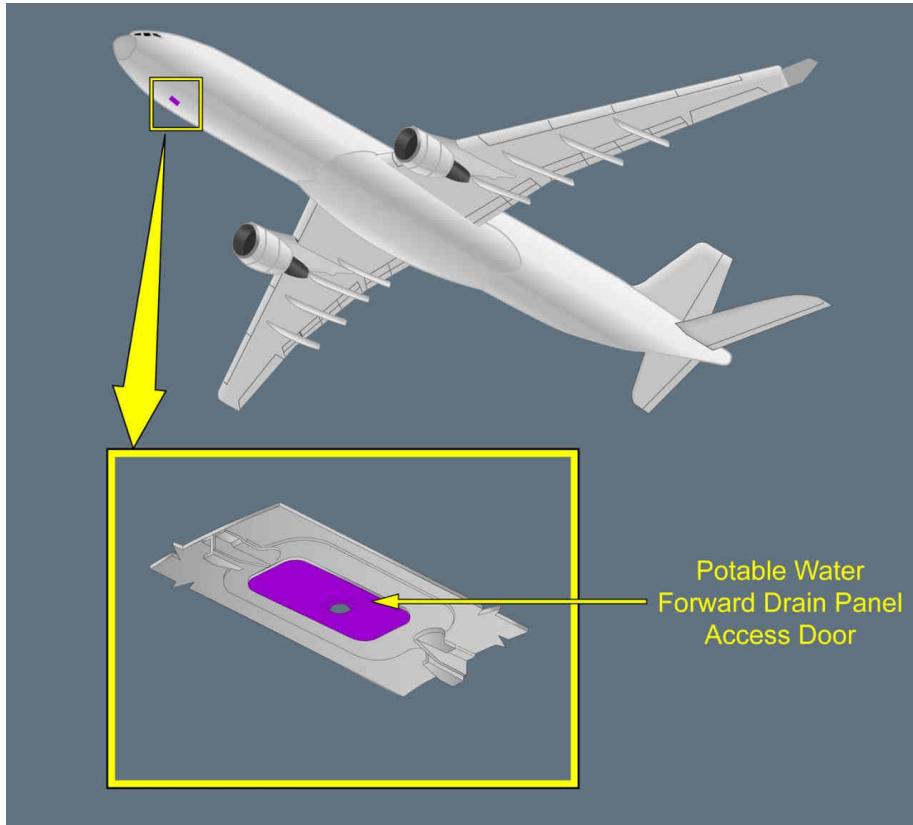
Refer to MCDL-52-11 Illustration Potable Water Forward Drain Panel Access Door

ILLUSTRATION POTABLE WATER FORWARD DRAIN PANEL ACCESS DOOR

Ident.: MCDL-52-11-00009078.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 52-11 Potable Water Forward Drain Panel Access Door.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

FORWARD CARGO DOOR ACCESS COVER PANEL

52-12

Forward Cargo Door Access Cover Panel

Ident.: MCDL-52-12-00009079.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

52-12	Quantity installed
FORWARD CARGO DOOR ACCESS COVER PANEL	2

All may be missing.

- Note:
1. When the aft panel of the door is missing (821 BR), the forward panel (821 AR) may remain installed.
 2. When the forward panel of the door is missing (821 AR), the aft panel (821 BR) must be removed before next flight.
 3. All associated latching hooks must be checked latched and locked before each flight.

Note: May be combined with MCDL item 52-13 (Refer to 52-13 Aft Cargo Door Access Cover Panel).

- **Performance:**

When the aft panel is missing, the following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 120 kg (265 lb)
- En route performance limiting weight is reduced by 238 kg (525 lb).

When the forward and aft panels are missing, the following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 196 kg (433 lb)
- En route performance limiting weight is reduced by 388 kg (856 lb)
- Fuel consumption is increased by 0.29 %.

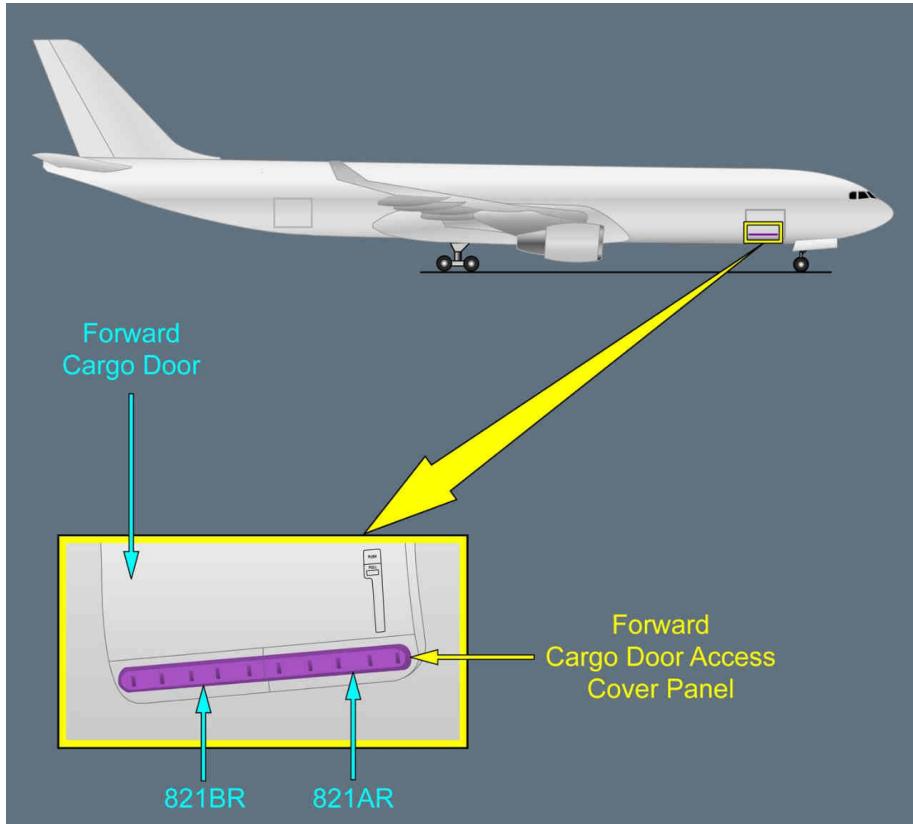
Refer to MCDL-52-12 Illustration Forward Cargo Door Access Cover Panel

ILLUSTRATION FORWARD CARGO DOOR ACCESS COVER PANEL

Ident.: MCDL-52-12-00009080.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 52-12 Forward Cargo Door Access Cover Panel.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

AFT CARGO DOOR ACCESS COVER PANEL

52-13

Aft Cargo Door Access Cover Panel

Ident.: MCDL-52-13-00009081.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

52-13	Quantity installed
AFT CARGO DOOR ACCESS COVER PANEL	2

All may be missing.

- Note:
1. When the aft panel of the door is missing (822 BR), the forward panel (822 AR) may remain installed.
 2. When the forward panel of the door is missing (822 AR), the aft panel (822 BR) must be removed before next flight.
 3. All associated latching hooks must be checked latched and locked before each flight.

Note: May be combined with MCDL item 52-12 (Refer to 52-12 Forward Cargo Door Access Cover Panel).

- **Performance:**

When the aft panel is missing, the following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 99 kg (219 lb)
- En route performance limiting weight is reduced by 198 kg (437 lb)

When the forward and aft panels are missing, the following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 147 kg (325 lb)
- En route performance limiting weight is reduced by 292 kg (644 lb)
- Fuel consumption is increased by 0.22 %.

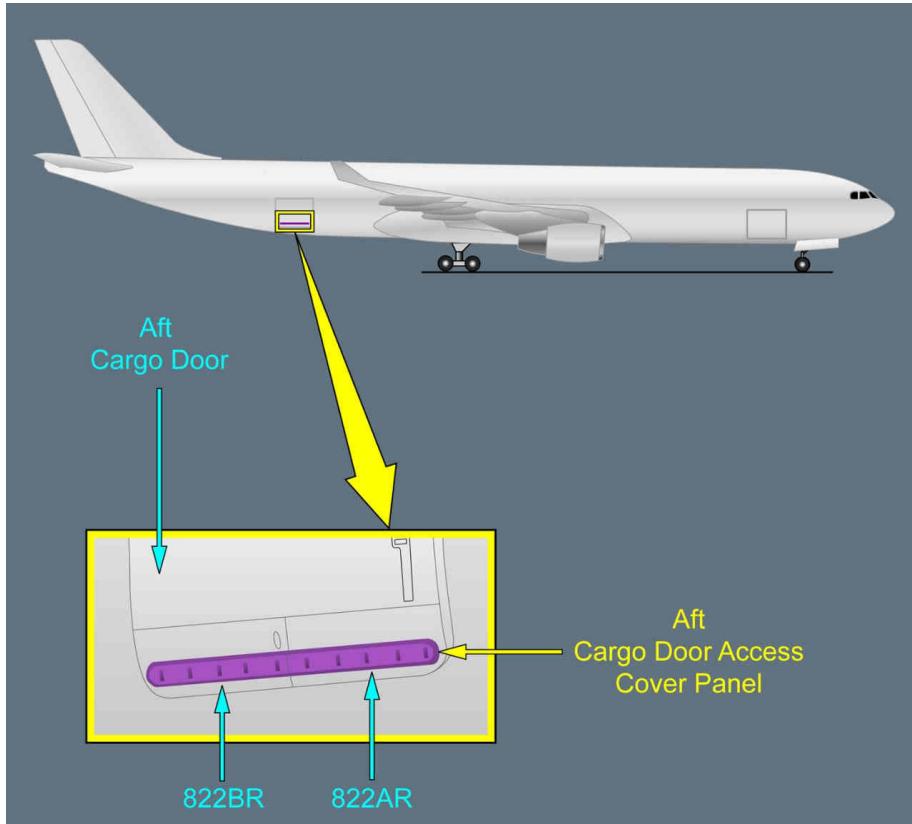
Refer to MCDL-52-13 Illustration Aft Cargo Door Access Cover Panel

ILLUSTRATION AFT CARGO DOOR ACCESS COVER PANEL

Ident.: MCDL-52-13-00009082.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: *Refer to 52-13 Aft Cargo Door Access Cover Panel.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

DOORS

PASSENGER DOOR AND EMERGENCY EXITS UPPER COVER PLATE

52-14

Passenger Door and Emergency Exits Upper Cover Plate

Ident.: MCDL-52-14-00009083.0001001 / 28 FEB 11

EASA APPROVED

Criteria: (330-200 or 330-300)

52-14 PASSENGER DOOR AND EMERGENCY EXITS UPPER COVER PLATE	Quantity installed 8
--	--------------------------------

One may be missing or partially missing provided the affected door is declared inoperative
(Refer to MMEL/MI-52-10 Cabin Door and Refer to MMEL/MI-52-10 Cabin Emergency Door).

- Performance:**

The following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 86 kg (190 lb)
- En route performance limiting weight is reduced by 170 kg (375 lb).

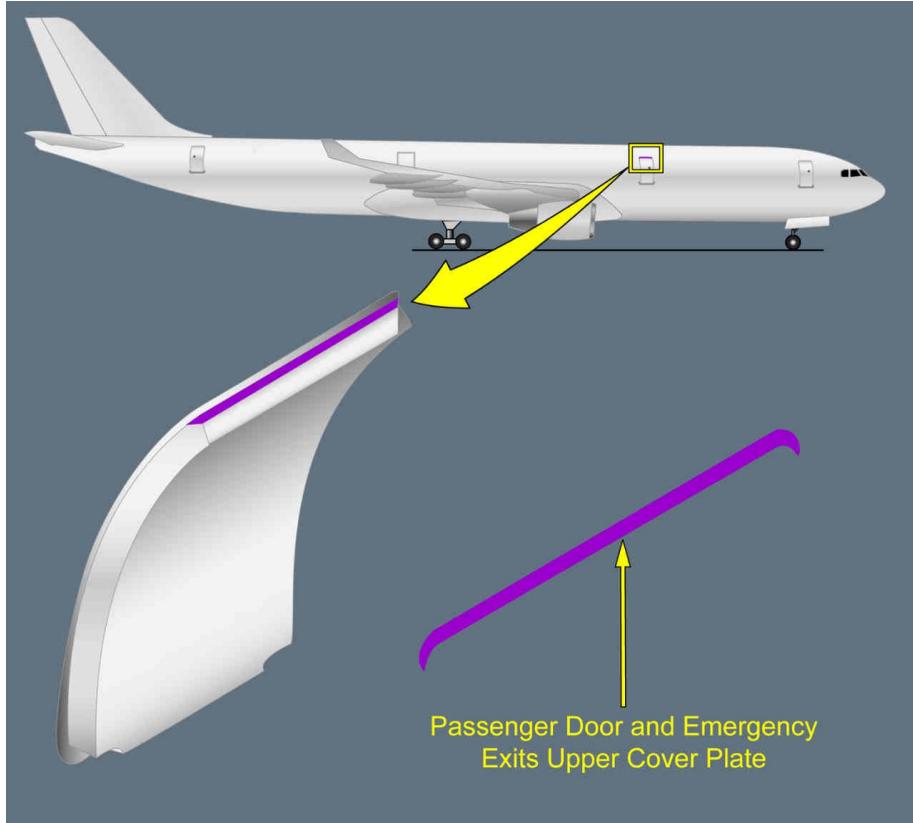
Refer to MCDL-52-14 Illustration Passenger Door and Emergency Exits Upper Cover Plate

ILLUSTRATION PASSENGER DOOR AND EMERGENCY EXITS UPPER COVER PLATE

Ident.: MCDL-52-14-00009084.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 52-14 Passenger Door and Emergency Exits Upper Cover Plate.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FUSELAGE

"DOG HOUSE" CLOSING PANEL

53-01

"Dog House" Closing Panel

Ident.: MCDL-53-01-00009091.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

53-01 "DOG HOUSE" CLOSING PANEL	Quantity installed 2
------------------------------------	-------------------------

One may be missing.

- **Limitations:**

VLO = 190 kt

VLE = 190 kt

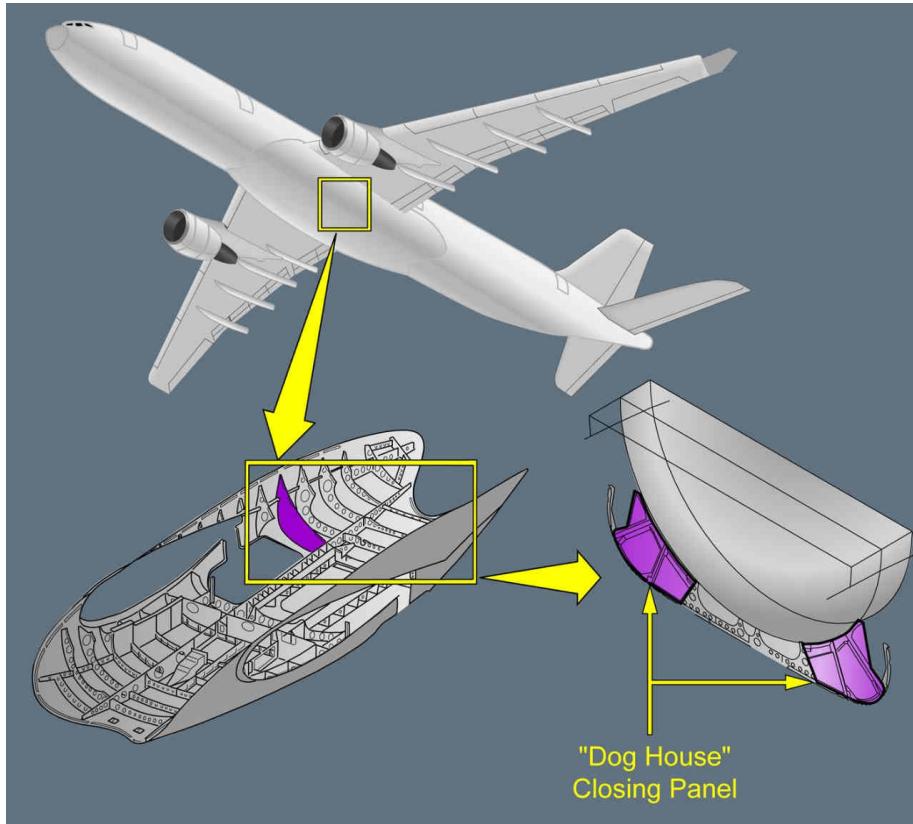
Refer to MCDL-53-01 Illustration "Dog House" Closing Panel

ILLUSTRATION "DOG HOUSE" CLOSING PANEL

Ident.: MCDL-53-01-00009092.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 53-01 "Dog House" Closing Panel.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FUSELAGE

BELLY FAIRING SLIDING PANEL

53-02

Belly Fairing Sliding Panel

Ident.: MCDL-53-02-00009094.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

53-02	Quantity installed
BELLY FAIRING SLIDING PANEL	2

All may be missing.

Note: The sliding panels may have one or two broken cables.

- **Performance:**

The following performance penalties are applicable:

- En route performance limiting weight is reduced by 170 kg (375 lb) per missing panel
- If both panels are missing, fuel consumption is increased by 0.26 %.

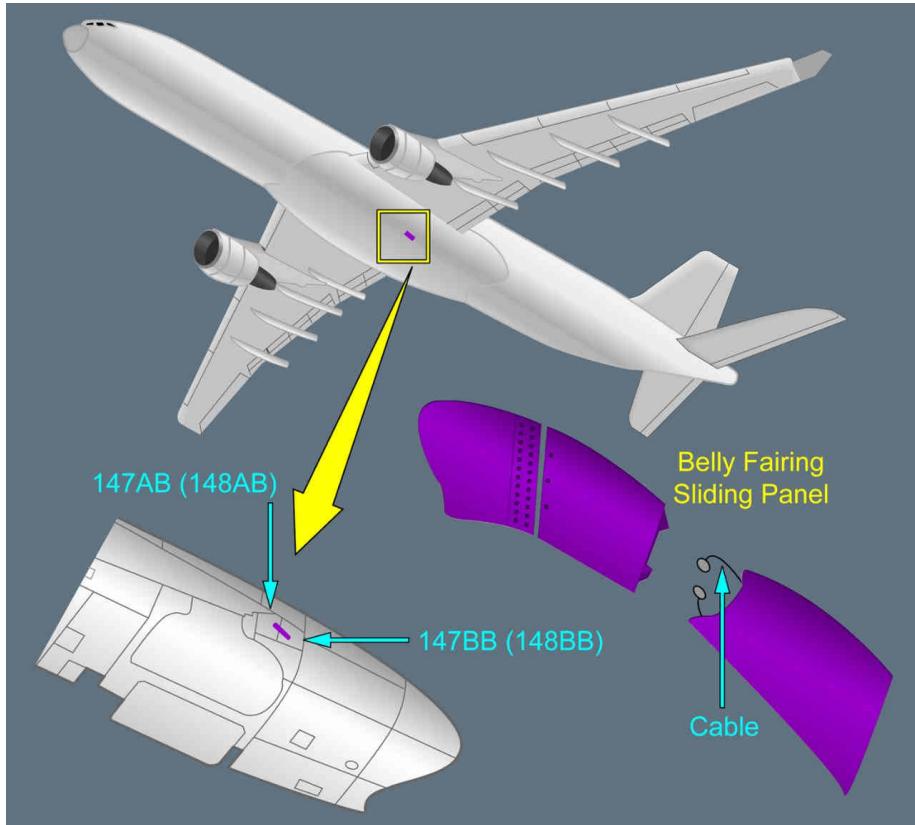
Refer to MCDL-53-02 Illustration Belly Fairing Sliding Panel

ILLUSTRATION BELLY FAIRING SLIDING PANEL

Ident.: MCDL-53-02-00009095.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 53-02 Belly Fairing Sliding Panel.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FUSELAGE

FLAP VALVE ASSY

53-03

Flap Valve Assy

Ident.: MCDL-53-03-00009097.0001001 / 28 FEB 11

EASA APPROVED

Criteria: A330

53-03

FLAP VALVE ASSY

Quantity installed

2

One may be missing provided a visual inspection is performed daily to check the surrounding structure integrity.

- **Performance:**

The following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 69 kg (153 lb)
- En route performance limiting weight is reduced by 136 kg (300 lb).

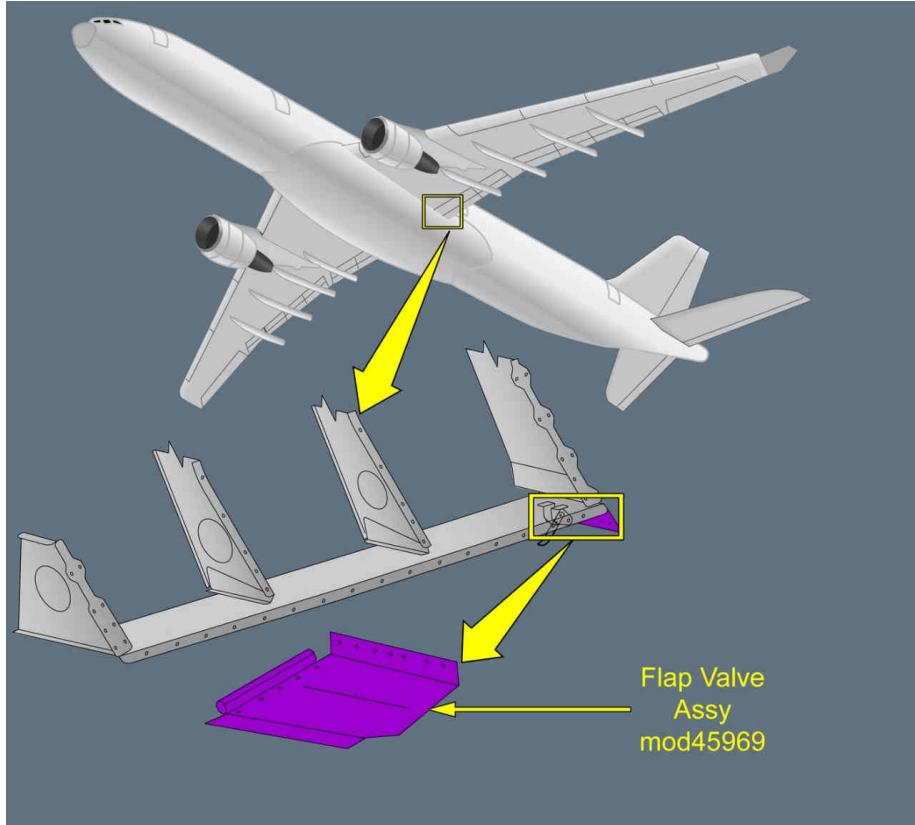
Refer to MCDL-53-03 Illustration Flap Valve Assy

ILLUSTRATION FLAP VALVE ASSY

Ident.: MCDL-53-03-00009098.0002001 / 02 JUL 10

FOR INFORMATION ONLY

Criteria: (A330 and 45969)

For dispatch conditions: *Refer to 53-03 Flap Valve Assy.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

FUSELAGE

BELLY FAIRING SEAL

53-04

Belly Fairing Seal

Ident.: MCDL-53-04-00009099.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

53-04 BELLY FAIRING SEAL	Quantity installed 2
-----------------------------	-------------------------

One may be missing for 5 flight cycles.

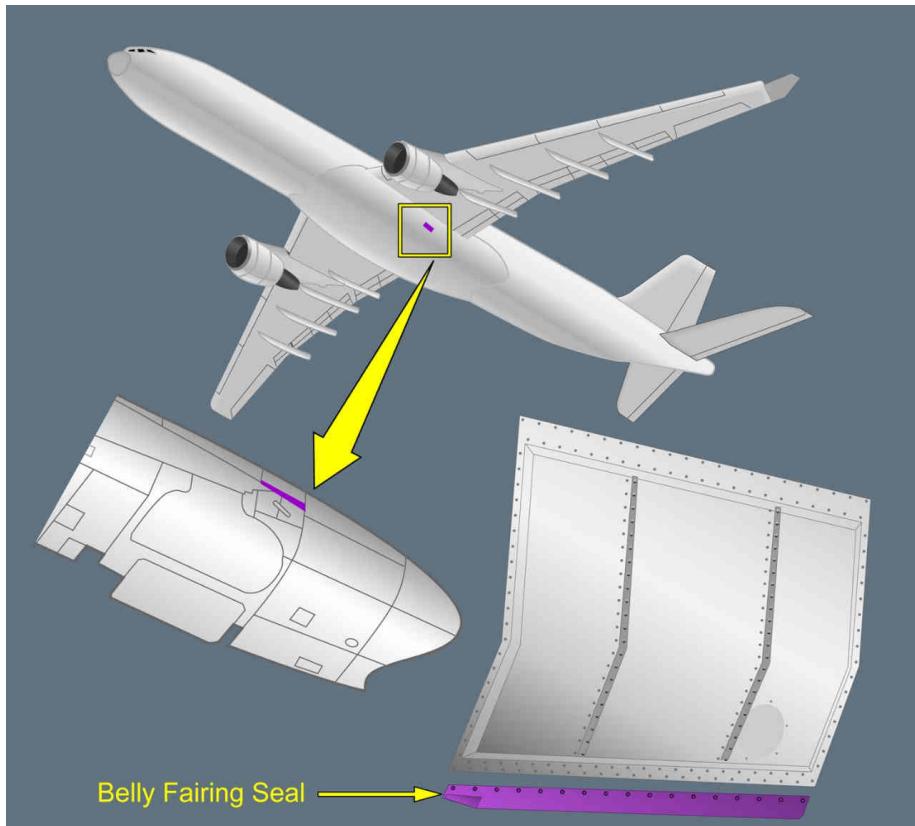
Refer to MCDL-53-04 Illustration Belly Fairing Seal

ILLUSTRATION BELLY FAIRING SEAL

Ident.: MCDL-53-04-00009100.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 53-04 Belly Fairing Seal.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

NACELLE/PYLON

SPRING PLATE

54-03

Spring Plate

Ident.: MCDL-54-03-00009111.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

54-03	Quantity installed
SPRING PLATE	2

All may be missing.

- **Performance:**

The following performance penalties are applicable per missing plate:

- Takeoff and approach climb performance limiting weights are reduced by 686 kg (1 513 lb)
- En route performance limiting weight is reduced by 272 kg (600 lb)
- Fuel consumption is increased by 0.20 %.

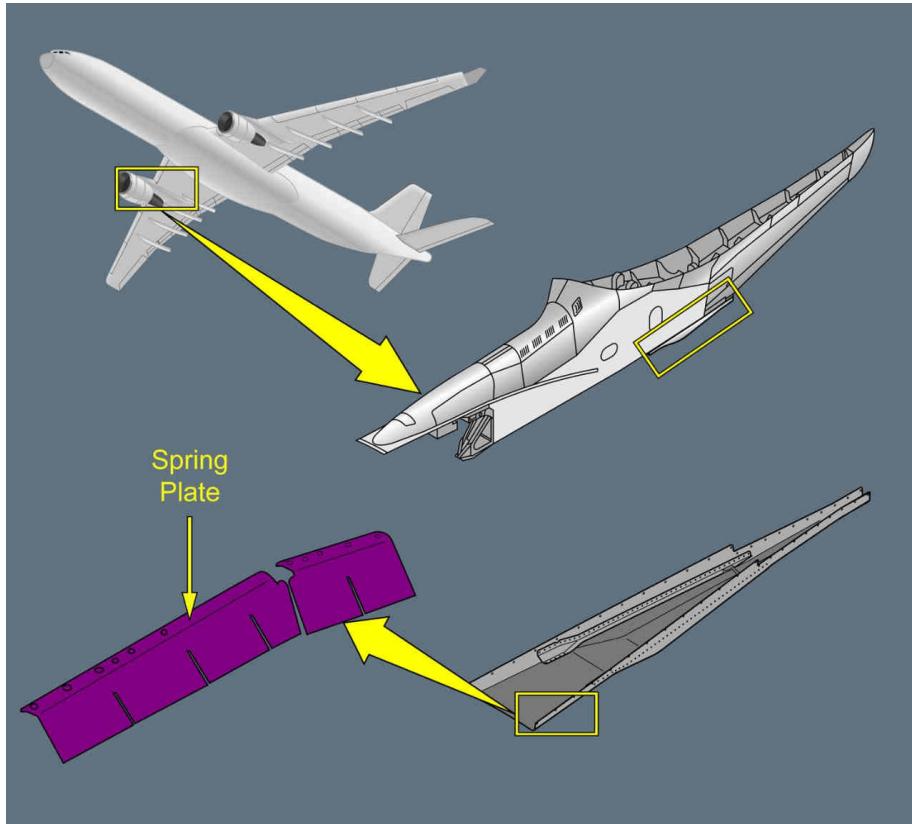
Refer to MCDL-54-03 Illustration Spring Plate

ILLUSTRATION SPRING PLATE

Ident.: MCDL-54-03-00009112.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 54-03 Spring Plate.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

NACELLE/PYLON

PYLON ACCESS PANEL

54-04

Pylon Access Panel

Ident.: MCDL-54-04-00009113.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

54-04 PYLON ACCESS PANEL	Quantity installed 4
-----------------------------	-------------------------

One may be missing per pylon.

- **Performance:**

The following performance penalty is applicable per missing panel:

- En route performance limiting weight is reduced by 120 kg (265 lb).

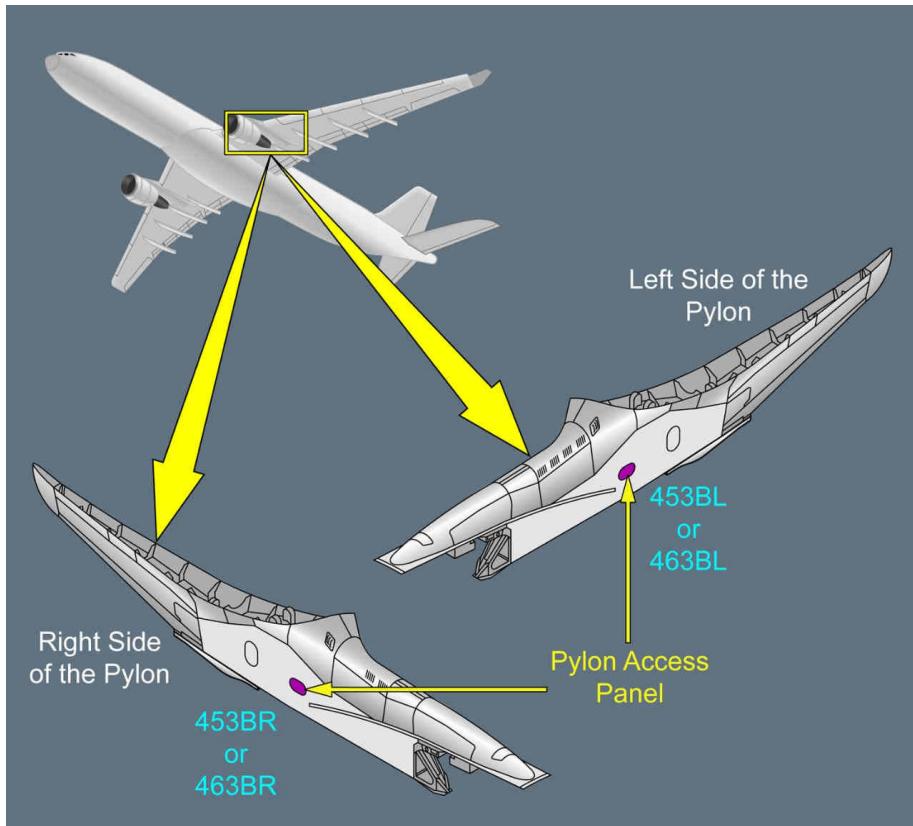
Refer to MCDL-54-04 Illustration Pylon Access Panel

ILLUSTRATION PYLON ACCESS PANEL

Ident.: MCDL-54-04-00009114.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 54-04 Pylon Access Panel.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

WINGS

UNDERWING PLUG FOR JACKING POINT

57-01

Underwing Plug for Jacking Point

Ident.: MCDL-57-01-00009115.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

57-01 UNDERWING PLUG FOR JACKING POINT	Quantity installed 2
---	-------------------------

One may be missing.

- **Performance:**

The following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 51 kg (113 lb).

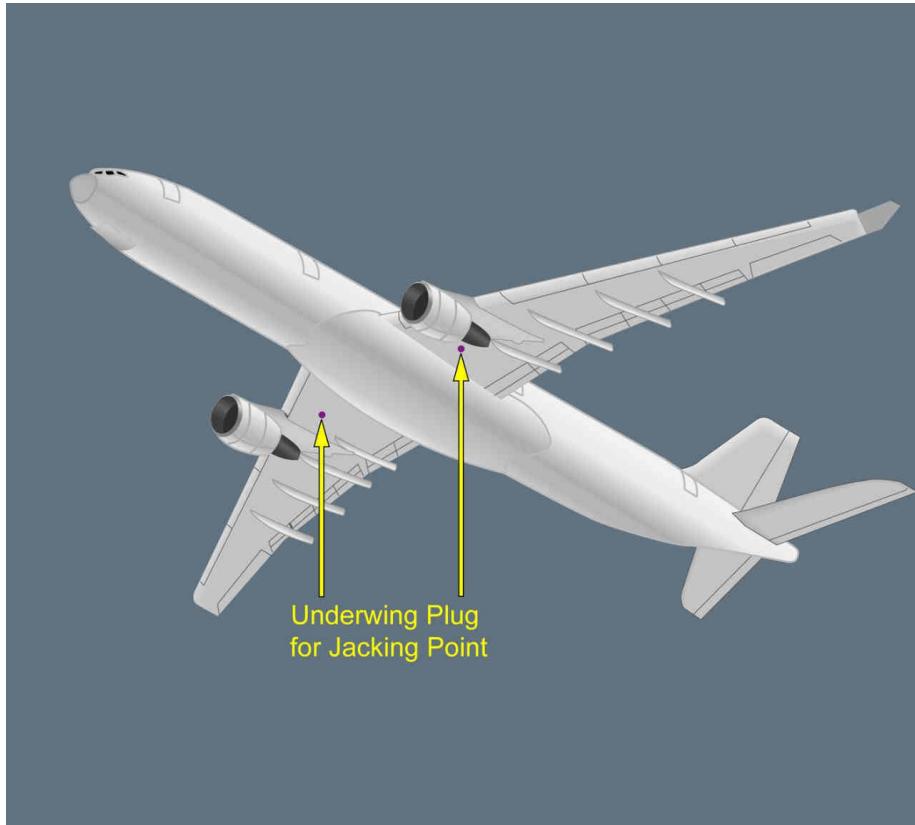
Refer to MCDL-57-01 Illustration Underwing Plug for Jacking Point

ILLUSTRATION UNDERWING PLUG FOR JACKING POINT

Ident.: MCDL-57-01-00009116.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 57-01 Underwing Plug for Jacking Point.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

WINGS

WINGLET

57-02

Winglet

Ident.: **MCDL-57-02-00009117.0002001 / 16 APR 10**

EASA APPROVED

Criteria: (330-201 or 330-202 or 330-203 or 330-223 or 330-243 or 330-302 or 330-303 or 330-323 or 330-343 or 330-200F)

57-02 WINGLET	Quantity installed 2
------------------	--------------------------------

(m) Refer to AMM 57-31-00-040-801

One may be missing provided the hole is covered.

- Performance:**

The following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 17 150 kg (37 810 lb)
- En route performance limiting weight is reduced by 1 768 kg (3 898 lb)
- Fuel consumption is increased by 1.20 %.

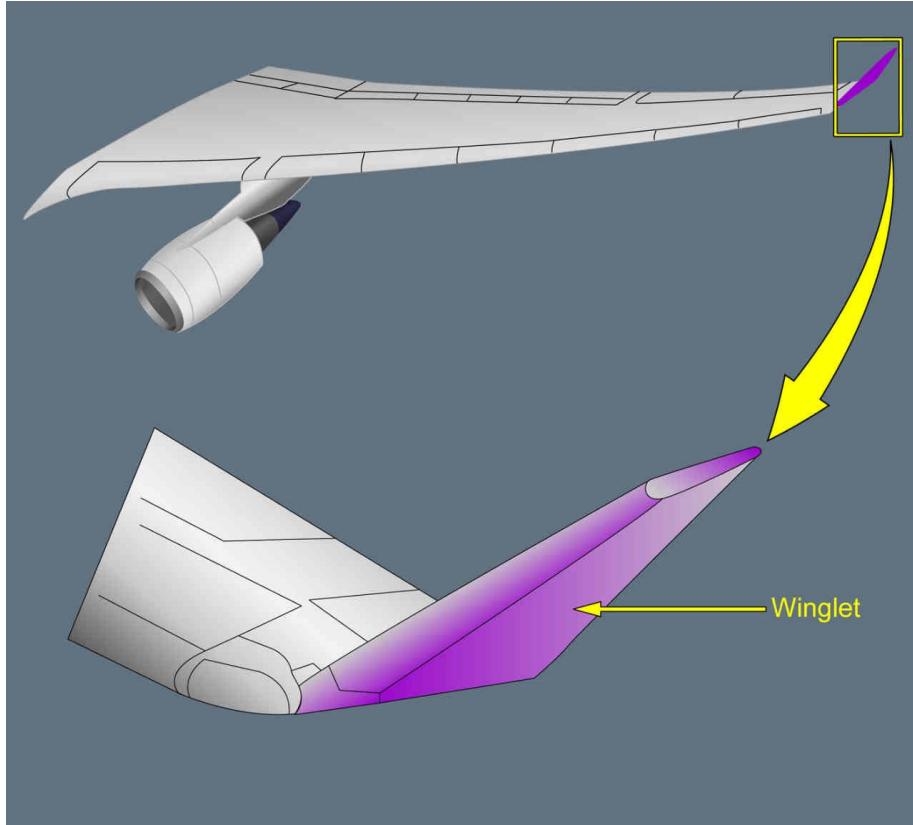
Refer to MCDL-57-02 Illustration Winglet

ILLUSTRATION WINGLET

Ident.: MCDL-57-02-00009118.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 57-02 Winglet.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

WINGS

FLAP TRACK FAIRING

57-04

Flap Track Fairing

Ident.: MCDL-57-04-00009119.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

a)

57-04 FLAP TRACK FAIRING	Quantity installed 8
-----------------------------	-------------------------

One may be partially (aft fairing only) or completely (aft and forward fairing) missing.

- Note:
1. When the forward part of the fairing is missing, the aft part must be removed.
 2. When the aft part of the fairing is missing, the forward part may remain installed.
 3. The forward part of fairing 4 on the right wing must remain in place (RAT location).

- **Limitations:**

Do not use jettison system (if installed) when fairing 4 is affected.

- **Procedures:**

Approach speed: VLS + 5 kt

Landing distance: multiply by 1.08

- **Performance:**

The following performance penalties are applicable:

- En route performance limiting weight is reduced by 5 240 kg (11 553 lb)
- Fuel consumption is increased by 3.42 %.

- or -

b)

57-04 FLAP TRACK FAIRING	Quantity installed 8
-----------------------------	-------------------------

One set of rear cover and tail cone may be missing on the same aft flap track fairing.

Note: Rear cover and tail cone must not be missing separately.

- **Limitations:**

Do not use jettison system (if installed) when fairing 4 is affected.

- **Performance:**

Continued on the following page

Continued from the previous page Flap Track Fairing

The following performance penalties are applicable:

- En route performance limiting weight is reduced by 2 450 kg (5 402 lb)
- Fuel consumption is increased by 1.60 %.

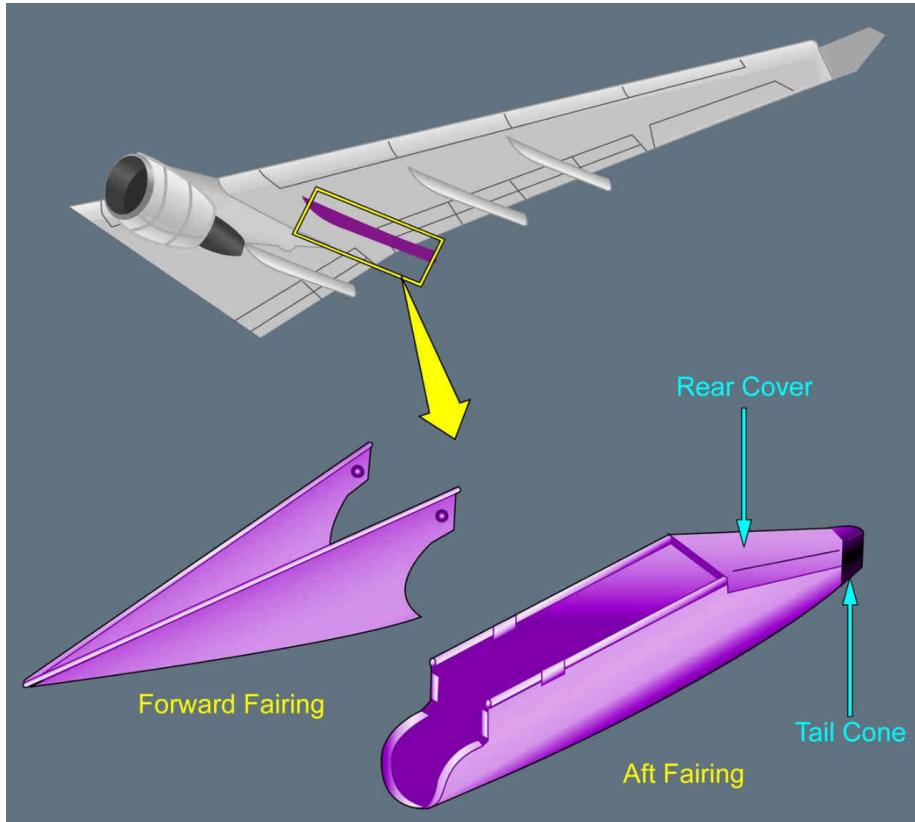
Refer to MCDL-57-04 Illustration Flap Track Fairing

ILLUSTRATION FLAP TRACK FAIRING

Ident.: MCDL-57-04-00009120.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330





A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

WINGS

FLAP TRACK FAIRING

For dispatch conditions: *Refer to 57-04 Flap Track Fairing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

WINGS

FLAP TRACK FAIRING

Intentionally left blank



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

WINGS

ACCESS PANEL TO SLAT ACTUATOR OVERTORQUE INDICATOR FLAG

57-05

Access Panel to Slat Actuator Overtorque Indicator Flag

Ident.: MCDL-57-05-00009121.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

a)

57-05 ACCESS PANEL TO SLAT ACTUATOR OVERTORQUE INDICATOR FLAG	Quantity installed 28
---	--------------------------

(m) Refer to AMM 57-41-00-040-801

If only inboard access panels are missing, all may be missing.

- or -

b)

57-05 ACCESS PANEL TO SLAT ACTUATOR OVERTORQUE INDICATOR FLAG	Quantity installed 28
---	--------------------------

(m) Refer to AMM 57-42-00-040-801

If outboard access panels are missing, two may be missing per wing.

Note: If inboard access panels are combined with outboard access panels, two may be missing per wing and both maintenance tasks must be applied.

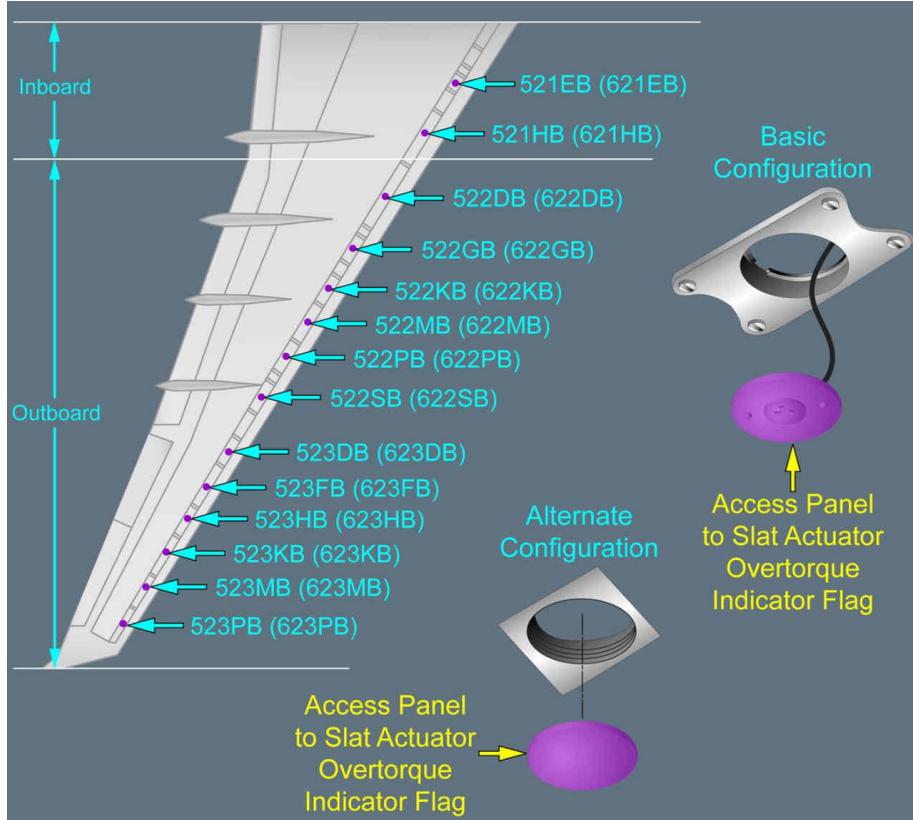
Refer to MCDL-57-05 Illustration Access Panel to Slat Actuator Overtorque Indicator Flag

ILLUSTRATION ACCESS PANEL TO SLAT ACTUATOR OVERTORQUE INDICATOR FLAG

Ident.: MCDL-57-05-00009122.0001001 / 02 JUL 10

FOR INFORMATION ONLY

Criteria: A330



For dispatch conditions: Refer to 57-05 Access Panel to Slat Actuator Overtorque Indicator Flag.



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

WINGS

FLAP TRACK FAIRING COVER

57-07

Flap Track Fairing Cover

Ident.: MCDL-57-07-00009123.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

57-07	Quantity installed
FLAP TRACK FAIRING COVER	56

(m) Refer to AMM 57-56-11-040-801

Two may be missing per flap track fairing provided the hole is covered with high speed tape and inspected before each flight.

Note: May be combined with any other item listed in MCDL-57 chapter.

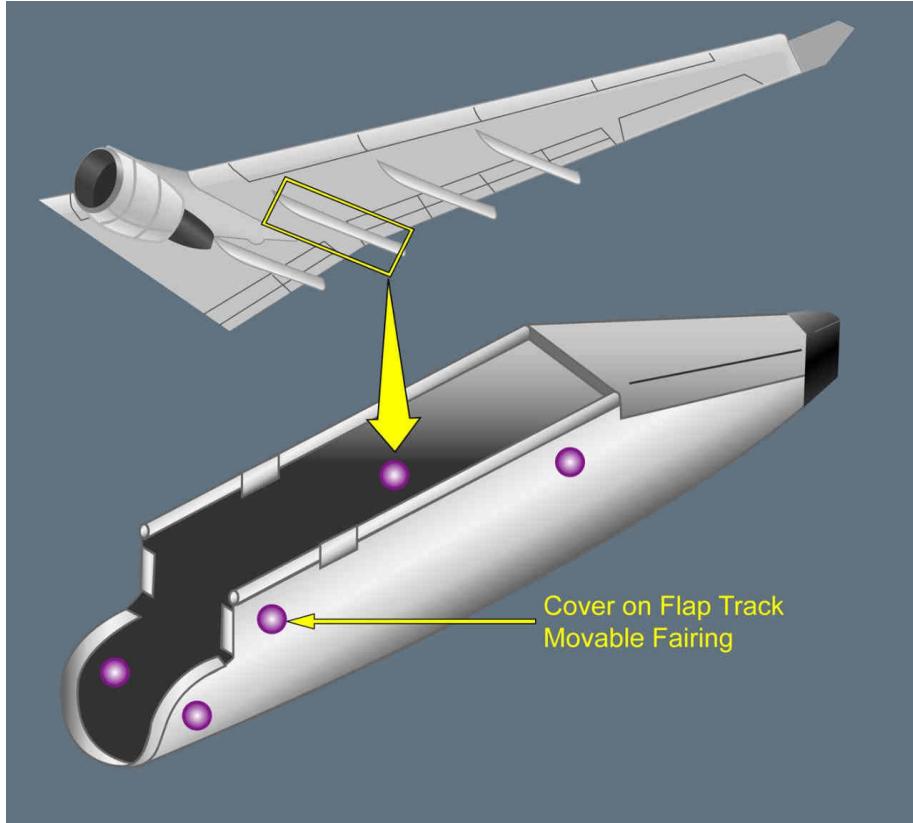
Refer to MCDL-57-07 Illustration Flap Track Fairing Cover

ILLUSTRATION FLAP TRACK FAIRING COVER

Ident.: MCDL-57-07-00009124.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 57-07 Flap Track Fairing Cover.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

WINGS

FLAP TO MOVABLE FLAP TRACK FAIRING SEAL

57-08

Flap to Movable Flap Track Fairing Seal

Ident.: MCDL-57-08-00009125.0001001 / 26 NOV 09

EASA APPROVED

Criteria: A330

57-08	FLAP TO MOVABLE FLAP TRACK FAIRING SEAL	Quantity installed
		32

All may be missing.

- **Performance:**

The following performance penalties are applicable:

- When three or more seals are missing, en route performance limiting weight is reduced by 40 kg (89 lb) per missing seal
- When 7 or more seals are missing, fuel consumption is increased by 0.03 % per missing seal.

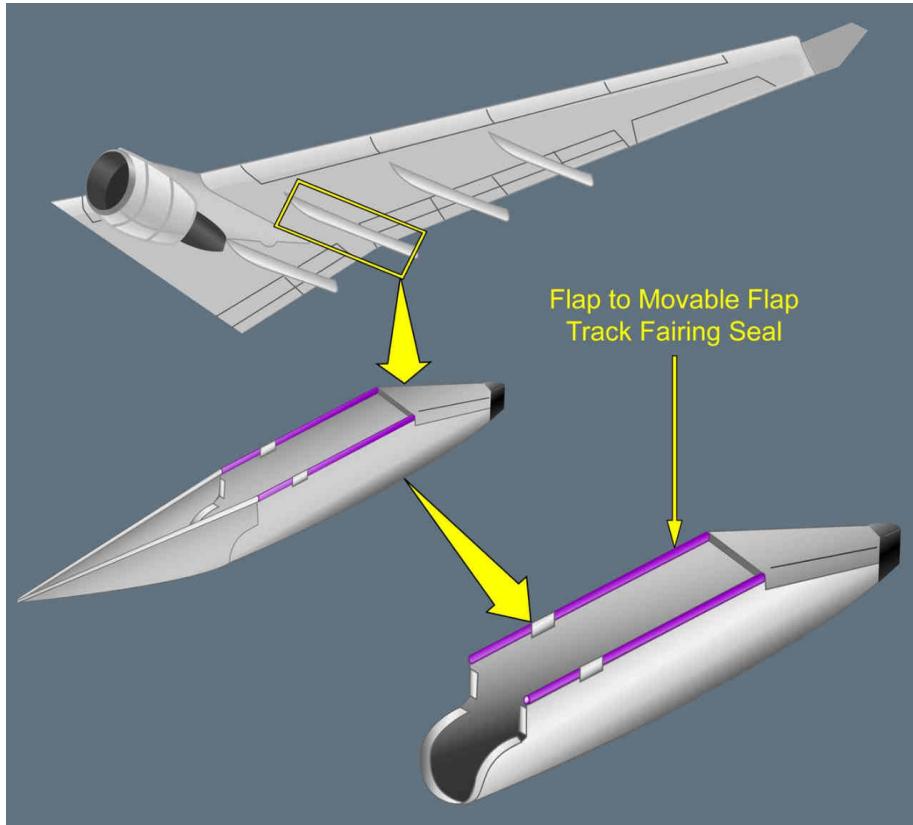
Refer to MCDL-57-08 Illustration Flap to Movable Flap Track Fairing Seal

ILLUSTRATION FLAP TO MOVABLE FLAP TRACK FAIRING SEAL

Ident.: MCDL-57-08-00009126.0001001 / 26 NOV 09

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 57-08 Flap to Movable Flap Track Fairing Seal.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

WINGS

COVER ON FLAP TRACK FIXED FAIRING

57-09

Cover on Flap Track Fixed Fairing

Ident.: MCDL-57-09-00010877.0001001 / 02 JUL 10

EASA APPROVED

Criteria: A330

57-09	Quantity installed
COVER ON FLAP TRACK FIXED FAIRING	-

(m) Refer to AMM 57-56-00-040-801

Two may be missing per flap track fairing provided the hole is covered with high speed tape and inspected before each flight.

Note: May be combined with any other item listed in MCDL-57 chapter.

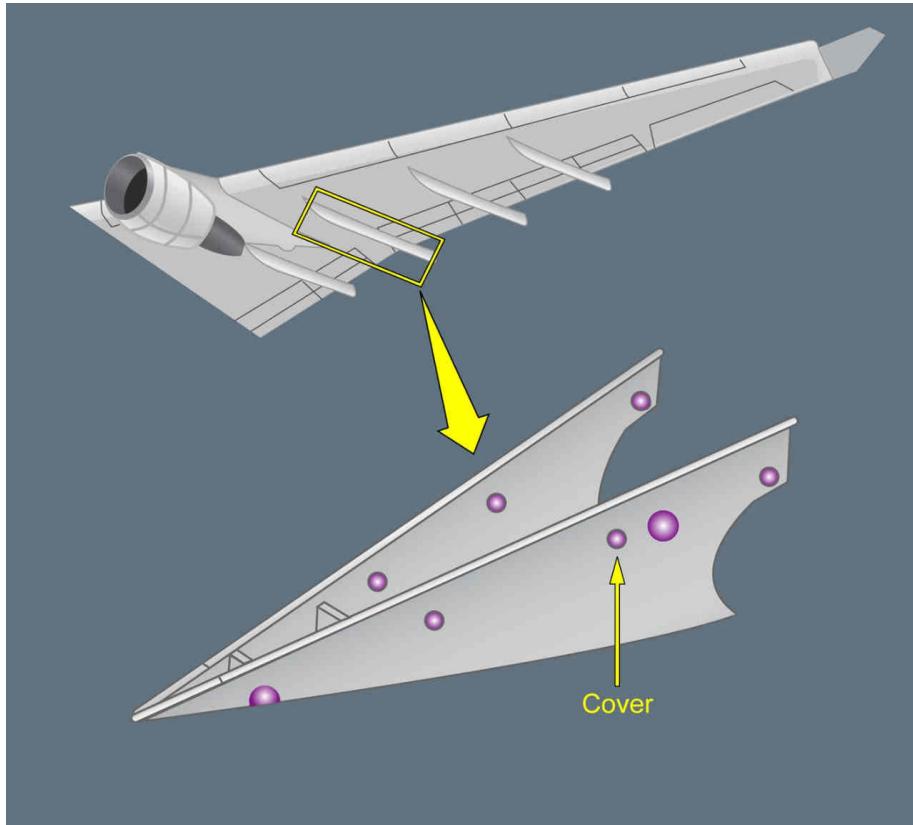
Refer to MCDL-57-09 Illustration Cover on Flap Track Fixed Fairing

ILLUSTRATION COVER ON FLAP TRACK FIXED FAIRING

Ident.: MCDL-57-09-00010878.0001001 / 02 JUL 10

FOR INFORMATION ONLY

Criteria: A330

For dispatch conditions: *Refer to 57-09 Cover on Flap Track Fixed Fairing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

POWER PLANT

FAN COWL DOOR HOIST POINT PLUG

71-05

Fan Cowl Door Hoist Point Plug

Ident.: MCDL-71-05-00009309.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

71-05	Quantity installed
FAN COWL DOOR HOIST POINT PLUG	8

All may be missing.

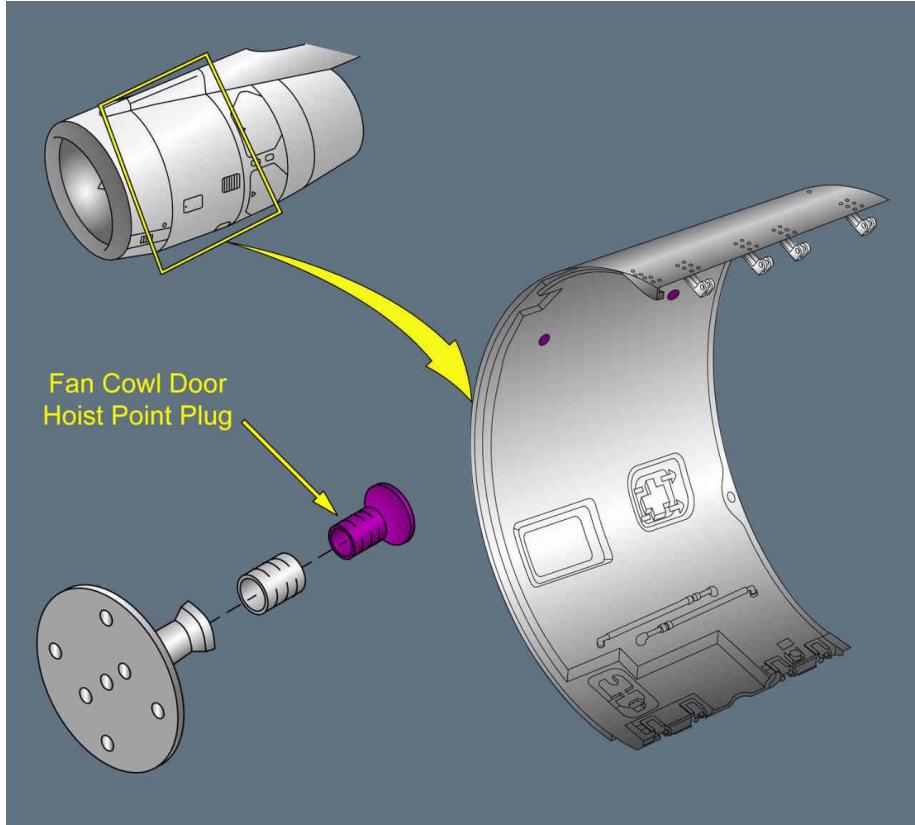
Refer to MCDL-71-05 Illustration Fan Cowl Door Hoist Point Plug

ILLUSTRATION FAN COWL DOOR HOIST POINT PLUG

Ident.: MCDL-71-05-00009310.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 71-05 Fan Cowl Door Hoist Point Plug.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

POWER PLANT

FAN COWL DOOR HOLD OPEN ROD

71-06

Fan Cowl Door Hold Open Rod

Ident.: **MCDL-71-06-00009311.0001001** / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

71-06	Quantity installed
FAN COWL DOOR HOLD OPEN ROD	8

(m) Refer to AMM 71-13-00-040-801

All may be missing.

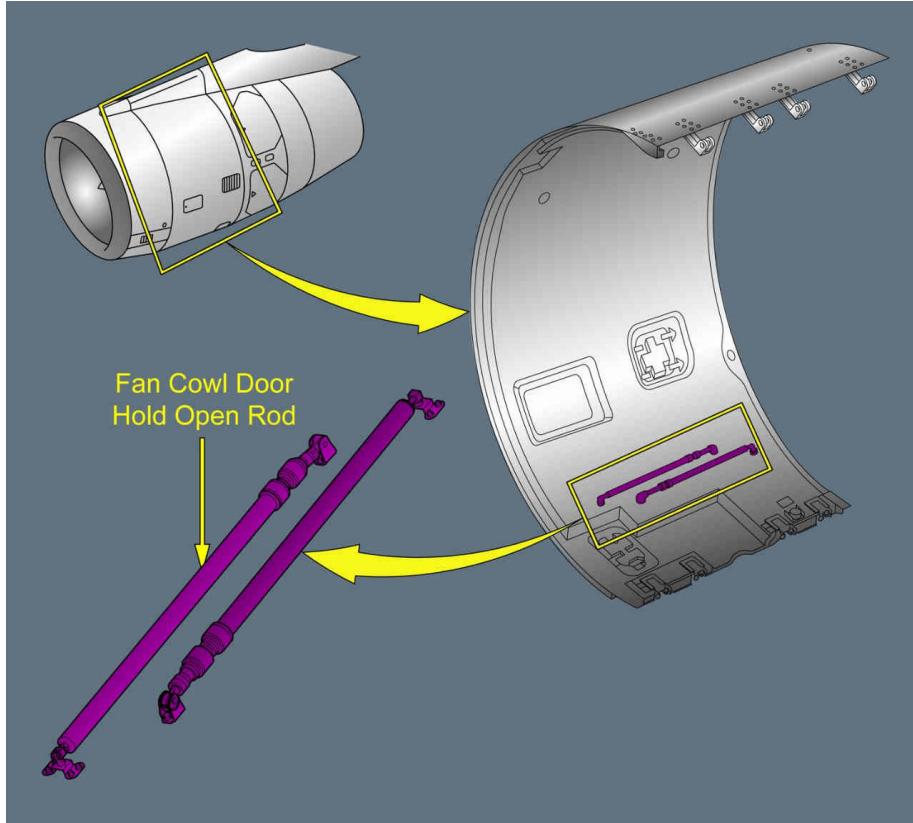
Refer to MCDL-71-06 Illustration Fan Cowl Door Hold Open Rod

ILLUSTRATION FAN COWL DOOR HOLD OPEN ROD

Ident.: MCDL-71-06-00009312.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 71-06 Fan Cowl Door Hold Open Rod.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

POWER PLANT

NACELLE HOIST POINT PLUG NOSE COWL

71-07

Nacelle Hoist Point Plug Nose Cowl

Ident.: MCDL-71-07-00009313.0001001 / 16 APR 10

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

EASA APPROVED

71-07 NACELLE HOIST POINT PLUG NOSE COWL	Quantity installed 8
---	-------------------------

All may be missing.

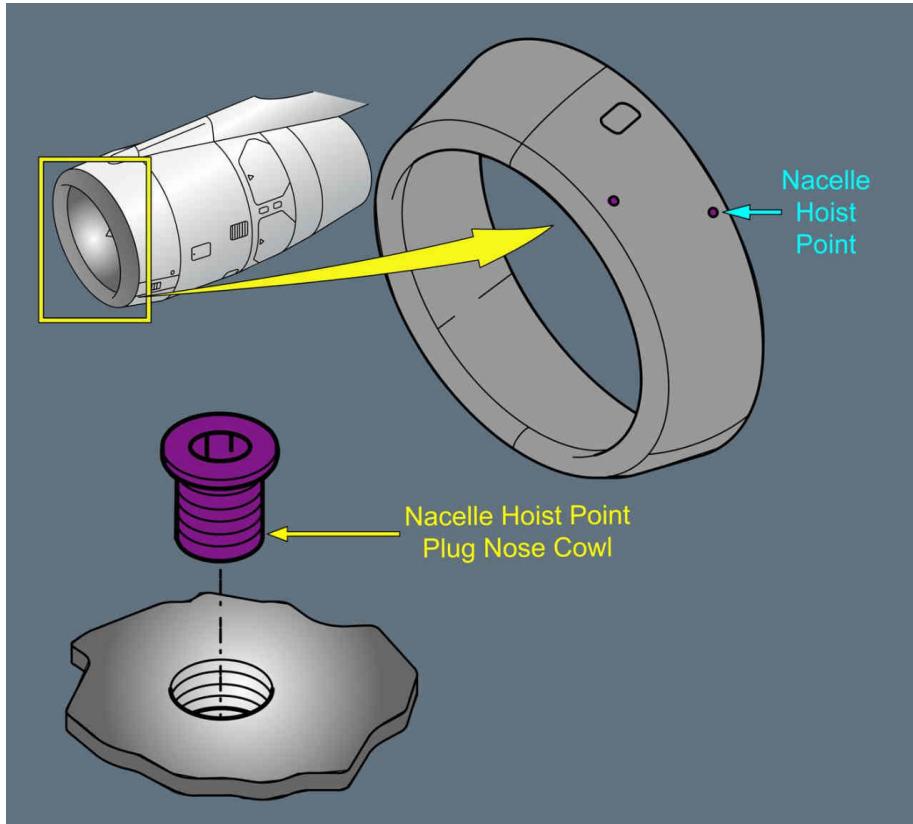
Refer to MCDL-71-07 Illustration Nacelle Hoist Point Plug Nose Cowl

ILLUSTRATION NACELLE HOIST POINT PLUG NOSE COWL

Ident.: MCDL-71-07-00009314.0001001 / 28 FEB 11

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 71-07 Nacelle Hoist Point Plug Nose Cowl.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER HOIST POINT PLUG

78-08

Thrust Reverser Hoist Point Plug

Ident.: MCDL-78-08-00009403.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-08	Quantity installed
THRUST REVERSER HOIST POINT PLUG	32

All may be missing.

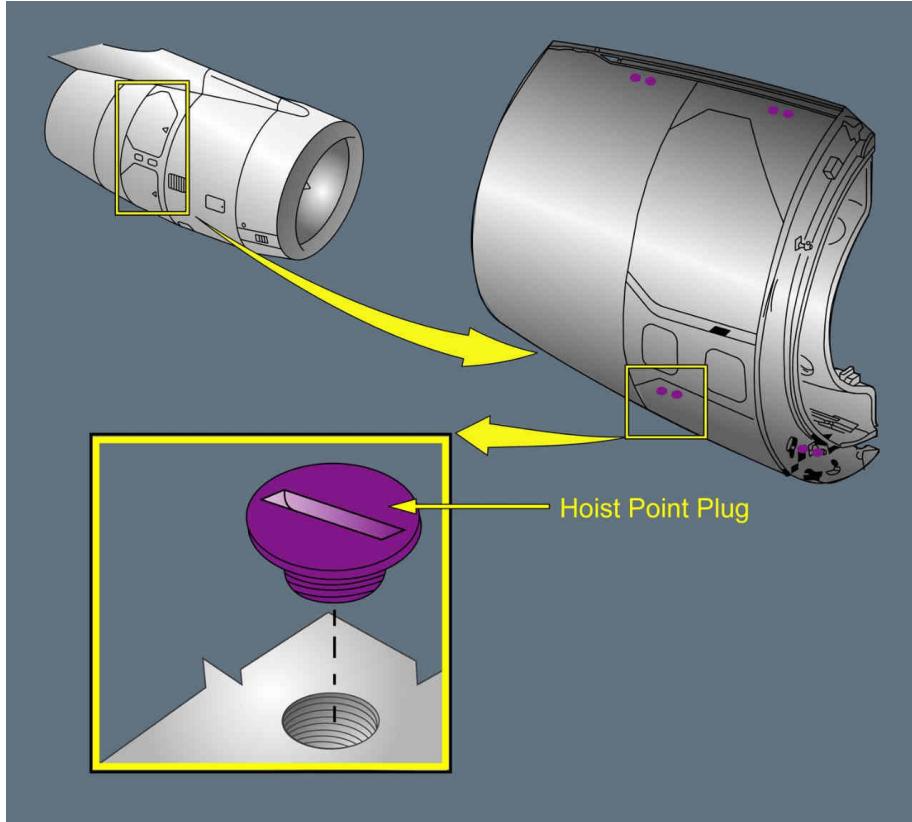
Refer to MCDL-78-08 Illustration Thrust Reverser Hoist Point Plug

ILLUSTRATION THRUST REVERSER HOIST POINT PLUG

Ident.: MCDL-78-08-00009404.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 78-08 Thrust Reverser Hoist Point Plug.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER CINCHING DEVICE

78-09

Thrust Reverser Cinching Device

Ident.: MCDL-78-09-00009405.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-09	Quantity installed
THRUST REVERSER CINCHING DEVICE	2

All may be missing.

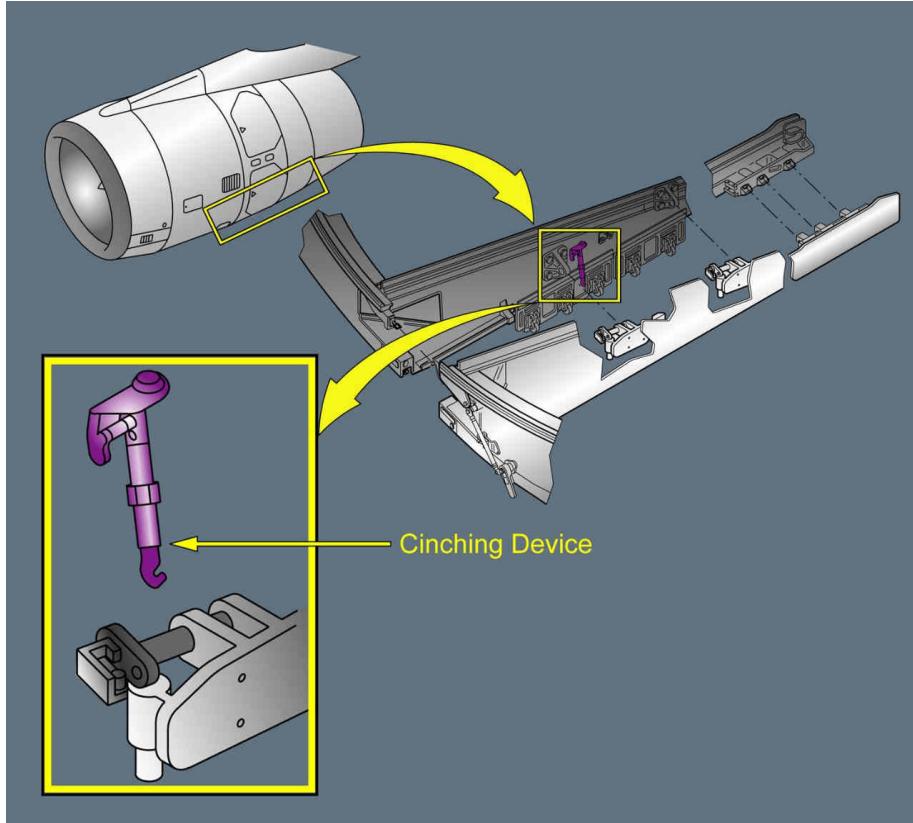
Refer to MCDL-78-09 Illustration Thrust Reverser Cinching Device

ILLUSTRATION THRUST REVERSER CINCHING DEVICE

Ident.: MCDL-78-09-00009406.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 78-09 Thrust Reverser Cinching Device.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER "C" DUCT ACTUATION SYSTEM

78-10

Thrust Reverser "C" Duct Actuation System

Ident.: MCDL-78-10-00009407.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-10	Quantity installed
THRUST REVERSER "C" DUCT ACTUATION SYSTEM	4

(m) Refer to AMM 78-36-42-040-801

All may be missing.

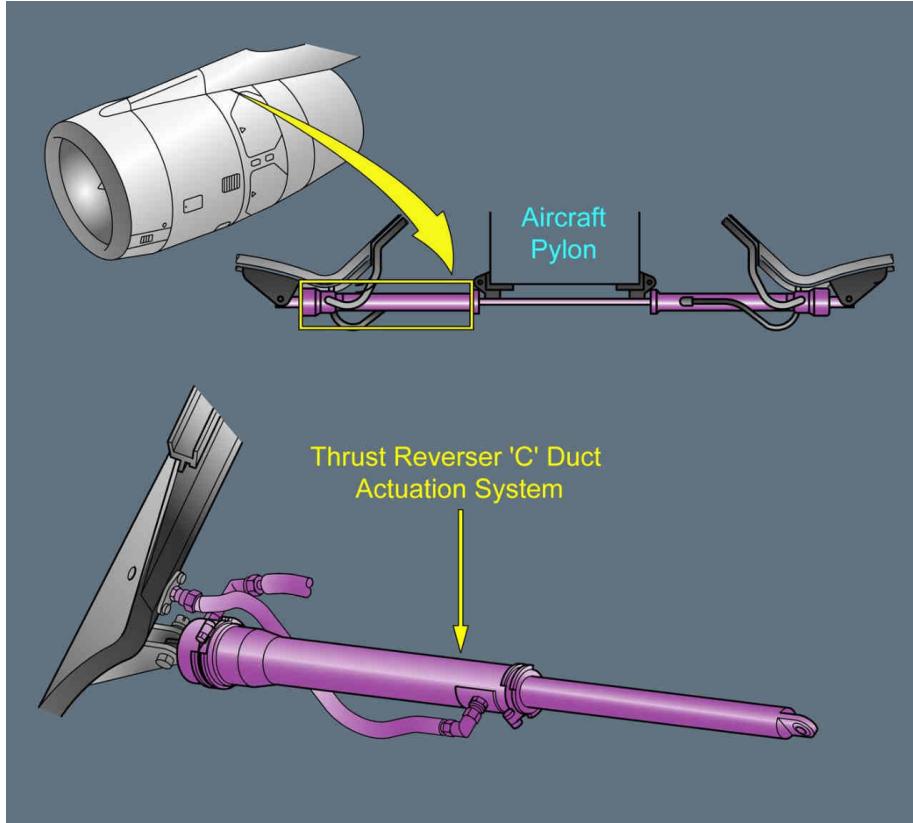
Refer to MCDL-78-10 Illustration Thrust Reverser "C" Duct Actuation System

ILLUSTRATION THRUST REVERSER "C" DUCT ACTUATION SYSTEM

Ident.: MCDL-78-10-00009408.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)



For dispatch conditions: *Refer to 78-10 Thrust Reverser "C" Duct Actuation System.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER FRONT AND REAR HOLD OPEN ROD

78-11

Thrust Reverser Front and Rear Hold Open Rod

Ident.: MCDL-78-11-00009409.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-11	Quantity installed
THRUST REVERSER FRONT AND REAR HOLD OPEN ROD	8

(m) Refer to AMM 78-36-00-040-802

All may be missing.

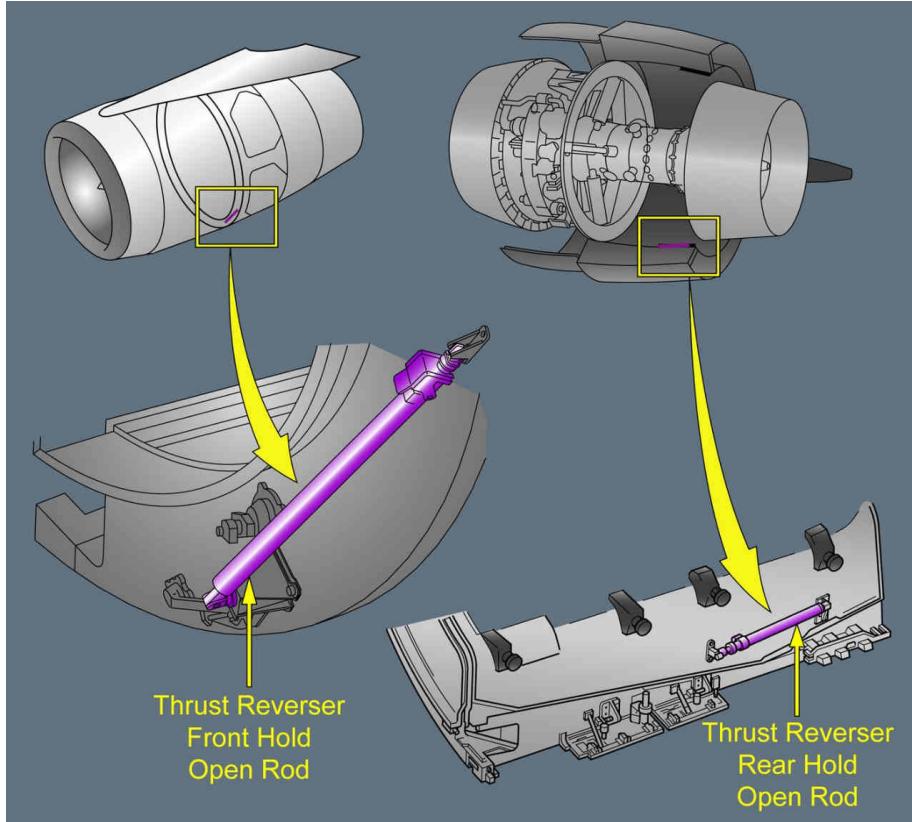
Refer to MCDL-78-11 Illustration Thrust Reverser Front and Rear Hold Open Rod

ILLUSTRATION THRUST REVERSER FRONT AND REAR HOLD OPEN ROD

Ident.: MCDL-78-11-00009410.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 78-11 Thrust Reverser Front and Rear Hold Open Rod.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER HINGE ACCESS COVER

78-12

Thrust Reverser Hinge Access Cover

Ident.: **MCDL-78-12-00009411.0001001 / 16 APR 10**

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-12	Quantity installed
THRUST REVERSER HINGE ACCESS COVER	4

(m) Refer to AMM 78-32-00-040-805

All may be missing.

- Performance:**

The following performance penalties are applicable per missing cover:

- Takeoff and approach climb performance limiting weights are reduced by 256 kg (565 lb)
- En route performance limiting weight is reduced by 716 kg (1 579 lb)
- Fuel consumption is increased by 0.80 %.

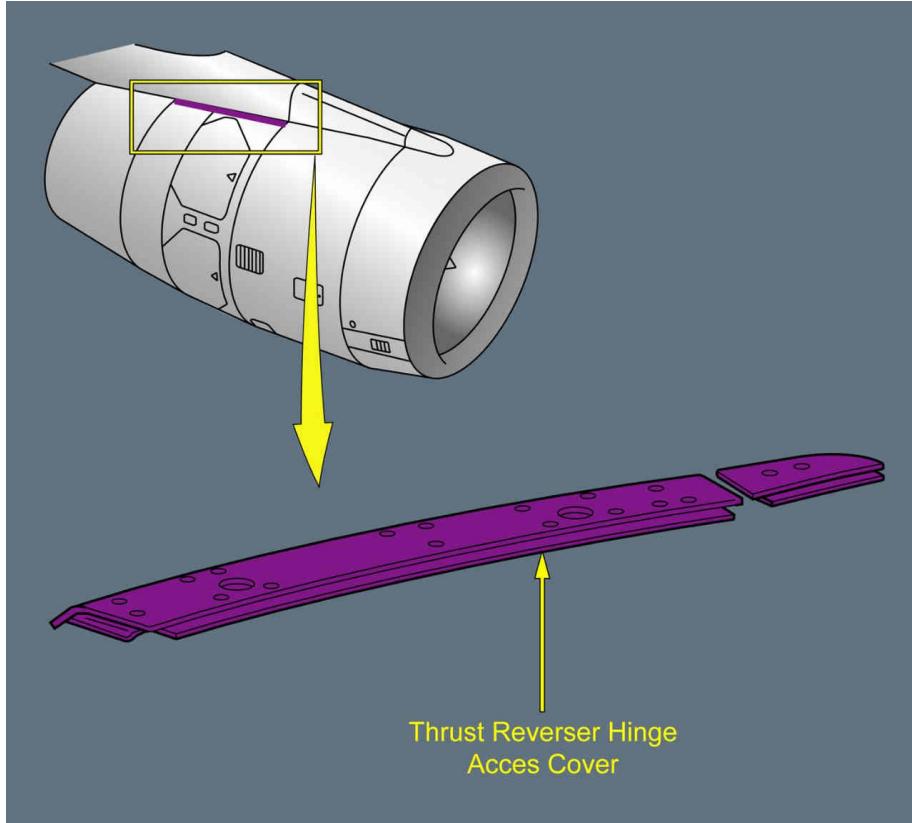
Refer to MCDL-78-12 Illustration Thrust Reverser Hinge Access Cover

ILLUSTRATION THRUST REVERSER HINGE ACCESS COVER

Ident.: MCDL-78-12-00009412.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 78-12 Thrust Reverser Hinge Access Cover.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER BAVETTE FAIRING

78-13

Thrust Reverser Bavette Fairing

Ident.: MCDL-78-13-00009413.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-13	Quantity installed
THRUST REVERSER BAVETTE FAIRING	16

(m) Refer to AMM 78-32-00-040-802

Four may be missing.

Note: May be cumulated with MCDL items 78-16 (Refer to 78-16 Thrust Reverser Rectangular Movable Panel) or 78-17 (Refer to 78-17 Thrust Reverser Triangular Movable Panel).

- **Performance:**

The following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 181 kg (400 lb) per missing fairing
- En route performance limiting weight is reduced by 126 kg (278 lb) per missing fairing
- When three or more fairings are missing, fuel consumption is increased by 0.08 % per missing fairing.

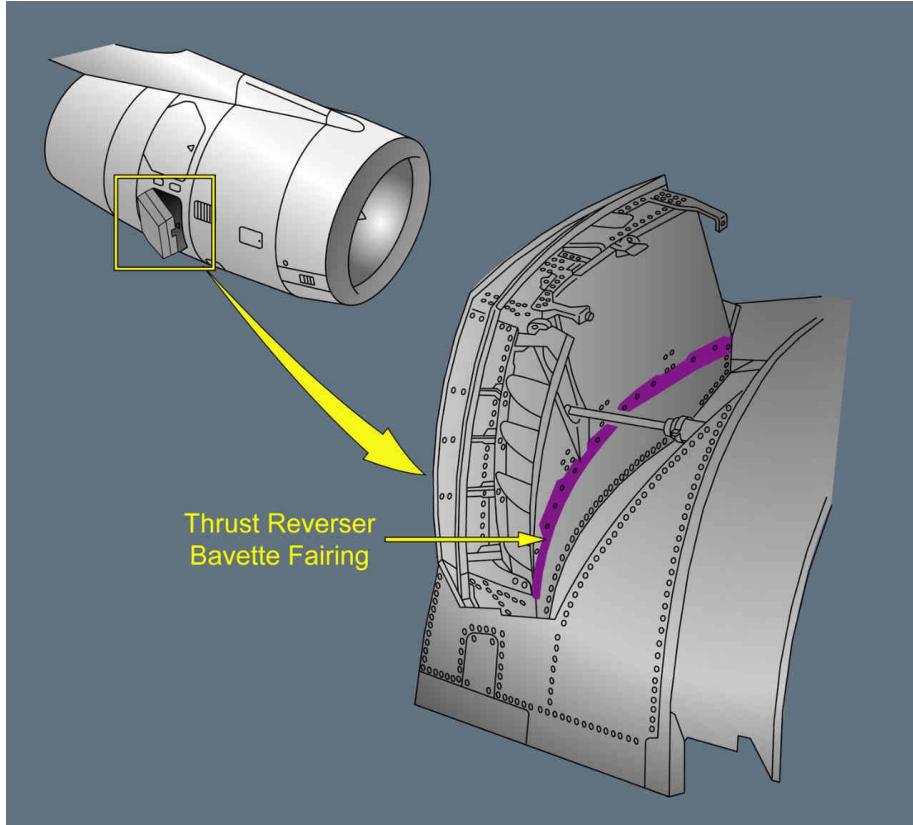
Refer to MCDL-78-13 Illustration Thrust Reverser Bavette Fairing

ILLUSTRATION THRUST REVERSER BAVETTE FAIRING

Ident.: MCDL-78-13-00009414.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 78-13 Thrust Reverser Bavette Fairing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER DOOR ACTUATOR PIT FAIRING

78-14

Thrust Reverser Door Actuator Pit Fairing

Ident.: MCDL-78-14-00009415.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-14	Quantity installed
THRUST REVERSER DOOR ACTUATOR PIT FAIRING	8

(m) Refer to AMM 78-32-00-040-806

Four may be missing.

- Performance:**

The following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 163 kg (360 lb) per missing fairing
- When two or more fairings are missing, en route performance limiting weight is reduced by 114 kg (252 lb) per missing fairing
- When three or more fairings are missing, fuel consumption is increased by 0.08 % per missing fairing.

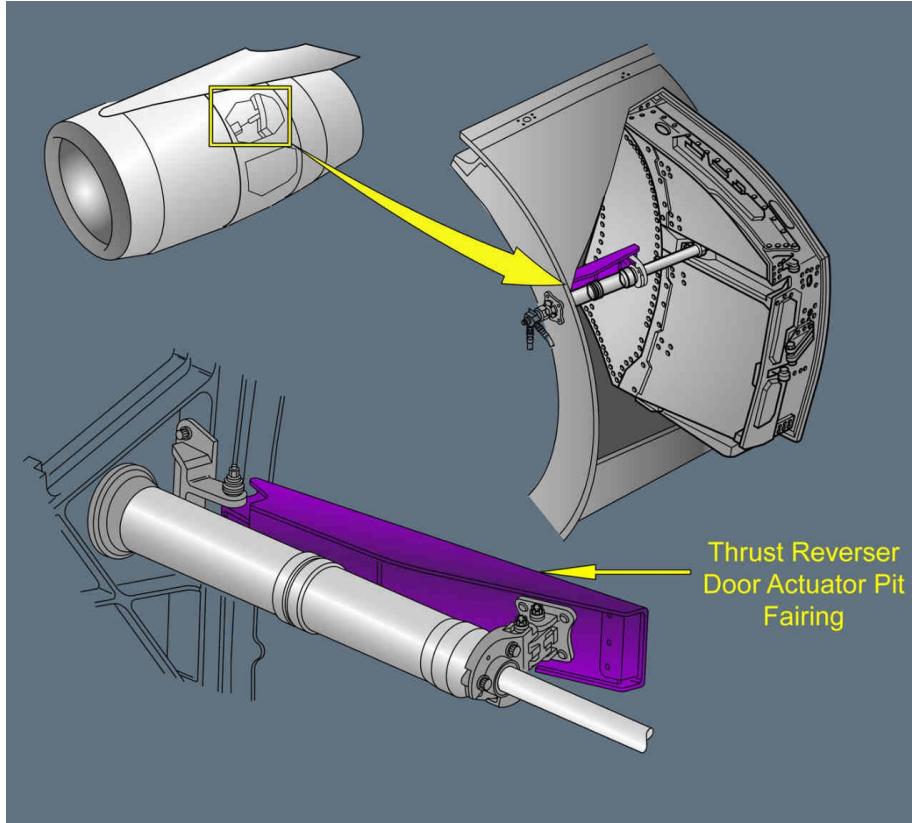
Refer to MCDL-78-14 Illustration Thrust Reverser Door Actuator Pit Fairing

ILLUSTRATION THRUST REVERSER DOOR ACTUATOR PIT FAIRING

Ident.: MCDL-78-14-00009416.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 78-14 Thrust Reverser Door Actuator Pit Fairing.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER PIVOT DOOR ACCESS PANEL

78-15

Thrust Reverser Pivot Door Access Panel

Ident.: MCDL-78-15-00009417.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-15	Quantity installed
THRUST REVERSER PIVOT DOOR ACCESS PANEL	4

All may be missing.

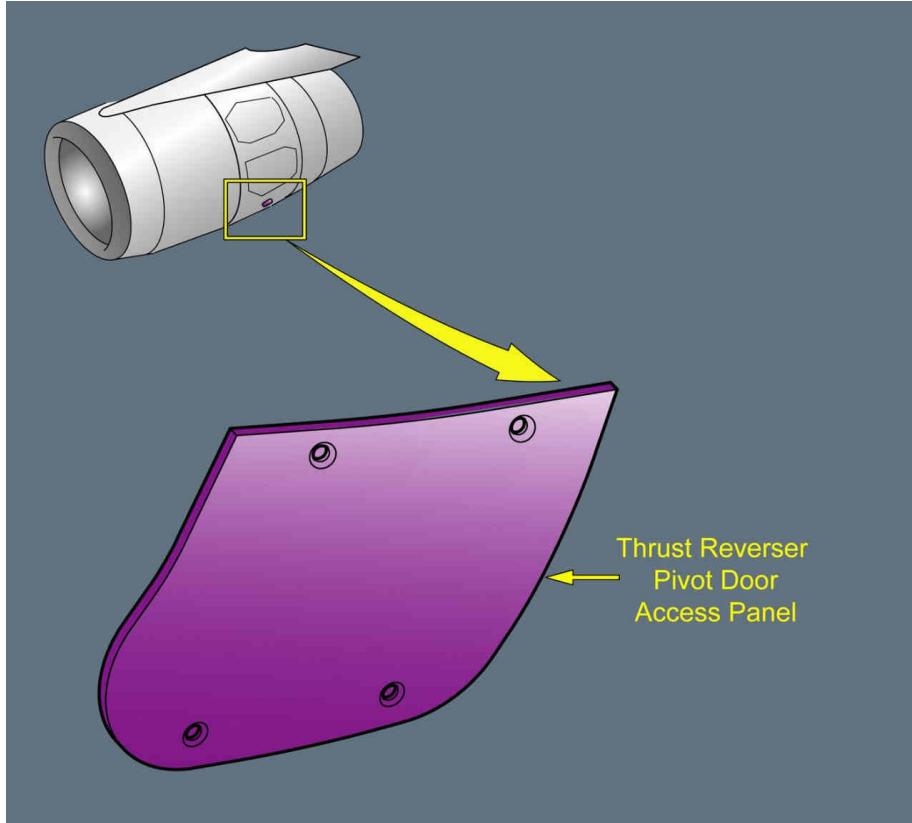
Refer to MCDL-78-15 Illustration Thrust Reverser Pivot Door Access Panel

ILLUSTRATION THRUST REVERSER PIVOT DOOR ACCESS PANEL

Ident.: MCDL-78-15-00009418.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 78-15 Thrust Reverser Pivot Door Access Panel.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER RECTANGULAR MOVABLE PANEL

78-16

Thrust Reverser Rectangular Movable Panel

Ident.: MCDL-78-16-00009419.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-16	Quantity installed
THRUST REVERSER RECTANGULAR MOVABLE PANEL	8

(m) Refer to AMM 78-32-00-040-803

One may be missing provided the associated bavette fairing is removed. Refer to 78-13 Thrust Reverser Bavette Fairing

Note: The performance penalties given in this item take into account that the movable panel and the bavette fairing are removed.

- Performance:**

The following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 578 kg (1 275 lb)
- En route performance limiting weight is reduced by 402 kg (887 lb)
- Fuel consumption is increased by 0.28 %.

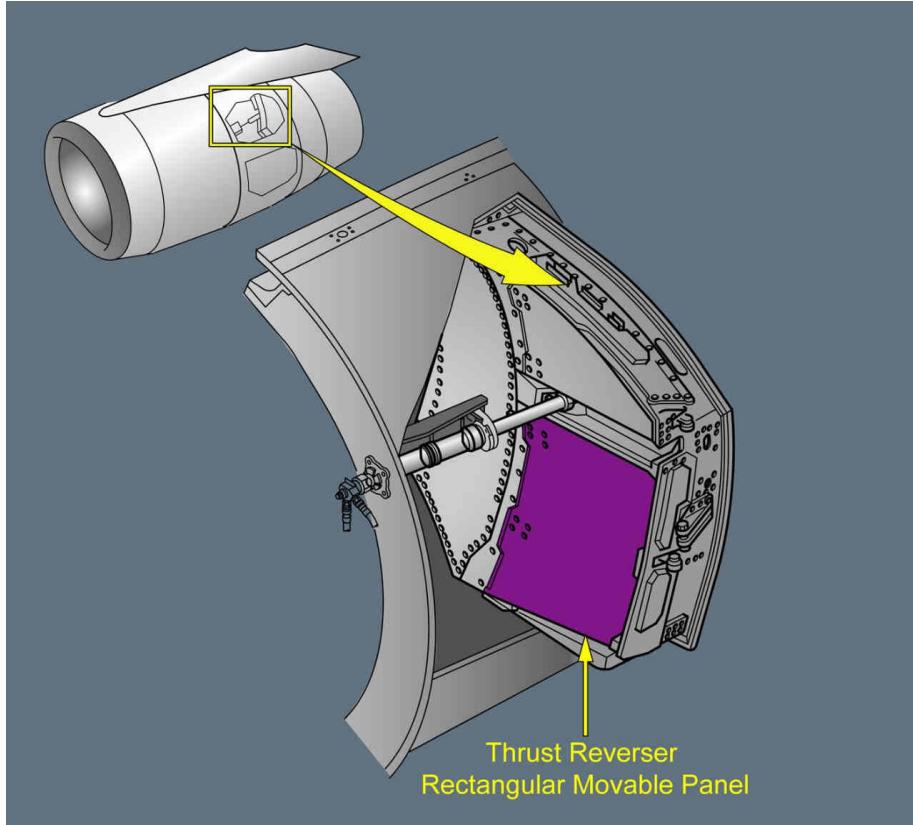
Refer to MCDL-78-16 Illustration Thrust Reverser Rectangular Movable Panel

ILLUSTRATION THRUST REVERSER RECTANGULAR MOVABLE PANEL

Ident.: MCDL-78-16-00009420.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

For dispatch conditions: *Refer to 78-16 Thrust Reverser Rectangular Movable Panel.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

THRUST REVERSER TRIANGULAR MOVABLE PANEL

78-17

Thrust Reverser Triangular Movable Panel

Ident.: MCDL-78-17-00009421.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-17	Quantity installed
THRUST REVERSER TRIANGULAR MOVABLE PANEL	8

(m) Refer to AMM 78-32-00-040-804

One may be missing provided the associated bavette fairing is removed. Refer to 78-13 Thrust Reverser Bavette Fairing

Note: The performance penalties given in this item take into account that the movable panel and the bavette fairing are removed.

- Performance:**

The following performance penalties are applicable:

- Takeoff and approach climb performance limiting weights are reduced by 578 kg (1 275 lb)
- En route performance limiting weight is reduced by 402 kg (887 lb)
- Fuel consumption is increased by 0.28 %.

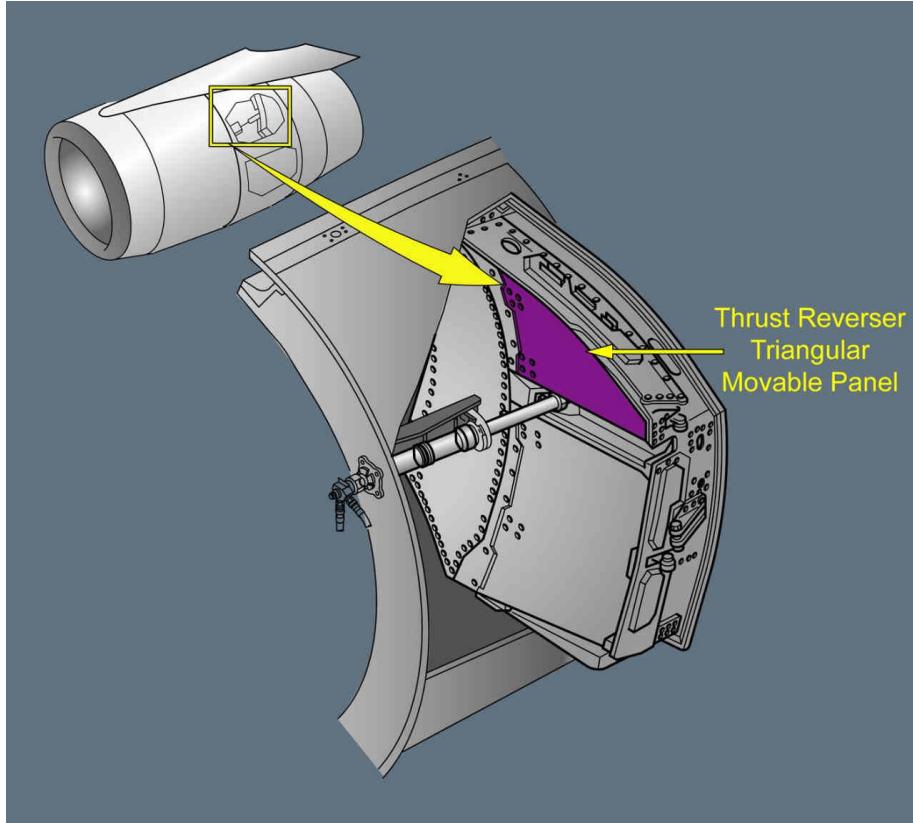
Refer to MCDL-78-17 Illustration Thrust Reverser Triangular Movable Panel

ILLUSTRATION THRUST REVERSER TRIANGULAR MOVABLE PANEL

Ident.: MCDL-78-17-00009422.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)



For dispatch conditions: Refer to 78-17 Thrust Reverser Triangular Movable Panel.



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

COMMON NOZZLE ASSEMBLY HOIST POINT PLUG

78-18

Common Nozzle Assembly Hoist Point Plug

Ident.: MCDL-78-18-00009423.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-18 COMMON NOZZLE ASSEMBLY HOIST POINT PLUG	Quantity installed 16
--	--------------------------

All may be missing.

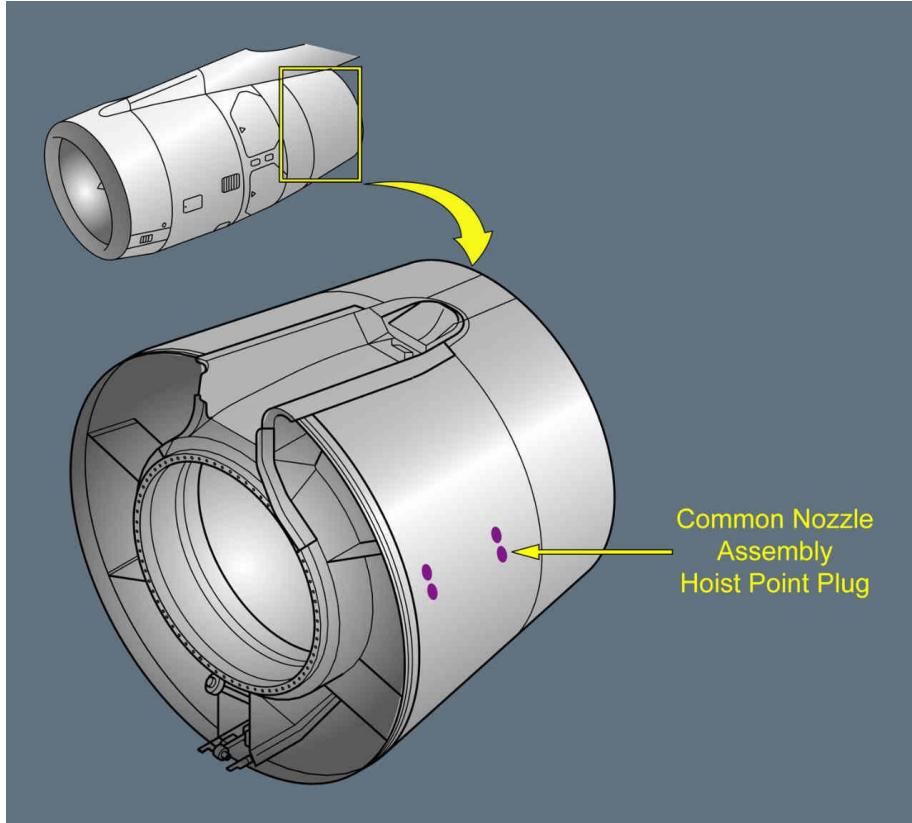
Refer to MCDL-78-18 Illustration Common Nozzle Assembly Hoist Point Plug

ILLUSTRATION COMMON NOZZLE ASSEMBLY HOIST POINT PLUG

Ident.: MCDL-78-18-00009424.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)



For dispatch conditions: Refer to 78-18 Common Nozzle Assembly Hoist Point Plug.



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

COMMON NOZZLE ASSEMBLY PYLON FAIRING TRAILING EDGE

78-19

Common Nozzle Assembly Pylon Fairing Trailing Edge

Ident.: MCDL-78-19-00009425.0001001 / 16 APR 10

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-19	COMMON NOZZLE ASSEMBLY PYLON FAIRING TRAILING EDGE	Quantity installed 4
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(m) Refer to AMM 78-11-42-040-801

All may be missing.

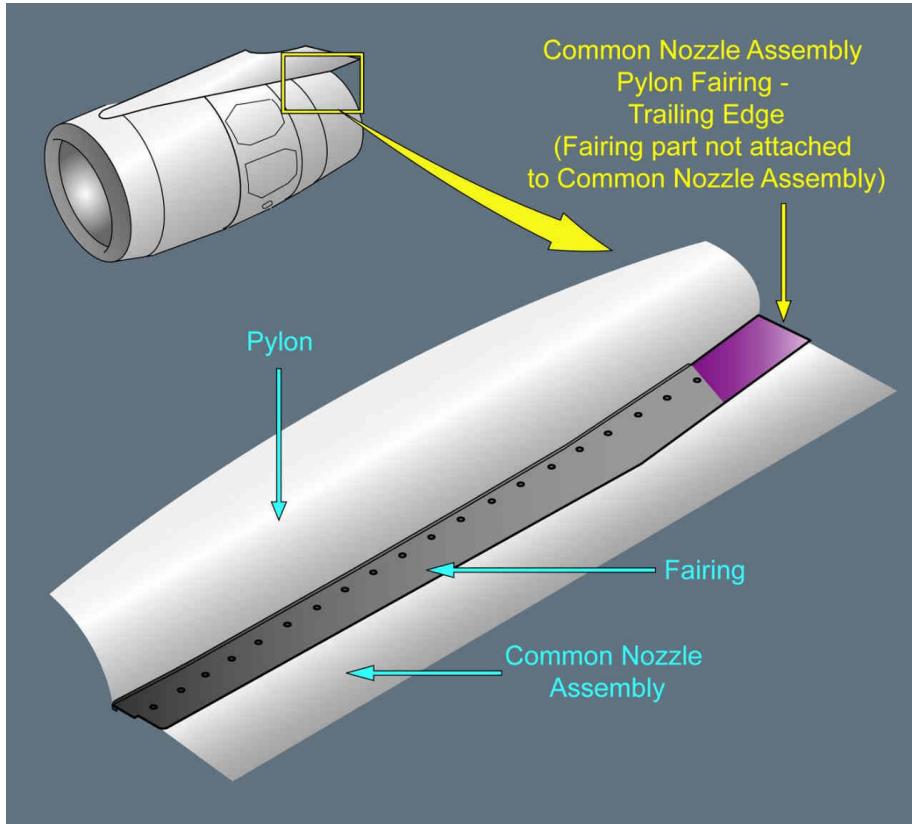
Refer to MCDL-78-19 Illustration Common Nozzle Assembly Pylon Fairing Trailing Edge

ILLUSTRATION COMMON NOZZLE ASSEMBLY PYLON FAIRING TRAILING EDGE

Ident.: MCDL-78-19-00009426.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)



For dispatch conditions: *Refer to 78-19 Common Nozzle Assembly Pylon Fairing Trailing Edge.*



A330
AIRPLANE FLIGHT MANUAL

MASTER CONFIGURATION DEVIATION LIST

EXHAUST

LATCH NUMBER 4 ACCESS PANEL

78-20

Latch Number 4 Access Panel

Ident.: **MCDL-78-20-00009427.0001001 / 16 APR 10**

EASA APPROVED

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)

78-20 LATCH NUMBER 4 ACCESS PANEL	Quantity installed 4
--	---------------------------------------

All may be missing.

- **Performance:**

The following performance penalty is applicable:

- When three or more panels are missing, takeoff performance limiting weight is reduced by 22 kg (49 lb) per missing panel.

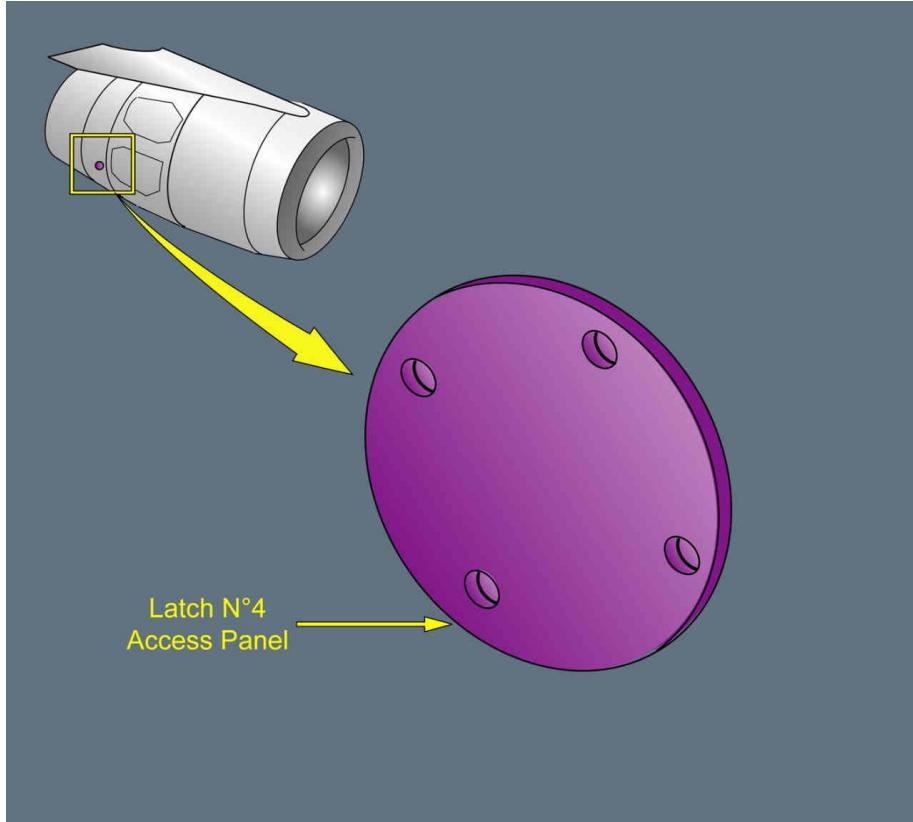
Refer to *MCDL-78-20 Illustration Latch Number 4 Access Panel*

ILLUSTRATION LATCH NUMBER 4 ACCESS PANEL

Ident.: MCDL-78-20-00009428.0001001 / 16 APR 10

FOR INFORMATION ONLY

Criteria: (330-243 or 330-243F or 330-341 or 330-342 or 330-343)



For dispatch conditions: Refer to 78-20 Latch Number 4 Access Panel.

SUPPLEMENTARY PERFORMANCE

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A330
AIRPLANE FLIGHT MANUAL

SUPPLEMENTARY PERFORMANCE

PRELIMINARY PAGES

TABLE OF CONTENTS

SPERF-CONT CONTAMINATED RUNWAY

SPERF-CONT-GEN GENERAL

General.....A

SPERF-CONT-LIM LIMITATIONS

Limitations.....A

SPERF-CONT-PERF PERFORMANCE

Aircraft Configuration.....A

Takeoff and Landing Performance.....B



A330
AIRPLANE FLIGHT MANUAL

SUPPLEMENTARY PERFORMANCE

PRELIMINARY PAGES

TABLE OF CONTENTS

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A330
AIRPLANE FLIGHT MANUAL

**SUPPLEMENTARY PERFORMANCE
CONTAMINATED RUNWAY**

GENERAL

GENERAL

Ident.: **SPERF-CONT-GEN-00005593.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

This chapter of the AFM gives the performance information for operations on contaminated runways and the conditions used for their establishment.

Any actual condition different from those listed in this chapter may lead to different performance.
Refer to SPERF-CONT-PERF Aircraft Configuration.



A330
AIRPLANE FLIGHT MANUAL

SUPPLEMENTARY PERFORMANCE

CONTAMINATED RUNWAY

GENERAL

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A330
AIRPLANE FLIGHT MANUAL

SUPPLEMENTARY PERFORMANCE

CONTAMINATED RUNWAY

LIMITATIONS

LIMITATIONS

Ident.: **SPERF-CONT-LIM-00005594.0001001** / 26 NOV 09

EASA APPROVED

Criteria: A330

Reduced thrust takeoff is not allowed on contaminated runways.

Takeoff on very low braking friction surface (icy runway) is not recommended.



A330
AIRPLANE FLIGHT MANUAL

SUPPLEMENTARY PERFORMANCE

CONTAMINATED RUNWAY

LIMITATIONS

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A330
AIRPLANE FLIGHT MANUAL

SUPPLEMENTARY PERFORMANCE

CONTAMINATED RUNWAY

PERFORMANCE

AIRCRAFT CONFIGURATION

Ident.: **SPERF-CONT-PERF-00005850.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

TAKEOFF ON CONTAMINATED RUNWAYS

The takeoff performance has been established for slats/flaps configurations 1, 2 and 3 on runways contaminated by:

- 1/4 in and 1/2 in of standing water
- 1/4 in and 1/2 in of slush
- Compact snow.

Ground spoilers are armed.

Accelerate Stop Distance (ASD) determination is made with or without thrust reversers and considering the use of ground spoilers and wheel brakes with anti-skid on.

LANDING DISTANCE ON VERY LOW BRAKING FRICTION SURFACE

Landing distance on very low braking friction surface as icy runway has been established for slats/flaps configurations 3 and FULL.

Ground spoilers are armed.

Landing distance determination is made with or without thrust reversers and considering the use of ground spoilers and wheel brakes with anti-skid on.

TAKEOFF AND LANDING PERFORMANCE

Ident.: **SPERF-CONT-PERF-00005595.0001001 / 26 NOV 09**

EASA APPROVED

Criteria: A330

For takeoff and landing performance determination on contaminated runways, the Performance Engineer's Programs/AFM_OCTO approved FM module at the latest approved revision must be used. Refer to *PERF-OCTO Performance Database*.



A330
AIRPLANE FLIGHT MANUAL

SUPPLEMENTARY PERFORMANCE

CONTAMINATED RUNWAY

PERFORMANCE

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