



### PRELIMINARY COCKPIT PREPARATION

#### ELEC

BAT 1 and 2..... CHECK ABOVE 25.5 V

BAT 1 and 2..... AUTO

EXT PWR (if available) ..... ON

#### APU FIRE TEST

APU FIRE TEST ..... PRESS

Check:

- ECAM + CRC (звуковой сигнал) + MASTER WARN
- APU FIRE light red
- SQUIB and DISCH lights on

#### APU START

APU MASTER ..... ON

APU START..... ON

EXT PWR ..... AS RQRD

*Как правило, можно отключить внешнее питание после окончания запуска APU (смотреть на ECAM)*

#### COCKPIT LIGHTS

COCKPIT LIGHTS ..... AS RQRD

*Внутреннее освещение кокпита, подсветка панелей и т. д.*

#### PROBE/WINDOW HEAT

PROBE/WINDOW HEAT ..... AUTO

#### AIR COND

APU BLEED..... ON

X-BLEED ..... AUTO

#### ELEC

No amber lights except GEN FAULT.

*Не должно гореть никаких оранжевых индикаторов, кроме GEN FAULT.*

### EXTERIOR WALK-AROUND

*Раздел внешнего осмотра пропущен.*



### COCKPIT PREPARATION

#### OVERHEAD

ALL WHITE LIGHTS.....«TURN-OFF»

*Убедиться, что на OVERHEAD не горят белые индикаторы. Если горят, нажать соответствующие кнопки. Обычно это топливные насосы.*

#### RCDR

RCDR GND CTL ..... ON

#### ADIRS

MODE ROTARY SELECTORS (3) ..... NAV

PRESENT POSITION .....CHECK

#### EXT LT

EXTERIOR LIGHTS ..... AS RQRD  
(Strobe – AUTO, BEACON – OFF, NAV – 1 or 2)

#### SIGNS

SEAT BELTS ..... ON/AUTO

NO SMOKING ..... AUTO

EMER EXIT LT ..... ARM

#### ENG 1 + ENG 2 FIRE TEST

ENG 1 (2) TEST ..... PRESS

Check:

- ECAM + CRC + MASTER WARN
- ENG FIRE light red
- SQUIB and DISCH lights on
- FIRE light on ENG panel on

#### RMP (RADIO)

COM FREQUENCIES ..... TUNE

*Установить частоты связи. Обычно — первого диспетчерского пункта и ATIS.*

#### DATA AND CLEARANCE

AIRFIELD DATA ..... OBTAIN

ATC CLEARANCE ..... OBTAIN



### FMGS INITIALISATION

FM database validity .....CHECK

FLIGHT PLAN ININTIALIZATION ..... COMPLETE

INIT – FROM/TO – FLT NUMBER – COST INDEX – CRZ ALT

ALIGN IRS prompt ..... PRESS

F-PLN page .....COMPLETE AND CHECK

F-PLN ..... CHECK ND PLAN

RADIO NAV .....CHECK

### FMGS DATA INSERTION – GROSS WEIGHT INSERTION

ZFWCG/ZFW ..... INSERT

BLOCK FUEL ..... INSERT

### FMGS DATA INSERTION – TAKEOFF DATA INSERTION

FLX TO TEMP ..... INSERT

THR RED/ACC altitude ..... SET/CHECK

FLAPS/THS reminder .....CHECK

V1, Vr, V2 ..... INSERT

### GLARESHELD

BARO REF ..... SET QNH

FD .....CHECK ON

LS ..... AS REQUIRED

### FCU

SPD MACH window ..... DASHED

HDG V/S-TRK FPA ..... HDG V/S

ALT window ..... INITIAL EXPECTED CLEARANCE ALT

### INSTRUMENT PANELS

PFD .....CHECK

ND .....CHECK

### NOSEWHEEL STEERING

A/SKD & N/W STRG ..... ON



# NORMAL PROCEDURES

**A320**

rev 0.3

## ACP

VHF .....CHECK

## SWITCHING PANEL

ALL SELECTORS ..... NORM

## ECAM control panel

STS..... PRESS

## ATC

ATC CODE..... SET

## FUEL

FUEL QTY .....CHECK

## TAKEOFF BREEFING

TAKEOFF BREEFING ..... PERFORM



# NORMAL PROCEDURES

A320

rev 0.3

## BEFORE PUSHBACK or START

MCDU ..... TAKEOFF CONFIGURATION

LEFT – F-PLN, RIGHT – PERF TAKEOFF

EXT PWR ..... CHECK OFF

BEFORE START CHECKLIST down to the line..... COMPLETE

COCKPIT PREP.....	COMPLETE (BOTH)
GEAR PINS and COVERS.....	REMOVED
SIGNS.....	ON / AUTO
ADIRS.....	NAV
FUEL QUANTITY.....	____KG. / BALANCED
TO DATA.....	SET
BARO REF.....	____SET

PUSHBACK/START UP CLEARANCE ..... OBTAIN

TRANSPONDER .....ALT ON

WINDOWS AND DOORS ..... CHECK CLOSED

BEACON ..... ON

THR LEVERS ..... IDLE

PARKING BRAKE ..... AS RQRD

OFF while pushing back, ON after

BEFORE START CHECKLIST below the line..... COMPLETE

WINDOWS / DOORS.....	CLOSED / ARMED (BOTH)
BEACON.....	ON
MOBILE PHONE.....	OFF (BOTH)
THRUST LEVERS.....	IDLE
PARKING BRAKE.....	SET

## AUTOMATIC ENGINE START

ENG MODE selector ..... IGN/START

ANNOUNCE..... “STARTING ENGINE 2”

MASTER SWITCH 2 ..... ON

Wait for 50% N2 (*Двигателя №2*)

ANNOUNCE..... “STARTING ENGINE 1”

MASTER SWITCH 1 ..... ON

Wait for 50% N2 (*Двигателя №1*)



# NORMAL PROCEDURES

A320

rev 0.3

## AFTER START

- ENG MODE selector ..... NORM
- APU BLEED ..... OFF
- GROUND SPOILERS ..... ARM
- RUDDER TRIM ..... ZERO
- FLAPS LEVER ..... SET
- PITCH TRIM ..... SET
- ECAM STS ..... CHECK
- ENG ANTI-ICE ..... AS RQRD  
*Включать при температуре ниже +10 °C и при видимой влаге.*
- APU MASTER SWITCH ..... OFF  
*Не отключать, если планируется взлёт с отбором от APU.*
- ECAM DOOR ..... SELECT
- AFTER START CHECKLIST ..... COMPLETE

AFTER START	
ANTI ICE .....	AS RQRD
ECAM STATUS .....	CHECKED
PITCH TRIM .....	_____% SET
RUDDER TRIM .....	ZERO



# NORMAL PROCEDURES

**A320**

rev 0.3

## TAXI

TAXI CLEARANCE ..... OBTAIN  
 NOSE LIGHT ..... TAXI  
 PARKING BRAKE ..... OFF  
 ELAPSED TIME ..... AS RQRD  
 THRUST LEVERS ..... AS RQRD  
 BRAKES ..... CHECK  
 FLIGHT CONTROLS ..... CHECK  
 AUTO BRK ..... MAX

## FMGS

CLEARED ALT FCU ..... SET  
 HEADING FCU ..... IF RQRD  
 FD ..... CHECK ON  
 PWS ..... AUTO  
 TO CONFIG ..... PRESS  
 TO MEMO ..... NO BLUE LINES  
 BEFORE TAKEOFF CHECKLIST down to the line..... COMPLETE

BEFORE TAKEOFF	
FLT CTL.....	CHECKED (BOTH)
FLT INSTRUMENTS.....	CHECKED (BOTH)
BRIEFING.....	CONFIRMED
FLAPS SETTING.....	CONF____(BOTH)
FMA & TAKEOFF DATA.....	READ (PF)/ CHECKED (PNF)
TRANSPONDER.....	SET
ECAM MEMO.....	TAKEOFF NO BLUE



# NORMAL PROCEDURES

A320

rev 0.3

## BEFORE TAKEOFF

TAKEOFF / LINEUP CLEARANCE ..... OBTAIN

APPR PATH CLEAR OF TRAFFIC ..... CHECK

*Посмотреть налево и направо, самостоятельно убедиться, что никто не садится и не взлетает.*

ENG MODE SELECTOR ..... AS RQRD

IGN if standing water on RWY, heavy rain, heavy turbulence.

HEADING FCU ..... IF RQRD

TCAS MODE selector ..... TA/RA

PACKS 1 and 2 ..... AS REQUIRED

*Отключение паков на взлёте увеличивает мощность и снижает износ двигателей. Можно также включить отбор от APU (если она включена). Не используйте отбор от APU, если взлетаете с ANI-ICE.*

EXTERIOR LIGHTS ..... SET

BEFORE TAKEOFF CHECKLIST below the line ..... COMPLETE

CABIN .....	SECURED FOR TAKEOFF
ENG MODE SEL .....	AS RQRD
TCAS .....	TA / RA
PACKS .....	AS RQRD





### TAKEOFF

BRAKES .....RELEASE  
THRUST LEVERS ..... FLX or TOGA  
DORECTIONAL CONTROL ..... USE RUDDER  
CHRONO ..... START  
PFD/ND ..... SCAN

Check FMA: MAN FLEX, SRS, RUNWAY, AUTOTHRUST BLUE

#### 80 knots

TAKEOFF N1 .....CHECK  
ANNOUNCE ..... “TRUST SET”

#### 100 knots

ANNOUNCE ..... “ONE HUNDRED KNOTS”  
ANNOUNCE ..... “V1”  
ANNOUNCE ..... “ROTATE”  
ROTATION ..... PERFORM TOWARDS 15 DEG  
ANNOUNCE ..... “POSITIVE CLIMB”  
PITCH COMMAND .....FOLLOW  
LDG GEAR..... SELECT UP  
AP.....AS RQRD above 100 ft AGL  
GRD SPLRS .....DISARM  
EXTERTIR LIGHTS ..... AS RQRD  
ANNOUNCE ..... “FMA”  
ANNOUNCE ..... “GEAR UP”

#### Reduction height

THRUST LEVERS ..... CL  
PACKS 1 and 2 ..... ON

#### S-speed

FLAPS ZERO ..... SELECT



# NORMAL PROCEDURES

A320

rev 0.3

## AFTER TAKEOFF

AFTER TAKEOFF CHECKLIST down to the line ..... COMPLETE

AFTER TAKEOFF	
LANDING GEAR.....	UP
FLAPS.....	RETRACTED
PACKS.....	ON

## CLIMB

Normal mode – CLB or OP CLB

BARO REF ..... SET AT TA

**At 10 000 ft**

LAND lights ..... OFF

SEAT BELTS ..... AS RQRD

EFIS ..... ARPT

AFTER TAKEOFF CHECKLIST below the line ..... COMPLETE

BARO REF.....	STANDARD SET
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## CRUISE

ECAM MEMO.....REVIEW

*Наблюдение за индикацией на ECAM в течение всего полёта.*



# NORMAL PROCEDURES

A320

rev 0.3

## DESCEND PREPARATION

LDG ELEV .....CHECK  
On ECAM CRZ

WEATHER AND LDG INFORMATION .....CHECK

### FMGS

ARRIVAL PAGE ..... COMPLETE/CHECK  
TRANS, APPR, STAR, VIA

F-PLN page .....CHECK

PERF APPR page..... COMPLETE/CHECK  
QNH, Temp, winds, MDA/DH, landing config.

*Несмотря на подпись TRANS ALT, вводит нужно эшелон перехода (Trans Level, TL).*

DESCEND CLEARANCE ..... OBTAIN

ANTI ICE ..... AS RQRD

## DESCEND INITIATION

DESCEND ..... INITIATE DES MODE

## DESCEND

SPEEDBRAKES ..... AS RQRD

BARO REF ..... AT TL

AT 10 000 ft:

LAND LIGHTS ..... ON

SEAT BELTS ..... AS RQRD

EFIS ..... CSTR

LS button ..... AS RQRD



## ILS APPROACH

### INITIAL APPROACH

ENG MODE SELECTOR ..... AS RQRD

IGN if standing water on RWY, heavy rain, heavy turbulence.

APPROACH PHASE..... CHECK/ACTIVATE

NAV – automatically at DECEL

HDG – manually 15 nm from touchdown

MANAGED SPEED ..... AS REQUIRED BY ATC

APPROACH CHECKLIST ..... COMPLETE

APPROACH	
BRIEFING.....	CONFIRMED
ECAM STATUS.....	CHECKED
SEAT BELTS.....	ON
BARO REF.....	SET
MDA / DH.....	SET (BOTH)
ENG MODE SEL.....	AS RQRD

### INTERMEDIATE APPROACH

APPR pushbutton on FCU ..... PRESS when ATC clears APPR

BOTH AP ..... ENGAGE

#### Green dot speed

FLAPS 1 ..... SELECT

FMA ..... CHECK

LOC CAPTURE ..... MONITOR

G/S CAPTURE ..... MONITOR

#### After G/S capture

GO-AROUND ALT..... SET

*At 2000 ft AGL (В том числе если пересечение 2000 будет раньше захвата G/S)*

FLAPS 2 ..... SELECT

#### When flaps are at 2 (И после G/S capture)

L/G DOWN ..... SELECT

GROUND SPOILERS ..... ARM

AUTO BRK ..... AS RQRD (MED)



# NORMAL PROCEDURES

**A320**

rev 0.3

## When LG is down

- FLAPS 3 ..... SELECT
- ECAM WHEEL PAGE.....CHECK
- FLAPS FULL ..... SELECT
- A/THR..... CHECK IN SPEED or OFF
- EXTERIOR LIGHTS..... SET  
NOSE – TAXI, LAND – ON.
- LDG MEMO ..... CHECK NO BLUE LINES
- LANDING CHECKLIST..... COMPLETE

LANDING	
CABIN .....	SECURED FOR LANDING
A / THR.....	SPEED / OFF
GO-AROUND ALT.....	___ FT SET
ECAM MEMO.....	LDG NO BLUE
. L/G DOWN	
. SIGNS ON	
. SPLRS ARM	
. FLAPS SET	

## At DH

ANNOUNCE .....LANDING or GO AROUND/FLAPS

## LANDING

### At 20 FT

- FLARE .....PERFORM/MONITOR
- THRUST LEVER ..... IDLE at RETARD

### At touchdown

- REVERSE .....MAX
- GROUND SPOILERS .....CHECK
- BRAKES..... AS RQRD

### At 70 knots

THRUST LEVER ..... REV IDLE

### At taxi speed

THRUST LEVER ..... FWD IDLE

### 20 kts

AUTO BRK ..... DISENGAGE



# NORMAL PROCEDURES

**A320**

rev 0.3

## GO AROUND

THRUST LEVERS ..... TOGA

ANNOUNCE ..... “GO AROUND – FLAPS”

Check FMA: MAN TOGA, SRS, GA TRK

FLAPS .....RETRACT 1 STEP

ANNOUNCE ..... “POSITIVE CLIMB”

L/G UP ..... SELECT

NAV or HDG mode ..... SELECT

Thrust to CL if TOGA thrust not required.

### At reduction height (LVR CL flashing on FMA)

THRUST LEVERS ..... CL

### At green dot speed

If speed does not increase to green dot:

FCU ALT..... CHECK AND PULL

FLAPS .....RETRACT TO SCHEDULE

GND SPOILERS .....DISARM

AFTER TAKEOFF CHECKLIST down to the line ..... COMPLETE

AFTER TAKEOFF	
LANDING GEAR.....	UP
FLAPS.....	RETRACTED
PACKS.....	ON



# NORMAL PROCEDURES

**A320**

rev 0.3

## AFTER LANDING

LAND LIGHTS ..... OFF  
 FLAPS ..... RETRACT  
 ENG MODE..... NORM  
 ATC..... STBY/OFF  
 TCAS ..... STBY  
 ANTI-ICE ..... AS RQRD  
 APU..... START  
 PWS ..... OFF

## PARKING

PRK BRK ..... ON  
 ANI-ICE ..... OFF  
 APU BLEED..... ON  
 ENGINE MASER switch 1 and 2..... OFF  
 EXT LIGHTS..... AS REQUIRED  
 SEAT BELTS ..... OFF  
 ELAPSED TIME ..... STOP  
 FUEL PUMPS..... OFF  
 DUs ..... DIM  
 PARKING CHECKLIST..... COMPLETE

PARKING	
APU BLEED.....	AS RQRD
Y ELEC PUMP.....	OFF
ENGINES.....	OFF
SEAT BELTS.....	OFF
EXT LT.....	AS RQRD
FUEL PUMPS.....	OFF
PARK BRK and CHOCKS.....	AS RQRD
MOBILE PHONE.....	ON
TRANSPONDER.....	STBY 2000
RADAR / PWS.....	OFF



# NORMAL PROCEDURES

**A320**

rev 0.3

## SECURING

- PARK BRAKE .....CHECK ON
- OXYGEN CREW SUPPLY ..... OFF
- ADIRS 1, 2, 3..... OFF
- EXTERIOR LIGHTS..... OFF
- APU BLEED..... OFF
- APU MASTER switch..... OFF
- EMER EXIT LT..... OFF
- NO SMOKING ..... OFF
- EXT PWR ..... OFF
- BAT 1 and 2..... OFF
- SECURING CHECKLIST..... COMPLETE

SECURING THE AIRCRAFT	
ADIRS.....	OFF
OXYGEN.....	OFF
APU BLEED.....	OFF
EMER EXIT LT.....	OFF
NO SMOKING.....	OFF
APU AND BAT.....	OFF





### OPTIMUM ALTITUDE ON SHORT STAGE

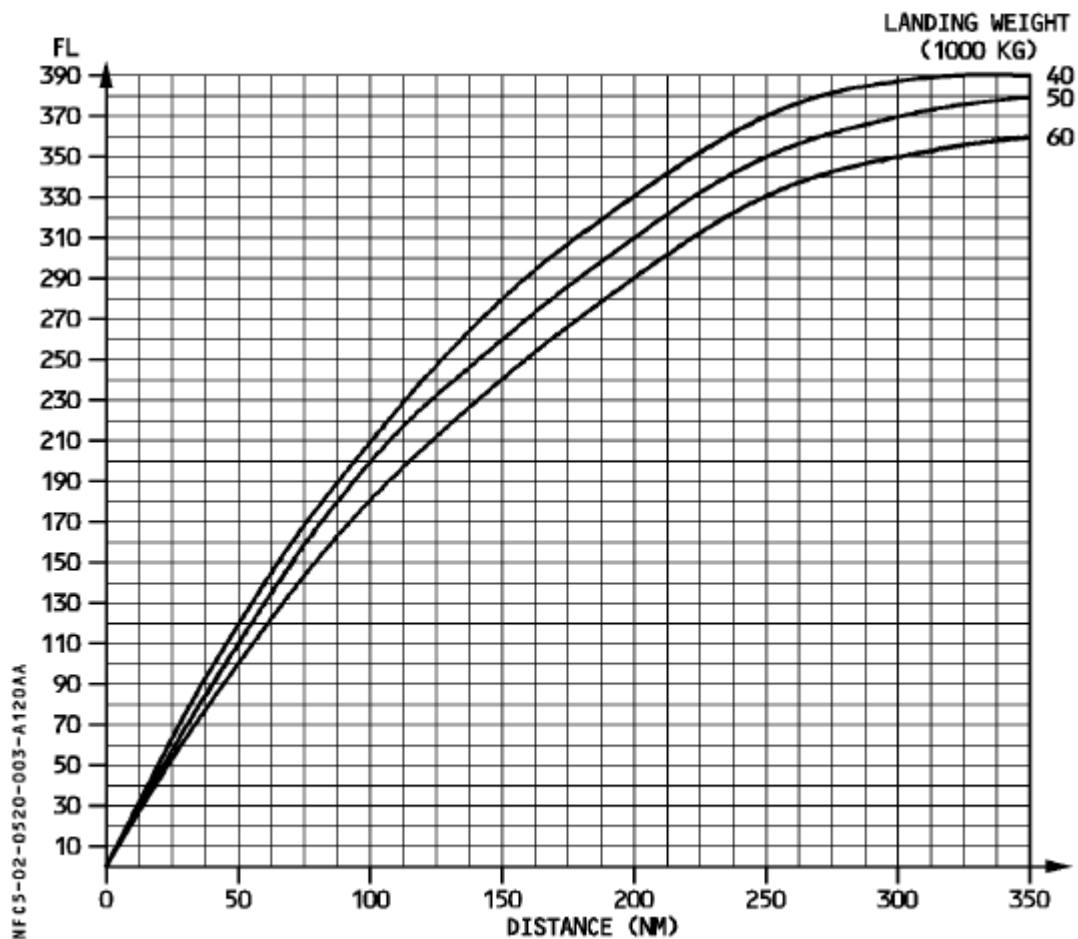
According to the air distance (from brake release point to landing), the cruise flight level is limited by the distance required to perform climb and descent. The graph determines the optimum altitude.

It includes the following profiles:

- Takeoff
- Climb: 250KT/300KT/M.78
- Long range cruise (during at least 5 minutes)
- Descent: M.78/300KT/250kt
- Approach and landing

and it is established for:

- ISA
- CG = 33 %
- Normal air conditioning
- Anti ice OFF



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