

# **NORMAL PROCEDURE**

## **Airbus A310 “The Master’s Edition”**

**For “Microsoft Flight Simulator 2002”® ONLY  
NO FOR REAL FLIGHTS**



SAFETY EXTERIOR INSPECTION	
PF	PNF
	NOSE WHEEL CHOCKS ..... CHECK IN PLACE L/G DOORS ..... CHECK POSITION APU AREA ..... CHECK

PRELIMINARY COCKPIT PREP	
PF	PNF
	IGNITION ..... OFF WIPERS ..... OFF THROTTLE LEVERS ..... CHECK IDLE REVERSE LEVERS ..... CHECK STOWED FUEL HP VALVES ..... CHECK OFF L/G lever ..... DOWN C/B PANELS ..... CHECK BAT EMERGENCY INV ..... CHECK/AUTO HYDRAULIC panel ..... CHECK APU FIRE ..... CHECK/TEST EXT PWR (if avail) ..... ON APU ..... START EXT PWR ..... AS REQ COCKPIT LT ..... AS REQ STBY GEN ..... TEST (IF REQ) ELEC panel ..... CHECK FUEL L. I. PUMP 2 ..... NORM PROBE/WINDOW HEAT ..... CHECK OFF VENT panel ..... CHECK ANN LT ..... AUTO TEST APU BLEED ..... ON PACK VALVES ..... ON COMPT TEMP ..... AUTO/AS REQ PARKING BRK ..... ON SPD BRK ..... CHECK RET SLAT/FLAP ..... CHECK POSITION Lateral panel ..... CHECK MAINT PANEL AUDIO SELECTOR . PA EMER EQUIP ..... CHECK RAIN REPELLENT ..... CHECK EXT. WALK AROUND ..... PERFORM

COCKPIT PREPARATION	
PF	PNF
GEAR PINS + COVERS ..... CHECK <u>OVHD PANEL</u> ALL WHITE LIGHTS ..... EXTINGUISH IRS ..... NAV SIGNS ..... SET CALLS ..... CHECK HYD quantities ..... NORMAL RANGE FLT RCDR GND CTL ..... ON ISDU (if installed) ..... OFF EXT LTS ..... AS REQ PITCH TRIM/YAW DAMPER/ATS ... ON ENG 1 FIRE PROTECTION ... CHECK/TEST EVAC SIGNAL ..... AS REQ L/G ANN ..... CHECK FUEL panel ..... CHECK FUEL X-FEED (if ER flight) ... TEST CVR ..... TEST CABIN PRESS ..... CHECK CREW OXY ..... CHECK ENG 2 FIRE PROTECTION ... CHECK/TEST EMER EXIT LT ..... ARM COMPT TEMP ..... CHECK/AS REQ COM ..... SET AIRFIELD DATA ..... OBTAIN	Cont'd

FMS INITIALIZATION		
DATA BASE VALIDITY .....	CHECK	
NAVAID DESELECTION .....	AS REQ	
F-PLN INITIALIZATION .....	COMPLETE	
ALIGN IRS .....	PRESS	
F-PLN A .....	CHECK/COMPLETE	
F-PLN B .....	CHECK	
SEC F-PLN .....	AS REQ	
FMS DATA INSERTION		
ZFW/CG or ZFCG/BLOCK FUEL .....	INSERT	
T. O. DATA .....	INSERT	
THR RED/ACC ALT .....	SET/CHECK	
<b>. When both pilots seated:</b>		
<u>GLARESHIELD:</u>		
PF/D/N BRIGHTNESS .....	AS REQ	
FPV/FD .....	ON/FD	
VOR/NAV/ILS .....	AS REQ	
EFIS cont panel .....	AS REQ	
ND mode/range.....	AS REQ	
FCU .....	CHECK/SET	
<u>LATERAL CONSOLE:</u>		
RAT .....	CHECK OFF	
OXYGEN MASK .....	TEST	
GND SVS INTPH .....	OFF	
<u>CM1/CM2 INST PANELS:</u>		
GPWS .....	NORM	
PF/D/N .....	CHECK	
STBY ASI .....	CHECK	
VSI .....	CHECK	
ALTIMETER .....	CHECK	
BARO REF .....	SET	
CLOCK .....	CHECK/ADJUST	
<u>CTR INST PANEL</u>		
STBY ALT .....	CHECK	
BARO REF .....	SET	
STBY HORIZON .....	CHECK	
ECAM .....	RCL	
BRK-A/SKID .....	NORM/ON	
ENGINE INST .....	CHECK	
OIL QUANTITY .....	CHECK	
REV and REV UNLK Its .....	CHECK	
TRP .....	CHECK	
L/G WARN TEST .....	PRESS	
LDG ELEV .....	SET DEPARTURE FIELD ELEV	
<u>PEDESTAL:</u>		
ADF .....	CHECK	
RADIOS .....	CHECK	
WX RADAR .....	CHECK OFF	
PARK BRK .....	CHECK OFF/AS REQ	
ATC TRANSPONDER .....	STBY/OFF	
TCAS (if installed) .....	OFF	
VOR/ILS .....	AS REQ	
<u>FMS DATA CONFIRMATION</u>		
<u>FUEL</u>		
<u>TAKE-OFF BRIEFING</u> .....	PERFORM	

<b>BEFORE PUSH BACK or START</b>	
PF	PNF
LOADSHEET .....	CHECK (CM1)
T.O. DATA ..... PREPARE/REVISE	T. O. DATA ..... PREPARE/REVISE
SEAT ..... ADJUST	SEAT ..... ADJUST
CDU ..... TAKE-OFF (PF)	CDU ..... F-PLN (PNF)
<b>BEFORE START C/L DOWN TO THE LINE</b>	
PUSHBACK/START CLEARANCE ..... OBTAIN	
WINDOW/DOORS.....CLOSED	WINDOW .....
PARK BRK ..... AS REQ	BEACON .....
<b>BEFORE START C/L BELOW THE LINE</b>	

<b>ENGINE START</b>	
PF	PNF
ANNOUNCE ..... "START ENG 2"	THROTTLE LEVERS ..... IDLE
ANNOUNCE ..... "N2"	IGNITION ..... START A/B
FUEL LEVER ..... ON	START 2 ..... PRESS
ANNOUNCE ..... "FUEL ON"	VALVE OPEN ..... ANNOUNCE
ANNOUNCE ..... "FUEL FLOW"	OIL PRESSURE INCREASING ..... CHECK
FUEL FLOW ..... CHECK	
CLOCK ..... START	CLOCK ..... START
ANNOUNCE ..... "EGT"	
ANNOUNCE ..... "N1"	ANNOUNCE ..... "VALVE CLOSED"
ANNOUNCE ..... "N2 45 %"	
ANNOUNCE ... "ALL PARAMETERS CORRECT"	
REPEAT THE START SEQUENCE ENG 1	

<b>AFTER START</b>	
PF	PNF
IGNITION ..... OFF	APU BLEED ..... OFF APU ..... OFF
ECAM ..... CHECK STS	ENG ANTI ICE ..... TEST/AS REQ
ECAM DOOR PAGE ..... CHECK	WING ANTI ICE ..... AS REQ
CLEAR To disconnect ..... ANNOUNCE	SLATS/FLAPS ..... SET GND SPOILERS ..... ARM AIL/RUD TRIM ..... ZERO PITCH TRIM ..... SET
<b>AFTER START C/L</b>	

TAXI	
PF	PNF
NOSE LIGHT ..... TAXI	TAXI CLEARANCE ..... OBTAIN
PARK BRK ..... OFF	ELAPSED TIME ..... START
EXT LTS ..... AS REQ	
THRUST ..... AS REQ	
BRAKES ..... CHECK	
FLT CTL ..... CHECK	
T.O. DATA/CONDITIONS .... CHECK/REVISE	
FD ..... CHECK ON	FLT CTL ..... CHECK
FMA ..... CHECK	ATC CLEARANCE ..... OBTAIN/CONFIRM
FLT INST ..... CHECK	T.O. DATA/CONDITIONS ..... CHECK/REVISE
	FMS F-PLN ..... CHECK
TAKE-OFF BRIEFING ..... CONFIRM	FCU ALT/HDG/SPD ..... CHECK
CABIN REPORT.....	PROF ..... ARM
	NAV ..... ARM
<b>BEFORE TO C/L DOWN TO THE LINE</b>	FD ..... CHECK ON
	FMA ..... CHECK
	FLT INST ..... CHECK
	RADAR ..... AS REQ
	ATC CODE ..... CONFIRM/SET
	..... OBTAIN (CM1)
	T.O. CONFIG TEST ..... PRESS
	ECAM ..... NORM FOR T.O.

BEFORE TAKE OFF	
PF	PNF
APPROACH PATH ..... CLEAR OF TRAFFIC	TAKE OFF/LINE UP CLEARANCE ..... OBTAIN
EXT LTS ..... SET	CABIN CREW ..... ADVISE
	BRAKE PRESSURE ..... CHECK
	BRAKE TEMP (if BRK FAN on) ..... CHECK
	BRAKE FAN (if installed) ..... OFF
	AUTO BRK ..... MAX
	IGNITION ..... CONT RELIGHT/AS REQ
	PACK VALVE ..... AS REQ
	ATC TRANSPONDER ..... ON/ALT REP
	TCAS (if installed) ..... TA/RA/AS REQ
<b>BEFORE TO C/L BELOW THE LINE</b>	

TAKE OFF	
PF	PNF
ANNOUNCE ..... "TAKE OFF"	CLOCK ..... START
CLOCK ..... START	
BRAKES ..... RELEASE	
GO LEVERS ..... TRIGGERS (CM1)	
CM1 keeps his hand on	
PFD/ND ..... SCAN	
FMA INDICATION ..... ANNOUNCE	
• Below 80 Kts :	
• At 100 Kts:	
• At V1 :	
• At VR :	
• At VSI positive:	
ORDER ..... "GEAR UP"	
AP ..... ON/AS REQ	
• At thrust red alt	
FMA/TRP ..... CHECK	
• At F speed	
ORDER ..... "FLAPS ZERO"	
• At S speed	
ORDER ..... "SLATS RETRACT"	
	<b>throttles unto V1 is reached.</b>
	PFD/ND ..... SCAN
	N1 (EPR) ..... CHECK
	ANNOUNCE ..... "POWER SET"
	AIRSPEED/ENG INST ..... SCAN
	ANNOUNCE ..... "100 KTS"
	ANNOUNCE ..... "V1"
	ANNOUNCE ..... "ROTATE"
	ANNOUNCE ..... "POSITIVE CLIMB"
	L/G ..... UP
	GND SPOILERS ..... DISARM
	EXT LTS ..... SET
	L/G LEVER ..... NEUTRAL
	ANNOUNCE ..... "GEAR UP"
	ONE PACK ..... ON
	FLAPS 0 ..... SELECT
	ANNOUNCE ..... "FLAPS ZERO"
	SLATS 0 ..... SELECT
	ANNOUNCE ..... "SLATS RETRACTED"
	2ND PACK ..... ON

AFTER TAKE OFF	
PF	PNF
ANTI ICE ..... AS REQ	APU BLEED ..... AS REQ APU ..... AS REQ IGNITION ..... AS REQ FUEL CTR TK PUMPS ..... ON SIGNS ..... AS REQ TCAS (if installed) ..... TA/RA
AFTER TO/CLIMB C/L DOWN TO THE LINE	

CLIMB	
PF	PNF
FMA .. MONITOR/ANNOUNCE ANY CHANGES PF CDU ..... PROG FCU/FMS ..... SET (IF AP ON) • At transition altitude ALTIMETER ..... STD CRZ FL ..... CHECK/MODIFY	LAND LTS ..... OFF/RETRACT FMA ..... MONITOR ANY CHANGES PNF CDU ..... F-PLN FCU/FMS ..... SET (IF AP OFF)
AFTER TO/CLIMB C/L BELOW THE LINE RADAR ..... AS REQ	ALTIMETER ..... STD RADAR ..... AS REQ

CRUISE	
PF	PNF
ECAM MEMO/STS ..... REVIEW ECAM SYS PAGES ..... REVIEW FLIGHT PROGRESS ..... CHECK OPT FL ..... CHECK FUEL QUANTITY AND DISTRIBUTION..CHECK AIRCRAFT TRIMMING ..... CHECK NAV ACCURACY ..... CHECK RADAR TILT ..... ADJUST CABIN TEMP ..... MONITOR	TRP ..... CHECK CR

DESCENT PREPARATION	
PF	PNF
FMS ..... PREPARE APPROACH BRIEFING ..... PERFORM FCU ALT ..... CLEARED ALT	ECAM MEMO/STS ..... CHECK WEATHER/LANDING INFO ..... OBTAIN LANDING ELEV ..... SET FUEL ..... CHECK LANDING DATA ..... PREPARE FMS ..... PREPARE DESCENT CLEARANCE ..... OBTAIN ANTI ICE ..... AS REQ IGNITION ..... AS REQ

DESCENT	
PF	PNF
DESCENT INITIATION ..... MONITOR	
FMA ..... CHECK/ANNOUNCE ANY CHANGES	
PF CDU ..... PROG	
SPEED BRK ..... AS REQ	
RADAR TILT ..... ADJUST	
• At transition altitude	
ALTIMETER ..... SET	ALTIMETER ..... SET
NAV ACCURACY ..... CHECK	

INITIAL APPROACH	
PF	PNF
POSITIONING ..... MONITOR	IGNITION ..... CONT RELIGHT/AS REQ
ILS ..... SELECT/AS REQ	SIGNS ..... SET
NAV ACCURACY ..... CHECK	EXT LTS ..... AS REQ
RADAR TILT ..... ADJUST	POSITIONING ..... MONITOR
ND ..... RANGE 15NM	NAV/COM ..... CHECK/SET
ND...MAP FOR ILS (OTHERWISE ROSE OR ARC)	
• For CAT II OR CAT III :	
DH ..... CHECK/SET	ND ..... RANGE 15 NM
APPROACH C/L	ND ..... MAP/AS REQ
	DH ..... CHECK/SET

STANDARD APPROACH	
PF	PNF
FCU* .....	.....GREEN DOT SPEED
HDG SEL ..... AS REQ SLATS 15 ..... ORDER	ANNOUNCE ..... "SPEED CHECKED" SLATS 15 ..... SELECT ANNOUNCE ..... "SLATS 15" ..... S SPEED
GPWS ..... AS REQ • When cleared for final approach	
LAND ..... PRESS 2ND AP ..... AS REQ FMA ..... CHECK/ANNOUNCE LOC CAPTURE ..... MONITOR LOC* ..... ANNOUNCE ILS COURSE ..... CHECK HDG SEL ..... SYNCHRONIZE G/S CAPTURE ..... MONITOR G/S* ..... ANNOUNCE GO AROUND ALT* .....	TCAS (If installed) ..... TA/AS REQ FMA ..... CHECK ..... SET
• At 2000 ft AGL Min FLAPS 20 ..... ORDER	ANNOUNCE ..... "SPEED CHECKED" FLAPS 20 ..... SELECT ..... VAPP
FCU*..... THROTTLES (if A/THR OFF) ..... IDLE GEAR DOWN ..... ORDER	ANNOUNCE ..... "FLAPS 20" L/G ..... DOWN GND SPOILERS ..... ARM AUTO BRK ..... AS REQ ANNOUNCE ..... "GEAR DOWN" FLAPS 40 ..... SELECT ANNOUNCE .. ..... "FLAPS 40" BRAKE/A-SKID ..... NORM/ON ECAM WHEEL PAGE ..... CHECK AUTOLAND Lights ..... TEST (For autoland only) WING ANTI ICE ..... OFF EXT LTS ..... SET
FLAPS 40 ..... ORDER	
THROTTLES (if A/THR OFF) ..... ADJUST	
CABIN REPORT ..... OBTAIN (CM1) CABIN CREW ..... ADVISE <b>LANDING C/L</b> announce any FMA modifications	check any FMA modifications FLT PARAMETERS ..... CHECK announce any deviations in excess of : V/S: 1000 ft/min IAS : + 10KT/-5KT ILS : 1 dot Significant changes in ground speed LAND green ..... CHECK/ANNOUNCE ANNOUNCE ..... 100 ABOVE MONITOR/ANNOUNCE ..... "MINIMUMS"
• At 400 ft • At MDA + 100 • At MDA OR DH ANNOUNCE .... "LANDING" or "GO AROUND" AUTO CALL OUT ..... MONITOR	

\* PF if AP on, PNF if AP off.

LANDING	
PF	PNF
<b>• At 20 -30 ft:</b> FLARE ..... PERFORM THROTTLES ..... MONITOR IDLE	
<b>• At touchdown :</b> REVERSE ..... PULL  REVERSE THRUST ..... MAX DIRECTIONAL CONTROL...RUDDER PEDALS BRAKES ..... AS REQ	N1, EGT, IAS ..... MONITOR GND SPOILER EXT ..... CHECK ANNOUNCE ..... "REV GREEN"
<b>• At 80 kts or IAS fluctuations</b> REV ..... IDLE	ANNOUNCE ..... "80 KTS"
<b>• At TAXI speed</b> REV ..... STOW	

GO AROUND	
PF	PNF
ANNOUNCE ..... "GO AROUND-FLAPS _" GO LEVERS ..... PRESS THROTTLE LEVERS... FOLLOW THROUGH/TOGA ROTATION ..... PERFORM ORDER ..... "GEAR UP"  NAV or HDG* .....	FLAPS ..... RETRACT ONE STEP FMA...CHECK/ANNOUNCE THR, GO AROUND ANNOUNCE ..... "POSITIVE CLIMB" L/G ..... UP ANNOUNCE ..... "GEAR UP, FLAPS" ..... SELECT
<b>• At thrust reduction altitude</b> TRP* .....	CL
<b>• At acceleration altitude</b> SPD* ..... LVL/CH* .....	..... 250 KTS ..... SELECT FLAPS ..... RETRACT ON SCHEDULE
MISSED APPROACH PROCEDURE ..... FOLLOW	

AFTER LANDING	
PF	PNF
LANDING LTS ..... OFF/RETRACT GND SPOILERS ..... DISARM	ICE PROTECTION ..... AS REQ IGNITION ..... OFF APU ..... START TRANSPOUNDER ..... STBY/OFF TCAS (if installed) ..... STBY OFF RADAR ..... OFF/TEST PITCH TRIM ..... SET SLATS/FLAPS ..... RETRACT BRAKE TEMP ..... CHECK BRAKE FANS (if installed) ..... AS REQ
AFTER LANDING C/L	

\* PF if AP ON, PNF if AP OFF

PARKING	
PF	PNF
NOSE LIGHT ..... OFF/AS REQ	APU BLEED ..... ON
PARKING BRAKE ..... ON	ELAPSED TIME ..... STOP
ENG FUEL LEVERS ..... OFF	SLIDES DISARMED ..... CHECK
EXT LTS ..... AS REQ	CABIN PRESS ..... CHECK
SEAT BELTS ..... OFF	FUEL PUMPS ..... OFF
GROUND CONTACT ..... ESTABLISH	WINDOW HEAT ..... OFF
PARKING BRAKE ..... OFF/AS REQ	PROBE HEAT ..... OFF
FUEL PUMPS ..... OFF	IRS DRIFT ..... CHECK
CRT's ..... DIM	IRS MSU, 1, 2, 3 ..... OFF/AS REQ
	BRAKE TEMP ..... CHECK
	BRAKE FANS (if installed) ..... AS REQ
	CRT's ..... DIM
<b>PARKING C/L</b>	

SECURING THE AIRCRAFT	
PF	PNF
	IRS MSU 1, 2, 3 ..... OFF
	CREW OXYGEN ..... OFF
	EXT LTS ..... OFF
	APU BLEED ..... OFF
	EXT PWR ..... AS REQ
	APU ..... OFF
	EMERGENCY EXIT LTS ..... DISARM
	BATTERIES ..... OFF
<b>SECURING THE AIRCRAFT C/L</b>	