

PREFLIGHT FLOWS*OM18A NO-020 P7, FCOM 3.04.04 P1 and QRH 3.01***PNF FLOW :**

| | |
|-------------------------|--|
| Cockpit Lighting | SET |
| Park Brake | ON and check Pressures |
| ALT Brakes | Check (PK BRK and YEL OFF) |
| Speed Brakes | RETRACTED |
| Engine Mode and Masters | NORM/OFF |
| Flaps | UP |
| Gear | DOWN |
| Wipers | OFF |
| Battery Voltage | > 25.5 or get EXT PWR immediately |
| Ext Power | ON |
| APU | Fire TEST and START |
| Ext Power | OFF |
| Probe/Window Heat | AUTO |
| Air Conditioning | SET |
| ELEC | No Amber lights except GEN FAULT |
| VENT | All lights off |
| Cargo Heat | As required |
| ECAM | RCL - at least 3 secs, OXY>1000 PSI, HYD, ENG OIL > 16qts |
| QRH OEB | OEI G/A, FINAL APP G/A,RNAV |
| RMP | ON and SET |
| Emergency Equip | CHECK |
| Rain Repellent | CHECK |
| CCT BKRS | IN OR COLLARED |
| ATIS and TOLD | OBTAIN AND COMPLETE |
| Jepps Plates | Set up |
| Exterior Inspection | Get wet! |

PF FLOW:**OVERHEAD – all white lights extinguished***6 lights on whole panel -1 GREEN, 2 AMBER, 3 BLUE*

| | |
|-----------------|--------------------------------|
| CVR | ON/TEST |
| EVAC Switch | CAPT |
| ADIRS | NAV |
| Exterior Lights | STROBES/, BEACON/NAV |
| Passenger Signs | ON |
| EMER EXIT LT | ARM |
| CABIN PRESS | LDG ELEV Auto |
| AIR COND | Pack Flow LOW if < 115 pax |
| BATTS | OFF/ON (<60A after 10 seconds) |
| FUEL Pumps | ON |
| ENG Fire | TEST |
| AUDIO SW | NORM |
| ACP 3 | PA Reception |

CENTRE INSTRUMENT PANEL and PEDESTAL

| | |
|------------------------|--------------------------------|
| ISIS | Check |
| Clock | SET |
| ACP 1 | SET / PA /HF CHECK |
| Weather Radar/PWS | OFF and UP 4 |
| Cockpit Door | Check |
| Thrust Levers | IDLE |
| Engine Masters | OFF/NORM |
| Parking Brake | ON then OFF |
| Gravity Gear Extension | STOWED |
| ACP 2 | SET |
| ATC and TCAS | SBY |
| ECAM | STS then check LDG ELEV – AUTO |
| Switching panel | SET |
| N/W STRG & A/SKID | ON |

FMGS INITIALISATION - SIFSRIPP

| | |
|-----------|--|
| STATUS | Database, Aircraft Type and NAVAID deselection |
| INIT A | Co Route, ALTN, FLT NUMBR, CI, CRZ ALT |
| F-PLN | LEGS, SID, CSTR, STAR, DIST/TIME/FUEL |
| SEC F-PLN | Copy Primary, select DEP ALTN or different SID |
| RAD/NAV | SELECT AIDS |
| INIT B | ZFWCG / ZFW and Fuel, Check FOD etc |
| PERF | V Speeds, FLX TEMP, ACC ALT, CONFIG |
| PROG | CRZ Level and FIX (Return runway) |
| ACARS | Initialise |

GLARESHIELD*WHEN BOTH PILOTS ARE SEATED QRH 3.03*

| | |
|------------|-------------------------------|
| EFIS Panel | QNH SET, FD ON, LS OFF, CSTR |
| FCU ALT | SID/CRUISE/CCT ALT OMI 6.2.18 |

LATERAL CONSOLES and INSTRUMENT PANELS

| | |
|----------------|--|
| OXY MASKS | CHECK, 100% |
| Lights/Speaker | SET |
| PFD's ND's | No Flags, QNH, NAVAIDS, GS < 5KTS |
| PNF: | Check Data and FMS Entries 3.03.06 p17 |
| T/O Data Card | Check RWY, QNH, TEMP, ICE etc |
| IRS | Check Position Monitor ≤ 5nm error |
| MCDU | Check SIFSRIPP |

PF: *“FLIGHT PLAN CHECK” FCOM 3.03.06 p17***PF reads from MCDU and PNF Checks against CFP:**

| | |
|--------|-----------------------------|
| INIT A | FLT Number and ATS ROUTE |
| PROG | FLIGHT LEVEL |
| FPLAN | TOTAL DISTANCE WAYPOINTS |

PNF: Requests ATC CLEARANCE records on CFP
*FCOM 3.03.06 p17***PF copies clearance and sets FCU, MCDU and TXPNDR**

| | |
|---------|-------------------------------|
| F-PLN A | CORRECT SID |
| FCU | CLEARED ALTITUDE |
| ATC | SQUAWK CODE |
| FUEL | ECAM v F-PLAN AND 3% check OK |

TAKEOFF BRIEF*OM18A NO-020 p11, FCOM 3.03.06 p17 and OMI 6.1.8.2***AIRCRAFT:**

Aircraft Type and Model / MEL / TR / OEB

AIRFIELD: NOTAMS / ATIS (RHS of TOLD)

Start, Push and Taxi routing

Runway conditions / V1

ABNORMALS:

Standard reject “STOP/GO” up to 400' AGL

@400' ECAM Actions

@ACC ALT “STOP ECAM”, Push for ALT, Clean Up

@GRN DOT OP CLB, MCT, “CONTINUE ECAM”

TOLD OCP, RTB, Diversion

PERF T/O:

T/O Runway / Config / Flex / Anti-ice / Packs

V Speeds – Check V1 and V2 against TOLD and PFD

Transition Altitude

THR RED / ACC Altitudes

F-PLAN: AWYS CLNCE, Jepps SID CSTR, FCU ALT, do HAT

Check against MCDU and ND (use CSTR)

FUEL: INIT B - Block Fuel, EFOB, Pumps, Balance and Seat

Belts

ETOW and LW

MISC: Automation usage, TEM, QUESTIONS?

ECAM

DOORS - Armed

ECAM

STATUS - Clear

PF: "Start complete, Disconnect headset"

After Load data arrives:

FCOM 3.03.07 p1 and QRH 3.03

CAPT: Check all paperwork

PNF: uses PDA to enter and print docket which the PF checks and signs.

PNF: Reads: ZFW/ZFMAC, TOW, Trim settings, POB

PF: **INIT B** – ZFWCG/ZFW, record TOW and check against Max Wt FLEX and LW

PERF – enter THS, record THS & POB - Pack Flow
Check Extra Gas, Balance and Pumps ON

APU: As required

Seats/Harness/Rudder Pedals - Adjust

PF: "Cockpit to Ground - Remove External"

"BEFORE START CHECKLIST"

After L1 door shut:

PF: "Cockpit to ground, confirm ground checks complete" OMI 6.2.3.1

PNF: Push/Start **OBTAIN**
APU Bleed **ON**
Beacon **ON**

PF: NW STRG **CHECK DISCONNECTED**
Windows/Doors **ECAM DOORS**
THR LEVERS **IDLE**
PARK BRAKE **CHECK PRESS & ON**

"BELOW THE LINE"

Pushback Phraseologies OMI 6.2.3.1

PF: **"Ready on 2"**
GND: **"Clear to start 2"**
PF: **"Starting 2"**
When N2 Indicating **"Your Engines"**
@20% N2 **"Ready to push"**
GND: **"Release brakes"**
PF: **"Brakes released"**
check HYD PTU
After ENG 2 stabilised **"Ready on 1"**
GND: **"Clear to start 1"**

Start Engines – OMI18A NO-030, FCOM 3.03.08 and QRH 3.04

PNF: Start Clock, set 121.5 on VHF2 and TCAS to TXPNDR

AFTER START FLOW

OMI18A NO-030 P3&4:

PF: Eng Mode **NORM**
APU BLEED **OFF**
ANTI-ICE **As req'd**
APU **OFF**

PNF GND SPOILERS**ARM**
RUD TRIM **Zero**
FLAPS **SET**
PITCH TRIM **SET**

ECAM

DOORS - Armed

ECAM

STATUS - Clear

AFTER START CHECKLIST

TAXI

FCOM 3.03.10 p1 and OMI18A NO-040 P11

PNF: **"Request taxi, received X"**

NOSE LIGHT **ON**

ELAPSED TIME**Start**

PF: Park Brake **OFF**

Thrust Levers **Advance**

Brakes **CHECK**

PNF: **"Pressure Zero"**

BOTH: FLT CTRLS **CHECK**

3.03.10p4 and OMI18A NO-040 P8

PNF: FLT CTRLS **CHECK**

RADAR/PWS **ON**

ATC **ON**

ND **TERR**

AUTOBRAKE **MAX**

T/O CONFIG **PUSH**

PF: **"Clearance Review"**

PNF: **"Airways Clearance, RWY, SID, ALT, SQUAWK"**

PF: **"As briefed, no changes, CLB, NAV, FLxxx BLUE, 1FD2"**

BEFORE TAKEOFF CHECKLIST DOWN TO THE LINE

PNF: Flips card when CSM reports "Cabin Secure"

PNF: Check Brake TEMPS and FANS OFF for T/OFF Reports "Ready" on PF command

When cleared onto Runway:

PNF: TCAS **TA/RA**
PACKS **AS REQ'D**
EXTERIOR LIGHTS **ON**
RWY/TAKEOFF POINT **CONFIRMATION**
SLIDING TABLE **STOWED**
ENG MODE SEL **AS REQ'D**

BEFORE TAKEOFF CHECKLIST BELOW the LINE

Takeoff: FCOM 3.03.12, OMI18A NO-050 and QRH 3.05

PF: **"TAKE-OFF"** and sets approx 1.05 EPR/50%N1

PF: **"MAN FLEX xx, SRS, RWY, A/THR BLUE"**

PNF: **"THRUST SET"** When T/O Thrust SET

PNF: **"Positive Climb"**

PF: **"Gear Up"**

PNF: SPOILERS **DISARM**
LIGHTS **AS REQ'D**

AFTER LEVER CLIMB

PNF: **PACK 1 ON** 10 Secs later **PACK 2 ON**

AFTER FLAP RETRACTION

APU **AS REQ'D**

ENG MODE **AS REQ'D**

TCAS **TA/RA**

ANTI ICE **AS REQ'D**

OM18A NO-080 p8

“AFTER TAKEOFF CLIMB C/L”

- PNF: LANDING LIGHTS ON
- SEAT BELTS ON and FLIP CARD
- EFIS OPTION CSTR
- LS SELECT and IDENT
- ND TERRAIN
- RAD/NAV/ACCRCY CHECK

TRANSITION

BOTH: BARO REF

10000' FLOW FCOM 3.03.14 p2, OM18A NO-060 P5

- PNF: LDG LIGHTS OFF
- SEAT BELTS OFF and FLIP CARD
- EFIS OPTION ARPT/CSTR/NDB
- ND TERRAIN OFF
- ECAM MEMO Review
- MCDU PROG ALTs, RAD/NAV, SEC FPLAN

APPROACH CHECKLIST

LANDING CHECKLIST

- PNF: “GND SPOILERS, REV GREEN, DECEL 70KTS”
- PF: STOWS REV and DISARMS GND SPOILERS

“BELOW THE LINE”

AFTER LANDING FLOW

OM18A NO-180 p2, QRH

PNF: ACARS/DLY MESS/COMPLETE FLIGHT PLAN

- PNF: “Altimeters” every 10000'
- PF: “Flxxx, cleared FLxxx”

- PNF: RADAR/PWS OFF
- ENG MODE SEL NORM
- FLAPS RETRACT
- TCAS SBY
- ATC TXPNDR AS REQ
- APU START
- ANTI-ICE OFF
- LANDING LIGHTS RETRACT
- STROBES AUTO
- EXTERNAL LIGHTS AS REQ'D
- BRAKE TEMP CHECK

TOP OF CLIMB FCOM 3.03.15 p1

- PF: ECAM MEMO
- ENG, BLEED, ELEC, HYD, FUEL, COND, FLT CTL
- RVSM CHECK AFTER ALT CRZ ± 200'
- TCAS BELOW and RADAR TILT
- CFP, FOB v FMGC FUEL PRED Quick check 3.05.20

DESCENT PREPARATION

FCOM 3.03.16, OM18A NO-070 p10 and QRH 3.06

@ ToD – 15 mins PNF gets ATIS OM18A NO-070 p8

“AFTER LANDING CHECKLIST DOWN TO THE LINE”

PNF: FMGS ATIS and prepare LDG DATA

After APU ONLINE

PF: FMGS “TOP HAT”
FCOM 3.03.16 p1, OM18A NO-070 p8

“AFTER LANDING CHECKLIST BELOW THE LINE”

ACC ALTs: VMC 1000/1500 1500
IMC 1500/MAP ALT MAP ALT

- PNF: “Cabin Crew Disarm Doors”
- Check Brake Accumulator, APU Bleed ON, Taxi Light OFF

APPROACH BRIEFING

OM18A NO-070 p10, OMI 6.1.8.6

A/C Type, Technical Status, OEBs and TRs
 NOTAMS
 Top of Descent time/dist
From Data Card: Weather/ATIS/Runway
 Holding - if expected
 Terrain/CTA Steps/MORA/MSA/Altitude/ Speed constraints
From FPLAN and Jepps:
 STAR and APP brief - slope, FAF, MDA, CONFIG FULL or 3 /
AUTOBRAKE LO or MED, Runway condition, length and exit plan
 Approach procedures to be used – Visual/Instrument/LoVis
 MISSED APPROACH, ALTERNATE and Plan B
 Extra Fuel/Time over Destination and Alternate
 4 A's - AP, A/THR, Autobrake, Landing Elevation Auto
 Contingencies/ MSA/TEM/Fuel and options
 Conditions – Ground Speed Mini
 QRH Briefings, RNP, LoVis, RNAVAPPROACH
 Questions?

- PF: Sets Brakes
- LANDING + 3 MINUTES - ENG OFF
- Check DOORS Disarmed
- Seat Belts OFF
- SHUTDOWN + 30sec and N1<10% - Beacon OFF

- PNF: TCAS STANDBY
- Company Freq on VHF 2 QRH 8.2
- Drift Check – Residual GS < 5kts
- IRS Monitor < 5nm
- Check STATUS
- Fuel Pumps OFF
- Check Fuel burn against CFP

STABILIZED APPROACH CRITERIA:

FCOM 3.03.18 p8

PNF: Not later than FL200 = 5mins for Cabin Prep
“CABIN CREW PREPARE THE CABIN FOR LANDING”

Target Speed – 5 and +10
Pitch –2.5° to +10°

10000' Descent FLOW

STANDARD APPROACH CALLS

All calls except “**LAND**” are initiated by **PNF**
The Visual Procedures calls are made on ALL Approaches:
PF answers either “**CHECKED**” or with intention/action.
For Low Visibility the PNF goes Head Down at 1000'

VISUAL PROCEDURES:

@ 2500'
PNF: “**RAD ALT ALIVE**”
@ 1000'
PNF: “**1000**”
@ 500'
PNF: “**STABLE**”

INSTRUMENT PROCEDURES add the following:

PNF: “**OM/DME HEIGHT CHECKED**” or “**DIST/ALT**”
@ 350' the FMA will change to:
PF: “**LAND**”
@ MINIMA + 100'
PNF: “**100 ABOVE**”
@ MINIMA
PNF: “**MINIMA – VISUAL or NO CONTACT**”
PF: “**LANDING**” or “**GO AROUND FLAPS**”

LOW VISIBILITY PROCEDURES add the following:

@ 1000
PNF: “**1000**”
PF: “**CAT 3 DUAL – MANUAL LANDING / AUTOLAND**”
PNF: “**FLARE GREEN/NO FLARE**” “**ROLLOUT/NO ROLLOUT**”

When **VISUAL** you may adopt “**Visual Procedures**” at PF discretion. Normally this is followed by PF calling for: “**Flight Directors OFF, Bird ON**” See procedure in *OMI*

FPA° required = ALT Change in K' / Distance to run NM

GROUND SPEED MINIMUM

V_{app} = V_{ls} + (1/3 HW) {additive 5min - 15ktsmax}

G/S Mini (reference spd) = V_{app} – All of ATIS H/W

FMGC Spd Tgt = G/S Mini + All instantaneous H/W

Easy way:
SEL SPD TGT on Base = ATIS H/W component - the H/W @ altitude NB: Never less than 10Kts Increment

DITCHING SWITCH

Closes the following:

C CARGO VENT
R RAM AIR INLET
E EXTRACT OUTLET
P PACK VALVES
O OUTFLOW VALVE

ENGINE FIRE WARNING SWITCH

Does the following:

S SILENCES FIRE WARNING
A ARMS SQUIBS
H HYDRAULIC SHUTOFF
F FUEL SHUTOFF AT PYLON
G GENERATOR DISCONNECT
P PACK VALVE CLOSED
B BLEED VALVE CLOSED

DESCENT / APPROACH TECHNIQUE

Good energy management is critical to safe jet ops. This is just one way of meeting Airmanship, FCOM and Company requirements. As you gain experience you can push it further but this is an easy and conservative method to keep the Geezer happy :D

Fly a 3xALT +10nm profile from ToD and aim to meet the following:

40nm, 10000' and 250kts - maybe use SEL SPD
30nm, 8000' and 250kts - definitely use SEL SPD
20nm, 5000' and start decelerating fro approach by:

A Activate Approach Phase
M Manage the Speed
P Performance V/S -800

Gates:

~~**40nm 10000' 250kts**~~

~~**30nm 8000' 250kts Pull SPEED**~~

~~**20nm 5000' “Activate Approach”
Select V/S 800fpm down**~~

Before 10nm Select Flaps 1 and 190kts
For me this last step is done at about 13nm